

From: [Comfort, Louise K](#)
To: [Armitage, Thomas](#)
Subject: Letter of recommendation for Dr. Shanti Gamper-Rabindran, EPA Science Advisory Board
Date: Monday, June 14, 2021 7:27:54 PM
Attachments: [Shanti Gamper-Rabindran, EPA SAB, 6-14-21.pdf](#)

Dear Dr. Armitage,

Please accept the attached letter of recommendation for Dr. Shanti Gamper-Rabindran, who has been nominated as a candidate for the Science Advisory Board of the Environmental Protection Agency. I apologize that my letter is three days late; I was immersed in a NSF conference all last week, and I hope that this delay will not hinder my enthusiastic recommendation for Dr. Gamper-Rabindran for the EPA's Science Advisory Board.

Thanks for your consideration of my recommendation.

Best regards,

Louise K. Comfort

Professor, Graduate School of Public and International Affairs

University of Pittsburgh

Pittsburgh, PA 15260

From: [Bennett, Derron](#)
To: [Armitage, Thomas](#)
Subject: Letter of Support - Dr. Crystal Upperman - SAB
Date: Sunday, June 13, 2021 1:55:07 PM
Attachments: [Letter of Support - Crystal Upperman - SAB.pdf](#)

Dr. Armitage,

Attached is a letter of support from Congresswoman Frederica S. Wilson for Dr. Crystal Upperman, a candidate for the EPA's Science Advisory Board (SAB).

Thanks
Derron

Derron Bennett
Legislative Director
Rep. Frederica S. Wilson
2445 Rayburn House of Building
Washington, DC 20515
Office: (202)225-4506

From: [Sylvia Orduño](#)
To: [Armitage, Thomas](#)
Subject: Support for Dr. Wilson to the SAB
Date: Saturday, June 12, 2021 10:43:46 AM

Dear Dr. Thomas Armitage, Designated Federal Officer,
US Environmental Protection Agency's Scientific Advisory Board (SAB):

It is with great privilege and respect that I submit this public comment of support on behalf of my colleague Dr. Sacoby M. Wilson to the SAB.

As his resumé demonstrates, Dr. Wilson is undoubtedly qualified for this board but what truly sets him apart is his conviction and experience in connecting science with praxis. He works in tandem with communities to address environmental problems through citizen science, and he is developing the next generation of scientists through his rousing university courses and programs.

My work experience with Dr. Sacoby is through the EPA's National Environmental Justice Advisory Council where he is among the most fierce advocates for employing the tools of science to monitor, assess, and address environmental pollution and contamination in impacted communities, particularly those of color. His public health expertise is highly regarded and he has long-provided the NEJAC with the knowledge and recommendations it has needed to be an effective advisory body to the Administrator. I will sorely miss his professional and personable engagement on the council.

You will find almost no one more well-suited to the SAB, particularly in an Administration that has established its priorities to address environmental and climate justice in this era. I whole-heartedly encourage your acceptance of Dr. Wilson's application and know that his contributions will excel beyond your expectations.

With regard and appreciation,

Sylvia Orduño
Organizer, Michigan Welfare Rights Organization
Chair, EPA NEJAC
Member, EPA Great Lakes Advisory Board

From: [Christopher Timmins](#)
To: [Armitage, Thomas](#)
Subject: Shanti Gamper Rabindran -- candidate for Science Advisory Board
Date: Thursday, June 10, 2021 4:29:44 PM

Dear Dr. Armitage --

I apologize for being a day late with this. If it is not possible to include it amongst the other emails, I understand. I wanted to write to express my support for Shanti's candidacy. I have worked with Shanti as a co-author on several papers and found her to be a pleasure to work with. In addition, I have spoken with her on numerous occasions about her own research, which has provided important results in the areas of energy economics, localized pollution sources, and other important environmental policy questions. In addition to being an outstanding economist with a great sense of what is important for environmental analysis, she is very hard working and careful in her approach to research. She is exactly the sort of person who I would like to see on the SAB.

Sincerely,
Chris Timmins

Christopher Timmins
Professor, Department of Economics
Director, Economics Center for Teaching (EcoTeach)
Duke University, Social Sciences #209
PO Box 90097, Durham, NC 27708
(919) 357-0473
[Pronouns: he/him/his](#)
[Pronunciation](#)

From: [Vedette Gavin](#)
To: [Armitage, Thomas](#)
Subject: Letter of Comment EPA SAB
Date: Thursday, June 10, 2021 12:05:59 AM
Attachments: [LOC Tracy Corley.pdf](#)

Dear Dr. Armitage,

It is with great pleasure that I submit the attached letter of comment in support of Dr. Tracy Corley's nomination to serve on the EPA SAB.

Warm regards,
Vedette R. Gavin

From: [Jenna Edra](#)
To: [Armitage, Thomas](#)
Cc: Garima.raheja@columbia.edu
Subject: Public Comment for Ms. Garima Raheja
Date: Thursday, June 10, 2021 12:02:15 AM

Dear Dr. Armitage:

My name is Jenna Edra, and I am an incoming UC Davis School of Law student. I am currently an intern for the Bulosan Center for Filipino Studies and for the National Lawyers' Guild San Francisco Bay Area Chapter, as well as a volunteer for the Asian Law Alliance.

I am writing in support of Ms. Garima Raheja as an appointee to the Environmental Protection Agency's Science Advisory Board. In the 10+ years I have known Ms. Raheja, she has consistently demonstrated a strong commitment to environmental justice. Her extensive knowledge of environmental issues is informed by work with people most directly impacted, with communities and systems across various sectors. I am confident that Ms. Raheja--an exceptional environmental expert, leader, and community organizer--would provide advice and peer review of the utmost quality.

Best,
Jenna Edra

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Jenna Edra

She/Her/Hers

Organizer | [L.E.A.D Filipino](#)

From: [Jaron Kaplan](#)
To: [Armitage, Thomas](#)
Cc: [Garima Raheja](#)
Subject: Public Comment for Garima Raheja
Date: Wednesday, June 9, 2021 11:56:01 PM

Dear Dr. Armitage,

I am reaching to offer public comment on behalf of Garima Raheja's application to serve as a board member on the EPA's Science Advisory Board. My name is Jaron Kaplan; I am currently a GIS Specialist at Apple Maps, and a former Climate Fellow at the San Francisco Estuary Institute.

As a former colleague and now close friend of Garima, I can attest to her unwavering commitment to environmental justice, community based science, racial equity, and climate action. Her experience with environmental work is both widely diverse and deeply personal — she is driven to advocate for struggling communities because she herself grew up in a struggling community.

I first met Garima through BEACN, a student led environmentally-focused management consulting group at UC Berkeley. As president, Garima overhauled the club's internal structure and recruitment tactics to ensure the group and its work represented the diverse and equitable group she envisioned. She immediately set out to ensure the club championed environmental and racial justice, opening access to invaluable professional experience in the environmental sector to more low income students and students of color by changing the requirements and metrics for club applicants. The legacy she has created is visible today through the diverse projects and members that BEACN attracts. This process involved relentless devotion to advocating for diverse voices and perspectives in all spaces, even when others tried to silence her voice as a woman of color.

Beyond her work with BEACN, Garima continually sought out opportunities to lend her research skills to benefit communities in need. Between lab research, club leadership, and volunteering, Garima's devotion to leveraging science to champion environmental justice has taken her to projects in Hawaii, New Orleans, New York, Ohio, and her home country of India. She understands the sensitivity, empathy, and determination needed to work with and advocate for struggling communities, and can translate their needs into real research findings that provide value on the ground. She also straddles the world between high level professional research and youth-led environmental advocacy, balancing the use of both her mind and her voice.

Garima would be an invaluable board member for the EPA board's environmental justice section — her voice would represent all the communities struggling with air pollution, racial injustice, and climate inaction, and political oppression. Her longstanding dedication to her work serves as a clear record to demonstrate how she extends herself on behalf of others, and how she uses every leadership opportunity to advocate for struggling communities.

If you'd like to discuss my past work with Garima, or anything else regarding her opportunity for this board position, feel free to reach out via email or phone: jaronk@berkeley.edu, (727)858-1773.

Sincerely,

Jaron Kaplan

--

Sincerely,
Jaron Kaplan

University of California, Berkeley, 2019
Sustainable Environmental Design

From: [DANIEL MA](#)
To: [Armitage, Thomas](#)
Cc: garima.raheja@columbia.edu
Subject: Public comment on Garima Raheja for EPA Science Advisory Board
Date: Wednesday, June 9, 2021 11:52:18 PM

Hello Dr. Armitage,
My name is Daniel Ma, and I currently work as a software engineer at Facebook. I am writing to you in support of Garima Raheja for a position on the EPA's Science Advisory Board.

As Garima's former colleague, I can attest that Garima not only has the educational background but also the passion in tackling tough environmental issues and pushing efforts to achieve environmental justice. She's an incredible person to work with, and I have no doubt that she has so much to contribute towards this position.

Thank you for taking the time to read this comment,
Daniel Ma

From: [Worth, Leroy \(NIH/NIEHS\) \[E\]](#)
To: [Armitage, Thomas](#)
Subject: Recommendation Letter for Dr. Patricia L. Morris
Date: Wednesday, June 9, 2021 11:34:52 PM
Attachments: [image002.png](#)
Importance: High

Dear Dr. Thomas Armitage,

It is my sincere pleasure to write this letter of support for Dr. Patricia L. Morris for consideration as a Candidate to serve on the Scientific Advisory Board (SAB) for the Environmental Protection Agency (EPA). I am a Scientific Review Officer of the NIEHS whose sole responsibility is to identify high qualified investigators for NIH peer review. My panels center of evaluating applications examining the role of external insults on human health in a G x E context. I am responsible for both recruiting and training junior and mid-level scientists, as well as other stakeholders on the peer review process, including first and second level panel committees. The ultimate goal is to identify leading investigators that exemplify expertise commensurate with the scientific areas of the institute's mission and strategic plan. First, let me briefly summarize my credentials for assessing Dr. Morris' contributions to the environmental health sciences and the NIH. I have over 20 years of experience in this position and on average review approximately 150-200 applications annually. I have known Dr. Morris both professionally and personally over this same time period. She was one of the first investigators I recruited as a new SRO and she was instrumental in me performing my first Program Project (P01) site visit review. Over the years since, I have become to know her personally and admire Dr Morris as a true mentor and friend. She has played an integral role in the NIEHS peer review process and constantly provided high-level evaluations over the years. It is this strong work ethic along with providing substantive critiques that Dr. Morris still continues to be highly sought after by fellow SROs. Indeed, she is already been slated for three reviews over the next 4-6 months.

In terms of her expertise and my reasons for writing this recommendation comes from the sheer number of quality reviews that Dr. Morris has participated in and executed flawlessly. She has consistently made deadlines and provided appropriate leadership during the individual review discussions. I have always been impressed in her ability to ensure consistency is discussing the merits of individual applications that span multiple disciplines, while also ensuring that panel members do not actually compare applications. This is often an overlooked quality that is valued by all SROs and is needed to ensure the second level review does not encounter any programmatic concerns. Currently, she has acted in several capacities in the peer review process including, and not limited to, special emphasis panels (SEPS) for the NICHD, NIEHS, DOD, CSR, and the WHO Reproductive Health Programme. She has been a regular member of chartered standing study sections and has chaired numerous committees. Dr. Morris has participated in large multi-project programs associated with the Superfund Research Program and the Reproduction, Andrology, and Gynecology Study section, while also maintaining similar multidisciplinary awards from the NIH. It is also from interpersonal exchanges that I became more familiar with all the numerous disciplines in addition to toxicology and male reproduction, she has to offer. I think it is because of her background that Dr. Morris is able to introduce sound rigor into her reviews and due diligence in providing meaningful feedback to the applicant in terms of scientific merit. Certainly, experience along with these attributes allow her to properly interpret the big picture and strategic vision of these noted federal agencies. Her genuine

nature and emotional intelligence are also appropriately tailored to this advisory board. Dr. Morris would bring a wide breadth of knowledge to assist the EPA in meeting its mission and protecting human health and the environment. She will provide first-hand knowledge/expertise of relevant exogenous insults that pose adverse health conditions via specific organ/tissue dysregulation effects (toxicology).

Overall, it is her background that is properly suited in providing a nice trajectory to further enhance her stature, while also giving back to your agency the numerous years of experience and direct exposure to cutting-edge science. Additionally, training in the basic sciences with a focus on pharmacology, physiology and reproductive health and mechanistic underpinnings leading to disease/cancer would ensure sound decision making. This along with funding from the NIH and Associate Editor of FASEB Journal (Endocrinology, Molecular & Cell Biology) speaks to her scientific acumen while also remaining current with the state-of-the-field and quality data generation and interpretation. She also has experience in R&D and tools/technologies that further advance research efforts in toxicology and GeoHealth. Dr. Morris also has directed a large multidisciplinary team at Rockefeller University along with first-rate outreach and STEM education initiatives to engage the community and translation of her findings and has acted a councilor to Capitol Hill legislators on reproductive health. I am very confident in her abilities to convey concise but pertinent information on multiple scientific fronts to EPA and its leadership team. Her uncanny ability to quickly distill down complex topics into meaningful metrics is not often seen by basic researchers and will be another plus. She is well-organized, a take charge individual, and has all the attributes of a leader/advisor. Dr. Morris also exemplifies certain aspects of the RACI paradigm, in terms of being responsible, accountable, and informed and she is able to support these efforts by seeing recommendations through to relevant stakeholders including short-term milestones that can actually be quantified and ultimately inform policy.

In closing, I am confident Dr. Morris would be a valuable asset to this Board as she continues to apply her skills and all-around intense scrutiny and rigor of the available data to ensure appropriate decisions are possible. Her exceptional communication skills are certainly a major strength and your agency would certainly benefit from having her as member of this prestigious committee. Again, I extend my strongest and highest recommendation in Dr. Patricia L. Morris for consideration to the Scientific Board for the Environmental Protection Agency.

Kind regards,

Leroy Worth Jr., Ph.D.
Scientific Review Officer
Scientific Review Branch
Division of Extramural Research and Training
NIEHS, Mail Drop K3-03
Research Triangle Park, NC 27709

For Courier delivery:

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office: 984-287-3340

fax: 301-480-3722

From: [Manu Prakasam](#)
To: [Armitage, Thomas](#)
Subject: Public Comment - Garima Raheja - EPA Science Advisory Board Nomination
Date: Wednesday, June 9, 2021 10:49:10 PM

Hello,

I am submitting the following comment in support of Garima Raheja's nomination:

I have worked with Garima in several different capacities and over our time working together, I have seen Garima grow into one of the best leaders I have ever encountered. She has a great awareness of when to take the lead and when to take a step back and bring in new voices into the fold. As a result, she handles complexity with ease, while fostering the development of new leaders.

Garima's background also makes her uniquely positioned to excel in this role. Garima is an immigrant from India whose experiences growing up with air pollution in New Delhi emboldened her to actively work to fight the climate crisis through a myriad of ways. Moreover, her experiences as a woman of color in STEM have led her to always champion underrepresented voices and take a community-oriented approach to her research and advocacy.

Thank you!

Manu Prakasam

From: [Kim Gaddy](#)
To: [Armitage, Thomas](#)
Subject: SAB-Dr. Sacoby Wilson
Date: Wednesday, June 9, 2021 10:08:41 PM

Dr. Thomas Armitage,
I am writing this letter in support of the nomination of Dr. Sacoby Wilson, to join the US Environmental Protection Agency's Scientific Advisory Board (SAB).

Dr. Sacoby Wilson is an Associate Professor with the Maryland Institute for Applied Environmental Health and Department of Epidemiology and Biostatistics, School of Public Health, University of Maryland-College Park. Dr. Wilson has over 20 years of experience as an environmental health scientist in the areas of exposure science, environmental justice, environmental health disparities, community-engaged research including community-based participatory research (CBPR), citizen science, and crowd science, water quality analysis, air pollution studies, built environment, industrial animal production, climate change, community resiliency, and sustainability. He works primarily in partnership with community-based organizations to study and address environmental justice and health issues and translate research to action.

Dr. Wilson is Director of the Center for Community Engagement, Environmental Justice and Health (CEEJH). CEEJH is focused on providing technical assistance and research support to communities fighting against environmental injustice and environmental health disparities in EJ communities across the nation. Through CEEJH, Dr. Wilson has partnered with the South Ward Environmental Alliance (SWEA) on a Hyper-local air monitoring project to address air pollution and health impacts due to industrial and commuter traffic in Newark, NJ.

SWEA in partnership with Dr. Sacoby Wilson is training the next generation of environmental advocates to make the changes they seek in their community. Moreover, the community members are participating in an Environmental Justice leadership course to learn about air monitoring, data analysis, mapping and much more with the assistance of Dr. Wilson and his team.

In conclusion, as an Environmental Justice organizer for 20+ years and Director of the South Ward Environmental Alliance, I am confident that Dr. Wilson's experience will be an asset to the SAB. In addition, his knowledge in reviewing the quality and relevance of scientific and technical information being used by EPA or proposed as the basis for Agency regulations, reviewing EPA research programs and plans, providing science advice as requested by the EPA Administrator, and advising the agency on broad scientific matters will be invaluable.

Thank you for the opportunity to nominate an individual who is certainly worth the accolades.

Kim Gaddy
Director,
South Ward Environmental Alliance

From: [Dale Barnhard](#)
To: [Armitage, Thomas](#)
Cc: [John O'Brien](#)
Subject: John N. O'Brien
Date: Wednesday, June 9, 2021 9:47:11 PM

Dear Mr. Armitrage: please excuse the late arrival of this letter of support for Dr. O'Brien. I have worked with John off & on for over 25 years. He has the rare combination of experience in understanding the technical aspects of energy production, the complete energy business value chain, and the public policy implications of the choices we need to make. I would recommend him for any of the open seats on the SAB, further I think that John would function well as a cross discipline antidote to the dreaded stove-piping syndrome that tends to occur even in the most well intentioned government efforts.

Dale W. Barnhard
MIUS LLC
2639 I Street NW

Washington, DC 20037

From: [Miles Keogh](#)
To: [Armitage, Thomas](#)
Subject: Support Letter for Dr. Jason Low, for EPA SAB
Date: Wednesday, June 9, 2021 9:28:54 PM
Attachments: [Dr. Jason Low SAB Letter.pdf](#)

Mr. Armitage,

Please find attached a letter of support for Dr. Jason Low's nomination to the EPA's Science Advisory Board (SAB). I hold Dr. Low in the highest regard and he would be an ideal addition to the board. If I can provide anything further, please let me know.

Wishing you well, Miles

Miles E. Keogh
Executive Director
National Association of Clean Air Agencies
1530 Wilson Blvd Suite 320
Arlington VA 22209
(571) 970-6795
mkeogh@4cleanair.org
www.4cleanair.org
@WeAre4CleanAir

From: [beneaton](#)
To: [Armitage, Thomas](#)
Subject: Nomination to the SAB
Date: Wednesday, June 9, 2021 8:22:14 PM

Dear: Mr Thomas Armitage

My name is Benjamin Eaton, I am a resident of Uniontown in Alabama I am the President of Black Belt Citizens Fighting for Health and Justice (BBCFHJ) I am also Perry County Commissioner District 5, I am hopeful the timing isn't too late, I have known professor Sacoby Wilson a little over 3 years and I can say with a doubt, his knowledge in his area is amazing, his contribution in our town was as if he was at home, which gave us hope concerning our environmental problems and he have worked and still work with us diligently to come up with solutions, therefore I would like to Nominate Dr Sacoby Wilson to the Scientific Advisory Board (SAB),he is a team member that works together. Thank you

Sincerely

Benjamin Eaton

Sent from my Verizon, Samsung Galaxy smartphone

From: [Al Richmond](#)
To: [Armitage, Thomas](#)
Subject: Recommendation for Dr Sacoby Wilson for EPA Scientific Advisory Board
Date: Wednesday, June 9, 2021 8:20:31 PM

Dr Armitage,

This recommendation is submitted on behalf of Dr. Sacoby Wilson, an applicant for the US Environmental Protection Agency's Scientific Advisory Board (SAB). As Executive Director of Community-Campus Partnerships for Health (CCPH), I have had the pleasure of working with Dr. Wilson as a member of the CCPH board of directors. His commitment and dedication to the elimination of health disparities, in particular those directly associated with the environment has made him a highly vocal and passionate advocate in advancing the organization's mission of social justice and health equity.

Dr. Sacoby Wilson is an Associate Professor with the Maryland Institute for Applied Environmental Health and Department of Epidemiology and Biostatistics, School of Public Health, University of Maryland-College Park. Dr. Wilson has over 20 years of experience as an environmental health scientist in the areas of exposure science, environmental justice, environmental health disparities, community-engaged research including community-based participatory research (CBPR), citizen science, and crowd science, water quality analysis, air pollution studies, built environment, industrial animal production, climate change, community resiliency, and sustainability. He works primarily in partnership with community-based organizations to study and address environmental justice and health issues and translate research to action.

Dr. Wilson is Director of the Center for Community Engagement, Environmental Justice and Health (CEEJH). CEEJH is focused on providing technical assistance and research support to communities fighting against environmental injustice and environmental health disparities in the DMV region and across the nation. Through CEEJH, Dr. Wilson is engaging communities in the Washington, DC region and beyond on environmental health issues including exposure and health risks for individuals who fish and recreate on the Anacostia River; use of best management practices to reduce stormwater inputs in the Chesapeake Bay; air pollution and health impacts due to industrial and commuter traffic in Bladensburg, MD; built environment, environmental injustice, and vectors in West Baltimore; cumulative impacts of environmental hazards on air quality in Brandywine, MD; goods movement, industrial pollution, and environmental injustice in South Baltimore, MD; environmental justice and health issues in Buzzard Point area of Washington, DC; industrial chicken farming on Maryland's Eastern Shore; health impact of assessment in the Sheriff Road community; and other topics. In addition, he is working with schools in the region on pipeline development efforts in the STEM+H disciplines (Science, Technology, Engineering, Mathematics, and Health).

He has worked on environmental justice issues including environmental racism with community-based organizations through community-university environmental health and justice partnerships in South Carolina and North Carolina including the Low-Country Alliance for Model Communities (LAMC), in North Charleston, South Carolina; the West End Revitalization Association (WERA) in Mebane, NC; and the Graniteville Community Coalition (GCC) in Graniteville, SC. He has provided technical assistance to REACH in Duplin County, NC; RENA in Orange County, NC; and the NC Environmental Justice Network. He also has worked on environmental justice and air pollution issues with

community-based groups in Houston, Texas, Savannah, GA, Uniontown, AL, and Wilmington, DE.

Dr. Wilson has been very active professionally to advance environmental justice science. He is a member of the USEPA's National Environmental Justice Advisory Council (NEJAC), member of the National Academy of Science's Board on Environmental Studies and Toxicology (BEST), board member of the Citizen Science Association, Editor in Chief of Environmental Justice, a past Chair of the APHA Environment Section, former Board member of Community-Campus Partnerships for Health, a former member of Board of Scientific Counselors for the CDC NCEH/ATSDR, and former Chair of the Alpha Goes Green Initiative, Alpha Phi Alpha Fraternity, Inc. He is also a senior fellow in the Environmental Leadership Program.

Dr. Wilson has helped to build numerous environmental justice organizations and coalitions. He is Co-Founder of the DMV Environmental Justice Coalition which has been relaunched as the Chesapeake Bay Environmental Justice Coalition in 2021. He is Founder of 17 for Peace and Justice, an environmental justice advocacy organization. He currently is faculty advisor for a student chapter of 17 for Peace and Justice on the campus of the University of Maryland-College Park. He is on the steering committee for the recently relaunched National Black Environmental Justice Network (NBEJN). Additionally, he hosts an annual environmental justice symposium that brings together community members, advocates, policymakers, researchers, students, and practitioners to discuss ways to address environmental justice issues in the DMV region and around the country.

Dr. Wilson has received many awards for his contributions and achievements as an environmental justice researcher and advocate. He won the 2018 Taking Nature Black Environmental Champion Award. He also received the APHA Environment Section Damu Smith Environmental Justice Award in 2015. From the University of Maryland School of Public Health, he received the George F. Kramer Practitioner of the Year Award (2014-2015) and the Muriel R. Sloan Communitarian Award (2019-2020, 2012-2013). He also received the Reverend Dr. Martin Luther King Jr. Social Justice Award from the University of South Carolina in 2011. He received a US EPA Environmental Justice Achievement Award given to Low Country Alliance for Model Communities, North Charleston, SC and Mitigation Agreement Committee. Additionally, Dr. Wilson received the Steve Wing International Environmental Justice Award in 2008.

Dr. Wilson, a two-time EPA STAR fellow, EPA MAI fellow, Udall Scholar, NASA Space Scholar, and Thurgood Marshall Scholar, received his BS degree in Biology/Ecotoxicology with a minor in Environmental Science from Alabama Agricultural and Mechanical University in 1998. He received training in environmental health in the Department of Environmental Sciences and Engineering, at the University of North Carolina at Chapel Hill. Dr. Wilson received his MS degree in 2000 from UNC-Chapel Hill and his PhD from UNC-Chapel Hill in 2005.

Sincerely,

Alan Richmond, MSW

--

□ **Al Richmond, MSW**



Executive Director

al.richmond@ccphealth.org

Community-Campus Partnerships for Health

Co-Lead / Engagement Core - Coordinating Data Collection Center
MPI / I-TEAM (CEAL Alliance)
Patient Engagement Advocacy Panel / PCORI

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From: [Omar Hassan](#)
To: [Armitage, Thomas](#)
Cc: garima.raheja@columbia.edu
Subject: Public comment for Garima Raheja
Date: Wednesday, June 9, 2021 8:06:37 PM

Hello Dr. Armitage,

My name is Omar Hassan and I recently worked in the Region 9 Toxics Branch and Data Solutions Section of the EPA. Knowing how much Garima values data in her decision making and her particular focus on equity and environmental justice, she'd fit perfectly as a member of the Science Advisory Board, especially under Regan.

Throughout the time I've known her, Garima has always placed an emphasis on approaching problems from an interdisciplinary perspective. She's done atmospheric research at UC Berkeley, NASA, and the University of Hawaii, and always integrated an equity perspective in the analysis of her data, findings, and conclusions. In each of her research presentations, she made sure to apply her findings to recommend environmental policy decisions. With her strong background in atmospheric studies and data science and her unique passion for equity, Garima would fit perfectly in this position.

If you have any further questions, please feel free to contact me at this email.

Regards,
Omar

From: [Jason Schwartz](#)
To: [Armitage, Thomas](#)
Cc: [Richard Revesz](#)
Subject: SAB: Comments Supporting the Appointment of Dr. Caroline Cecot
Date: Wednesday, June 9, 2021 7:27:26 PM
Attachments: [EPA SAB Nominations Comments 2021.06.09.pdf](#)

Dear Dr. Armitage,

Please find attached our comments supporting the appointment of Dr. Caroline Cecot to the SAB.

Sincerely,
Jason A. Schwartz
Legal Director, [Institute for Policy Integrity](#)
Adjunct Professor, New York University School of Law
(617) 571-9672. Based in Denver, CO.

From: [Kar, Avi](#)
To: [Armitage, Thomas](#)
Cc: [Singla, Veena](#)
Subject: Comments on the FY 22 Candidates for the EPA Chartered Scientific Advisory Board
Date: Wednesday, June 9, 2021 7:10:50 PM
Attachments: [NRDC on SAB nominees Final.pdf](#)

Dear Dr. Armitage,

Attached please find the comments of the Natural Resources Defense Council concerning the candidates for the Scientific Advisory Board.

Please let us know if you have any questions.

Best,

AVINASH KAR

*Senior Attorney & Interim Senior Director
Health & Food
People & Communities Program*

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Please save paper.
Think before printing.

From: [Rebecca Bowman](#)
To: [Armitage, Thomas](#)
Subject: Regarding Shanna Edberg's nomination to the EPA Science Advisory Board
Date: Wednesday, June 9, 2021 6:55:57 PM

Dear Mr. Armitage:

I wholeheartedly support Shanna Edberg's nomination to the EPA Science Advisory Board. Her long time advocacy for the environment and expertise regarding sustainability and environmental justice would make her a valuable addition to this body. Her work on sustainable development at the World Bank and Global Environment Facility and on climate policy at the non-profit Climate Interactive has given her experiences that should be included in the decision making process at the EPA, and her training at Johns Hopkins in Latin American Studies and International Economics has honed the tools she will provide. Her successes in community outreach while working at the Hispanic Access Foundation show how efficient and valuable she is.

Shanna's capacity to integrate knowledge from so many different fields is amazing. Brave but tactful, considerate and modest, having worked here in the United States as well as abroad, Shanna has gained perspectives that others may not have, perspectives that should be taken into account at such an important agency. I hope she will soon become a member of this board.

Thank you,

Rebecca Bowman

From: [Jana Washington](#)
To: [Armitage, Thomas](#)
Subject: Dr. Wilson Nomination Support
Date: Wednesday, June 9, 2021 6:19:52 PM

Good evening,

My name is Jana Washington and I had the pleasure of interning at Dr. Wilson's Community Engagement, Environmental Justice & Health Lab during the spring 2021 semester.

Dr. Wilson is dynamic, outspoken, honest, and one of the greatest lab directors I have ever worked with. He made the lab enjoyable, but also emphasized the importance of wellness amidst social justice and the environment.

I offer my unending support in his nomination to the EPA Scientific Advisory Board!

Thank you so much!
Jana Washington

From: [Danielle Diamond](#)
To: [Armitage, Thomas](#)
Subject: Dr. Sacoby Wilson SAB recommendation
Date: Wednesday, June 9, 2021 5:59:37 PM
Attachments: [Dr.WilsonRecommendationforSAB.pdf](#)

Please find attached.

Danielle Diamond
Socially Responsible Agricultural Project
815.403.0278
www.SRAProject.org

From: [LaShanta Rice](#)
To: [Armitage, Thomas](#)
Subject: SAB Nomination for Dr. Sacoby M. Wilson
Date: Wednesday, June 9, 2021 5:58:58 PM

Dear Dr. Thomas Armitage,

I would like to nominate Dr. Sacoby Wilson for the U.S. Environmental Protection Agency's (US EPA) Scientific Advisory Board (SAB). Dr. Sacoby Wilson is an Associate Professor with the Maryland Institute for Applied Environmental Health and Department of Epidemiology and Biostatistics, School of Public Health, University of Maryland-College Park. He is also Director of the Center for Community Engagement, Environmental Justice and Health (CEEJH), which provides technical assistance and research support to communities fighting against environmental injustice and environmental health disparities in the DC, Maryland, and Virginia region and across the nation.

I have known Dr. Wilson for 11 years. He served as my EPA Science to Achieve Results (STAR) fellowship advisor, dissertation committee member, co-author, and colleague. I have witnessed first hand his commitment to building community-university partnerships that leverage institutional resources to support frontline and fence-line communities facing environmental and climate injustices. As an environmental health scientist, he has 20+ years of experience performing this work in the areas of exposure science, environmental justice, environmental health disparities, community-engaged research including community-based participatory research (CBPR), citizen science, and crowd science, water quality analysis, air pollution studies, built environment, industrial animal production, climate change, community resiliency, and sustainability.

I had the pleasure of working alongside him to address environmental justice issues including environmental racism with community-based organizations through community-university environmental health and justice partnerships in South Carolina and North Carolina including the Low-Country Alliance for Model Communities (LAMC), in North Charleston, South Carolina; the West End Revitalization Association (WERA) in Mebane, NC; and the Graniteville Community Coalition (GCC) in Graniteville, SC. He has provided technical assistance to REACH in Duplin County, NC; RENA in Orange County, NC; and the NC Environmental Justice Network. He also has worked on environmental justice and air pollution issues with community-based groups in Houston, Texas, Savannah, GA, Uniontown, AL, and Wilmington, DE.

Dr. Wilson is a member of the US EPA's National Environmental Justice Advisory Council (NEJAC) and the National Academy of Science's Board on Environmental Studies and Toxicology (BEST). He is also a board member of the Citizen Science Association, Editor in Chief of *Environmental Justice*, and a senior fellow in the Environmental Leadership Program. He has helped to build several environmental justice organizations and coalitions, published in several peer-reviewed journals, and has received many awards for his contributions and achievements as an environmental justice researcher and advocate.

Dr. Wilson's education, experience, and leadership skills demonstrate his potential success as a US EPA SAB member. He is both qualified and experienced at reviewing scientific and technical information as well as evaluating EPA research programs and plans and providing scientific advice to EPA administrators as needed. In addition to his technical ability to perform the work, Dr. Wilson always operates with integrity and is extremely passionate about addressing health inequities and environmental and climate justice issues. Dr. Sacoby Wilson is the best candidate for the role of US EPA SAB member. Thank you.

Sincerely,

LaShanta J .Rice, PhD, MPH
lashantajrice@gmail.com
678-860-6268

From: [Jim Neumann](#)
To: [Armitage, Thomas](#)
Subject: Comment on List of Candidates under consideration for appointment to the SAB
Date: Wednesday, June 9, 2021 5:55:18 PM

Dear Mr. Armitage,

I wish to respond to your recent invitation to comment on the List of Candidates for appointment to the US EPA Science Advisory Board, as posted [here](#). In particular, I wish to provide specific and enthusiastic support to the candidacy of Lisa Robinson. My support reflects, in part, my own direct knowledge of the SAB and its impact on science and regulatory policy, as well as identification of best practices for EPA, as I served as a key extramural supporter of EPA's Benefits and Costs of the Clean Air Act series of reports. My role involved frequent presentation to, interaction with, and written response to SAB review activities, with both the Advisory Council for Clean Air Compliance Analysis (the Council) and its numerous subcommittees, and the Environmental Economics Advisory Committee.

I am a former colleague of Ms. Robinson from her tenure at Industrial Economics, Incorporated (IEc) – as such I have known and worked with Ms. Robinson since 1991. Specifically, I am familiar with Ms. Robinson's career as a government employee, a government consultant, and an academic researcher (her current role at the Harvard T.H. Chan School of Public Health). While Ms. Robinson is a highly qualified and accomplished academic researcher, hard-working, and intellectually curious and honest, I think those qualities characterize many individuals nominated for SAB service. I would like to highlight three aspects of Ms. Robinson's qualifications that distinguish her from other nominees, and therefore make her an excellent and perhaps unique qualified candidate for a position on the Science Advisory Board:

1. Breadth of knowledge: Ms. Robinson has a broad base of knowledge applicable to the areas of expertise sought by the SAB. She has published on benefit-cost analysis; economics (particularly applied economics); human health risk assessment (particularly when used as an input to applied economic and benefit-cost analysis); risk assessment; and social, behavioral, and decision sciences (particularly experimental economics). She is also familiar with best practices in uncertainty analysis and radiological risk assessment. The value of such a broad perspective is particularly helpful for the inherently multidisciplinary nature of economic tools such as benefit-cost analysis, which by necessity rely on the science of human health risk assessment, for example. Ms. Robinson has a deep knowledge, in particular, of the theory and practice of benefit-cost analyses of environmental and health regulation.
2. Multiple perspectives: Ms. Robinson's experience as a government employee, government and private sector consultant, and university-based academic researcher and instructor may be unique, at least in my own experience with SAB membership, and I think could be very valuable to the work the SAB is charged to complete. In particular, it is rare to find individuals with both top-shelf academic qualifications and experience in completing regulatory policy and economic analyses alongside or as part of government workgroups. In my experience, academics themselves value Ms. Robinson's practical, on-the-ground experience in part because it is so unusual to encounter in their profession. This ability to see multiple perspectives is one of the main reasons I am excited to endorse Ms. Robinson's candidacy.

3. First-hand knowledge of SAB: Ms. Robinson has for many years been a keen student of, and active participant in, SAB Procedures both as an expert and from the side of the government employees bringing questions to SAB panels. She has been the lead author of work brought before the panel, for example, in such areas as the proper treatment of changes in the valuation of health effects over time, as individual incomes change. She also has a rich understanding of the impact of SAB opinions, and the relationship of SAB panels to government activities, as well as the SAB responsibility to the public good.

I enthusiastically support Ms. Robinson's SAB candidacy and look forward to the opportunity for her balanced insights and perspectives to benefit EPA, the regulated community, and the broader public.

Best regards,

Jim

James E. Neumann
Principal
Industrial Economics, Incorporated (IEc)
2067 Massachusetts Ave.
Cambridge, MA 02140

+1.617.354.0074 x119
www.indecon.com

From: [Dana Williamson](#)
To: [Armitage, Thomas](#)
Subject: Recommendation of SAB candidate Dr Sacoby Wilson
Date: Wednesday, June 9, 2021 5:48:51 PM

I'm sending this message to highly recommend Dr Sacoby Wilson in his candidacy to join the EPA SAB. He has over 20 years of applied, action-oriented, equity-driven research experience specifically working with EJ communities throughout the U.S. Further, he has focused his efforts on building community-university partnerships, leveraging institutional funding to support frontline and fenceline communities facing environmental and climate impacts. As a SAB member there is no doubt that he would continue these efforts while also advancing EJ principles and practice at the federal level.

Please accept this public comment in support of the acceptance of Dr Wilson to the EPA Stakeholder Advisory Board.

Kind regards,
Dana Williamson, PhD, MPH
Public Health Behavioral Scientist

From: [Denice Ross](#)
To: [Armitage, Thomas](#)
Subject: Recommendation for Dr. Marccus Hendricks for the EPA Scientific Advisory Board
Date: Wednesday, June 9, 2021 5:26:26 PM

Dear Dr. Armitage,

I am writing to enthusiastically endorse Dr. Marccus Hendricks for the EPA Scientific Advisory Board. Dr. Hendricks brings a much-needed infrastructure lens to the complex issue of environmental justice. If I were building a dream team of experts to tackle the intersectional environmental issues this nation is facing, Dr. Hendricks would be the first name on my list.

I have spent the last twenty years increasing access to data and evidence for community advocacy and government policymaking, including the front lines of many environmental and climate issues. After Katrina, I co-published The New Orleans Index report with Brookings to track recovery, trying to include whenever possible the limited environmental indicators that were available. I represented New Orleans in the rollout of CEQ's Climate Data Initiative in 2014, and later, as a Presidential Innovation Fellow in the Obama administration, I focused on energy access and transparency after disasters and advised on other issues such as the Flint water crisis and the failing Mosul Dam in Iraq.

When I first learned about Dr. Hendricks' work, I thought back to those post-Katrina years. A gaping hole in our path to an equitable recovery was an analysis of the role that infrastructure plays in risk and resilience. Not only did we not have ready visibility on the location and characteristics of our critical infrastructure, but we also did not have a framework to understand the historical actions that led to inequities in the quality of infrastructure between white communities and communities of color. Dr. Hendricks' work to advance the field of infrastructure and environmental justice puts our nation in a better position to invest strategically in communities that have been left behind.

Dr. Hendricks' focus on infrastructure means that he crosses many disciplines that are central to the EPA Scientific Advisory Board, such as water quality and management, energy, engineering, decision science, sustainability, environmental health, and of course environmental justice. I'm confident that you will find, as I have, that Dr. Hendricks is a fantastic collaborator and colleague with a sharp eye for important angles that others overlook.

Sincerely,

Denice Ross
Fellow, Beek Center for Social Impact and Innovation
Georgetown University

--

Denice Ross (she/her/hers) | Fellow

Beek Center for Social Impact + Innovation

[linkedin.com/in/denicewross/](https://www.linkedin.com/in/denicewross/) | @denicewross

From: [Nicky Sheats](#)
To: [Armitage, Thomas](#)
Cc: [newbian8](#); [Nicky Sheats](#)
Subject: Recommendation for Professor Sacoby Wilson
Date: Wednesday, June 9, 2021 5:18:18 PM
Attachments: [SWilson SAB rec.pdf](#)

Dear Dr. Armitage,

I would like to recommend that Professor Sacoby Wilson of the University of Maryland be extended an invitation to join EPA's Scientific Advisory Board. To that end, I have attached a of letter recommendation for Professor Wilson. If you have any questions please do not hesitate to contact me.

Sincerely,

Nicky Sheats, Esq., Ph.D.

Director, Center for the Urban Environment
John S. Watson Institute for Urban Policy and Research at Kean University
Member of the New Jersey Environmental Justice Alliance

From: [Ann Swanson](#)
To: [Armitage, Thomas](#)
Cc: [Tom Richard](#); [Esher, Diana](#); [Jason Gleason](#)
Subject: Richard EPA SAB support letter -- CBC Swanson
Date: Wednesday, June 9, 2021 4:52:26 PM
Attachments: [Richard EPA SAB support Letter Swanson 6-8-21.pdf](#)

Dear Mr. Armitage:

Please find my nomination letter for Dr. Tom L. Richard to serve on the EPA Science Advisory Board, and to the standing Committee on Agricultural Science. Dr. Richard will perform in this position at the highest levels possible, which earns him my highest level of support. He is a smart choice.

Best regards,
Ann Swanson

From: [Karl E. Anderson](#)
To: [Armitage, Thomas](#)
Subject: EPA SAB
Date: Wednesday, June 9, 2021 4:46:05 PM
Attachments: [Sylvie Brouder EPA SAB 2021.pdf](#)

Dr. Armitage:

Please see the attached letter in support of Dr. Sylvie Brouder's nomination to the SAB.

Karl

Karl E. Anderson
Director of Government Relations
American Society of Agronomy
Crop Science Society of America
Soil Science Society of America

502 C St, NE | Washington, DC 20002 | P: 202.408.5382
www.agronomy.org | www.crops.org | www.soils.org

From: [Romyanon, Sukanya](#)
To: [Armitage, Thomas](#)
Subject: Support Dr. Shanti Gamper-Rabindran for the EPA science advisory board
Date: Wednesday, June 9, 2021 4:19:36 PM

Dear Dr. Thomas Armitage,

My name is Sukanya Romyanon, I took the Political Economy of Global Environment class taught by Professor Shanti in spring 2021. It was my first semester as a full-time student in MBA/MS in Sustainable engineering program at the University of Pittsburgh. After working in oil and gas industry for two decades, taking this class has enlightened me and I am overwhelmed with what I have learned in 4 months.

What I have read and learned throughout her class changes my thinking, I often focus on the technology and cost of the technology as an engineer and lack of knowledge about the policy and how it can affect the implementation of the technology. Being educated by multiple experts in renewable energy with the focus not only on the technology itself but also on the energy policy and government support truly opened my eyes. Professor Shanti was able to connect her students with local professionals in solar energy system, wind energy technology, this was such an invaluable experience that is beyond my expectations.

The recommendation and guidance provided by Professor Shanti on the individual policy memo ‘energy transition from oil and gas to renewable energy for Pennsylvania’ was clear. It is also fulfilling my curiosity about the future of oil and gas industry and my next career choice. The time I spent on doing individual policy memo project allowed me to seek for the data and facts that reinforced my decision on my career path forward. What I learned from ‘Driving clean energy adoption through municipal actions’ topic helped me with the group project and I had a better understanding of the pathways to renewable energy for Southwestern Pennsylvania.

Overall, the most valuable skills that I gained from her class are the following.

1. The systematic way of thinking
2. The critical thinking
3. Learning by conducting multiple interview sessions with the leaders

Additionally, I was able to transfer the knowledge and skills I developed from her class. I led the team to interview multiple stakeholders and addressed the important of the policy and policy makers on the technology adoption for my engineering class project. The exercise also helped me grow my network outside oil and gas industry in the city of Pittsburgh.

In conclusion, taking the class thought by Professor Shanti led me to step out of

my comfort zone, challenged myself to push the envelope on what I think is possible. The experiences from writing my first policy memo and the group project will be benefit for my career in the future. I am grateful for the opportunity to learn and grow from Professor Shanti and I fully support her to be on the EPA science advisory board. Thanks & Best regards,

Sukanya Romyanon

MBA and MS in Sustainable Engineering Candidate – Class of 2023

Katz Graduate School of Business

Swanson School of Engineering

sur40@pitt.edu

<https://www.linkedin.com/in/sukanya-romyanon/>

From: [Anabelle Rondon](#)
To: [Armitage, Thomas](#)
Cc: [Stacy Thompson](#)
Subject: EPA Scientific Advisory Board recommendation
Date: Wednesday, June 9, 2021 3:54:15 PM

Dear Dr. Armitage,

I write to highly recommend that Dr. Corley be selected to join the Environmental Protection Agency's Science Advisory Board. I've had the opportunity to work with Dr. Corley for the past few years in a variety of advocacy efforts. She brings a particular and important lens to our collaboration that addresses the impact of environmental justice and human health components of the work, which will make her an excellent choice to serve on the Environmental Protection Agency's Science Advisory Board.

Her extensive experience as presented in the listing of candidates does a fine job of briefly summarizing her credentials that are relevant to the position. Dr. Corley is a consensus builder who is able to present creative policy ideas, communicate the benefits and gain support. During her role as part of the Great Neighborhoods Network, a statewide network of regional advocates focused on housing, transportation, and climate change, she successfully integrated a missing voice around environmental justice and climate. Though she was an asset to our initial stages of forming the network, Dr. Corley was also extraordinarily helpful in other areas of the organization, including supplementing our programs with data and Transit-Oriented Development research.

I am absolutely confident that Dr. Corley would be a great fit for your Advisory Board. Not only will she bring the kind of skills and experiences you're looking for, but she will also quickly become an asset and help your board achieve success. If you need more information or specific examples, please do not hesitate to contact me at stacy@livablestreets.info. As a recommendation letter likely only provides a snapshot of her talents and achievements, I would be happy to further elaborate on my time working with her.

Respectfully submitted,

[Stacy Thompson](#)

Executive Director

LivableStreets Alliance

From: LSchell@EmpoweredEnergy.com
To: [Armitage, Thomas](#)
Cc: [John O'Brien](#)
Subject: Dr. John O'Brien - SAB Letter of Recommendation
Date: Wednesday, June 9, 2021 3:48:01 PM
Attachments: [O'Brien - SAB Letter of Recommendation 20210609.pdf](#)

Dear Mr. Armitage,

Attached please find a Letter of Recommendation supporting Dr. John O'Brien's appointment to EPA's Science Advisory Board. If you have any additional questions, please do not hesitate to contact me directly.

Sincerely,
Lori Schell

Lori Smith Schell, Ph.D., ERP, SCR
www.EmpoweredEnergy.com
(970) 247-8181 * Durango, CO

Senior Fellow & Past President
U.S. Association for Energy Economics

From: [Dunn, McKayla](#)
To: [Armitage, Thomas](#)
Subject: Comments on Candidates for SAB Membership
Date: Wednesday, June 9, 2021 3:32:42 PM
Attachments: [Comments on Candidates for SAB Membership.pdf](#)

Good afternoon,

Attached please find the NR3 Coalition's Comments on Candidates for SAB Membership. If you have any questions or concerns, please feel free to reach out to me.

Thank you,
McKayla



McKayla Dunn

Government Affairs Assistant

mdunn@HuntonAK.com

p 202.778.2212

Hunton Andrews Kurth LLP
2200 Pennsylvania Avenue, NW
Washington, DC 20037

HuntonAK.com

From: [Han, Helena](#)
To: [Armitage, Thomas](#)
Subject: EPA SAB Letter of Support - Elena Naumova
Date: Wednesday, June 9, 2021 3:27:07 PM
Attachments: [Elena Naumova LOS - EPA SAB.pdf](#)
Importance: High

Dear Dr. Armitage,

Please see attached letter of support from Dr. Genco, Tufts Vice Provost for Research. Thank you.

Kind regards,

Helena Han

Helena Han

Administrative Manager | Office of the Vice Provost for Research | Tufts University

Mailing Address: 136 Harrison Ave, 75K950, Boston, MA 02111

Physical/Courier Address: 75 Kneeland St., Suite 950, Boston, MA 02111

Phone: 617-636-2793 | Fax: 617-636-2917

Helena.han@tufts.edu | <http://viceprovost.tufts.edu>

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From: [Steve Milloy](#)
To: [Armitage, Thomas](#)
Subject: Public comment on SAB candidates
Date: Wednesday, June 9, 2021 2:35:25 PM

June 9, 2021

Mr. Thomas Armitage
Designated Federal Officer
EPA SAB

Dear Mr. Armitage,

I am submitting comments concerning candidates for SAB, as requested on May 19, 2021.

In summary:

- **Strive for balance and objectivity.** The law requires SAB to be balanced in terms of points of view.
- **Avoid financial conflicts of interest.** EPA should avoid selecting candidates with a financial relationship with the agency. This principle should exclude those candidates who have received or otherwise benefitted from one or more research grants from EPA within the past five (5) years. Moreover selected candidates should agree in writing to not seek, accept or help their institutions obtain research grants from EPA during the next five (5) years.

If you have any questions about these comments or require more detail please don't hesitate to contact me.

Sincerely,

Steve Milloy
Publisher, JunkScience.com

From: [Wolfe, Mary Leigh](#)
To: [Armitage, Thomas](#)
Subject: support letter for EPA SAB candidate - Tom L. Richard
Date: Wednesday, June 9, 2021 2:33:00 PM
Attachments: [Tom L Richard - support letter for EPA SAB.pdf](#)

Dr. Armitage,

My letter of support for Tom L. Richard is attached; the text of the letter is also included below. Thank you for the opportunity to provide the letter.

Best regards,
Mary Leigh Wolfe

June 9, 2021

Dr. Thomas Armitage, Designated Federal Officer
armitage.thomas@epa.gov

Re: letter of support for Dr. Tom Richard appointment to EPA Science Advisory Board

Dear Dr. Armitage:

I welcome and appreciate the opportunity to offer my strongest support for appointment of Tom L. Richard, Ph.D., to the Environmental Protection Agency's Science Advisory Board (SAB). I have known of and respected Dr. Richard's professional accomplishments and expertise for many years. My knowledge of and collaboration with him has been largely through the American Society of Agricultural and Biological Engineers (ASABE) and through my service as a member of the external advisory board for his department (Agricultural and Biological Engineering) at Penn State University.

Dr. Richard would be an outstanding appointee to the SAB because of the breadth and depth of his experience and expertise, along with his outstanding record of collaboration across disciplines and demonstrated leadership abilities. He has made significant contributions through all three missions of the Land Grant University: research, teaching, and extension.

One of the essential areas of expertise to have on the SAB is agricultural systems, along with expertise in how agricultural systems interact with other systems. Dr. Richard's research focuses on the application of systems engineering principles to agricultural and environmental problems. The breadth of his expertise in agricultural systems ranges from environmental impacts including nutrients, water quality, and greenhouse gases, and the use of remote sensing, models, and decision tools to identify economically viable sustainability solutions. Dr. Richard's work and expertise ranges from the theoretical to the practical, with a passion for finding achievable solutions for farmers to implement on the land. Some specific areas in which he has made significant contributions include microbial conversion of biomass, agricultural byproducts, and manures for nutrient, energy, and organic matter recovery and value-added manufacturing; nutrient, carbon, and energy flows in agricultural ecosystems; and integrated assessment of coupled human-agroecological systems.

As ASABE president in 2015-2016, I led development of materials related to the role of engineering at the Food-Energy-Water (FEW) Nexus. That work led to an invitation through the American Institute of Chemical Engineers (AIChE) to provide an article for *Current Opinion in Chemical Engineering* related to the FEW Nexus, with particular emphasis on food. Based on my own knowledge of Dr. Richard's work and expertise, and in consultation with other leaders in ASABE, I asked him to co-author the paper with me. Collaborating on the paper, "[21st Century Engineering for On-Farm Food-Energy-Water Systems](https://doi.org/10.1016/j.coche.2017.10.005)" (<https://doi.org/10.1016/j.coche.2017.10.005>), provided an outstanding opportunity for me to appreciate Dr. Richard's collaborative nature and expertise developed during his long-term efforts to advance agricultural sustainability.

Another of Dr. Richard's attributes that would be an asset on the SAB is his outstanding organizational leadership ability. His leadership has far-reaching impact in advancing work by large numbers of faculty and capitalizing on widespread collaboration to advance solutions for agricultural sustainability. For example, as Director of Penn State Institutes of Energy and the Environment since 2008, he facilitates research, teaching, and outreach for over 500 faculty and over \$100 million of research expenditures annually; develops and implements strategic initiatives in energy and environmental research; and engages industrial, governmental and foundation partners. As director of the Northeast Sun Grant Center of Excellence at Penn State, he managed a USDA center to support Northeast bioeconomy. Dr. Richard is currently Deputy Technical Director for the National Risk Assessment Partnership, Department of Energy, National Energy Technology Laboratory, Pittsburgh, PA. He coordinates carbon storage risk assessment among five DOE National Labs.

Another noteworthy area of Dr. Richard’s leadership is his commitment to inclusiveness, mentoring, and advancing the careers of women and minorities. I am familiar with some of his efforts in this realm through ASABE. For example, through an ASABE program, I am mentoring a woman from an underrepresented group in engineering who works for Dr. Richard. His commitment in this area would be another asset in his contributions to the SAB.

In summary, Dr. Tom L. Richard would be an outstanding member of the EPA Science Advisory Board, providing essential scientific advice and expertise to the EPA Administrator. I very strongly support appointment of Dr. Richard to the SAB.

Sincerely,

Mary Leigh Wolfe, Ph.D., F. ASABE, F. ABET, F. AIMBE
Professor
Department Head (2009-2018)

Mary Leigh Wolfe, Ph.D.
Professor, ABET President 2018-2019, ASABE President 2015-2016
Department of Biological Systems Engineering (MC0554)
HABB1, RM 301J, Virginia Tech
1230 Washington St. SW, Blacksburg, VA 24061
(540) 231-6092
mlwolfe@vt.edu

From: [Jon Zellweger](#)
To: [Armitage, Thomas](#)
Subject: Science Advisory Board Comment
Date: Wednesday, June 9, 2021 2:28:59 PM

Dr. Armitage_

I am writing today per the requirements of the the Invitation for Public Comment on the List of Candidates for the Environmental Protection Agency's Science Advisory Board. I would like to provide you with a recommendation for Dr. Tracy Corley who has been a personal friend and professional colleague for more than 25 years.

Ms. Corley and I were trained as architects at Clemson University. While students, we partnered on several ventures that demonstrate the depth of their commitment to environmental issues that has guided them throughout their career. There are two worth highlighting. The first project Tracy and I worked on was organizing a Symposium focused on celebrating and expanding the influence of the Organic Architecture movement. This unique niche of the design profession, breaks with European-based architectural language to better elevate man's symbiotic relationship with their environment. Additionally, we collaborated on our exit thesis in the form of a design/build project for a real client outside of the University. This project was challenged by limited financial resources and tested our creativity in up-cycling of recovered materials to generate a unique structure for a family of 4 in rural South Carolina.

While our paths then diverged, we have remained lifelong friends, corresponding and visiting frequently. I have witnessed them emerge as a business leader in Seattle and as an educator in Massachusetts. Now, with some hindsight, I realize what I observed when we were classmate was not a spark that set off a fire, but an expression of who Dr. Corley has always been at their core. Their inner compass is inherently set to considering the impact humankind has on the planet. They have sought sensitive and meaningful roles in a variety of professions beyond architecture and has emerged as a knowledgeable leader in their fields. As a minority, Dr. Corley has personal as well as professional experience that fine tunes her awareness towards environmental justice issues and actively seeks and develops solutions that create inclusive environments, of which Humankind is but a part.

Architectural training develops the individual's ability to analyze complex and disparate issues and synthesize them into a resolved solution that readily improves the lives of those impacted by it. Additional studies in City Planning have further honed their ability to do that difficult work. Yet, Dr. Corley's credentials and accomplishments are well-documented. My sole effort in writing to you today is to communicate my witness to their character than does not approach these challenges as abstractions but as very real, heartfelt needs for their community and beyond.

I highly recommend Dr. Corley for a seat on the EPA's Science Advisory Board. The Board would do well in accepting her as member.

Sincerely-

Jon Zellweger, AIA
Principal
provision studio
919.740.5436
www.provisionstudio.design

From: [Julie Gabrielli](#)
To: [Armitage, Thomas](#)
Subject: Scientific Advisory Board nominee
Date: Wednesday, June 9, 2021 2:19:40 PM

Dear Dr. Armitage,

I'm writing in support of the nomination of my colleague, Professor Marccus D. Hendricks, to the EPA Scientific Advisory Board. Dr. Hendricks' important work brings together infrastructure and stormwater issues with an environmental justice framework. His work involves communities in meaningful ways, to better understand and mitigate the social processes and development patterns that create hazardous human-built environments and infrastructure that is vulnerable to disastrous flooding.

As part of the University of Maryland community, Dr. Hendricks has influenced and inspired many students, faculty, community members, and experts in the fields of public health, engineering, planning, resource management, and urban infrastructure policy. His work is a brilliant example of the sort of science- and community-based, multi-disciplinary integrative work that is so needed at this time.

His service on your Advisory Board will bring socially and environmentally innovative and collaborative expertise, and I urge you to approve his nomination.

Thank you for your consideration,

--

Julie E. Gabrielli, NCARB, LEED,
Clinical Associate Professor

School of Architecture, Planning, and Preservation
University of Maryland
College Park, MD 20742 USA
located on ancestral lands of the [Piscataway](#) People
301-405-8000
jgabe@umd.edu

Maryland Architecture: The International Leader in Sustainable Design

[reACT](#) 2017 US Department of Energy Solar Decathlon 2nd Place in International Competition
[WaterShed](#) 2011 US Department of Energy Solar Decathlon 1st Place in International Competition
[LeafHouse](#) 2007 US Department of Energy Solar Decathlon 2nd Place in International Competition



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From: [Terry Sloan](#)
To: [Armitage, Thomas](#)
Subject: Letter of Support for Dr, Sacoby Wilson's Nomination to the United States Environmental Protection Agency Science Advisory Board
Date: Wednesday, June 9, 2021 1:48:58 PM
Attachments: [SWNC Letter of Support for Dr. Sacoby Wilson-U.S. EPA SAB.pdf](#)

Good morning Honorable Dr. Thomas Armitage,

Hope this message finds you and your family well and safe today. Please see my attached letter of support for Dr. Sacoby Wilson for the United States Environmental Protection Agency's Science Advisory Board position.

Thank you in advance for you time and consideration today.

Be well and safe,

Terry

Terry A. Sloan
Director



Southwest Native Cultures

Albuquerque, New Mexico
(505) 858-0050
tas@sloancompany.net

From: [Akhil Ganti](#)
To: [Armitage, Thomas](#)
Cc: garima.raheja@columbia.edu
Subject: Public Comment re: Garima Raheja's Candidacy
Date: Wednesday, June 9, 2021 1:28:18 PM

Hi Dr. Armitage,

My name is Akhil Ganti and I'm writing to submit a public comment in favor of Garima Raheja's candidacy to become a member of the EPA's Science Advisory Board.

I have known Garima for over a decade, and as a result, I have seen firsthand her commitment to environmental justice. Since as far back as 2013, Garima has demonstrated and fostered her passion for environmental work through her various research experiences. In particular, throughout college, she juggled several intensive, multi-year projects while working closely with different experts in her field. Moreover, she spent the summers in between class years conducting additional community-based environmental research both in the Bay Area as well as Hawaii.

Garima's commitment to broader equity and justice can also be seen in her many leadership roles in organizations such as South Asians for Black Lives, BEACN, and the Sunrise Movement, to name a few. Her consistent academic excellence only further showcases this hard-working nature.

Overall, I truly believe Garima would put in her utmost effort for this position and that she would be able to affect meaningful change, and I sincerely hope that her candidacy will be accepted.

Best,
Akhil Ganti

From: [Esther Calhoun](#)
To: [Armitage, Thomas](#)
Date: Wednesday, June 9, 2021 1:03:05 PM

Gm I'm EstherCalhoun I'm writing to nominate Dr.Sacoby Wilson for SAB I've know him for several years and he is very sharp young man
He has help in our community with my former group Blackbelt Citizens fighting for Health and Justice when I was the President and I'm still working with him alone with Blackbelt Women Rising doing Environmental justice work in Uniontown Alabama. I think if he is nominate he would do a great job .Thanks EstherCalhoun

From: [Raabe, Eric J](#)
To: [Armitage, Thomas](#)
Subject: Public Comment on Dr. Shanti Gamper-Rabindran's Candidacy for SAB
Date: Wednesday, June 9, 2021 12:59:11 PM
Attachments: [Public Comment on Dr. Shanti Gamper-Rabindran's Candidacy for SAB.pdf](#)

Dear Dr. Armitage,

See attached my public comment on Dr. Shanti Gamper-Rabindran's candidacy for appointment to the SAB.

Thanks,

Eric J. Raabe

Regional Climate Action Plan Coordinator
CONNECT - Congress of Neighboring Communities
M.P.A. Energy and Environment
GSPIA | University of Pittsburgh
(724) 996-2801

From: [Spengler, John D.](#)
To: [Armitage, Thomas](#)
Subject: recommending Marccus Hendricks
Date: Wednesday, June 9, 2021 12:54:08 PM

Dr Armitage,

I am writing in support of the nomination of Dr Marccus Hendricks to the US Environmental Protection Agency's Scientific Advisory Board (SAB).

Marccus is one of our outstanding Faculty Fellows in the JPB Foundation funded Environmental Health Fellowship program.

<https://ehfellows.sph.harvard.edu/>

The JPB Environmental Health Fellowship Program promotes compassionate multidisciplinary academic and agency leaders, who are dedicated to finding solutions to complex social and environmental health problems. Through the Fellowship I have gained an appreciation for how remarkable Marccus is. It exemplifies in his research that engages students and citizens to assess the hard and soft infrastructures in their communities and to participate in public forms. Marccus research focuses on the problem of sewer systems overflow in Baltimore which differentially impacts poorer communities.

In my opinion, Marccus will be a thoughtful member SAB.

Best
Jack Spengler

*John D Spengler, Akira Yamaguchi Professor of
Environmental Health and Human Habitation
Harvard T.H. Chan School of Public Health
Director of the JPB Environmental Health Fellowship Program
Spengler@HSPH.Harvard.edu Jack_Spengler@Harvard.edu*

From: [Scott Berry](#)
To: [Armitage, Thomas](#)
Subject: US Water Alliance Comments on SAB Candidates
Date: Wednesday, June 9, 2021 12:50:59 PM
Attachments: [US Water Alliance SAB Letter.pdf](#)

Dr. Armitage,

Please find attached US Water Alliance Comments on SAB Candidates. Happy to answer any questions you might have. Thanks for the opportunity to comment.

-Scott

Scott Berry

Director of Policy and Government Affairs

US Water Alliance

(202) 601-9760 (My Number Has Changed!)

SBerry@uswateralliance.org

pronouns: he, him, his

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From: [Jenny Rowland](#)
To: [Armitage, Thomas](#)
Subject: EPA Science advisory board comment
Date: Wednesday, June 9, 2021 11:59:05 AM

Dear Dr. Thomas Armitage,

I am writing today to support the nomination of Shanna Edberg to join the US Environmental Protection Agency (EPA)'s Science Advisory Board. I worked closely with Shanna on a project assessing disparities in nature loss to communities of color and low income communities. We co-wrote a report on the topic [here](#) and have presented the findings and implications widely together. I find Shanna to be extremely qualified to join EPA's Science Advisory Board. She will bring a unique perspective that understands environmental justice, environmental stewardship, and the policies that are critical in improving community environmental health.

Good luck in choosing members of the advisory board and thank you for taking the time to read this recommendation.

Jenny Rowland-Shea
Deputy Director, Public Lands
Center for American Progress
505-310-5923
she/her

From: [John Ikerd](#)
To: [Armitage, Thomas](#)
Subject: Nomination of Sacoby Wilson to US-EPA SBA
Date: Wednesday, June 9, 2021 11:51:15 AM

Dr. Thomas Armitage, Designated Federal Officer;

I am pleased to provide this brief message in support of Dr. Sacoby Wilson's nomination to join the US Environmental Protection Agency's Scientific Advisory Board (SAB). I am an Emeritus Professor of Agricultural Economics at the University of Missouri. I have known Dr. Wilson professionally for several years through his work in environmental justice that has focused on the negative environmental and public health impacts of Concentrated Animal Feeding Operations on people in minority communities.

I am not personally familiar with Dr. Wilson's academic background and experience although I know that he has a very impressive professional resume. In his public presentations and other communications, he comes across as a very conscientious and competent scientist who is committed to addressing important issues of public interest. He is a passionate and eloquent speaker who backs his verbal comments with scientific research results. I am confident that Dr. Wilson would bring added strength to the SAB in the critically important dimension of environmental justice.

I have no reservation in endorsing Dr. Sacoby Wilson's nomination to join the EPA Scientific Advisory Board.

Sincerely,

John Ikerd, Professor Emeritus
University of Missouri-Columbia
702 S. 8th Street Cir
Fairfield, IA 52556
641-209-9906
jeikerd@gmail.com
<http://johnikerd.com>
<http://faculty.missouri.edu/ikerdj/>

From: [Figueroa, Zaida](#)
To: [Armitage, Thomas](#)
Subject: FW: Comments supporting Dr. Thomas (Tom) L. Richard - Candidate for EPA Science Advisory Board on Agriculture
Date: Wednesday, June 9, 2021 11:21:51 AM
Attachments: [2021.06.08 Tom Richard- EPA SAC on Ag.pdf](#)

FYI

From: Brahm P Verma <verma@uga.edu>
Sent: Wednesday, June 9, 2021 10:41 AM
To: Figueroa, Zaida <Figueroa.Zaida@epa.gov>
Cc: Armitage, Thomas <Armitage.Thomas@epa.gov>; Brahm P Verma <verma@uga.edu>
Subject: Comments supporting Dr. Thomas (Tom) L. Richard - Candidate for EPA Science Advisory Board on Agriculture

Zaida I. Figueroa Correa, DrPh, MSc

U.S. EPA Office of the Administrator,

Science Advisory Board Staff Office

Dr. Correa,

In response to your invitation for public comment on individuals who are candidate for EPA's Science Advisory Board on Agriculture, I am attaching my comments on the candidacy of Dr. Thoms (Tom) L. Richard who is a professor at Pennsylvania State University and director of the Institutes of Energy and the Environment facilitating collaborative works of over 500 faculty members from multiple disciplines and overseeing annual expenditures exceeding \$100 M.. I request your consideration of my comments on Dr. Richard when reviewing his potential to contribute on issues presented to the Board.

If you have any questions on my comments, please feel free to contact me directly.

Thank you,

Brahm

Brahm P. Verma, PhD

Professor and Associate Director *Emeritus*

College of Engineering; College of Agricultural and Environmental Sciences

University of Georgia, Athens, GA. 30602-4435

Phone: 706-207-5126

Founding President, Institute of Biological Engineering (IBE)

IBE - A Society for Advancing Biology-Inspired Engineering; Join IBE: www.ibe.org

From: [Stuart Merkel](#)
To: [Armitage, Thomas](#)
Subject: Support for Dr. Sacoby Wilson to join the EPA's Scientific Advisory Board
Date: Wednesday, June 9, 2021 10:23:12 AM

Dear Dr Thomas

I am writing to express my support for Dr. Sacoby Wilson to join the EPA's Scientific Advisory Board (SAB). Based on Dr. Wilson's extensive academic and community-level experience working to advance citizen use of science and technology for improved environmental health, I believe he would add great value to the SAB. Dr. Wilson specializes in community-based exposure assessment, environmental justice science, social epidemiology, environmental health disparities, air pollution monitoring, community science, and science communications.

Dr. Wilson has led the Center for Community Engagement, Environmental Justice, and Health (CEEJH) at the University of Maryland for a number of years, and is the leading voice for environmental justice in our region. He also serves on my organization's U.S. Environmental Justice (EJ) program's advisory board, and we benefit greatly from his guidance and perspective. Dr. Wilson has developed organizations and participated on a number of EJ-related advisory boards and committees. He is a respected academic and community leader -- and a powerful voice for equity and justice.

I wish you and the EPA well as you consider a broad range of nominees for the Scientific Advisory Board. I hope that Dr. Wilson will be among the new members.

all the best

Stuart Merkel
Strategic Advisor, Development
Namati

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From: [Michelle Embry](#)
To: [Armitage, Thomas](#)
Subject: EPA SAB Nomination - support of Roger Meyerhoff
Date: Wednesday, June 9, 2021 9:28:25 AM

Dear Dr. Armitage,

I wanted to send a brief email in support of Roger Meyerhoff as a candidate for the EPA SAB. I have known Roger for 15 years and worked with him directly on a HESI project on ecological risk assessment of pharmaceuticals in the environment. He is a recognized expert in aquatic toxicology, but notably, he has experience in both ecological and human health risk assessment. This breadth of knowledge would be extremely valuable to the EPA SAB. In addition, he has extensive international experience and a keen ability to work across sectors and geographies. He is balanced, well-spoken, and a team-player and would be an excellent contributor to the SAB.

Please let me know if you have any questions or require additional information.

Sincerely,
Michelle

Michelle R. Embry, PhD
Associate Director, Environmental Science
Health and Environmental Sciences Institute (HESI)
740 15th Street, NW, Suite 600
Washington, DC 20005
P: 202-659-8404 x183
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www.hesiglobal.org

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This email has been scanned for viruses and malware.

From: [Dawn Roberts-Semple](#)
To: [Armitage, Thomas](#)
Subject: Public comment on SAB candidate - Dr. Sacoby Wilson
Date: Wednesday, June 9, 2021 9:10:08 AM
Attachments: [Public Comment Dr. Sacoby Wilson.pdf](#)

Dear Dr. Armitage,

Please see attached, my public comment on Dr. Sacoby Miguel Wilson's nomination to join the Science Advisory Board of the United States Environmental Protection Agency.

Kind regards,

Dawn

Dawn Roberts-Semple, Ph.D.
Assistant Professor
Department of Earth and Physical Sciences
York College, CUNY
94-20 Guy R. Brewer Blvd.
Jamaica, NY 11451
Office: 718-262-2775
drobertssemple@york.cuny.edu

From: [Joseph DeCarolis](#)
To: [Armitage, Thomas](#)
Subject: Support for Jeremiah Johnson
Date: Wednesday, June 9, 2021 7:48:24 AM

Dear Dr. Armitage,

I wanted to express in the strongest possible terms my support of Jeremiah Johnson to the EPA Science Advisory Board. He is a rising star in the energy systems research community. His expertise in power systems operation, infrastructure engineering, and life cycle assessment allow him to perform comprehensive assessments - including technical, economic, and environmental aspects - at scales ranging from a single technology to the whole energy system. His expertise would be of high value on the SAB.

Please feel free to contact me if you have any questions.

Best Regards,
Joe

--

Joseph F. DeCarolis
Professor
319-D Mann Hall
Department of Civil, Construction, and Environmental Engineering
North Carolina State University
Campus Box 7908
Raleigh, NC 27695-7908

Phone: 919-515-0480
Fax: 919-515-7908
E-mail: jdecarolis@ncsu.edu
Web page: <https://www.ccee.ncsu.edu/people/jfdecaro>
Twitter: [@jfdecarolis](#)

From: [Garrett Parzygnot](#)
To: [Armitage, Thomas](#)
Cc: garima.raheja@columbia.edu
Subject: Science Advisory Board Recommendation - Garima Raheja
Date: Wednesday, June 9, 2021 1:36:43 AM

Good evening Dr. Armitage,

My name is Garrett Parzygnot and I am writing to submit a recommendation for Garima Raheja to the Science Advisory Board's Environmental Justice section.

I previously worked with Garima for three years through a sustainability consulting organization at UC Berkeley that sought to cultivate a more just and sustainable world through the provision of low-cost advisory services to governments, nonprofits, and private firms. Garima's infectious passion for environmental justice and equity was an inspiration to all of us in the organization. As a president, manager, and advisor she spearheaded racial and economic equity improvements in our admissions process, facilitated multiple volunteer and community service programs, and led key client projects in the corporate sustainability and food waste spaces. These actions contributed to her being a rare four-time winner of the Cal Alumni Leadership Award, granted each year to the most impactful students in their chosen areas of service and leadership.

There are few people I have ever worked with who demonstrated such a commitment to shaping sustainability programs around the needs of those most vulnerable in society. I fully believe she is a perfect candidate for this role and I know she will treat the honor with the commitment and vigor it deserves.

Please reach out if you have further questions or comments, I am happy to respond to email or take a call at any time at (408) 264-8725.

Best,
Garrett Parzygnot

Garrett Parzygnot
(408) 264-8725 | garrettparzygnot@gmail.com
Clean Energy Consultant | Investors and Large Corporations
Guidehouse (f.k.a. Navigant) | Energy, Sustainability, and Infrastructure Practice

From: [Louis Schott](#)
To: [Armitage, Thomas](#)
Subject: Recommendation of Dr. John N. O'Brien
Date: Wednesday, June 9, 2021 12:31:41 AM

Dear Dr. Armitage,

I hope this email finds you well. I am sending this correspondence as my recommendation of Dr. John N. O'Brien to serve on the Scientific Advisory Board ("SAB") of the United States Environmental Protection Agency. Dr. O'Brien is eminently qualified to serve on all of the SAB Committees and especially the Climate Science Committee, the Economic Analysis Committee and/or the Environmental Justice Science Committee.

Dr. O'Brien has substantial expertise that qualifies him to serve on the SAB including the regulation and functioning of the electric and natural gas markets and infrastructure in the U.S. and Canada; renewable energy economics and regulation; energy finance, production and storage; hydraulic fracturing technology and regulation; regulatory and rulemaking proceedings in both state and federal jurisdictions; unconventional oil and natural gas production from oil sands and shale formations; commercial energy contract matters; mineral rights and royalties; energy market planning and analysis; clean coal technologies; applications of small modular nuclear reactors; founding and building energy businesses; patent writing, submission and examination; generation plant siting, permitting and project finance; and mergers and acquisitions. Dr. O'Brien has also demonstrated the highest level of ethics and integrity throughout his career.

Dr. O'Brien has a great deal to contribute to EPA decision making and would, therefore, be an amazing addition to the SAB.

I am happy to discuss this if you have any questions.

Best regards,
Louis G. Schott

Louis G. Schott
(504)491-1098
Louisgschott@gmail.com

FYI: I am currently the principal officer of two entities and the former CEO of Camber Energy, the former CEO of EnerJex Resources and a former officer of several other companies. I am a lawyer as well as an unlicensed certified public accountant.

From: [Rashid Shaikh](#)
To: [Armitage, Thomas](#)
Subject: SAB Membership -- Letter in support of Tracy Corley
Date: Tuesday, June 8, 2021 11:05:17 PM
Attachments: [Corley Tracy for SAB-- Letter of Support June 8 2021.docx](#)

Dear Dr. Armitage,

I submit the attached letter in support of Dr. Tracy Corley's selection as a member of the SAB. Thank you,

Rashid Shaikh, Ph.D.

From: [Gold, Mark@CNRA](mailto:Gold_Mark@CNRA)
To: Armitage, Thomas
Subject: Letter of Recommendation for Deb Smith
Date: Tuesday, June 8, 2021 10:42:42 PM
Attachments: [image001.png](#)
[Deb Smith Ltr.docx](#)

Mr. Armitage - Please let me know if you have any questions or need additional information.

Mark

Mark Gold, D.Env.
Deputy Secretary for Ocean and Coastal Policy
Executive Director, California Ocean Protection Council
1416 9th St., Ste. 1311
Sacramento, CA 95814
916-712-9694
mark.gold@resources.ca.gov



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From: [Darya Minovi](#)
To: [Armitage, Thomas](#)
Subject: Comment in support of Dr. Wilson's nomination to EPA's Scientific Advisory Board
Date: Tuesday, June 8, 2021 6:57:53 PM
Attachments: [SAB Nomination-Sacoby Wilson.pdf](#)

Dear Dr. Armitage:

Thank you for the opportunity to provide comments on the candidates for the Environmental Protection Agency's Scientific Advisory Board (SAB). I would like to express my support for the nomination of Dr. Sacoby Miguel Wilson of the University of Maryland.

As an environmental health scientist, Dr. Wilson has a breadth of experience and expertise across several of the desired disciplines for SAB members, including air and water quality, citizen science, climate science, community environmental health, environmental justice, exposure assessment, and sustainability. For more than two decades he has conducted rigorous, action-oriented research to assess and address environmental and health inequities in the United States. At the University of Maryland, he leads the Center for Community Engagement, Environmental Justice, and Health (CEEJH) and has successfully leveraged institutional resources to support and uplift frontline and fenceline communities most burdened by environmental and climate injustice. His research has not only contributed to environmental health and justice scholarship, but has provided valuable data for use by affected communities and grassroots advocates, and helped advance evidence-based policymaking.

Outside of his own work, he is a leader in the broader environmental health community. Dr. Wilson serves as a member of the EPA's National Environmental Justice Advisory Council, the National Academic of Science's Board on Environmental Studies and Toxicology, the Citizen Science Association, and Editor-in-Chief of the peer-reviewed journal, *Environmental Justice*.

In my own experience as an environmental health advocate, I have found Dr. Wilson to be a tireless advocate for scientific integrity and transparency. He ensures that research and information are available and accessible to all, especially frontline and fenceline communities; provides sound scientific and policy guidance to countless advocates, activists, and researchers; and engages affected communities in collecting data and monitoring pollution. Dr. Wilson's development of the Maryland EJ SCREEN tool in particular has been a key resource for my own organization's research and advocacy, and is a tool that was desperately needed in the state.

Dr. Wilson would be an invaluable addition to the SAB and would fulfill the responsibilities with thoughtfulness, rigor, and an eye toward promoting environmental justice. Thank you for your consideration.

--



Darya Minovi, MPH (she/her)
Policy Analyst
Center for Progressive Reform

202-747-0698 x6
dminovi@progressivereform.org
<https://progressivereform.org>
Educate | Advocate | Collaborate



From: carl-axel.soderberg
To: Armitage.Thomas
Subject: ENDESEMENT OF DR: EDNA NEGRÓN FOR THE SAB
Date: Tuesday, June 8, 2021 5:59:12 PM

I have known Dr. Edna Negrón for over 25 years. I endorse her without reservations to be part of EPA's the Science Advisory Board (SBA).

Before going any further, I want to introduce myself. I am Mr. Carl-Axel P. Sderberg. I have 50 years of experience in the environmental protection field. I worked for 16 years in the Puerto Rico Environmental Quality Board, where I headed the Water Pollution Control Program for eight years. Next, I was recruited by the Puerto Rico Aqueduct and Sewer Authority to establish and implement the Industrial Pretreatment Program. After five years I was recruited by EPA to Direct the Caribbean Division within Region 2. After retiring from EPA in 2016, I joined the Board of Directors of the San Juan Bay Estuary Program. In 2019, I was appointed to the Committee of Experts and Advisors on Climate Change for Puerto Rico. I also write a monthly op-ed on environmental and public health issues for the largest circulation newspaper in the island.

Dr. Edna Negrón has a series of attributes which qualify her to be a member of the SBA

Her educational background is ideal for the mission of the SBA., since her educational background enables her to perform a comprehensive and translational science approach to environmental health assessment reviews. Dr. Negrón has a bachelor's degree in Natural Sciences and Medical Technology and a master's degree in Environmental Health Sciences from the University of Puerto Rico, Dr. Negrón has a Ph D on Environmental Health Education from Interamerican University of Puerto Rico. Moreover, Dr. Negrón has completed specialized courses at Harvard School of Public Health.

Her book "Public Health and the Environment: Uncovering Key Social, Ecological, and Economic Connections" illustrates the in depth research performed by Dr. Negrón in different areas within the environmental and public health fields. These insights which Dr. Negrón has accumulated throughout her career in her research are an asset to perform her duties in the SBA.

Another factor that should be considered is that Dr. Negrón was educated and developed her professional career entirely in Puerto Rico. She is in a unique position to bring the perspective of the needs of the hispanic community of the island, which according to the Census Bureau, more than 50% of the population is below the poverty level. In addition, she will be in a position to bring to the table unique research needs of Puerto Rico, such as public health impacts of Sahara dust clouds which often strike the island, wastewater management needs for isolated communities in the mountain range, and the vulnerability to water scarcity due to climate change, among others.

Lastly, Dr. Negrón has a demonstrated high degree of responsibility. She is committed to public health and the environment. I can assure you that she will excel as a member of the SAB.

Please confirm receipt of this communication.

--.

Ing. Carl-Axel P. Soderberg

From: [Audrey Taucher](#)
To: [Armitage, Thomas](#)
Subject: Re: Recommendation of Dr. John N. O'Brien for EPA SAB
Date: Tuesday, June 8, 2021 4:29:42 PM

Dear Dr. Armitage,

I am writing to provide an endorsement of Dr. John N. O'Brien, who has been nominated to serve on the Environmental Protection Agency's Science Advisory Board.

As is evident by his biography, which includes his service as a full scientist at DOE's Brookhaven National Laboratory, and other technical positions, Dr. O'Brien is well qualified to be a valuable contributor to a number of Science Advisory Boards.

On a personal note, I have had the privilege of working with Dr. O'Brien over the course of nearly 20 years; from being included on a team brought together to help the Canadian Tar Sands industry reduce their carbon emissions, to the establishment of a diverse a high level technical and policy consulting practice. Dr. O'Brien has always demonstrated a high degree of knowledge on a range of issues, which is a credit to his background and expertise.

Besides his technical acumen, Dr. O'Brien's personal skills are also of note. Dr. O'Brien can talk to and connect with people of all levels of subject comprehension and can convey a balanced message without imposing judgement, which is valuable in gaining trust and collegiality.

As a 30-year veteran of the Washington DC energy and environment/climate policy arena, I can attest that Dr. O'Brien most definitely possess the temperament to navigate and contribute to the technical and policy analysis, and discourse will fellow board members.

For the reasons expressed in this letter, Dr. O'Brien would be especially well suited to serve the Climate Science Committee, the Economic Analysis Committee, or the Environmental Justice Science committee. His past positions, and more recently his position as a Professor at Flagler College, provide current relevant expertise to any number of EPA SAB positions.

I appreciate the opportunity to share my esteem for Dr. O'Brien. Any of EPA's advisory boards would benefit from Dr. O'Brien's contribution.

Sincerely,

Audrey Taucher
Taucher International

From: [Natalie R. Sampson](#)
To: [Armitage, Thomas](#)
Subject: Public comments (86 FR 17148-17149) on SAB candidate Sacoby Wilson
Date: Tuesday, June 8, 2021 4:24:51 PM
Attachments: [SW SAB.pdf](#)

Hello Dr. Armitage,

Please see the attached comments supporting Dr. Sacoby Wilson's nomination to join the US Environmental Protection Agency's Scientific Advisory Board.

Thank you,
Natalie

Natalie Sampson, PhD, MPH (she/her)
Associate Professor of Public Health
University of Michigan-Dearborn

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From: [Sudhir Sharma](#)
To: [Armitage, Thomas](#)
Subject: Public Comment for Dr. Ram Iyengar
Date: Tuesday, June 8, 2021 4:05:19 PM

Dear Dr. Armitage: I am writing in support of Dr. Ram Iyengar's candidacy for EPA's Science Advisory Board. Dr. Ram Iyengar has been known to me since our Graduate studies days at Carnegie-Mellon University where we completed our Ph. D.'s in Metallurgy and Materials Science. He has spent his career as a researcher, administrator, independent consultant in steel and other metallurgical industries, Director General in Government of India's CSIR organization, Managing Director of National Industrial Corporation to list a few of his achievements.

Given his background and experience in wide ranging Metallurgical field, I have no doubt that he is eminently qualified to be a member of EPA's Science Advisory Board.

Thanks for the opportunity for allowing me to submit my comments.

Regards,

Dr, Sudhir Sharma
Metallurgical Consultant

From: [Li, Mengyuan](#)
To: [Armitage, Thomas](#)
Cc: [Raheja, Garima](#)
Subject: Science Advisory Board Public Comment in Support for Garima Raheja
Date: Tuesday, June 8, 2021 3:55:46 PM

Dear Dr. Thomas Armitage,

My name is Maggie Li, and I am a second-year PhD student in the Department of Environmental Health Sciences at the Columbia University Mailman School of Public Health. I've had the pleasure of knowing Garima for several years starting from our time as undergraduates at UC Berkeley. To say that her work is far-reaching, impactful, yet intentional and nuanced, is an understatement—I don't know anyone else more committed to serving their communities to advance the values of environmental justice through advocacy, research, and education.

Not only does her wide range of ability to engage in multiple arenas of EJ work speak for itself on paper and word-of-mouth, but I also know from personal experience that she leads with a great deal of empathy and patience. Her dynamism contributes to a collective sense of empowerment in the groups that she is a part of. Her energy and passion continuously inspire me, and without a doubt, many others. She shows up with humility and kindness and takes the time to really grapple with the complex issues involved with tackling equity in this line of work. These are just a few reasons I believe she would be an excellent fit on the EPA Science Advisory Board's EJ section. Please let me know if you have any follow-up questions or concerns.

Best regards,

Maggie Li
PhD student
Pronouns: she/her/hers
Environmental Health Sciences, Climate and Health Program
Columbia University Mailman School of Public Health
722 West 168th Street, 11th floor, New York, NY 10032
ml4424@cumc.columbia.edu
maggie-mengyuan-li.github.io

From: [Alexandra Lee](#)
To: [Armitage, Thomas](#)
Subject: Dr. Corley SAB letter of recommendation
Date: Tuesday, June 8, 2021 3:31:23 PM
Attachments: [Dr. Armitage.pdf](#)

Dear Dr. Armitage,

Please find attached a letter of recommendation for Dr. Tracy Corley for the Scientific Advisory Board position within the Environmental Protection Agency. Working with Dr. Corley significantly increased the value of our project and work in the community.

I hope that she will be given strong consideration for this role on the Scientific Advisory Board.

Warm regards,

Alexandra

Alexandra Lee

Executive Director | Sasaki Foundation

64 Pleasant Street
Watertown, MA 02472

+1 617 923 7330
sasakifoundation.org
[@SasakiFdn](#)

From: [Lahbib Chibani](#)
To: [Armitage, Thomas](#)
Cc: [Bloomer, Bryan](#)
Subject: EPA Science Advisory Board Candidate Nomination Support/Dr. Joseph Odencrantz
Date: Tuesday, June 8, 2021 3:10:37 PM
Attachments: [IMAGE.png](#)
[Nomination Letter 06 08 2021.pdf](#)

Dr. Armitage,

Attached please find my letter in support of Joseph Odencrantz for selection as a member of the Science Advisory Board. I first met Dr. Odencrantz while doing research at the University of Illinois in the early 1980's and continue to have the highest esteem for his capabilities.

Thank you for considering my attached letter.

Regards,

Lahbib Chibani, Ph.D., P.E
SADAT ASSOCIATES, INC.
1 (609) 273-2561
Lchibani@Sadat.com



From: [Arielle Lopez](#)
To: [Armitage, Thomas](#)
Subject: nomination for EPA's Science Advisory Board.
Date: Tuesday, June 8, 2021 2:29:44 PM

Hello Thomas,

I would like to nominate Shanna Edberg for the EPA's Science Advisory Board. Shanna is a longtime conservation advocate and promoter of environmental justice in the U.S. and abroad. She directs Hispanic Access Foundation's conservation programs to promote environmental stewardship in the Latino community, elevate Latino voices in conservation policy, activate Latino conservation leaders, and provide them the resources they need to create a more sustainable and just future. Prior to joining Hispanic Access Foundation, Ms. Edberg's background includes working on sustainable development at the World Bank and Global Environment Facility as well as climate policy at the nonprofit Climate Interactive. While pursuing her education, Ms. Edberg worked in Peru to protect forests in the Amazon, researched and published on civil rights in Mexico, and supported city sustainability in Baltimore.

Shanna is a strong and passionate leader and has been a pleasure to work with at the Hispanic Access Foundation. She continues to pave the way to bring environmental justice to underserved communities. I strongly believe that Shanna would be a great and valuable asset to the EPA's Science Advisory Board.

Thank you,
Arielle Lopez

Arielle Lopez

Policy and Programs Associate, Sustainability

Los Angeles Business Council Institute

<https://labusinesscouncil.org/>

[2029 Century Park East, Suite. 4380](#)

[Los Angeles, CA 90067](#)

[310.226.7460](#)

From: [Figueroa, Zaida](#)
To: [Armitage, Thomas](#)
Subject: FW: Public comment on candidate for SAB Tom Richard
Date: Tuesday, June 8, 2021 1:46:07 PM
Attachments: [Richard Support Letter EPA Science Advisory Board 2021.pdf](#)

FYI

From: Nokes, Sue <sue.nokes@uky.edu>
Sent: Tuesday, June 8, 2021 1:06 PM
To: Figueroa, Zaida <Figueroa.Zaida@epa.gov>
Subject: Public comment on candidate for SAB Tom Richard

Dear Dr. Figueroa Correa:

Please accept the attached letter as comment on the nomination of Dr. Tom Richard.

I'd be happy to answer any questions if that would be useful.

Best Regards,

Sue Nokes

Sue E. Nokes, PhD, PE
Associate Dean for Faculty Affairs and Facilities
College of Engineering
Professor of Biosystems and Agricultural Engineering
379 R.G. Anderson Building
College of Engineering
University of Kentucky
Lexington, KY 40506

From: [Maya K van Rossum](#)
To: [Armitage, Thomas](#)
Cc: [Maya K van Rossum](#)
Subject: EPA SAB Nomination: Dr. Sacoby Wilson
Date: Tuesday, June 8, 2021 1:09:23 PM
Attachments: [image001.png](#)
[GAFTG Letter of Support Dr. Sacoby Wilson 6.8.21.pdf](#)

Dear Dr. Armitage,

On behalf of Green Amendments For the Generations, please see the attached letter in support of Dr. Sacoby Wilson's nomination to the US Environmental Protection Agency's Scientific Advisory Board (SAB).

Thank you for your consideration,
Maya

Maya K. van Rossum

- * Founder of the Green Amendment For The Generations Movement
- * Author of *The Green Amendment, Securing Our Right to a Healthy Environment*
- * Also serving for over 26 years as the Delaware Riverkeeper & leader of the Delaware Riverkeeper Network

Green Amendments For The Generations

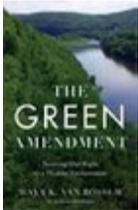
Phone: 267 274 2674

Website: www.GreenAmendments.org or www.ForTheGenerations.org

Twitter: @MayaKvanRossum

Pronouns: she, her, hers

Green Amendments For The Generations is a true grassroots movement – we need your support – [please consider donating today](#) – we all deserve pure water, clean air, a stable climate & healthy environments.



Order at: <http://bit.ly/TheGreenAmendment>

From: [SARA ELIZABETH GRINESKI](#)
To: [Armitage, Thomas](#)
Cc: [Figueroa, Zaida](#)
Subject: Public comment / EPA science advisory board
Date: Tuesday, June 8, 2021 11:37:24 AM

To Whom it May Concern:

I am writing in support of Jayajit Chakraborty's nomination for the Environmental Justice (EJ) Subcommittee of the EPA Science Advisory Board. I have known Jay for 15 years and have collaborated with him on several grant-funded projects and many publications, making me well-qualified to recommend him to you.

Dr. Chakraborty is an outstanding scholar of EJ and someone who would bring a calm and reasoned voice to discussions related to EJ while on the Board. He has made important methodological contributions to the field that have changed the way we do EJ research. Dr. Chakraborty is a trusted and well-respected person in the EJ community. He is also an upstanding person with integrity. I have no doubt that he would take the role very seriously and would contribute much to the Board. Please seriously consider him!

Best,
Sara Grineski, Ph.D.
Professor, Sociology and Environmental Studies
Co-Director, Center for Natural and Technological Hazards
Co-Director, NIEHS R25 (HAPPIEST)
Director of Undergraduate Studies in Sociology
University of Utah

From: [Paparounas, Demetra](#)
To: [Armitage, Thomas](#)
Subject: Nomination of Tracy Corley
Date: Tuesday, June 8, 2021 11:16:07 AM

Dear Dr Armitage,

I am writing in support of Dr Corley's nomination for EPA's Scientific Advisory Board.

Tracy Corley is an individual that stands out and I am sure this is already manifested in her credentials, work and so far testimonials the selection committee is reviewing. It is not just her outstanding scientific caliber; her deep respect to human life and well-being and unconditional commitment to truth seeking. It is Tracy's ability to strike an amazing balance among prior experience, depth and breadth of interests and coordinated action for meaningful transformation that I would like to highlight in my comments.

I came to know Tracy in 2010 when she entered Northeastern's Law and Public Policy doctoral program. I was already halfway through the program at that time. We have since then cooperated under different settings and configurations. Tracy had a sweeping impact in our program's established and fledgling policy professionals. She would be the one seeking to identify the bridges between theory and practice, academia and industry. She excelled in research methodology for social research and most importantly she has been able to rigorously employ and critically reflect on that in her work since then.

Tracy truly values and respects individuals' beliefs and perspectives and that is why she inspires voices to be expressed. She has the extraordinary capability of maintaining, expanding and coalescing an amazing network of individuals - spanning from childhood friends to internationally renowned scholars, committed to a better life for everyone. A calm, noble collaborator in work and life Tracy Corley adds indispensable value to any cause she is devoting to and I attest that she will be an excellent choice for EPA's Scientific Advisory Board.

Respectfully,

Demetra Paparounas

Demetra Paparounas, Ph.D.
Lecturer, Statistics
Northeastern University
D'Amore & McKim School of Business
Hayden Hall 319A
Boston, MA 02111
tel: +1 617 373 4785

From: [Kerri Harris](#)
To: [Armitage, Thomas](#)
Subject: Scientific Advisory Board - Dr Sacoby Wilson
Date: Tuesday, June 8, 2021 11:11:13 AM

Dr Armitage,

I hope this email finds you well, especially as you are taking the time to review all of the comments submitted on behalf of a talented list of potential Scientific Advisory Board members.

Today, I am writing in support of Dr Sacoby Wilson.

Dr. Wilson has proven himself to not only be knowledgeable about the collection and use of scientific data as it relates to environmental injustices, but he has proven to have the needs of the community at the forefront of his work.

As a community organizer and advocate, who also works as a political strategist for candidates and elected officials at all levels of government, I find myself regularly struck by his genuine commitment to his craft and willingness to work alongside community members to help solve issues.

I highly recommend Dr Wilson for the SAB and can personally ensure that he will exceed expectations in his service to the EPA and the country by extension.

Respectfully,
Kerri Evelyn Harris

From: [Phoebe Gittelson](#)
To: [Armitage, Thomas](#)
Subject: Dr. Sacoby Wilson for EPA Scientific Advisory Board
Date: Tuesday, June 8, 2021 10:15:27 AM

Hello,

I am writing to nominate Dr. Sacoby Wilson for the EPA's Scientific Advisory Board. He is a leader in citizen science who has continued to fight for equity, justice, and accountability at every step of his career. This placement would be a perfect fit, I trust Dr. Wilson to lead the EPA's SAB advising on broad scientific matters.

Thank you,
Phoebe

--

phoebe gittelson
environmental justice lawyer + poet + violinist
phoebe gittelson
818-458-6337
phoebegittelson@gmail.com

From: jack.jackbucchioni.com
To: Armitage.Thomas
Subject: Re: EPA Scientific Advisory Board nomination for Dr. Sacoby Wilson
Date: Tuesday, June 8, 2021 10:10:25 AM

Resend, came back

Dear Dr. Thomas Armitage,

Before too much time goes by, I respectfully, would like to underscore and add my name to the nomination of Dr. Sacoby Miguel Wilson to the EPA's Scientific Advisory Board. My working with Dr. Wilson on various projects in the state of Delaware gives me no doubt he is an excellent candidate for this seat. Dr. Sacoby Miguel Wilson is a man of many talents, you would be hard pressed to find another member as competent or committed to the greater good.

Should you have any questions, please call me direct 24/7 and I will be there for you.to more fully lend credibility for my endorsement of Dr. Wilson.

Best,

Jack Bucchioni
Delaware Democratic Party State Executive Committee member (emeritus)
Phone: 302.200.0580

From: jack.jackbucchioni.com
Sent: Tuesday, June 8, 2021 10:03 AM
To: armitage.thomas@epa.gov <armitage.thomas@epa.gov>
Subject: EPA Scientific Advisory Board nomination for Dr. Sacoby Wilson

Dear Dr. Thomas Armitage,

Before too much time goes by, I respectfully, would like to underscore and add my name to the nomination of Dr. Sacoby Miguel Wilson to the EPA's Scientific Advisory Board. My working with Dr. Wilson on various projects in the state of Delaware gives me no doubt he is an excellent candidate for this seat. Dr. Sacoby Miguel Wilson is a man of many talents, you would be hard pressed to find another member as competent or committed to the greater good.

Should you have any questions, please call me direct 24/7 and I will be there for you.to more fully lend credibility my endorsement of Dr. Wilson.

Best,

Jack Bucchioni
Delaware Democratic Party State Executive Committee member (emeritus)
Phone: 302.200.0580

From: jack@jackbucchioni.com
To: [Armitage, Thomas](#)
Subject: EPA Scientific Advisory Board nomination for Dr. Sacoby Wilson
Date: Tuesday, June 8, 2021 10:03:57 AM

Dear Dr. Thomas Armitage,

Before too much time goes by, I respectfully, would like to underscore and add my name to the nomination of Dr. Sacoby Miguel Wilson to the EPA's Scientific Advisory Board. My working with Dr. Wilson on various projects in the state of Delaware gives me no doubt he is an excellent candidate for this seat. Dr. Sacoby Miguel Wilson is a man of many talents, you would be hard pressed to find another member as competent or committed to the greater good.

Should you have any questions, please call me direct 24/7 and I will be there for you to more fully lend credibility my endorsement of Dr. Wilson.

Best,

Jack Bucchioni
Delaware Democratic Party State Executive Committee member (emeritus)
Phone: 302.200.0580

From: [Melissa Massimi](#)
To: [Armitage, Thomas](#)
Subject: Dr John O'Brien - Recommendation
Date: Tuesday, June 8, 2021 9:45:52 AM

Dear Dr. Armitage,

Good morning.

I'm writing to you today as I wish to furnish a recommendation for Dr. John O'Brien to serve on the EPA's Scientific Advisory Board (SAB).

I met Dr. O'Brien in 1989 when working for his company Direct Gas Supply, Islandia, New York. I was 23 years of age.

It was through Dr. O'Brien's regulatory efforts that he assisted in structuring a competitive deregulated natural gas supply industry in New York State. Direct Gas Supply was one of the first companies to successfully participate in natural gas deregulation in NY. This is an industry, 32 years later, that still thrives today, not only in New York but throughout the country. The Natural Gas Supply Industry has thousands of participants nationwide and employs hundreds of thousands of men, women and minorities.

Prior to deregulation, like the phone industry, the only option customers had for natural gas supply was through their local utility. A customer had no control on the price they paid for supply, which meant no ability to budget for one of their largest business expenses. Deregulating the local utilities meant that customers had the option to contract with an approved Energy Service Company (ESCO) for their natural gas supply. Customers can now purchase competitively-priced supply and secure long term supply contracts to mitigate any market volatility. After the success of the natural gas deregulation the deregulation of the electric market followed a decade later.

At Direct Gas, Dr O'Brien, developed a team of employees comprised of both men and women. He believed in promoting within regardless of gender. If you had the initiative, the opportunity was available to advance. He also provided an opportunity for higher education by offering tuition reimbursement. Little did I know in 1989 that I would make a career in this industry due to the opportunities afforded at Direct Gas. Also, as a woman, I was always treated with respect and never felt uncomfortable when working amongst men. The energy industry is primarily an industry of men, yet at Direct we had gender equality in all positions including leadership. This is still rarely seen today.

I personally took advantage of all of the opportunities provided by this environment. I advanced from a secretarial position to positions that

included; customer service, financial, regulatory, technology and sales. I also completed my undergraduate and graduate degrees through the tuition reimbursement program.

It was due to my career at Direct Gas that after 5 years I was recruited to other deregulated opportunities and had the confidence to start my own ESCO in 2002. My company serves over 5000 customers in the NY market with natural gas supply and energy consulting services. We are one of a few privately held companies.

None of this would have been possible without Dr. O'Brien's foresight, leadership and entrepreneurship. His willingness to provide an opportunity to advance, a program to pursue higher learning and an environment in which to thrive made for an exceptionally successful enterprise.

It is with great pleasure that I submit this recommendation to you today.

Sincerely,

Melissa A Cobuzzi

M&R Energy Resources Corp

From: [Schreurs, Miranda](#)
To: [Armitage, Thomas](#)
Subject: Letter of Recommendation for Prof. Shanti Gamper Rabindran (candidate for US EPA SAB)
Date: Tuesday, June 8, 2021 4:17:41 AM
Attachments: [Letter_Shanti_Gamper-Rabindran.pdf](#)

Dear Dr. Armitage

Please find my letter supporting the candidacy of Prof. Shanti Gamper-Rabindran for membership in the US EPA SAB attached.

Best wishes,

Miranda Schreurs

Professor of Environment and Climate Policy
Dean of Studies, TUM School of Governance
Bavarian School of Public Policy/Hochschule für Politik München
Technical University of Munich
Richard Wagner Str. 1
München 80639, Germany

miranda.schreurs@hfp.tum.de

From: [Shatkin, Gavin](#)
To: [Armitage, Thomas](#)
Subject: Recommendation for Dr. Tracy Corley
Date: Monday, June 7, 2021 5:07:01 PM
Attachments: [Corley Scientific Advisory Board recommendation.pdf](#)

Dear Dr. Armitage,

I am writing to provide a letter of support for Dr. Tracy Corley's nomination to the EPA's Scientific Advisory Board—the letter is attached with this e-mail. Please let me know if you prefer another mode of submission for this letter, or if I can provide any further information in support of Dr. Corley's nomination.

Thank you,

Gavin Shatkin, Professor
School of Public Policy and Urban Affairs
Northeastern University

From: [Reed Perry](#)
To: [Armitage, Thomas](#)
Subject: EPA Science Advisory Board Environmental Justice Committee nomination
Date: Monday, June 7, 2021 4:47:23 PM

Dear Armitage,

I write to support Shanna Edberg's nomination for the Environmental Justice Committee on the EPA's Science Advisory Board. I have had the pleasure of working with Shanna over the past year on a proposal to establish a new unit of the National Park System.

On the coalition working to establish this new national park unit, Shanna has served on the Diversity, Equity, Inclusion, and Justice subcommittee. Shanna is a reliable subcommittee member and attends all meetings. In each discussion about the national park proposal, Shanna has contributed many helpful ideas about how to make our coalition more inclusive, as well as how to make a future park visitation experience inclusive and positive for underserved communities and communities of color.

As a team member, I believe Shanna is extremely thoughtful and is well-versed in best practices for advancing DEIJ goals within the conservation and environmental sector. I have also found that Shanna is willing to volunteer more time than most coalition members in order to advance our shared goals. For example, Shanna took the initiative to draft a coalition statement on DEIJ that will help guide our efforts (and ultimately, the visitor experience at the new unit).

I fully recommend Shanna for this position, and please do not hesitate to contact me should you need any further information.

Sincerely,

Reed Perry

--

Reed Perry (he/him/his)
Manager of External Affairs
Chesapeake Conservancy
716 Giddings Avenue, Suite 42
Annapolis, MD 21401
443-775-0006
rperry@chesapeakeconservancy.org
www.chesapeakeconservancy.org
#blacklivesmatter [DEIJ Statement](#)

Join Chesapeake Conservancy in celebrating Pride Month. Learn about our friends at [Annapolis Pride](#), their [2021 pride event](#), and share [important resources](#) to your networks.



From: [Genna Reed](#)
To: [Armitage, Thomas](#)
Subject: UCS Public Comment Re: SAB List of Candidates
Date: Monday, June 7, 2021 12:24:10 PM
Attachments: [FAC diversity letter FINAL 4.28.21.pdf](#)
[UCS- SAB candidates public comment 6.7.21.pdf](#)

Good afternoon Dr. Armitage,

Please find attached a comment from UCS on the SAB list of candidates posted on 5/19/21. I have also attached a copy of the letter UCS sent to EPA and other agencies on behalf of 16 organizations that includes recommendations for diversifying membership on scientific advisory committees. Please let me know if you have any questions.

Best,

Genna Reed
Senior Analyst, Center for Science and Democracy
she / her / hers

Union of Concerned Scientists | 1825 K Street NW, Suite 800 | Washington, D.C. 20006
Phone: 202-331-6940 | Email: GReed@ucsusa.org

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From: [Jessica Golden](#)
To: [Armitage, Thomas](#)
Subject: Letter of Support - Shanna Edberg for US EPA Science Advisory Board
Date: Sunday, June 6, 2021 9:05:52 PM

Good evening,

I am writing in support of Shanna Edberg's nomination for the US EPA's Science Advisory Board - Environmental Justice Committee. Ms. Edberg's depth and breadth of experience at the intersection of climate science, environmental and climate justice, policy and economics will offer an invaluable perspective on this committee. Her holistic background in systems thinking and sustainable development, applied at the advisory, policymaking, and field levels, will offer nuanced, critical, balanced, and socially equitable thinking to the Environmental Justice Committee.

As the Scientific Manager at Sepion Technologies and affiliate user at LBNL's Molecular Foundry, leading climate-change mitigating materials development projects funded by US DOE's ARPA-E DAYS, IONICS, and SCALEUP programs as well as the California Energy Commission's BRIDGE program, I spend much of my time aligning my team's technological development projects with both consumer demand and federal and state climate missions. In my conversations with Shanna, she has demonstrated insightful and incisive insights into the environmental and social impacts of climate change and sustainability efforts that have enriched my understanding of my team's impact and which I have used to help shape and tune the direction of my team's technical development thinking. I have no doubt that, once appointed, she will offer the Environmental Justice Committee the same exceptional level of insight as she has offered me and my team.

Thank you for your time,

Dr. Jessica Golden

From: [Prins, Gail S](#)
To: [Armitage, Thomas](#)
Subject: Commentary on Patricia Morris" nomination to the SAB of the EPA
Date: Sunday, June 6, 2021 7:04:00 PM
Attachments: [Morris - EPA SAB 2021.doc](#)

Attached is my commentary regarding the nomination of Patricia Morris, PhD to the Scientific Advisory Board of the Environmental Protection Agency. Thank you for your consideration.

Regards,

Gail Prins, PhD

From: [Marta Rivero Mendez](#)
To: [Armitage, Thomas](#)
Subject: Letter of Recommendation
Date: Sunday, June 6, 2021 9:44:00 AM
Attachments: [Letter to Dr. Armitage.pdf](#)

Dr. Thomas Armitage, DFO
Designated Federal Officer
Office of the Science Advisory Board (SAB)
U.S. Environmental Protection Agency (EPA)
Washington, D.C. 20460

Dear: Dr. Armitage,

I am enclosing a letter of recommendation on behalf of Dr. Edna Negrón-Martínez. If you should have any questions, please do not hesitate to contact me.

Respectfully yours,

Marta Rivero-Méndez
Professor of Nursing
School of Nursing
Researcher and Chair of IRB-1
Medical Sciences Campus

From: [Eley, Carlton](#)
To: [Armitage, Thomas](#)
Subject: US EPA Scientific Advisory Board Nominations - Dr. Sacoby Wilson
Date: Saturday, June 5, 2021 3:03:11 PM

Dr. Armitage:

My name is Carlton Eley, and I work for the Miami Valley Regional Planning Commission in Dayton, OH. Dr. Sacoby Wilson is a nominee for the EPA Scientific Advisory Board (SAB). I am writing to express my support for Dr. Wilson's nomination.

Dr. Wilson has focused on building community-university partnerships—leveraging institutional resources to support frontline and fence-line communities facing environmental and climate injustices. Dr. Wilson has the ability to support and critically examine climate and public health issues. Further, he is an expert on advancing environmental justice principles and practices at the federal level.

Dr. Wilson has over 20 years of experience as an environmental health scientists in the areas of exposure science, environmental justice, environmental health disparities, community-engaged research including community-based participatory research (CBPR), citizen science, and crowd science, water quality analysis, air pollution studies, built environment, industrial animal production, climate change, community resiliency, and sustainability. He also has worked on environmental justice and air pollution issues with community-based groups in Houston, Texas, Savannah, GA, Uniontown, AL, and Wilmington, DE.

Dr. Wilson has been very active professionally to advance environmental justice science. He is a member of the USEPA's National Environmental Justice Advisory Council (NEJAC), member of the National Academy of Science's Board on Environmental Studies and Toxicology (BEST), board member of the Citizen Science Association, Editor in Chief of Environmental Justice, a past Chair of the APHA Environment Section, former Board member of Community-Campus Partnerships for Health.

Dr. Wilson received his BS degree in Biology/Ecotoxicology with a minor in Environmental Science from Alabama Agricultural and Mechanical University in 1998. He received training in environmental health in the Department of Environmental Sciences and Engineering, at the University of North Carolina at Chapel Hill. Dr. Wilson received his MS degree in 2000 from UNC-Chapel Hill and his PhD from UNC-Chapel Hill in 2005.

As EPA rebuilds the SAB and responds to priorities of the Biden Administration, Dr. Sacoby Wilson would make a great addition.

Carlton Eley
Regional Equity Initiative Manager
Miami Valley Regional Planning Commission
10 North Ludlow St., Suite 700

Dayton, Ohio 45402

937.223.6323 – office

937.531.6552 – direct line

celey@mvrpc.org

mvrpc.org

From: [Octavia Dryden](#)
To: [Armitage, Thomas](#)
Subject: Public Comment
Date: Friday, June 4, 2021 10:52:30 PM
Attachments: [CHEC.Public Comment.Sacoby.docx](#)

Please find attached Public Comment Letter on behalf of Dr. Sacoby Wilson.
Thank you

--

Penny Dryden
Executive Director
CHEC Inc.
302.275.4709c
drydenp2015@gmail.com

From: [Ami U Thakrar](#)
To: [Armitage, Thomas](#)
Subject: Support for Garima Raheja for EPA Science Advisory Board
Date: Friday, June 4, 2021 8:29:22 PM

Dear Dr. Armitage,

My name is Ami Thakrar, and I am a PhD student in the joint Harvard-MIT Division of Health Sciences and Technology. I am writing today to express my strong support for Garima Raheja, a current finalist for a role on the EPA's Science Board's Environmental Justice section.

I have known Garima for the past six years, and in this whole time period, she has been a fierce advocate for environmental justice. As undergraduates together at UC Berkeley, I watched Garima join, and eventually, lead + shape student organizations on campus that aimed to make knowledge about environmental injustice accessible to the student body. Now, as a graduate student, she works on research that directly aims to study the impact of air pollution on populations. Garima's work ethic and commitment to social justice are both unparalleled, and I am confident that if you were to include her on your Science Advisory board, she would work tirelessly to make meaningful change in the space of environmental justice.

If you have any more questions, please feel free to contact me at aut@mit.edu.

Thanks,
Ami Thakrar

--

Ami Thakrar
PhD student | Medical Engineering & Medical Physics
Harvard-MIT Division of Health Sciences & Technology

From: [Carole Excell](#)
To: [Armitage, Thomas](#)
Subject: Comments on Candidate Dr. Crystal Upperman
Date: Friday, June 4, 2021 7:46:56 PM
Attachments: [Dr. Upperman Comment.pdf](#)

Please see attached comments on Dr. Upperman Candidate **Scientific Advisory Board (SAB)**.

Carole Excell (She/ Her/Hers)

Director , Environmental Democracy Practice

World Resources Institute

WRI.org

Direct: +1 202-729-7901 |
Cexcell@wri.org | Skype: Carole.wri | Twitter: @CaroleExcell

WRI is a global research organization that turns big ideas into action at the nexus of environment, economic opportunity and human well-being.

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From: [Dean E](#)
To: [Armitage, Thomas](#)
Subject: Recommendation for EPA Science Advisory Board (Shannah Edberg)
Date: Friday, June 4, 2021 4:45:19 PM

Good evening,

I would like to recommend Shannah Edberg for the US EPA Science Advisory Board position. Knowing Shannah my entire life, I have seen her develop and gain specific skills that make her a great fit for this position. She has vast knowledge, experience, dedication, and passion when it comes to conservation and environmental stewardship. Shannah is a dedicated, kind, hardworking, and strong woman who excels in everything she does. I appreciate your time and consideration for this matter and for what you are doing for our planet.

Thank you!

Dean Edberg

From: [Maria Otero Estrada](#)
To: [Armitage, Thomas](#)
Cc: garima.raheja@columbia.edu
Subject: Garima Raheja referral EPA Science Advisory Environmental Justice role
Date: Friday, June 4, 2021 4:43:57 PM

Dear Dr. Thomas Armitage

I am writing to refer Garima Raheja to the EPA Science Advisory Environmental Justice role.

I worked with Garima at the bay area environmental awareness consulting club (BEACN). She was the president, I was a consultant, and then a Project Manager.

My experience with her was absolutely amazing in professional and social terms. As president, she made sure everyone developed professionally, advocated for inclusion, and taught us a lot about communication, one of her strongest skills.

As a leader, she understood the cultural differences between everyone in the organization and created a process to make sure everyone's voice was included.

As an example, I come from Colombia and there was one time where I was having communication issues with my team, I was being too direct. I reached out to Garima and she helped me understand that this was a cultural difference and showed me ways to better approach people. This demonstrated to me just how empathetic she can be and another reason why she would be very good in a role related to environmental justice.

Moreover, as a project manager, she was very good at engaging the people in her team. She would have a plan in mind for what to do next but would make sure to ask everyone before what they thought should be done to get their input and teach them how to think like project managers.

Academically, with respect to the environment and environmental justice, she is the most knowledgeable person in the area that I know of. Since she was at Berkeley she has been very committed to environmental research, advocacy, and community-based science. Garima is a person that gives 110% at everything she does and I am sure she will have a positive impact in this role, just how she has done everywhere she has worked.

Garima is one of the people I always look up to for advice personally and professionally, she is not only very smart but also very fun to be around and extremely aware of justice issues around us.

Let me know if you have further questions:

Name: Maria Otero

Occupation: Senior Portfolio Analyst, SunPower

tel:(512) 381-7523

email: mariao14@berkeley.edu

LinkedIn: <https://www.linkedin.com/in/maria-otero-2b851121/>

--

Maria Otero Estrada

B.S Conservation and Resource Studies | B.S Environmental Economics and Policy | Energy and Resources

College of Natural Resources | Energy and Resources Group

University of California Berkeley
mariao14@berkeley.edu - (510) 679-7595

From: [Good, Sam@Waterboards](mailto:Good_Sam@Waterboards)
To: Armitage, Thomas
Cc: garima.raheja@columbia.edu
Subject: Public comment for Garima Raheja
Date: Friday, June 4, 2021 4:21:09 PM

Hello Dr. Armitage,

My name is Sam Good, and I currently work in the Watershed Management Division at the San Francisco Bay Regional Water Quality Control Board (a part of the California EPA). Working at the Water Board, I understand the importance of selecting Board members as they have final approval over critical Water Boards actions. With that understanding in mind, I fully endorse Garima Raheja for a position on the EPA's Science Advisory Board.

I met Garima Raheja five years ago at UC Berkeley, when we worked on an Environmental Justice project together for Planting Justice. Planting Justice employs formerly incarcerated men of color and teaches them sustainable agriculture skills they can use to help feed their communities. Garima worked tirelessly on this project (designing and implementing an automatic irrigation system for their 5-acre property in El Sobrante). The implementation of the system she designed allowed for more people to join the Planting Justice program and learn valuable sustainable agriculture practices.

Throughout the time I worked with Garima on the Planting Justice project, her passion for environmental justice was obvious. She participated in Save the Bay volunteer days, and worked as a volunteer teacher for 1st and 5th grade budding scientists. She also developed Smart Air Bears, where she developed a community air quality sensor network measuring particulate matter. Community-based science is a passion of hers, one I know she would encourage with a seat on the EPA Science Advisory Board.

While working on this project, Garima was also leading a project for BEACN (the Bay Area Environmentally Aware Consulting Network) where she worked with a national ice cream chain to reduce their emissions and transform their hiring practices to be more inclusive and equitable. She actively mentored the junior members of her team, meeting with them individually (outside of group meetings) to provide additional one-on-one support. At the end of the year, she was voted BEACN President by her peers, which reflects her commitment to the organizations she is a part of.

Garima has an incredible amount of relevant work experience that make her a great candidate for the EPA National Science Advisory Board. She worked at the National Aeronautics and Space Administration (NASA) - Ames Research center, working on Climate Data Research and Management, at UC Berkeley doing atmospheric chemistry modeling, and at the National Ocean and Atmospheric Administration (NOAA) as a data scientist working on climate impacts on fisheries management and oceanic health. Garima was a researcher at the University of Hawaii, Manoa studying orthographic atmospheric science.

Garima's educational background makes her a great candidate for a position on the advisory board. She was a Regents' and Chancellor's Scholar at UC Berkeley, where she received a B.S. in Civil and Environmental Engineering, a B.A. in Data Science, and a minor in Electrical Engineering and Computer Science. She is currently a PhD Candidate at Columbia University.

While serving on the board, Garima would be able to apply her experiences volunteering, working, and researching environmental issues to amplify marginalized voices and further environmental justice efforts. Her studies and actions make her an exemplary candidate for a position on the EPA Science Advisory Board, and she has my full recommendation for a spot.

If you have any further questions, please feel free to contact me here at Sam.Good@waterboards.ca.gov or (949) 500-0102.

Best,
Sam Good

From: [DOERING, OTTO](#)
To: [Armitage, Thomas](#)
Subject: Comment on SAB candidate Dominique van der Mensbrugghe
Date: Friday, June 4, 2021 4:10:24 PM

Dear Tom,

I highly recommend Dominique van der Mensbrugghe as an excellent economist that could fill an important gap that has at times existed in the past in the SAB membership. He is an experienced economic systems modeler. His group's products are used around the world for policy decisions. This is someone who, from his long experience, has almost extra sensory judgment on questions of reliability and relevance of economic and other models. As models are increasingly used by EPA and others, it is critically important to have members on the SAB with the experience and judgment from years of modeling experience. Since much of his modeling work has been for institutions that make decisions, he has also suffered the ex-post experience of seeing whether the work was on target or not. He is an excellent team leader, collaborator, and a pleasure to work with individually. His recent work involves integrated assessment models that include much more than economics - particularly climate related issues. He would make an important and unique contribution to the SAB.

Otto Doering
SAB Member 2009-2014 and 2016-2021

From: [Amy Liu](#)
To: [Armitage, Thomas](#)
Subject: [EPA Advisory Board Nomination] Comments for Garima Raheja
Date: Friday, June 4, 2021 3:45:54 PM

Dear Mr. Thomas Armitage:

My name is Amy Liu, an incoming Atmospheric Sciences PhD student at University of Washington, Seattle. I am reaching out to submit public comments regarding the nomination of Garima Raheja to the EPA's Science Advisory Board:

Garima has been a strong advocate for diversity in the scientific community throughout the time I have known her. She is active in participating in programs that promote science communication, diversity in the sciences, and environmental justice. On a personal level, Garima has always been willing to offer support and provide sound advice. I have also seen Garima perform research and present her findings to the larger scientific community, and I can vouch that she is an exceptional researcher, passionate about the work she does. I strongly believe that her experiences, strength as a researcher and advocate, and her energy will be an amazing asset to the EPA's Science Advisory Board.

Please feel free to reach out if you have any questions. You can reach me through this email (amy.x.liu@berkeley.edu)

Sincerely,
Amy Liu

From: [DOERING, OTTO](#)
To: [Armitage, Thomas](#)
Subject: Comment on candidate for the SAB, Sylvie Brouder
Date: Friday, June 4, 2021 3:41:19 PM

Dear Tom,

I highly recommend the appointment of Prof. Sylvie Brouder to the SAB. She has already had experience on the SAB some years ago, so she would hit the ground running. It is most important that the SAB has good representation from agriculture given the environmental impact of the sector and its potential role in climate mitigation. She is a 'rock star' and well recognized in the agricultural science community for her work on water quality, agroecology, and nutrient cycling. She is superb to work with in a team and also recognized as a leader. She has extensive field experience, so she is well grounded in understanding why agricultural production systems operate as they do, given the human and economic factors that drive decisions. She recognizes the trade-offs between what science might dictate and what might be possible on the landscape. She is an excellent communicator and just a privilege to work with. You could not do better given the breadth and depth of her knowledge and experience.

Otto Doering
Former Chair SAB Agricultural Sciences Committee.

From: [Ananya Raghavan](#)
To: [Armitage, Thomas](#)
Cc: garima.raheja@columbia.edu
Subject: Garima Raheja for EPA Science Advisory Board
Date: Friday, June 4, 2021 3:16:04 PM

Hello,

I hope this email finds you well. I am writing in support of appointing Garima Raheja to the EPA Science Advisory Board.

In the time I have known Garima, she has been a hardworking, dedicated, and fiercely passionate community advocate. I met Garima through BEACN, a UC Berkeley based environmental consulting club, where she held workshops and discussions on integrating a focus on Environmental Justice to not only the consulting work the club did, but other aspects of work members did in their academic and professional development. She has extensive work experience in community organizing, implementing her technical skills in engineering and data science to bolster and support this work, and working with differently oriented entities, whether they are government entities, non-profits, research institutes, or others, and that will equip her to serve well in this role. She is passionate about mentoring and uplifting young people who aspire to work in similar areas to her, and her passion and dedication to not only her work but also supporting others will be invaluable for this role.

Thank you for your time.

Best,
Ananya Raghavan
Environmental Studies and Data Science Student at UC Berkeley

From: [Sharon Musa](#)
To: [Armitage, Thomas](#)
Subject: Support Shanna's nomination for EPA Science Advisory Board
Date: Friday, June 4, 2021 3:14:15 PM

I would like to strongly support the nomination of Ms. Shanna Edberg. In my role at The Wilderness Society, I have had the opportunity to work on a few pieces of legislation, all widening access to natural spaces with Ms. Edberg and attend an advocacy week that she helped to organize. She has always demonstrated control of the issues in her portfolio. I believe that her practitioner background is an asset that the Advisory Board could use to help round out perspectives, particularly on environmental justice related issues. I could not think of a more capable and thoughtful candidate for this position and she has my full support.

Sharon Musa (she/her/hers)
Policy and Recreation Partnerships Fellow
The Wilderness Society
ph 202.503.9926

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From: [Arthi B](#)
To: [Armitage, Thomas](#)
Cc: garima.raheja@columbia.edu
Subject: Garima Raheja EPA Science Advisory Board
Date: Friday, June 4, 2021 1:10:11 PM

Hi Dr. Armitage,

I'm writing to you to enthusiastically recommend Garima Raheja for the EPA's Science Advisory Board. I am a Business Consultant at ZS Associates, a life sciences consulting firm. I have known Garima for 4 years in a professional capacity. We were colleagues working in the same environmental consulting club (BEACN) at UC Berkeley.

Garima's passion for environmental stewardship and environmental justice is undeniable from the moment anyone meets her. After witnessing the unacceptable air pollution levels in her hometown, Delhi, Garima developed a deep interest in atmospheric chemistry. During her undergraduate and graduate careers, she conducted extensive research in atmospheric chemistry and has made remarkable contributions to this body of research. As BEACN's President, Garima spearheaded important initiatives to create a more inclusive club, enhance our impact for our clients and on our campus, and integrate environmental justice conversations into the fabric of our club. She hosted the club's first Environmental Justice workshop, encouraging club members to better understand the intersectionality of climate justice with other social justice causes.

At the EPA, Garima will bring her exceptional knowledge of environmental justice issues as well as her unyielding commitment to pursue equity and justice. I want to highlight the moral leadership, integrity, and character that Garima has displayed time and again in my time with her. Whether it is community organizing, conducting environmental justice workshops, researching the impacts of air pollution, or following a plant-based diet, it is evident that Garima lives into her values and actively pursues equity in all that she does. I can't think of a more fitting candidate for the Science Advisory Board at the EPA.

Please contact me via email or phone if you have any further questions: (916)-778-8250.

Best,
Arthi Bobbala

From: [Monica Tibbits-Nutt](#)
To: [Armitage, Thomas](#)
Subject: Dr. Tracy Corley Recommendation
Date: Friday, June 4, 2021 12:10:46 PM
Attachments: [image001\[92\].png](#)
[image002.png](#)
[image003.png](#)
[image004.png](#)

Dear Dr. Armitage,

I am writing to highly recommend that Dr. Corley be selected to join the Environmental Protection Agency's Science Advisory Board. I have enjoyed working with Dr. Corley for the last several years in my work in transportation, equity, and public transit. As a public official, this partnership has been essential in reviewing and creating more comprehensive policies regarding transportation and the environmental impact of the multiple modes used in the Commonwealth. Through this partnership, I am pleased to recommend Dr. Corley to serve on the committee.

I believe her overall qualities and skillset are clearly defined in her biography and the stated talents she brings to her work. Beyond this, she has served in many unofficial roles and collaborations to bring those talents and build the knowledge and skill set of her colleagues. She has made herself available and has been consistent in pushing the research in our communities and the Commonwealth. She can bring together multiple industries and collaborators in working towards a shared goal. Moreover, this particular recommendation, helping to reduce GHG, expand access and options for EJ communities, and bridge the gap between the disciplines who play a part in these environmental issues.

She is unbelievably talented, humble, and a guiding force in the research community. She brings a scientific mind and an empathetic heart to all of her work. She deeply cares about her work and the impact it can have on communities. She can understand the public and private forces at play and help those groups find common ground through her work in the research community. She moves beyond the qualitative and illustrates that the qualitative side is essential in understanding what is needed and what steps are needed to get there. She is the person I always call on, and I know she will give me a straight answer. Furthermore, if she cannot, she will know who can. I cannot imagine a better candidate for the committee, and I guarantee she will bring a unique perspective and a willingness to work to increase that perspective.

Best-

Monica G. Tibbits-Nutt AICP, LEED AP BD+C
Executive Director of the 128 Business Council
Director of the Massachusetts Department of Transportation
Vice-Chair of the FMCB, the Board of the Massachusetts Bay Transportation Authority

Please note: If there are other recipients cc'd on this message, it is important to respond to all.

Monica G. Tibbits-Nutt, AICP, LEED AP BD+C

Pronouns: She/Her ([Here's why!](#))

Executive Director
128 Business Council

 mtibbits@128bc.org

 www.128bc.org



From: [Veronica Bitting](#)
To: [Armitage, Thomas](#)
Cc: [Veronica Bitting](#)
Subject: PUBLIC COMMENT: Dr. Sacoby Miguel Wilson - U.S. EPA Scientific Advisory Board
Date: Friday, June 4, 2021 12:10:30 PM

Good morning Dr. Thomas Armitage,

Please accept this recommendation and public comment in support of Dr. Sacoby M. Wilson's candidacy as U.S. Environmental Protection Agency's (US EPA) Scientific Advisory Board. He is relatable, can and will provide the board with diverse perspectives, experiences and expertise.

Dr. Sacoby Miguel Wilson has served as an environmental health scientist for the past several years and has been dedicated to conducting applied, action-oriented research on environmental justice and health inequities in communities throughout North Carolina and the United States. I sincerely hope that my personal public comment will receive considerable and serious consideration and support Dr. Sacoby M. Wilson's nomination for service with the US Environmental Protection Agency's Scientific Advisory Board (SAB).

I have known and worked with Dr. Sacoby M. Wilson several years, witnessed his commitment to advancing environmental justice principles and practices at local and federal levels. I am certain that Dr. Sacoby M. Wilson will commit to continually encouraging and challenging ALL of us to apply community based research and science with favorable outcomes, ensure equity and inclusion at every level of applying scientific principles and ensuring that scientific and university professionals (Historically Black Colleges and Universities included) partner with communities, nonprofit organizations, municipalities, states and corporations, ensuring improved results relative to climate, environmental and spatial justice.

I've witnessed Dr. Sacoby Wilson as he adamantly and professionally ensured that partnerships ensured the quality and relevance of scientific and technical information being used, the provision of scientific advice and grassroots advocacy and inclusion in the state of North Carolina. I'm certain that he will continue to do the same as an empathetic, perceptive, enlightened and prepared and needed addition with the U.S. EPA's Scientific Advisory Board.

I hope that you and decision makers relative to the selection and appointment of US EPA's Scientific Advisory Board will consider Dr. Sacoby M. Wilson, brilliant scientist, advocate, instructor, ally, researcher, advisor, supportive, relatable and relevant supporter of grassroots organizations, Historically Black Colleges and Universities, any other university student and scientist, as well as America's general public.

Sincere and grateful regards,

[Veronica L. Bitting, Director, Equity & Economic Development](#)
[Neighbors for Better Neighborhoods](#)

1650 Ivy Ave | Winston-Salem, NC 27105
(D) (336) 650-6070 (F) (336) 602-2475
www.nbncommunity.org

Safe, Just and Self Determined Neighborhoods



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From: [Valocchi, Albert J](#)
To: [Armitage, Thomas](#)
Cc: [Bloomer, Bryan](#)
Subject: comments on candidate for EPA-SAB - Dr. Odencrantz
Date: Friday, June 4, 2021 11:48:05 AM
Attachments: [Joe_O_EPA.pdf](#)

Dear Dr. Armitage,

I attach my comments on Dr. Joseph Odencrantz, who is a candidate for service on the U.S. EPA Science Advisory Board.

Feel free to contact me if you have any questions.

Yours truly,
A. J. Valocchi

=====
valocchi@illinois.edu
cee.illinois.edu/faculty/albertvalocchi
3121 Digital Computer Lab

Albert J. Valocchi
Pronouns: he/him/his
Abel Bliss Professor Emeritus
Department of Civil & Environmental Engineering MC-250
University of Illinois at Urbana-Champaign
205 N. Mathews Urbana, IL 61801
phone: (217) 333-3176
=====

From: [Reeder, Raven](#)
To: [Armitage, Thomas](#)
Subject: Letter of Support for Dr. Crystal Upperman to Join the Scientific Advisory Board
Date: Friday, June 4, 2021 11:24:43 AM
Attachments: [CUpperman Recommendation Letter.pdf](#)

Good Morning,

Please find attached a letter from Congresswoman Norton in support of Dr. Crystal Upperman's nomination to the EPA's Scientific Advisory Board.

Thank you,

Raven T. Reeder

Chief of Staff

Congresswoman Eleanor Holmes Norton

2136 Rayburn House Office Building

Washington, DC 20515

(202) 225-8050

[Website](#) | [Facebook](#) | [Twitter](#)

From: [TIMOTHY WILLIAM COLLINS](#)
To: [Armitage, Thomas](#)
Subject: EPA Science Advisory Board Public Comment
Date: Friday, June 4, 2021 11:10:47 AM

Dear Dr. Armitage:

I am writing in strong support of the nomination of Prof. Jayajit Chakraborty to the EPA Science Advisory Board. I have known Prof. Chakraborty for more than 12 years as a professional colleague and research collaborator, and through the American Association of Geographers of which we are both members. From January 2015 through December 2017, I was Prof. Chakraborty's faculty colleague in the Department of Sociology & Anthropology at the University of Texas at El Paso (UTEP). I moved to the University of Utah as of January 1, 2018.

Prof. Chakraborty is an internationally recognized leader in the field of environmental justice (EJ) research and geographic information science (GIScience), as demonstrated by his sustained contributions over more than two decades. In the past several years, I ascertain that he has ascended to the top of the EJ research field, based on his editorship of two special issues in this research area published in good journals (*Environmental Research Letters*, *International Journal of Environmental Research and Public Health*) as well as his co-editorship of the *Routledge Handbook of Environmental Justice*. The *Handbook* in particular is internationally recognized as the state-of-art compendium of the EJ research field. In addition to his numerous publications in the most prestigious journals in geography, GIScience, and public health, Prof. Chakraborty has been funded as Principal Investigator on research awards from the National Science Foundation, Environmental Protection Agency, American Association of Geographers, Federal Highway Administration, and Florida Department of Transportation, among others. Prof. Chakraborty also has expertise in GIScience laboratory administration and management to support research and pedagogical innovations, and he has proven himself to be an outstanding teacher and mentor to students. He has taken on leadership roles within his home university as well as in the American Association of Geographers.

More importantly for this role with the EPA, as a distinguished EJ scholar and GIScientist, Prof. Chakraborty has been actively involved in the formulation of policy solutions for addressing urban environmental management issues in the U.S., through his work with the Environmental Protection Agency, the National Institutes of Health, and other federal and state agencies. Throughout his career, Prof. Chakraborty has also played an active role in improving the reputation of his home university by building and sustaining collaborative partnerships with research institutions, both internationally and within the U.S. After Prof. Chakraborty arrived as a colleague of mine at the University of Texas at El Paso (UTEP) more than six years ago, his cumulative experience was extremely beneficial as he made critical scientific and

administrative decisions that enhanced the profile of UTEP as an emerging research university, while contributing to high quality student training. For example, upon his arrival at UTEP, Prof. Chakraborty applied for and received an award of \$500,000 from the Science and Technology Acquisition and Retention (STARS) program of The University of Texas System, for acquisition of state-of-the-art GIScience research and pedagogy equipment; and he has administered those funds to create a state-of-art geospatial research and teaching center at UTEP, named the Socio-Environmental and Geospatial Analysis (SEGA) Lab. The SEGA Lab is already being heavily used by the campus geospatial analysis community, which extends across multiple colleges and departments. Prof. Chakraborty recently mentioned to me that he cannot accommodate all of the propositions for research collaborations he receives through the SEGA Lab.

In his limited time at UTEP, Prof. Chakraborty has built successful research and student training collaborations focused on urban EJ (with Prof. Sara Grineski and I) that have led to multiple NSF awards and peer-reviewed publications in top journals. Based on our collaborations, Prof. Chakraborty has proven to be a highly productive and dedicated investigator who boldly embraces new scholarly opportunities and implements research meticulously and efficiently. This is evident from the depth and breadth of his EJ and GIScience research contributions, which range from analyzing social disparities in exposure to urban air pollutants, to modelling of local disaster and emergency evacuation capacities, to examining social and spatial factors influencing access to the internet. He is wholeheartedly dedicated to enhancing integrative knowledge on environmental and health-related social science topics. Prof. Chakraborty has also demonstrated the intellectual proclivity to pursue research on societally relevant problems at the society-environment interface as they emerge, something exemplified by his recent dive into research on social disparities in COVID-19. His keen ability to look across the boundaries of various disciplines and establish integrative research is a valuable asset. There is no doubt that Prof. Chakraborty would greatly strengthen the EPA Science Advisory Board.

In summary, Prof. Chakraborty's experience, enthusiasm, and strong passion for research on environmental social science topics, as well as his commitment to teaching and policy engagement, would advance the work of the EPA Science Advisory Board. I believe that Prof. Chakraborty is exceptionally well prepared to serve in the role.

Sincerely,

Timothy W. Collins
Professor of Geography
Director of the Center for Natural and Technological Hazards
University of Utah

From: [Tilak Misner](#)
To: [Armitage, Thomas](#)
Cc: garima.raheja@columbia.edu
Subject: Public Comment for EPA Science Advisory Board
Date: Friday, June 4, 2021 11:01:40 AM

Hi Dr. Armitage,

I'm writing in support of Garima Raheja's candidacy for the EPA's Science Advisory Board.

I'm currently the president of BEACN, a sustainability-focused consulting organization that Garima previously led—and transformed. Even 3 years after Garima was president of BEACN, our organization still immensely benefits from her work. When she was president, Garima completely revamped onboarding processes for new associates and new managers. She met individually with them to build their confidence, and used innovative development strategies to build team dynamics and teach them effective work strategies. Because of how effective it was, we still use her onboarding pedagogy today.

Garima also ensured that environmental justice was at the forefront of our discussions. Combining her extensive research background in environmental justice with her tangible passion for the topic, Garima directed meetings and presentations to educate our associate consultants about how environmental justice intersected with their work. After meetings that Garima led, I had over a dozen members come up to me to tell me how much they learned. She led difficult conversations with ease and grace—ensuring that everyone felt welcomed and respected, while centering the marginalized communities most impacted by EJ issues.

She also created new environmental justice modules for associates to consider as they performed sustainability strategy work, ensuring that BEACN's work is equitable. As a result of her actions, BEACN associates and managers vastly improved their EJ literacy. This opened up new consulting projects to the organization, while improving the quality and equity of our work. I credit Garima almost entirely for educating over 50 members about environmental justice, and remain impressed by her ability to lead difficult conversations.

In addition to benefiting from the many processes that Garima created, BEACN immensely benefits from her continued mentorship. Due to her passion and depth of knowledge, Garima mentors numerous BEACN associates interested in environmental justice. She meets for multiple hours with them, sharing her experience and offering to connect them with research opportunities.

Especially impactful is her commitment to mentoring underrepresented minorities, like first-generation college students and women of color. Despite the extensive commitments she already has and the numerous accomplishments behind her, Garima remains committed to helping anyone. I can personally attest to her impact, as I've worked with BEACN associates whose confidence and quality of work have skyrocketed after speaking with Garima. One associate in particular mentioned that her conversations with Garima gave her the motivation and enthusiasm to continue pursuing a career in academia, despite previously feeling like academia was closed to someone from her background. Garima brings an invaluable combination of expertise and approachability that make her such an asset.

Garima is unparalleled in her ability to make long-lasting, positive impacts on anything

she touches. Through her mentorship and work in BEACN, I can attest to her passion for environmental equity work and her unmatched work ethic. The EPA would be beyond lucky to have her.

-Tilak

From: [Morin, Lydia](#)
To: [Armitage, Thomas](#)
Subject: Comment in support of Dr. Shanti Gamper-Rabindran for EPA SAB
Date: Friday, June 4, 2021 10:43:40 AM

Dear Dr. Armitage,

This email is to provide a comment in support of Dr. Shanti Gamper-Rabindran for the EPA SAB. Not only does she have all-star science credentials but has championed research, public education and productive policy design around one of most impactful and controversial equity and environment issues in our region: shale gas. Dr. Gamper-Rabindran's integrity, commitment, and expertise will serve the Scientific Advisory Board better than most. I'm honored to be working with her at GSPIA and am incredibly supportive of this opportunity.

Stay well and stay CONNECTed

Lydia Morin, MPM, AP

Executive Director

CONNECT (Congress of Neighboring Communities)

University of Pittsburgh

www.connect.pitt.edu

she/her/hers

From: [Eric Gustafson](#)
To: [Armitage, Thomas](#)
Subject: Supporting Shanna Edberg's nomination to the EPA Science Advisory Board
Date: Friday, June 4, 2021 1:18:22 AM

Dr. Armitage,

I'm writing in support of Shanna Edberg's nomination to the EPA's Science Advisory Board. Her strong background on both environmental conservation programs and public policy make her an ideal candidate for the board's focus on environmental justice.

While one may be quick to judge Ms. Edberg's credentials as different from the many esteemed professors and industry leaders on the applicant list, I see her experience as an asset to the SAB. Her hands-on field work has put her in direct contact with the impacts our changing environment has on developing and under-served communities around the world. Her efforts even span numerous environmental concerns, from advocating for clean water access with the UN, to fighting for rainforest conservation in the Amazon. Her work would lend the board some perspective it might otherwise lack; after all, you can't synthesize "environmental justice" in a lab.

That said, the board's work is to inform public policy, and Ms. Edberg has continually shown she is no stranger to the analytical thinking behind a truly-informed policy decision. Through her current work with the Hispanic Access Foundation, she examines the intersection between the racial and economic divides in our country with our environment, and backs it up, empirically. Her many data-driven reports and presentations, on topics such as nature-deprived latino communities, come with the well-researched statistics needed to quantify both the problem, and the solution. To actually address the problems they highlight, Shanna and the HAF have leveraged her formal background in policy to advocate for specific, reasonable, and actionable US policy changes. This model of contribution aligns well with the SAB's own, and these experiences will enable her to assist significantly and meaningfully to the board's mission, right away.

In conclusion, I urge you to select Shanna Edberg for the Science Advisory Board; her unique blend of both qualitative and quantitative experience make her an ideal candidate to further the EPA's work on environmental justice.

Thank you,

Dr. Eric Gustafson, PhD.

From: [Lauren Johnson](#)
To: [Armitage, Thomas](#)
Subject: Highly Recommend Dr. Susan Anenberg for the US EPA Scientific Advisory Board
Date: Thursday, June 3, 2021 2:49:07 PM

Good afternoon,

I am writing to also recommend Dr. Susan Anenberg for the US EPA Scientific Advisory Board.

I have been working with Dr. Anenberg as a Climate and Health Graduate Research Assistant in the Anenberg Group for close to a year now, and I have to say she is the finest air quality technical expert, scholar, innovator, and mentor I have ever had the pleasure of working with.

During my one year of working with her, she has successfully pulled together numerous grant funds, research papers, and collaborative projects that has now resulted in a Climate and Health Institute at George Washington University to secure their status as a leader in climate and health.

Her visionary leadership is commendable and inspiring, where she constantly pushes and motivates me and everyone she interacts with to go bigger and push above and beyond to make meaningful change and contributions at the nexus of public health, climate change, and environmental health policy.

Her drive and effortlessness is simply impressive with the amount of projects and students she successfully manages, which has recently culminated in her receiving tenure at George Washington University.

As an expert on the health impacts of climate change and health co-benefits of climate mitigation and adaptation, she plays an invaluable role in innovating solutions to the climate crisis while also prioritizing those most affected and marginalized by its effects.

Her contribution to the US EPA Scientific Advisory Board would be incalculable given that the scientific community has to reckon with the compounding cumulative public health impacts of the climate crisis, COVID-19, and systemic racism in the coming years, where Dr. Anenberg is uniquely skilled and positioned to be a part of the solution for meaningful change in all of those areas.

Therefore without a doubt, I highly recommend Dr. Susan Anenberg to the US EPA Scientific Advisory Board.

Thank you and please feel free to reach out if you have additional questions.

Best Regards,
Lauren Johnson, MPH(c)

--

Lauren Sinclair Johnson

M.P.H. Environmental Health Science and Policy Candidate
Environmental Justice Action Network President, Founder

The George Washington University
Teach For America Miami-Dade Corps 2018
A.B. Earth and Planetary Sciences: Geochemistry
Washington University in St. Louis Class of 2018
Phi Beta Kappa

From: [Ben Friedman](#)
To: [Armitage, Thomas](#)
Subject: In support of Shanna Edberg for EPA Science Advisory Board
Date: Thursday, June 3, 2021 2:40:38 PM

Good afternoon--

I am writing to endorse Shanna Edberg's nomination for the EPA Science Advisory Board. She brings a critical perspective to the board's Environmental Justice committee as a unfailingly disciplined, focused, and creative advocate for a sustainable and just world. We need more advocates like Shanna-- practitioners who represent the rights and dignity of Americans while also representing a new generation of leaders that full reflect the diversity of America.

Elect Shanna!

Ben Friedman, California Program Manager for Western Conservation Foundation.

--

Ben Friedman
California Program Manager
Western Conservation Foundation
917.319.0216
ben@wcfnd.org

From: mtconnolly@frontiernet.net
To: [Armitage, Thomas](#)
Subject: Scientific Advisory Board (SAB) nomination
Date: Thursday, June 3, 2021 2:23:55 PM

Dr. Armitage,

Thank you for your time and for reading my recommendation regarding Dr. John O'Brien's nomination to the SAB.

I am a retired Optical Metrologist who last worked at NASA aligning the optical system on the James Webb Space Telescope.

<https://www.jwst.nasa.gov/>

I am a lifelong friend of John. We grew up together in Pittsford, NY a suburb of Rochester, NY. We share an interest in music, played together in bands throughout high school and college, and to this day still write and record music together.

Music is our hobby but first and foremost, we have both enjoyed very successful professional careers. Me in the field of Optical Engineering, and John in the Energy Sector.

As you can see from John's resume, he has *extensive* experience in scientific, economic, social, and regulatory issues.

Rather than take more of your time reiterating what you have already seen on his resume, I will simply state that I believe John to be an excellent choice and will be a professional, respected addition to your board.

I would be happy to answer any questions you might have regarding John so please don't hesitate to contact me if needed.

Again, thank you for your time and for your consideration of adding my good friend John O'Brien to the Scientific Advisory Board.

best,
Mark T. Connolly

From: [Lauren Johnson](#)
To: [Armitage, Thomas](#)
Subject: Dr. Sacoby Wilson for the US EPA Scientific Advisory Board
Date: Thursday, June 3, 2021 12:31:19 PM

Good afternoon,

I am writing to wholeheartedly recommend Dr. Sacoby Wilson for the US EPA Scientific Advisory Board.

As a public health masters student at George Washington University, I met Dr. Wilson very early on as a student and immediately saw him as a leader, advocate, activist, and mentor for students and others alike passionate in Environmental Justice (EJ).

Never before had I seen an academic scientist so dedicated and involved in practicing community work, and he reignited my passion to continue my education as a fellow African American in the environmental health and justice field.

After hearing him at a EJ conference he implemented and then at a webinar at my school, he immediately offered to mentor and give advice to my fledgling EJ organization that I started last fall that already has over 75 members and fostered a collaboration with the student chapter of his 17 for Peace and Justice organization he founded.

His wisdom was sincere and much appreciated and demonstrated the work we need to do in valuing and uplifting African American scientists and scholars in environmental science.

After that interaction, I was involved with a NIH proposal with him to implement air quality monitoring and community engagement in the DMV area. His talents and expertise are truly limitless!

He has already made such an impact and mark in environmental health science as a leading scholar on EJ and health, and I have no doubts that his calling is to continue to innovate the scientific field both nationally and around the world.

His perspective and drive is priceless which is a necessary component to the US EPA Scientific Advisory Board. Without his involvement, the board would be worse off and miss an opportunity to uplift and promote EJ and environmental health on a national scale. Therefore, I 100% recommend Dr. Sacoby Wilson for the US EPA Scientific Advisory Board.

Thank you and please feel free to reach out if you have any more questions.

Best,
Lauren Johnson, MPH(c)

--

Lauren Sinclair Johnson

M.P.H. Environmental Health Science and Policy Candidate
Environmental Justice Action Network President, Founder
The George Washington University
Teach For America Miami-Dade Corps 2018

A.B. Earth and Planetary Sciences: Geochemistry
Washington University in St. Louis Class of 2018
Phi Beta Kappa

From: [Campbell, Howard B.](#)
To: [Armitage, Thomas](#)
Subject: Letter in support of Jay Chakraborty for EPA subcommittee
Date: Thursday, June 3, 2021 12:25:15 PM
Attachments: [0129_001.pdf](#)

Dear Mr. Armitage, attached please find my letter of support for Dr. Jay Chakraborty.

Sincerely,
Howard

Howard Campbell
Professor of Anthropology and Chairman
Endowed Professor of Western Hemispheric Trade Policy Studies
University of Texas at El Paso
Department of Sociology & Anthropology
500 W. University Ave.
El Paso, TX 79968

Ph.: (915) 747-7356

E-mail: hcampbel@UTEP.edu fax: (915) 747-5505

From: [Melissa Collier](#)
To: [Armitage, Thomas](#)
Subject: SUPPORT LETTER: Dr. Sacoby Wilson for the US Environmental Protection Agency's Scientific Advisory Board (SAB).
Date: Thursday, June 3, 2021 10:25:34 AM

Dr. Thomas Armitage, Designated Federal Officer
US Environmental Protection Agency
Scientific Advisory Board Staff Office
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Dr. Thomas Armitage:

I am Melissa McGee-Collier, Director of the Office of Community Engagement for the Mississippi (MS) Department of Environmental Quality. I fully support the nomination of Dr. Sacoby Miguel Wilson to serve on the US Environmental Protection Agency's Scientific Advisory Board (SAB).

Over the past 6 years, I have come to know Dr. Wilson through our service as members of the National Environmental Justice Advisory Council and the work that he has done for the communities of MS. Dr. Wilson is a strong advocate for communities fighting against environmental injustice and environmental health disparities in the DMV region and across the nation. Not only is he a profound public health scientist, but he has tremendous aptitude for being able to take the most complicated scientific environmental and health data and put it in layman's terms. His expertise in his field, coupled with his passion for communities, is an asset to any organization.

I have seen the success that Dr. Wilson has in leveraging institutional resources to support frontline and fence-line communities facing environmental and climate injustices. I have no doubt that he would seek to continue these efforts while also personally advancing environmental justice principles and practices at the federal level. I am excited to provide this letter of support and will be glad to make myself available should you need to speak with me concerning this letter. You may reach me at 601-961-5025 or by email at mcollier@mdeq.ms.gov.

Sincerely,

Melissa McGee-Collier, MPPA, CPM, BCEEM

*Director Office of Community Engagement
MS Department of Environmental Quality
PO Box 2249
Jackson, MS 39225*

From: [Shelie Miller](#)
To: [Armitage, Thomas](#)
Subject: SAB support letter for Jeremiah Johnson
Date: Thursday, June 3, 2021 9:49:43 AM
Attachments: [Johnson EPA SAB.doc.docx](#)

Dear Dr. Armitage,

Please see the attached letter of support for consideration of appointing Dr. Jeremiah Johnson to the US EPA Science Advisory Board.

Sincerely,

Shelie Miller

Shelie Miller
Jonathan W. Bulkley Collegiate Professor in Sustainable Systems
Director, [Program in the Environment](#)
Associate Professor, [School for Environment and Sustainability](#)
University of Michigan
she/her

From: [Stephen M. Roth](#)
To: [Armitage, Thomas](#)
Cc: [sroth1](#)
Subject: Support for Dr. Sacoby Wilson, SAB Candidate
Date: Thursday, June 3, 2021 9:38:57 AM

Dear Dr. Armitage,

I enthusiastically support Dr. Sacoby Wilson for a position on the EPA Scientific Advisory Board. Dr. Wilson is an Associate Professor in the University of Maryland School of Public Health's Maryland Institute for Applied Environmental Health, for which I serve as the Director. I've worked closely with Dr. Wilson for the past several years. I can think of few scientists in environmental justice who have such a strong impact on our community as Dr. Wilson. His work on environmental justice and health equity in our local and regional communities has improved health outcomes while raising the visibility and profile of our school and university. His impactful work was recognized in 2015 with his selection for the American Public Health Association's Damu Smith Environmental Justice Award. He would make an outstanding contribution to the EPA SAB.

Dr. Wilson's work is centrally focused on environmental justice, identifying environmental inequities and actively working with regional community partners to advocate for change. His work spans the gamut of environmental health issues, from air and water quality to land use issues; "cumulative burden of risk" is an apt descriptor of his approach, as he considers what are often multiple exposures negatively impacting over-burdened and often minority underserved communities. Dr. Wilson is truly extraordinary in the strong impact his work has both in the larger field of environmental justice and for the communities he serves.

Dr. Wilson's partnerships are many, including regional community groups and HBCUs. He is a founding member of the Ivy City Right to Breathe Partnership, a partnership with the Ivy City Civic Association, Empower DC, Howard University, George Washington University, and Trinity College that has been collecting data on fossil fuel combustion by-products and related health outcomes. Dr. Wilson has engaged extensively with underserved communities on Maryland's Eastern Shore; Delaware; Uniontown, Alabama; the Anacostia River region; and recent partnerships in Buzzard Point (DC), and Bladensburg and Brandywine, MD. He is a member of the Patuxent Riverkeeper's governing board and member of the PG County Environmental Justice Commission, among other advisory boards. Dr. Wilson's extensive activities have allowed him to secure grant funding to support the 2019 Citizen Science Association Conference, which emphasizes community engagement in science and advocacy. He has hosted an annual Environmental Justice Symposium at the University of Maryland for the past several years. His [website](#) has a full listing of his many community partnerships. <https://www.ccejh.center/>

As the EPA continues its pursuit of a healthier environment for all citizens, having voices like Dr. Wilson on the SAB is critically important to ensure that the EPA connects with both the scientific facts and the communities it serves. Dr. Wilson's unique work sits in that nexus and he will be a valuable asset to the EPA SAB. Please reach out if you have any questions about this recommendation.

Sincerely,
Steve

Stephen M. Roth, Ph.D. (he/him)

Professor & Associate Dean for Academic and Faculty Affairs
Director, Maryland Institute for Applied Environmental Health
[School of Public Health](#)
[University of Maryland](#)
College Park, MD 20742
301-405-2504; fax 301-405-8397

From: [Tony Reames](#)
To: [Armitage, Thomas](#)
Subject: I Support Dr. Sacoby Wilson for EPA SAB
Date: Thursday, June 3, 2021 2:47:51 AM

Dear Dr. Armitage,

I'm am Tony Reames, assistant professor and director of the Urban Energy Justice Lab at the University of Michigan. I write you to express my support of Dr. Sacoby Wilson for EPA's Scientific Advisory Board. I have known Dr. Wilson for nearly five years but have known of him and his work for much longer. Dr. Wilson is a leading environmental justice scholar. Moreover, he is a trusted advisor to government agencies, communities, practitioners, and other academics on issues of environmental justice and public health. He is Editor-in-Chief of the journal Environmental Justice which he has transformed into a top tier publication, driving the field of environmental justice through scientific research as well as applied case studies from frontline communities. I believe Dr. Wilson is just the voice needed on EPA's SAB.

Best,

Tony G. Reames, PhD, PE
Assistant Professor
University of Michigan School for Environment & Sustainability
Urban Energy Justice Lab
www.thegreenscholar.com
www.urbanenergyjusticelab.com
Voicemail: (734) 647-3916

From: [Nance, Earthea](#)
To: [Armitage, Thomas](#)
Subject: support for Sacoby Wilson's nomination to SAB
Date: Wednesday, June 2, 2021 10:36:38 PM

Dear Dr. Armitage,

I wholeheartedly support Dr. Sacoby Wilson for the EPA Science Advisory Board. I have known Sacoby for over 5 years through our work in environmental justice research. Dr. Wilson is a tireless researcher and an influential voice on both the scientific and the social aspects of environmental health. He has a long track record of both disciplinary and interdisciplinary publications and a long list of service activities that demonstrate his passion and drive. Sacoby's presence on the Science Advisory Board would bring new insight and a fresh perspective to national environmental policy. Please accept my strongest recommendation.

Sincerely,

Earthea Nance, PhD, PE, CFM
Department of Urban Planning and Environmental Policy
Texas Southern University
3100 Cleburne Street
Houston, TX 77004

Sent from [Mail](#) for Windows 10

From: [Steve Traicoff](#)
To: [Armitage, Thomas](#)
Subject: Recommendation for Dr. John O'Brien to serve on the EPA's Science Advisory Board
Date: Wednesday, June 2, 2021 6:43:12 PM
Attachments: [Recommendation for John O'Brien for EPA Science Advisory Board JOB.pdf](#)

Dr. Armitage,

Please find attached my Letter of Recommendation for Dr. John O'Brien to serve on the EPA's Science Advisory Board (SAB).

For good order, please confirm that you have received this email and can open the attached pdf.

I have known John for nearly 20 years and I strongly believe that he would be a very positive addition to the Board and its various committees.

Feel free to reach back to me for any further details or to answer any questions

Sincerely,

Stephen B. Traicoff

From: [Armstrong, Marc P](#)
To: [Armitage, Thomas](#)
Subject: EPA Science Advisory Board-- Jayajit Chakraborty
Date: Wednesday, June 2, 2021 2:36:42 PM
Attachments: [3C1F07DC9D46403EB00F526554AC712E\[35668268\].png](#)
[Jay_EPA_SAB.pdf](#)

Please see attached.

Thanks,
marc

Marc P. Armstrong
Professor and Collegiate Fellow
Department of Geographical and Sustainability Sciences



From: [Gordon, Terry](#)
To: [Armitage, Thomas](#)
Subject: SAB candidate rec
Date: Wednesday, June 2, 2021 1:45:26 PM

I have known Dr. Rick Peltier for over a decade. In my opinion, he is the future of exposure assessment and the next Petros Koutrakis. His command of air pollution, exposure assessment, chemistry, and international affairs is outstanding. I give him my highest possible recommendation.

TG

MAKE AMERICA GREEN AGAIN!

Terry Gordon, PhD
NYU School of Medicine
Professor of Environmental Medicine
341 East 25th Street
NY, NY 10010
646-754-9450

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From: [Meagan Kittle Autry](#)
To: [Armitage, Thomas](#)
Subject: Public comment for EPA SAB candidate Dr. Jeremiah Johnson
Date: Wednesday, June 2, 2021 1:30:27 PM

Dr. Armitage,

It is my pleasure to write a comment of support for the nomination of Dr. Jeremiah Johnson to the EPA's scientific advisory board. As a colleague of Dr. Johnson's in the Department of Civil, Construction, and Environmental Engineering, I serve on a committee with him. As a committee member, he is a superior collaborator who carefully considers the evidence and information before him, works constructively with others, and maintains impartiality in decision making. Dr. Johnson joined NC State several years ago as a Chancellor's Faculty Excellence program and has since been a leading investigator in emissions impacts, distributed energy storage, and energy policy. You will be hard-pressed to find a more suitable candidate for the board in the area of energy, environment, and sustainability.

Warm regards,
Dr. Meagan Kittle Autry

--

Meagan Kittle Autry, Ph.D. (she/her/elle)
Teaching Assistant Professor & Director of Graduate Professional Development
Department of Civil, Construction, and Environmental Engineering, NC State University
<https://www.ccee.ncsu.edu/people/makittle/>
[Professional Development for CCEE Graduate Students](#)
919.515.7948

From: [Danielle Edberg](#)
To: [Armitage, Thomas](#)
Subject: Comment for Shanna Edberg's EPA Science Advisory Board nomination
Date: Wednesday, June 2, 2021 1:26:30 PM

Mr. Armitage,

I'm writing to provide a comment in support of Shanna Edberg's nomination for the EPA Science Advisory Board.

Growing up with Shanna as a close cousin, she was always extremely passionate. Her continued involvement in a diverse range of initiatives around the environment and social impact illustrate some of the ways in which she has used her passion to find success and fulfillment professionally.

I strongly support Shanna's nomination for this role, and I believe she will bring the right blend of drive, grit and experience to the Science Advisory Board.

Thanks for your consideration.

Best,
Danielle Edberg | [LinkedIn](#)

From: [Emma Fernandez](#)
To: [Armitage, Thomas](#)
Subject: Letter of Support - Dr. Edna L. Negrón-Martinez
Date: Wednesday, June 2, 2021 10:28:22 AM
Attachments: [Letter E Negrón-EPA 5-25-21.pdf](#)
Importance: High

Dear Dr. Armitage:

Attached please find a letter of support to the nomination of Dr. Edna L. Negrón Martínez as a member of the Science Advisory Board (SAB) of the U.S. Environmental Protection Agency (EPA).

Cordially,

Emma

Emma Fernández-Repollet, Ph.D.
Professor Pharmacology
Former Vice President Research and Technology
University of Puerto Rico System
Executive Director and Principal Investigator
Center for Collaborative Research in Health Disparities
UPR Medical Sciences Campus
Tel: 1-787-763-9401
E-mail: e.fernandez@upr.edu

From: [Reynolds, Heather L](#)
To: [Armitage, Thomas](#)
Subject: EPA Science Advisory Board
Date: Wednesday, June 2, 2021 9:49:23 AM

Dear Dr. Armitage,

I'm writing to register my strong support for EPA Science Advisory Board nominee Gabriel Filippelli. I've worked with Gabe for over five years now, and have always found him to be gracious, eloquent and quick thinking. He's passionate about science, environment and equity while at the same time wonderfully collaborative and fair minded.

I also know Ben Kravitz, although we haven't had the opportunity to work together closely. Ben also seems well suited to an advisory board, as a keen, clear thinker and a very collegial person.

Sincerely,

Heather Reynolds
Associate Professor
Department of Biology
Jordan Hall 142
Indiana University
1001 E 3rd Street
Bloomington, IN 47405

Ph: (812) 855-0792
Fax: (812) 855-6705
hlreynol@indiana.edu

From: [Sletten, Steven E.](#)
To: [Armitage, Thomas](#)
Subject: Joe Odencrantz
Date: Tuesday, June 1, 2021 4:57:42 PM

I understand that Joe has been nominated to serve as a member of the USEPA Science Advisory Board. Among other things, Joe is an expert in MTBE water contamination and the numerous issues related to MTBE as a gasoline additive and ultimately, a pollutant. I have been working for the past 15+ years on issues and disputes related to commercial insurance coverage for MTBE-related losses (e.g., potential coverage for clean-up costs and legal expenses associated with claims arising from water pollution caused by MTBE groundwater contamination). Joe worked with us as a consultant to assist counsel in better understanding the technical aspects of MTBE and groundwater pollution related thereto and he was very helpful to our legal team. Joe might have served as a testifying expert if the matter on which he was assisting had gone to trial but it did not. I was grateful for his assistance on our matter and based on that somewhat limited experience I certainly would recommend that he be considered for a position on the Advisory Board.

Sincerely,
Steve Sletten

Steven E. Sletten

GIBSON DUNN

Gibson, Dunn & Crutcher LLP
333 South Grand Avenue, Los Angeles, CA 90071-3197
Tel +1 213.229.7505 • Fax +1 213.229.6505
SSletten@gibsondunn.com • www.gibsondunn.com

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Please see our website at <https://www.gibsondunn.com/> for information regarding the firm and/or our privacy policy.

From: [Rita R. Colwell](#)
To: [Armitage, Thomas](#)
Cc: rcolwell@umd.edu; [Vickie Lord](#)
Subject: EPA Science Advisory Board
Date: Tuesday, June 1, 2021 4:26:15 PM

Dear Dr. Armitage:

I wish to express my strongest endorsement of the nominations of Dr. Gabriel Filippelli and Dr. Susan Anenberg to the EPA Science Advisory Board. I have known both for many years and they are extremely capable, knowledgeable, and experienced geoscientists. Gabriel is Editor of the American Geophysical Union journal, *GeoHealth*, which I founded and, I am happy to report, is thriving under Gabe's able editorship. Susan is a member of the advisory board.

EPA will be very well served by these two excellent scientists.

Should you require additional information, please feel free to contact me either by email or telephone (703-932-9244).

Sincerely,

Rita Colwell, PhD/DSc

Distinguished University Professor

University of Maryland College Park and Johns Hopkins University

Bloomberg School of Public Health

Former Director, National Science Foundation

From: [Hughes, David](#)
To: [Armitage, Thomas](#)
Subject: Recommendation comments for Dr. Matthew McCarthy
Date: Tuesday, June 1, 2021 4:06:48 PM

Hello:

It is with utmost confidence and happiness to respond to your search for advisory committee members and recommend Matt McCarthy as an EPA science advisory board member. Specifically, Matt McCarthy would be best suited on the climate change committee. One of the many unique and beneficial attributes of Matt McCarthy is his position in the research field of global climate change in relation to national and human security. His ability to represent the national security aspects of climate change would bring a unique perspective to your organization. I serve as Matt McCarthy's group leader at Oak Ridge National Laboratory (ORNL), our nation's largest open science laboratory. Through his prodigious scientific output in publications and research, development, and deployment of scientific capabilities, he exemplifies a highly capable and enthusiastic scientist in the areas of climate science, atmospheric sciences, and maritime research on inherent optical properties related to hydrology and water quality. Matt is highly collaborative as noted in his current multiple efforts at ORNL and with universities across the nation on climate change topics particularly focused on the maritime environment. He is an exemplary research scientist at ORNL. I know he would bring great energy and scientific gravity to the EPA science advisory board as a member. Thank you for considering him and feel free to reach out to me (hughesdc@ornl.gov) if any questions.

David Hughes, PhD
Research Scientist
Remote Sensing Group Leader | Geographic Data Science Section
Geospatial Science and Human Security Division

Oak Ridge National Laboratory
One Bethel Valley Road, Oak Ridge, TN 37830
Phone: 865-241-5789
hughesdc@ornl.gov | <https://www.ornl.gov/group/remote-sensing>

From: [kathy](#)
To: [Armitage, Thomas](#)
Subject: Letter for Recommendation for Dr. John O'Brien
Date: Tuesday, June 1, 2021 1:20:51 PM
Attachments: [Letter of Recommendation for Dr. John O'Brien.pdf](#)

Dear Dr. Armitage,

Please see the attached letter of recommendation for Dr. John O'Brien as regards an appointment to the EPA SAB.

If I can be of any further service, please feel free to contact me.

Thank you,

Kathy Casale

Kathy Casale
Sea Star Strategy
631-505-2864
kcasale@optonline.net
www.seastarstrategy.com



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From: [Dolores Jean Lamb](#)
To: [Armitage, Thomas](#)
Subject: Letter of Support for SAB candidate Patricia Morris, Ph.D.
Date: Tuesday, June 1, 2021 12:35:46 PM
Attachments: [Morris Let Support EPA Sci Advisory Board.pdf](#)

Hi Dr. Armitage

Attached above please find my letter of support for SAB candidate Patricia Morris, Ph.D. I hope this is the information you need and am happy to provide more info or different if needed. Thank you for including me in the process. Can you please confirm receipt and that you can open the file? Many THX

Dorrie

Dolores J. Lamb, Ph.D., HCLD (ABB)

Dow Professor of Urology

Vice Chair for Research, Department of Urology

Director, Center for Reproductive Genomics

Weill Cornell Medicine

Urology

525 E 68th Street, Box 94

New York, NY 10065

T 212.746.4618

dlamb@med.cornell.edu

<http://urology.weillcornell.org>

From: [Angel Pena](#)
To: [Armitage, Thomas](#)
Subject: (EPA)'s Science Advisory Board
Date: Tuesday, June 1, 2021 11:19:45 AM

Armitage,

My name is Ángel Peña, Executive Director of the Nuestra Tierra Conservation Project, Senior Policy Director for GreenLatinos and founding member of the Next100 Coalition and I am very excited about the opportunity for Shanna Edberg to join and support your team.

Please feel free to reach out should I be helpful.

Hastapronto,

Ángel Peña

--

Ángel Peña
Executive Director
(915)217-3688



From: [Dan Woltering](#)
To: [Armitage, Thomas](#)
Subject: SAB Public Comment
Date: Tuesday, June 1, 2021 9:34:43 AM

Dr. Armitage,

I am writing to support the appointment of Dr. Roger D. Meyerhoff to the SAB.

I've known Roger for almost 50 years. I believe him to be very well qualified to serve as a member of the SAB. Dr. Meyerhoff is very knowledgeable in the areas of ecological and human health risk assessment and would bring practical industry experience to the SAB.

Roger and I were graduate students at Oregon State University. Roger went on to Eli Lilly in Indianapolis and I went to Procter & Gamble in nearby Cincinnati. We remained friends and colleagues over the years. We served together on the Board for the Society of Environmental Toxicology and Chemistry (SETAC). Roger's leadership ability and dedication to sound science served the society well during his term as President. Years later, I reached out to Roger to serve on the Research Council for the Water Environment Research Foundation (WERF) in Alexandria, Virginia. He always came to our meetings well prepared, and his informed perspective was always a valuable addition to the team's effort to identify priorities, set research goals, and discuss the applications and implications of research that was funded by WERF.

I trust you will give Dr. Meyerhoff due consideration for an appointment to the SAB. You won't find anybody more dedicated to the science.

Best regards,

Dan Woltering

Daniel M. Woltering, PhD, BCES

Sent from [Mail](#) for Windows 10

From: [Sutyajeet Soneja](#)
To: [Armitage, Thomas](#)
Subject: Public comment in support of Dr. Crystal Upperman as a candidate for EPA's Scientific Advisory Board
Date: Monday, May 31, 2021 11:42:01 PM

Dear Dr. Thomas Armitage,

I hope this finds you well. My name is Sut Soneja and I am an environmental health scientist specializing in the fields of air pollution, climate change, and health systems and am writing to inform you of my support of Dr. Crystal Upperman, who has been nominated to serve on the U.S. Environmental Protection Agency's Science Advisory Board (SAB). I believe Dr. Upperman would offer an informed and fresh perspective if given the opportunity to serve on the SAB. She currently leads the integration of public health information and informed risk characterization into Aclima's air pollution and greenhouse gas measurement and analysis products. In her prior roles, she was a Senior Research Associate at the World Resources Institute on the Global Commission on Adaptation, at AECOM she was the Climate Adaptation and Resilience Lead for the Southeast US, Latin America, and the Caribbean, and she managed the CDC's Building Resilience Against Climate Effects (BRACE) program for Maryland Department of Health. She worked as an environmental regulator, very early in her career, for the New Jersey Department of Environmental Protection and the Georgia Environmental Protection Division's Ambient Air Quality Program. Dr. Upperman's research focus is in exposure science and spatial epidemiology and has included a national assessment of the impact of climate change, pollen exposure, and extreme heat on chronic respiratory diseases. She is a Trustee of The Nature Conservancy, and is an Advisory Board Member for the American Public Health Association's Center for Climate, Health, and Equity. Dr. Upperman earned a PhD in Marine, Estuarine, and Environmental Science from the University of Maryland as a U.S. EPA Science to Achieve Results Fellow and an NSF Louis Stokes Alliance for Minority Participation Fellow, a Master of Public Administration in Nonprofit Management from Kennesaw State University, and a Bachelor of Science in Environmental Science from Spelman College.

Dr. Upperman's background and experience reflects the rigor and acumen necessary to help the U.S. EPA make informed environmental actions to protect public health. Her experience spanning multiple sectors and working with many stakeholders will serve the EPA well with a perspective that is visionary and technically impressive. I am happy to address any questions you may have about Dr. Upperman and her qualifications. To provide you with an overview of my own background, I am providing a short bio below my signature line. Thanks you for your time and consideration of Dr. Upperman's candidacy for the SAB.

Kind regards,

--

Sutyajeet I. Soneja, PhD
Senior Advisor | [Vital Strategies](#)
Consultant | [UNDP](#)
2016-'18 AAAS Fellow | [USAID](#)
2017 Embassy Science Fellow | [US Department of State \(US Embassy Rome\)](#)
sisoneja@gmail.com | [LinkedIn](#)

Brief Bio – Dr. Sut Soneja

Dr. Sut Soneja is a global public health scientist, policy advisor, and biomedical engineer with 15+ years of experience and a passion to improve health outcomes in resource-poor settings by advancing innovation in healthcare. He possesses a Ph.D. in Public Health from the Johns Hopkins Bloomberg School of Public Health, dual Bachelor of Science degrees in Biomedical and Biological Engineering from NC State University, and is a former Science & Technology Policy Fellow via the American Association for the Advancement of Science (AAAS) that was served at the U.S. Agency for International Development. His dissertation work focused upon conducting interdisciplinary field research in South Asia studying air pollution, climate change, and maternal & child health, while his AAAS fellowship focused upon health system strengthening in West Africa as a part of the post Ebola recovery effort. He has also completed a postdoctoral fellowship in epidemiology analyzing large datasets using advanced statistical techniques to assess the impact of climate change upon health, served as a science diplomat focusing on global health topics at the U.S. Embassy in Italy, independently consulted for a multitude of international organizations such as the World Health Organization, UN Refugee Agency, and UN Development Programme, as well as worked for a Fortune 500 company on veterinary health as an engineer. He has worked extensively across four continents and presented to a wide-array of audiences that range from high-level ministry officials to the general public, as well as written numerous academic papers, policy briefs, and opinion articles.

From: [Freada Klein](#)
To: [Armitage, Thomas](#)
Subject: SAB Comment for Dr. Crystal Romeo Upperman
Date: Monday, May 31, 2021 8:45:41 PM
Attachments: [SAB Comment - Crystal Upperman 05-31-21 .pdf](#)

From: [Robert White](#)
To: [Armitage, Thomas](#)
Subject: Public Comment for Dr. Upperman
Date: Monday, May 31, 2021 6:23:10 PM
Attachments: [SAB Comment - Crystal Upperman .docx](#)

Dr. Armitage,

Please find my public comment attached.

Sincerely,
Robert White

From: [Vassilisa Rubtsova](#)
To: [Armitage, Thomas](#)
Subject: EPA Science Advisory Board, Public Comment: Garima Raheja
Date: Monday, May 31, 2021 9:26:38 AM

Dear Dr. Armitage,

My name is Vassilisa Rubtsova and I am writing to you regarding Garima Raheja who is a finalist for the EPA's Science Advisory Board. I have had the honor of seeing Garima in action for several years now throughout our time at UC Berkeley. My freshman year of college we both worked in student government where Garima led the way in fighting for environmental justice on the local, state, and federal level. Using her background in civil and environmental engineering, Garima led the way in lobbying government officials and presenting the case for environmental justice from both scientific and humanitarian perspectives.

I later got to work with Garima through the Bay Area Environmentally Aware Consulting Network (BEACN). This was a student-led environmental consulting group that would not have been nearly as successful in the work we do without her leadership. She created a welcoming and inspiring environment that allowed for high-level consulting projects to be completed by college undergraduates. Her dedication to people and the planet has inspired people even after she graduated from UC Berkeley. She has continued to give back to BEACN and mentor a number of students as well as lead environmental justice workshops. During those workshops, she has inspired interdisciplinary and important conversations on climate change and equitable climate solutions.

Garima has a strong background in research, consulting, advocacy, and community-based science and she would be an incredible addition to the EPA's Science Advisory Board. Her unique perspective and dedication to community-based science make her a candidate like no other.

Thank you,

Vassilisa Rubtsova
B.S. - Environmental Economics and Policy
Minor - Mathematics
Class of 2021
University of California, Berkeley

From: [Maureen O'Sullivan](#)
To: [Armitage, Thomas](#)
Subject: Shanti Gamper-Rabindran (Candidate for SAB)
Date: Monday, May 31, 2021 8:46:49 AM
Attachments: [Shanti Letter of Rec.docx](#)

Dear Dr. Armitage,
Please find attached a letter of recommendation for Shanti Gamper-Rabindran, a candidate for the Science Advisory Board.
Thank you,
Maureen O'Sullivan

From: [Jennifer Gilbert](#)
To: [Armitage, Thomas](#)
Subject: SAB nomination support Tracy Corley
Date: Sunday, May 30, 2021 10:11:03 AM
Attachments: [Tracy Corley SAB support letter.pdf](#)

Please accept the attached support letter for Tracy Corley's nomination to the Scientific Advisory Board.
Thank you, Jennifer Gilbert

--

Jennifer Gilbert

From: [William Schlesinger](#)
To: [Armitage, Thomas](#)
Subject: SAB Nominees
Date: Saturday, May 29, 2021 8:23:55 AM

You have a lot of good scientists on the list, and I urge you to pick the best of those. With that in mind, I'd avoid Christy and Curry, who are deniers of human-induced climate change; Rattan Lal, who is greatly overzealous about soil carbon sequestration; and Jonathan Wiener, who is a lawyer and not a scientist.

William H. Schlesinger
James B. Duke Professor of Biogeochemistry
Dean (Emeritus) the School of the Environment, Duke University
President (Emeritus), the Cary Institute of Ecosystem Studies

Blog: <http://blogs.nicholas.duke.edu/citizenscientist/>
Contact: Best via email, above

From: [Stephen Gerritson](#)
To: [Armitage, Thomas](#)
Subject: Recommendation
Date: Friday, May 28, 2021 7:41:27 PM

Dr. Thomas Armitage
Designated Federal Officer
USEPA

Via Email

Dear Dr. Armitage,

I am writing to express my support for Dr. Tracy Corley, one of the candidates for a position on USEPA's Science Advisory Board. I have known and worked with Dr. Corley for many years on a range of projects. Although her academic work was not in the "hard sciences," I believe her background in sociology and public policy, as well as her research in the fields of neighborhood development, public health, and environmental justice would serve the SAB well. This is particularly relevant to the Biden Administration's desire to remedy the wrongs of the past with respect to the impacts of development on communities of color. Her research at MassINC on equitable transit-oriented development, as well as her current leadership at the Conservation Law Foundation of the effects of neighborhood changes on public health on environmental justice communities, are good examples of why this broad perspective is vital to the success of such projects.

My experience, as the founding director of the Lake Michigan Air Directors Consortium, and as a member of the USEPA's Clean Air Act Advisory Committee for eight years, has led me to believe that advisory committees are most effective when they represent a range of viewpoints and benefit from a frank and open internal discussion before reaching a recommendation. Dr. Corley's presence on the SAB would add a critical perspective, and I humbly ask that she be given every consideration.

Thank you for the opportunity to comment.

Stephen Gerritson (retired)
Former Executive Director, LADCO

Steve Gerritson

From: [Michael Chien](#)
To: [Armitage, Thomas](#)
Cc: garima.raheja@columbia.edu
Subject: Recommendation for Garima Raheja
Date: Friday, May 28, 2021 5:07:15 PM

Dear Dr. Armitage,

My name is Michael Chien and I currently work as a consultant at Redstone Strategy Group, a social sector consulting firm. I am writing to recommend Garima Raheja for the EPA's Science Advisory Board's Environmental Justice section.

Garima's commitment to environmental justice and equity is second to none. It shows up in her academic research, where she studies the effects of air pollution on communities of color; her work as an organizer, volunteer, and mentor with countless organizations; and in her personal life, where her relentless energy and passion inspire me as a friend and professional in the social sector. She is passionate about identifying and elevating community voice, and would be an excellent addition to your board, as she truly embodies leadership through service.

In your search for an environmental justice advocate, you will find no better candidate than Garima. Please do not hesitate to reach out if I can be of any further assistance.

Best,

Michael Chien

--

Michael Chien (he, him, his)
michaelchien05@gmail.com | (626) 244-4645

From: [Yakov Galperin](#)
To: [Armitage, Thomas](#)
Cc: [Bloomer, Bryan](#)
Subject: Dr. Odencrantz SAB nomination support
Date: Thursday, May 27, 2021 5:09:01 PM
Attachments: [Dr. Odencrantz nomination support.pdf](#)

Dear Dr. Armitage,

Attached is my letter in support of Dr. Odencrantz nomination to be a member of the USEPA Science Advisory Board.

I firmly believe that he would be an excellent choice for the position.

Please let me know if you have any questions or would like to discuss his candidacy in more details.

Sincerely,

Yakov Galperin, Ph.D.

Environmental Geochemistry Consulting

Phone: (805) 529-4423

www.geochemconsulting.com

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From: [Beia Spiller](#)
To: [Armitage, Thomas](#)
Subject: Public comment on Shanti Gamper-Rabindran
Date: Thursday, May 27, 2021 10:33:41 AM

Dear Dr. Armitage,

I'm writing to support the nomination of Dr. Shanti Gamper-Rabindran for the EPA's SAB. I have worked with Shanti in the past, in conjunction with Dr. Christopher Timmins (Duke University). I was a research assistant on a joint cost-benefit analysis project that they were conducting for the EPA over a decade ago, but have stayed in touch with her in the years since. I have always found her to be extremely intelligent, sharp, extremely knowledgeable about multiple topic areas, as well as ethically sound. She is a pleasure to work with, very collaborative in nature and forms strong and cohesive teams. Given her extensive background and understanding of economics and science, as well as her team-oriented approach, I believe she would make a great science advisor for the EPA.

Sincerely,

Dr. Elisheba Spiller

Lead Senior Economist

Environmental Defense Fund

From: [Ketterson, Ellen D.](#)
To: [Armitage, Thomas](#)
Subject: EPA advisory board
Date: Thursday, May 27, 2021 9:09:59 AM

Dr. Thomas Armitage
Designated Federal Officer
Armitage.thomas@epa.gov

Dear Dr. Armitage,

I am writing to recommend two colleagues from my institution who are under consideration for the EPA advisory board.

Gabe Filippelli and Ben Kravitz.
Each is outstanding and would provide different expertise.

Prof. Filippelli is Director of the Environmental Resilience Institute at Indiana University, and expert of water and on environmental justice. He is an environmental geochemist with a record of service.

Prof Kravitz is a climatologist with a commitment to government and solutions to climate change.

I would be happy to provide more insight if you have interest.

All best wishes,

Ellen Ketterson
Distinguished Professor of Biology
ketterso@indiana.edu
<https://ketterson.lab.indiana.edu/>
Science Advisor and Founding Director, Environmental Resilience Institute
<https://eri.iu.edu>
(She/her/hers)

From: [Hertel, Thomas W.](#)
To: [Armitage, Thomas](#)
Subject: letter of support for SAB
Date: Wednesday, May 26, 2021 12:06:18 PM
Attachments: [Dominique van der Mensbrugge-letter of support by Hertel.pdf](#)

Dear Dr. Armitage,

Please find attached a letter of support for Prof. Dominique van der Mensbrugge who has been nominated for participation in the EPA SAB.

Do not hesitate to let me know if I can provide additional information.

Sincerely,

Thomas W. Hertel
Distinguished Professor and Executive Director
Center for Global Trade Analysis
GLASSNET PI
Purdue University
<http://web.ics.purdue.edu/~hertel/>

From: [Peggy Shepard](#)
To: [Armitage, Thomas](#)
Subject: Invitation For Public Comment on SAB
Date: Wednesday, May 26, 2021 11:22:22 AM
Attachments: [final SABletter crystal upperman TA .pdf](#)

Dear Dr. Armitage,

Attached please find my comments related to candidates for the SAB.
Please confirm receipt.

Regards,
Peggy Shepard

Peggy M. Shepard

Executive Director
WE ACT for Environmental Justice
1854 Amsterdam Ave., 2nd Floor
New York, NY 10031
212-961-1000, ext. 306

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[Facebook](#) | [Twitter](#) | [Instagram](#) | [Medium](#)

From: [Halls, Joanne](#)
To: [Armitage, Thomas](#)
Subject: Matt McCarthy nomination to the SAB
Date: Wednesday, May 26, 2021 10:18:23 AM
Attachments: [ATT00001.txt](#)

Dear Thomas,

This email is in support of Matthew McCarthy's nomination to the EPA SAB. I was Matt's Masters advisor and he was by far one of the best students I have been lucky to mentor. I have mentored many students (too many to count) and would put Matt in the top 5 percent especially with respect to his professionalism, timeliness, dedication, and pursuit of scientific enquiry. He then moved on to a very successful PhD at South Florida where he also completed at least 1 postdoc. He is well published, participates in community outreach, and is a model citizen to the entire research community, not simply an academic which is why he is now at Oak Ridge where he can pursue cutting edge research but still maintain his connection to real world problem solving. He is particularly focused on the use of remote sensing to address coastal issues including climate change. He will be a great addition to the SAB!

If I can provide more information, please do not hesitate to ask.

Sincerely,

Dr. Joanne Halls



Dr. Joanne N. Halls

Coordinator, EOS Internship Program

Professor, Dept. of Earth & Ocean Sciences | Osprey Hall, Room 1004C | UNC Wilmington

601 S. College Rd., Wilmington, NC 28403

hallsj@uncw.edu

From: [Maureen Quinn](#)
To: [Armitage, Thomas](#)
Subject: Crystal Romeo Upperman - Scientific Advisory Board (SAB)
Date: Wednesday, May 26, 2021 10:02:53 AM

Dear Mr. Thomas Armitage,

I have looked through the academic journeys of the nominees and they are impressive but overwhelming. For me, Integrity, mission commitment and work ethic have been my north star when choosing team members and when recommending people to other organizations.

Crystal was a mentee in our program when she was a high school student. Smart, determined with a mind of her own best describes her. After graduating high school she gave up scholarship dollars from one university to follow her dream to attend Spelman. There was no way, said the many. Crystal found a way.

The same year, Crystal reached out to me to say, Ms. Quinn I've gotten a job on the campus and want to give back when I come home to Trenton on the holidays.

She not only returned to thank us for inspiring her to choose a major that she had not yet thought of, Environmental Science but she gave us two \$100. bills which I, in turn, gave to a young Trenton man for his college books etc. He went on to graduate Rowan U. with a B.S. and Master's Degree. He now leads a business that restores houses much in need of help and sells/rents them at reasonable rates. Crystal graduated Spelman and returned to mentor a Trenton High girl. Their topic focused on Cancer Alley. During her ongoing education, she found time to support, with us, an event at Princeton U. for young underserved girls.

The girl from Trenton went on to get a Ph.D from University of Md. in Marine Estuarine Environmental Sciences and came one week later to our Science Fair to talk with the students. Crystal is the real deal.

This year, Crystal and I have been probing ways to deepen my commitment to our mission this year. "There is no Climate Justice without Racial Justice". Our evolving website can give you an insight in to our work.

ScienceMentors.org - I am not a scientist but I am an educator who applies scientific thinking to our work. We are excited about the Carbon Capture that a renewal of traditional agricultural approaches can bring to the present day technology.

I strongly recommend Crystal Romeo Upperman because she has in depth knowledge along with a practical approach to bring new life to what my experience tells me can be a deadly slow moving process. The Planet's hair is on fire and science can cool it if a sense of urgency is applied. Crystal Romeo is unrelenting when she is on a mission. We need strong people like Crystal who can wield expertise for the good of human kind.

Sincerely,

Maureen J. Quinn

ScienceMentors.org

--

Maureen Quinn
ScienceMentors
(609) 903-5150



Reply

Forward

ScienceMentors
(609) 903-5150

From: [Christian Trasmonte](#)
To: [Armitage, Thomas](#)
Subject: Shanna Edberg for EPA Science Advisory Board
Date: Wednesday, May 26, 2021 9:24:49 AM

Hi Thomas,

I want to recommend my coworker Shanna Edberg for the EPA Science Advisory Board. I believe that she can bring a different perspective to this Board. She has been working for Hispanic Access Foundation for more than a year and loves the Latino community. She works tirelessly to improve their lives as our Conservation Program Director and is very passionate about many topics such as sustainable development, environmental and climate justice, and policy and economics research.

Thank you for your consideration!

Best regards,

Christian

--

Christian Trasmonte
Staff Accountant
Hispanic Access Foundation
1030 15th St., NW, Suite B/1 # 150
Washington, DC 20005
Office (571) 268-5616
Fax (202) 640-4343

#StartWithaSmile at smile.amazon.com/ch/27-2589206 for your holiday gifts and Amazon donates to Hispanic Access Foundation.

From: [Emily Liu](#)
To: [Armitage, Thomas](#)
Cc: garima.raheja@columbia.edu
Subject: Garima Raheja's Science Advisory Board Nomination
Date: Tuesday, May 25, 2021 8:47:58 PM

Hi Dr. Armitage,

My name is Emily Liu, and I'm a newsroom engineer at the Washington Post. I'm writing today to vouch for Garima Raheja, a finalist for a position on the EPA's Science Advisory Board's Environmental Justice section.

I've known Garima for a few years now, and throughout that time, she has consistently advocated for environmental justice in all the spaces we've shared together. Her knowledge of environmental justice issues is vast; often we'll be talking about something seemingly irrelevant and she will provide an environmental justice lens through which to view the issue, and I've learned so much from her alone. I've seen her volunteer her time to lead workshops for middle and high schoolers in environmental science and share her passions with young folks. Throughout this all, I've especially appreciated her emphasis on marginalized communities — as those are the groups disproportionately affected by climate change and environmental issues.

I cannot imagine a better person suited for this position, and I'm certain she'd dedicate her energy fully to this position in the same way that she's done for all prior positions that she has held.

My contact email is emilyliu7321@gmail.com if you have any further questions.

Best,
Emily Liu

--

Emily Liu

From: [Johanna Mathieu](#)
To: [Armitage, Thomas](#)
Subject: Comment on candidate for EPA Science Advisory Board - Jeremiah X. Johnson
Date: Tuesday, May 25, 2021 1:38:16 PM

To Dr. Thomas Armitage, Designated Federal Officer,

I am writing this email to support the EPA Science Advisory Board candidate Jeremiah X. Johnson, Associate Professor at North Carolina State University.

Prof. Johnson and I have collaborated for the past 7 years. I can't think of a better candidate for this role. Prof. Johnson is an expert in energy & environment, sustainability, and life cycle assessment. He is thoughtful, impartial, and a great team member who always goes above and beyond.

Sincerely,
Johanna Mathieu (she/her/hers)
Associate Professor, Electrical Engineering & Computer Science
University of Michigan, 4116 EECS Building, 734-936-3875
jlmath@umich.edu

From: [Courtney O'Neal](#)
To: [Armitage, Thomas](#)
Subject: Nomination Crystal Upperman SAB Nomination
Date: Tuesday, May 25, 2021 1:18:29 PM

Hello Dr. Armitage,

My name is Courtney O'Neal and I'm writing you to support the nomination of Crystal Upperman for SAB board member. I have known Crystal for more than a decade and she will be an excellent addition to your board.

Sincerest Regards,
Courtney O'Neal

From: [Dick Munson](#)
To: [Armitage, Thomas](#)
Subject: EPA Science Advisory Board
Date: Tuesday, May 25, 2021 1:15:24 PM

Dr. Armitage:

I write to support Arthur Smith's engagement on EPA's Science Advisory Board. He offers science training, enforcement experience, and consensus building with industry and environmental NGOs. His most recent paper, to be published soon by the American Bar Association, outlines how the Clean Air Act and relevant litigation offer a roadmap for urban resilience and environmental justice. He also has extensive private-sector experience with climate mitigation activities.

Thank you for your consideration. Best wishes.

Dick Munson
former senior director, Environmental Defense Fund
author "Tesla: Inventor of the Modern"
author "Tech to Table: 25 Innovators Reimagining Food".

From: [Graedel, Thomas](#)
To: [Armitage, Thomas](#)
Subject: SAB Recommendation
Date: Tuesday, May 25, 2021 10:07:25 AM
Attachments: [Jeremiah rec for SAB 052421.doc](#)

Dear Dr. Armitage,

Attached is a recommendation for Dr. Jeremiah Johnson for SAB.

T. Graedel

—

Thomas E. Graedel, PhD
Professor of Industrial Ecology Emeritus
Center for Industrial Ecology
203-432-9733
thomas.graedel@yale.edu

Yale School of the Environment
environment.yale.edu
<https://cie.research.yale.edu/>

From: [MacIntyre, Grant B](#)
To: [Armitage, Thomas](#)
Subject: Comment in support of Dr. Shanti Gamper-Rabindran's candidacy for the SAB
Date: Tuesday, May 25, 2021 9:30:19 AM

Dr. Armitage,

I recommend that the Administrator appoint Dr. Shanti Gamper-Rabindran to the SAB in the highest possible terms.

Dr. Gamper-Rabindran is the best of scientists. She is curious, smart, ethical, courageous, and dedicated. She is always looking for ways to make science accessible and understandable while still doing the highest level research possible. She is a fantastic colleague and would be an asset to the SAB.

As a former EPA attorney, I know the importance of the work the SAB does. An SAB full of those like Dr. Gamper-Rabindran would be the best possible SAB.

Please contact me with any questions.

Sincerely,
Grant MacIntyre

Grant B. MacIntyre
Associate Clinical Professor
Interim Director of Clinical Programs
Director –Environmental Law Clinic
University of Pittsburgh School of Law
(412) 648-1300
macintyre@pitt.edu

Mailing Address: PO Box 7226 Pittsburgh, PA 15213	Physical Address: 3900 Forbes Ave, Ste 420 Pittsburgh, PA 15260
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From: [Silvija Singh](#)
To: [Armitage, Thomas](#)
Subject: Support for Dr. Shanti Gamper-Rabindran's nomination to the EPA advisory board
Date: Tuesday, May 25, 2021 8:46:31 AM

Dear Dr. Thomas Armitage,

I would like to express my unreserved endorsement of Dr. Rabindran's nomination to this advisory role. I have known Dr. Rabindran for many years, and she is dedicated to research on the impact of fracking, dedicated to educating the public about this impact, and dedicated to the future of our planet. She would definitely provide useful insights on these matters to the EPA. I also know her to be articulate, hard-working and gracious--someone who would be good to work with.

Sincerely,
Silvija S. Singh, Ph. D.

From: [Joseph Saviak](#)
To: [Armitage, Thomas](#)
Cc: jnobrien@vistaenergygroup.com
Subject: Recommendation for Dr. John O'Brien
Date: Tuesday, May 25, 2021 7:42:52 AM

Dr. Armitage,

I am especially pleased to provide a strong recommendation for Dr. John O'Brien in support of his application to serve on the EPA's Scientific Advisory Board. He is an academic colleague and friend of fifteen years.

He would bring a winning combination of academic credentials, professional experience, scientific leadership, and personal qualities to this public service opportunity. He is held in high regard by fellow faculty, students, and alumni for his intellect, integrity, and genuine love of serving others. He would make valuable contributions to analyses of scientific and public policy issues.

He would do an exceptional job. I very much appreciate the opportunity to share my perspective with you.

Joseph C. Saviak, Ph.D., J.D., M.A., M.S.

Management Consulting & Leadership Training

Telephone: [904-599-5678](tel:904-599-5678)

Email: Joe@DrJoeSaviak.com

www.DrJoeSaviak.com

From: [Jim Aloisi](#)
To: [Armitage, Thomas](#)
Subject: Dr. Tracy Corley: SAB Nomination
Date: Monday, May 24, 2021 8:18:47 PM

Dear Dr. Armitage

I am writing to register my unqualified support for the nomination of Dr. Tracy Corley for a Scientific Advisory Board position with the Environmental Protection Agency. In her current role with the Conservation Law Foundation as its Director of Research and Partnerships, Tracy performs relevant, similar work reviewing the merits of scientific studies and assessing them for their usefulness supporting active advocacy and litigation related to climate change and environmental justice across New England. She also conducts and coordinates independent research to support this vital mission.

Tracy's experience working locally on environmental and transportation justice issues has catapulted her into the forefront of highly regarded thought leaders in Metro Boston. Her experience addressing the factors that impact environmental and human health would be particularly useful for the newly formed Environmental Justice Committee, as it assesses how quantitative and qualitative analyses affect communities that have been overburdened and under-resourced for dealing with pollution and other environmental harms of past policies and programs.

Beyond Tracy's ample relevant experience, I have come personally to know her as an effective and collegial partner in Metro Boston environmental justice and sustainability advocacy. She has brought a high level of intellectual rigor to her work, often focused on utilizing science-based resources to achieve impactful results. She is unfailingly thoughtful, generous in her approach to professional collaboration, and overall is the kind of person who inspires confidence. I have no doubt that she would be a strong addition to the SAB, and she has my enthusiastic support and recommendation.

James Aloisi

James Aloisi

MIT Dept. of Urban Studies and Planning
Lecturer | [Transportation Policy + Planning](#)
jaloisi@mit.edu | (617) 877-7583
he/him/his

From: [Licht, Kathy J.](#)
To: [Armitage, Thomas](#)
Subject: support of Dr. Gabriel Filippelli
Date: Monday, May 24, 2021 5:35:19 PM

Dr. Armitage,

I am writing to support Dr. Gabriel Filippelli's nomination to the EPA's Science Advisory Board. He has been a colleague of mine at Indiana University Purdue University Indianapolis for over 20 years. is an inspirational, 'big ideas' kind of scholar and works to find creative solutions to challenging problems based on thorough and careful science.

He is an outstanding communicator with both experts and the general public. Dr. Filippelli is an important national and international leader in the field of human health and the environment.

Regards,
Dr. Kathy Licht

Kathy Licht (she/her/hers)
Professor
IUPUI Department of Earth Sciences
Indianapolis, IN 46202
317-278-1343 (ph)

From: [Luke Argleben](#)
To: [Armitage, Thomas](#)
Subject: Recommendation for EPA's Science Advisory Board EJ Committee
Date: Monday, May 24, 2021 4:19:03 PM

To whom it may concern,

I recommend the expert and diverse perspective of Shanna Edberg to the EPA's Science Advisory Board. I believe her unique background and experience will prove invaluable to the board and the Environmental Justice committee.

Thank you for considering my recommendation.

Sincerely,

Luke Miguel Argleben *(he/his/el)*
Development Manager
Hispanic Access Foundation
(571)205-6264



#StartWithaSmile at smile.amazon.com/ch/27-2589206 for your holiday gifts and Amazon donates to Hispanic Access Foundation.

From: [Maite Arce](#)
To: [Armitage, Thomas](#)
Subject: Public Comment for EPA Science Advisory Board
Date: Monday, May 24, 2021 2:59:42 PM

Dear Mr. Armitage,

I am writing you to enthusiastically recommend **Shanna Edberg** for the EPA Science Advisory Board.

Shanna is one of the brightest people I know. She serves as the Director of Conservation Programs for the Hispanic Access Foundation and oversees a 1M+ budget for a rapidly growing national program that engages multi-sectoral community based networks in climate action, conservation, environmental stewardship and advocacy. Furthermore, to address the lack of cohesion in research and published works about Latinos and the environment, Shanna has worked to address this by developing and publishing reports regarding the science, health, economic, public opinion, and cultural implications of the policies that protect our environment, in addition to the threats that climate change and regulatory rollbacks pose. Two recent examples of research and reporting that inform the field are the [2021 Conservation Toolkit](#) and [The Nature Gap Report](#).

Shanna is exceptional at leading the work of translating science into practical language that our community networks understand - and that is not all - she also produces it in Spanish as well as in English (she is bilingual). Also important to mention, she helps inform public policies to ensure equity principals are considered and recommends the language to support this work.

Her impressive professional experience combined with her personal diversity characteristics and her understanding and work with diverse communities makes her an outstanding candidate to advise the agency on broad scientific matters.

Shanna Edberg would be an asset to the EPA Science Advisory Board and I am so pleased to recommend her to you. If you have any questions or need additional information, please don't hesitate to contact me.

Best Regards,

Maite Arce, President/CEO
Hispanic Access Foundation
571-335-3645



From: [Rebecca Hardin](#)
To: [Armitage, Thomas](#)
Subject: a note in support of Jeremiah Johnson for your advisory board
Date: Monday, May 24, 2021 11:56:14 AM

Hi Thomas,

I write to offer you some context on one of your candidates for the advisory board, Jeremiah Johnson. I worked with him in the context of a curricular innovation project for building sustainability science educational tools that could serve both industry and academic learners and, and address the dearth of decision cases (like one finds in law, business, medicine) for training environmental professionals.

Jeremiah was one of the most generous, visionary and thorough of our many faculty collaborators. You can see some of his modules on the decision parameters for nuclear power in Michigan [here](#), and on innovation in energy storage, [here](#). He not only created but also implemented in the classroom and evaluated his modules, appeared on [podcasts](#), presented at the AEESP conference about them, and published about them.

In sum, he is delightful to think and work with. I have found him to be a productive, thoughtful, collaborative and thorough colleague and I know he would be a strong resource for your advisory board. Thanks for your work assembling information toward advisory excellence!

[Rebecca Hardin](#)

@rebeccacademy on twitter

Environmental Justice [Certificate](#) and [Academic Specialization](#)



From: [Druschel, Gregory K](#)
To: [Armitage, Thomas](#)
Subject: Dr. Filippelli
Date: Monday, May 24, 2021 10:55:06 AM

Dr. Armitage,

Hello, I am a colleague of Dr. Gabe Filippelli and I understand he is under consideration for a position of the EPA science advisory board focused on human health and the environment. I am sure you do not need more information on Gabe's exceptional qualifications for this position, but thought perhaps you could use insight on the sort of colleague you would see with him on this board. Gabe has a deep seated desire to do good, to help, from the folks around him to the fate of humanity on this planet, Gabe has spent his life focused on the ways in which mankind interacts with the planet and seeking better paths forward. He is additionally perhaps the finest example of the gentleman scientist I know of – calm, wise, and diplomatic; this is someone who knows very well how to function in a group, how to function with the public, and how to function with people not necessarily able to control their own behavior. Gabe could likely teach a class in how to de-escalate tense situations, he has dealt with crazy individuals in a range of settings and always comes away with as positive an outcome as possible. Given today's political and social challenges facing EPA and indeed both government and science, Dr. Filippelli is exactly who I think you need to help deal with that in an advisory capacity – I believe quite strongly people at the EPA will benefit significantly from his counsel, advice, and example, as will we all.

Best Regards,

Greg

Greg Druschel (he/his)
Associate Professor
Department of Earth Sciences
Indiana University Purdue University Indianapolis
723 W. Michigan St., SL118
Indianapolis, IN 46202

From: [Gilhooly III, William](#)
To: [Armitage, Thomas](#)
Subject: support for Dr. Filippelli's nomination
Date: Monday, May 24, 2021 10:04:35 AM

Dear Dr. Armitage

I am writing in strong support of Dr. Gabe Filippelli's nomination to serve on the EPA's Science Advisory Board. Gabe is a phenomenal colleague who is committed to promoting environmental resilience and human health. His background in climate change, urban health, human health, and community engagement is ideally suited for this board.

Sincerely,
Bill Gilhooly

William Gilhooly
he/him/his
Associate Professor
Department of Earth Sciences
Indiana University-Purdue University Indianapolis
SL118, 723 W. Michigan Street
Indianapolis, IN 46202

317-278-6319
wgilhool@iupui.edu

<http://gilhoolysil.earthsciences.iupui.edu/>

From: [S.Mishra](#)
To: [Armitage, Thomas](#)
Subject: Invitation for Public Comment on List of Candidates for Environmental Protection Agency's Science Advisory Board
Date: Monday, May 24, 2021 4:23:57 AM
Attachments: [EPA-SBA.pdf](#)

Reference: Invitation for Public Comment on the List of Candidates for the Environmental Protection Agency's Science Advisory Board

Attention: Dr. Thomas Armitage, Designated Federal Officer, at armitage.thomas@epa.gov

Dear Dr. Thomas Armitage,

In response to the invitation for public comment, as above, I would like to strongly recommend the candidature of **Dr. Ram Iyengar** (page 55 of the list), whom I have known professionally for the last several decades.

Dr Iyengar was instrumental in the formulation of the R&D Projects Master Plan for Steel Authority of India Limited (SAIL), India's largest steel company. It was approved for implementation by the SAIL Board of Directors. A major dimension of this plan was enhancement of energy efficiency in all steel plants of SAIL and concurrent reduction in carbon dioxide emissions.

As you may be aware, metals manufacture from mining to applications, while being an important human activity which sustains human civilization, can at the same time be an important contributor to the Global Climate Challenge. One potential way to reduce CO₂ is by switching to Direct Reduction of Iron ore using hydrogen-enhanced natural gas which reduces carbon in iron from 4.5% to less than 1%. Many steel companies are doing this and there could be more R&D to make most of the steel by DRI route.

Also the adoption of near-net shape processing such as thin strip casting and processing can reduce the use of fossil fuels. This however requires microstructural engineering to meet the required performance of products.

Many infrastructure such as bridges, electricity & water transmission, Electric Vehicles, etc., require metals, such as steel, aluminum, lithium the manufacture and application of which consume energy and generate waste products. These need to be recycled or captured safely. R&D in the most efficient technology will reduce their negative impact and enable more efficient use of the metals.

Dr Ram Iyengar has the scientific and technological knowledge and expertise to advise the US EPA in these and other issues concerning metals manufacturing and their applications.

Regards,

Sanak Mishra

PhD, Metallurgical Engineering, University of Illinois at Urbana-Champaign
Past President, Indian National Academy of Engineering
Formerly:

*Managing Director, Rourkela Steel Plant, Steel Authority of India Limited (SAIL)
Vice President of ArcelorMittal and CEO India Projects*

From: [Jahn, Alex](#)
To: [Armitage, Thomas](#)
Subject: recommendation letter Filippelli
Date: Sunday, May 23, 2021 11:26:08 PM
Attachments: [letter Filippelli.pdf](#)

Dear Dr. Armitage,
Please find my letter, attached.
Sincerely,
Alex

Alex E. Jahn
Environmental Resilience Institute
Indiana University
717 E 8th Street
Bloomington, IN 47408 USA
Phone: (812) 855-0115
<https://eri.iu.edu/who-we-are/researchers/alex-jahn.html>
<https://turdusnet.wordpress.com/>

From: [Broxton Bird](#)
To: [Armitage, Thomas](#)
Subject: Support for Gabriel Filippelli's nomination
Date: Sunday, May 23, 2021 4:14:13 PM

Dear Sr. Armitage,

I am writing this brief not in support of Dr. Filippelli's nomination to serve on the EPA's Science Advisory Board. Dr. Filippelli has an exceptionally strong record in human health and the environment that would be a tremendous benefit to the panel. Dr. Filippelli's commitment to and preeminence in the field of human health and the environment is underscored by his ongoing research endeavors in the consequences and causes of lead pollution, and his positions as the Executive Director of Indiana University's Environmental Resilience Institute and the editor-in-chief of the American Geophysical Union's GeoHealth journal. It is my opinion that Dr. Filippelli will be an invaluable voice to have on the EPA's Science Advisory Board and I sincerely hope that his nomination is given the utmost consideration.

Best regards,

Broxton Bird

--

Broxton W. Bird
Associate Professor

Department of Earth Sciences
Indiana University-Purdue University, Indianapolis
723 W. Michigan Street, SL 118
Indianapolis, IN 46202
W: (317) 274-7468
F: (317) 274-7966
<https://earthsciences.iupui.edu/paleo-lab>
www.earthsciences.iupui.edu
He, His, Him

From: [Howard Frumkin](#)
To: [Armitage, Thomas](#)
Subject: Statement in support of Tom Sinks for EPA SAB
Date: Friday, May 21, 2021 12:56:43 PM
Attachments: [image001.png](#)

Dear Dr Armitage:

The list of candidates for the SAB is strong and impressive. I want to express particular support for Dr Tom Sinks, with whom I worked for five years at CDC. He has deep expertise in environmental health science, deep knowledge of EPA and more broadly of Federal agency capabilities and procedures, a rock-solid commitment to good science, and a collaborative, congenial work style. He would be a great addition to the SAB.

Thanks for the opportunity to submit this comment.

Howard Frumkin

Howard Frumkin, M.D., Dr.P.H.

Professor Emeritus, Environmental and Occupational Health Sciences

University of Washington School of Public Health

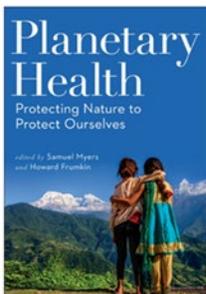
ORCID: orcid.org/0000-0001-7079-3534

Twitter: [@howardfrumkin](#)

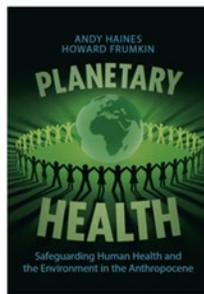
Skype: [howard.frumkin](#)

LinkedIn: [linkedin.com/in/howardfrumkin](https://www.linkedin.com/in/howardfrumkin)

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From: [Weidman, Falon Marie](#)
To: [Armitage, Thomas](#)
Subject: Public comment - EPA SAB
Date: Friday, May 21, 2021 12:55:14 PM

Dr. Armitage,

Please find below my comment in support of Dr. Gamper-Rabindran's appointment to the EPA SAB. Thank you.

Best,
Falon Weidman

"Dr. Gamper-Rabindran is an excellent candidate for membership on the EPA SAB. Her expertise in sustainability and the U.S. energy transition, particularly as it relates to regions reliant on extractive industries, would be invaluable to the board. We are at a turning point in American energy, and Dr. Gamper-Rabindran offers a well-rounded policy perspective, backed by scientific and economic research, as well as engagement with the communities that these issues most effect. As her student, I finally felt that I could voice my concerns for the energy issues that plague my home state of West Virginia. Dr. Gamper-Rabindran is committed to helping communities like my own achieve an equitable energy transition, and I look forward to seeing her expertise help shape future policies."

Falon Weidman, MPA
University of Pittsburgh – Graduate School of Public and International Affairs

Falon Weidman (she, her, hers)
MPA candidate, Graduate School of Public and International Affairs (GSPIA)
University of Pittsburgh | 2021
FLAS Fellow | European Studies Center
Project Coordinator | Ford Institute for Human Security
fmw5@pitt.edu

From: [Goodhart, Michael](#)
To: [Armitage, Thomas](#)
Subject: Dr. Shanti Gamper-Rabindran
Date: Friday, May 21, 2021 10:35:51 AM

Dear Dr. Armitage,

I write to express my strong support for the nomination of my colleague Dr. Shanti Gamper-Rabindran to the EPA Science Advisory Board. In the years I have known Dr. Gamper-Rabindran, I have come to respect both the scholar and her work immensely. She is passionate about her scholarship yet always approaches it with the detachment and critical sensibility that are the hallmarks of good science. She is a generous and supportive colleague, and works effectively on teams (I have helped, through the Center I direct, to sponsor ambitious research collaborations that Dr. Gamper-Rabindran has organized). I know her to be a person of the highest integrity.

I would be happy to send you a more formal letter in support of her candidacy for this position, if that would be helpful. If so, please let me know if there is specific information you require, or if there are particular questions you would like me to address.

Sincerely,

Dr. Michael Goodhart
Professor of Political Science
Director, Global Studies Center
University of Pittsburgh

From: [Michael DiPasquale](#)
To: [Armitage, Thomas](#)
Subject: Comments on Nomination of Tracy Corley for SAB
Date: Friday, May 21, 2021 9:48:29 AM

Dear Dr. Armitage:

I want to offer my strong support of Dr. Tracy Corley for her nomination to a position on the EPA Scientific Advisory Board.

I have worked with Dr. Corley for the past two years on several initiatives to address social equity and transportation access in distressed cities and towns in Massachusetts. I have been able to collaborate with her in my role as an "Extension Professor" at UMass Amherst, working primarily in distressed cities.

Through her work, Dr. Corley has been able to leverage her deep research experience related to environmental justice into producing tangible urban development projects that can mitigate the impact of climate change (heat island effect) and public health inequities in some of the poorest, most challenged communities in the Commonwealth of Massachusetts.

In particular, Dr. Corley has highlighted important research demonstrating the link between a city's "social infrastructure" and the impact of catastrophic climate events (an increase in social infrastructure such as community centers, libraries, schools decreases negative outcomes). Her approach to this topic has raised awareness of this issue both locally and nationally.

In addition, Dr. Corley's work has deployed cutting-edge GIS technology and mapping to demonstrate the connection between race and the lack of social infrastructure/mutual aid facilities in cities. Her work has been the source of new approaches to urban planning and neighborhood design. The changes that cities make based on Dr. Corley's work will have a big impact on creating more equitable, diverse cities.

I highly recommend Dr. Corley for nomination to the EPA Scientific Advisory Board.

Please contact me should you need more information.

Michael Di Pasquale

MICHAEL DI PASQUALE, AIA + AICP

Extension Assistant Professor
Landscape Architecture & Regional Planning
University of Massachusetts Amherst
Pronouns: he/him [What's this?](#)

*"If you are free, you need to free somebody else.
If you have some power then your job is to empower
somebody else". Toni Morrison*

<https://www.planning.org/plannerprofile/michaeldipasquale/>

<http://www.makeitspringfield.org/>

<http://designcenter.umass.edu/>

Follow me on Twitter: <https://twitter.com/umasscity>

From: [Bayer, Brian Edward](#)
To: [Armitage, Thomas](#)
Subject: Endorsement of Shanti Gamper-Rabindran for EPA Science Advisory Board (SAB)
Date: Friday, May 21, 2021 9:44:28 AM
Attachments: [C498E0C9BA03439ABB4083FE25D843D7\[95390839\].png](#)
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[522C19E6A1B2479AADA1D4C695A5EAA7\[95390844\].png](#)
[51302FE655884B1DB7978AFF4587424C\[95390845\].png](#)

Dear Dr. Armitage,

I write today in support of Dr. Shanti Gamper-Rabindran's candidacy for the EPA Science Advisory Board. Her extensive background in economics couples with a comprehensive understanding of how public policy and science interact locally, nationally, and internationally. She challenges researchers to explore all avenues and seek out practical, actionable ways to advocate for a more sustainable political economy, and she is not intimidated by special interests – her passion alone drives her work.

In her own research, she grounds her beliefs in evidence-based literature and studies and draws conclusions that invite readers to share her sense of urgency for a transformed perspective on health, human rights, and the environment.

I have been a student of hers and her constructive and supportive feedback throughout my academic journey helped sharpen my own work; and I have also worked with her outside the classroom in pursuit of her research. I feel the EPA SAB would be very fortunate to have her.

Regards,

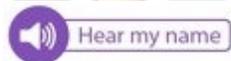
Brian Bayer, MID

Communications Manager

4050 Forbes Tower, Pittsburgh, PA 15260

412-383-3771 | brianbayer@pitt.edu | shrs.pitt.edu

Pronouns: He/His/Him



From: [Cymie Payne](#)
To: [Armitage, Thomas](#)
Subject: EPA Science Advisory Board Candidate Hildegaard Link
Date: Thursday, May 20, 2021 4:33:20 PM

Dear Dr. Armitage,

I write to comment in support of the nomination of Dr. Hildegaard Link to the EPA Science Advisory Board.

As a tenured faculty member in the Rutgers University Department of Human Ecology, I have been a colleague of Dr. Link since 2019. My field is environmental law; I practiced in the Solicitor's Office of the U.S. Department of the Interior and my subsequent legal practice and scholarly work have continued to engage significantly with matters within the ambit of EPA's responsibilities. I consider the Scientific Advisory Board to play a vital role in EPA's work, and I believe that it is essential for its members to bring objectivity, scientific knowledge, expert judgment in relevant disciplines, and appreciation of the social and economic context of EPA's governance role. Dr. Link is well-qualified in all those respects.

Dr. Link's expertise as an engineer and her subsequent preparation of a PhD in Geography/Earth & Environmental Science will provide a solid basis for understanding the technical issues that come before the Scientific Advisory Board. In her current research, teaching and community engagement she bridges the scientific/technical and social/economic aspects of energy, water and climate.

I will be happy to answer further questions regarding Dr. Link's qualifications and suitability for appointment to the EPA Science Advisory Board.

Sincerely,
Cymie Payne

Cymie Payne
Associate Professor
Rutgers University

www.cymiepayne.org
twitter @CymiePayne

Chair, Specialist Group on Oceans, Coasts and Coral Reefs
International Union for Conservation of Nature (IUCN) World Commission on Environmental Law

Fellow, American College of Environmental Lawyers

My papers on [SSRN](#)

Negotiation and Dispute Prevention in Global Cooperative Institutions: [International Community Interests, IUUFishing, and the Biodiversity Beyond National Jurisdiction Negotiation](#), 22 International Community Law Review 428 (2020)

From: [John Bucher](#)
To: [Armitage, Thomas](#)
Subject: Ram Iyengar
Date: Thursday, May 20, 2021 4:12:12 PM

I recommend Dr. Iyengar as a very highly qualified scientist and engineer.
Dr. John H. Bucher

Sent from my iPhone

From: [Donald Davis](#)
To: [Armitage, Thomas](#)
Subject: Comment on Shanti Gamper-Rabindran candidacy for EPA Science Advisory Board
Date: Thursday, May 20, 2021 3:48:12 PM

Dear Dr. Armitage,

I am writing in support of the candidacy of Shanti Gamper-Rabindran for appointment to the EPA's Science Advisory Board. Shanti is precisely the type of scholar that the EPA should seek for its science advisory board.

I have known Shanti for more than 20 years, from the time she was an undergraduate at Harvard and I served as her thesis advisor. Even then it was clear that she was a dynamo with a great future ahead of her. She is a *Summa* graduate of Harvard with a joint major in Economics and Environmental Science, received Rhodes scholarships to study at Oxford, receiving a B.A. in Jurisprudence (1994-1996) and an M.Sc. in Environmental Change and Management (1998-1999). She also earned a PhD in Economics at MIT (2001).

Shanti's PhD thesis research was a highly creative study of land tenure in Indonesia and its implications for fires that plagued the area. She provided a GIS-econometrics analysis of satellite, land use and spatial data to study differences between large and small landowners in the vulnerability to fire. Her ongoing research has ranged widely across environmental issues and has been of a uniformly high quality.

Shanti has boundless energy and a strong personal commitment to environmental and social justice. Much of this owes to her personal background of having risen out of poverty in Malaysia and feeling that she wants to return something to those still mired in poverty. She often brings a unique perspective on an issue, drawing from her personal and field experiences.

I think this extraordinary mix of academic, professional, and personal experience and characteristics would contribute greatly to the work of the EPA SAB.

Sincerely,

Don

Donald R. Davis
Ragnar Nurkse Professor of Economics
Columbia University
[Website](#)
[@newyorkonomics](#)

From: [Justement, Louis B](#)
To: [Armitage, Thomas](#)
Subject: Nomination of Patricia L. Morris for EPA SAB
Date: Thursday, May 20, 2021 3:31:34 PM

Dear Dr. Armitage,

I am writing to express my highest level of support for the nomination of Dr. Patricia L. Morris to the EPA SAB. I have known Dr. Morris for approximately 10 years and have had the pleasure to serve with her in many different capacities as a volunteer leader for the Federation of American Societies for Experimental Biology (FASEB). Let me say without qualification that Dr. Morris is an individual of the highest integrity and that she is an individual who is absolutely dedicated to promoting the best practices to ensure rigorous and reproducible research, diversity and inclusion in the STEM workforce, and the success of the next generation of scientists. Dr. Morris is the incoming President of FASEB and immediate past Vice President for Science Policy. In her role as President of FASEB, Dr. Morris will oversee a federation that represents 29 scientific societies and over 130,000 individual scientists that span a diverse range of disciplines in the biological and biomedical sciences. The mission of FASEB is to enhance the health and welfare of individuals in the US by promoting progress in research and education in the biological and biomedical sciences. Dr. Morris will lead a number of critical efforts at FASEB that include enhancing data management and sharing, diversity, equity and inclusion, training and sustaining the next generation of scientists, fostering a national effort to build and sustain core facilities and infrastructure that supports research across the US, and reducing administrative burden in science.

Dr. Morris has extensive experience as a research team and portfolio director, and she remains fully committed to advancing rigor and reproducibility in research. She is focused on facilitating engagement of multidisciplinary teams in environmental sciences, climate change and innovative GeoHealth research initiatives. She has served extensively as a peer reviewer and a study section Chair for several NICHD panels and extramural peer review for the National Institute of Environmental Health Sciences (NIEHS), including Superfund Sites and Toxicological Training Centers. Dr. Morris is an organizer and a co-convenor of recent GeoHealth and environmental convergence science initiatives, conference panels and workshops underpinning a newly forged professional partnership between earth and life sciences organizations. Given her background in global reproductive health and her oversight of training programs focused on early stage investigators and graduate trainees in clinical and basic sciences, incorporating goals for increasing diversity, equity and inclusion (DEI), and through multiple year terms leading DEI committees for clinical and basic scientific societies, Dr. Morris remains focused and highly committed to ongoing efforts to ensure underrepresented and underserved people have the training and career opportunities in science, technology, engineering, mathematics and medicine (STEMM) to advance the next generation scientific workforce and reduce health disparities in economically disadvantaged communities.

In closing, I am aware that there are numerous nominees for the SAB, but it is my most sincere conviction that Dr. Morris will serve as a member of the SAB with distinction and that she is an ideal choice for this important responsibility.

Sincerely,

Louis B Justement | Professor, Department of Microbiology
UAB | The University of Alabama at Birmingham

President, Federation of American Societies for Experimental Biology
Director, Undergraduate Immunology Program
Director, GBS Immunology Graduate Theme

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Birmingham, AL 35294-2182

P: 205-934-1429 | F: 205-996-6749 | lbjust@uab.edu
@UABUIP – Insta & Twitter, @LJustement – Twitter

From: moorpo@abzinc.com
To: [Armitage, Thomas](#)
Subject: Recommendation of Dr. John O'Brien to EPA SAB
Date: Thursday, May 20, 2021 3:00:37 PM
Attachments: [2021-05-20_Dr John Obrien EPA SAB recommendation .pdf](#)

Dr. Armitage,

Attached is my recommendation for nominee Dr. John O'Brien to join the EPA SAB.

Respectfully,

Philip O. Moor

Managing Director ABZ Inc

From: [Allen, Lucas](#)
To: [Armitage, Thomas](#)
Cc: [Laris, Zach](#)
Subject: AAP Comment on SAB List of Candidates
Date: Thursday, May 20, 2021 2:46:30 PM
Attachments: [AAP Letter Bernstein SAB Final.pdf](#)

Hello Dr. Armitage:

I am writing to share a comment letter from the American Academy of Pediatrics on the List of Candidates for the Environmental Protection Agency's Science Advisory Board. Thank you for the opportunity to comment.

Sincerely,

Lucas Allen (he/him)
Legislative Assistant, Federal Advocacy
American Academy of Pediatrics

From: [Francis de los Reyes](#)
To: [Armitage, Thomas](#)
Subject: EPA SAB commnets - Dr. Jeremiah Johnson
Date: Thursday, May 20, 2021 2:33:48 PM

Dr. Armitage,

I write to offer my support for Dr. Jeremiah Johnson's selection to the EPA SAB. Jeremiah is an expert in energy and environment sustainability. He is thoughtful, and is a critical and systems thinker. He is also a wonderful colleague and will definitely be impartial, logical, and a joy to work with.

Thank you!

Regards,
Francis

Francis L. de los Reyes III, Ph.D.
Professor
University Faculty Scholar
Department of Civil, Construction, and Environmental Engineering
North Carolina State University

Faculty Lead, Global WaSH Cluster
<https://globalwash.ncsu.edu>

Tel: 919-515-7416
Fax: 919-515-7908
fidelosr@ncsu.edu
<https://www.ccee.ncsu.edu/people/fidelosr>

From: [Destenie Nock](#)
To: [Armitage, Thomas](#)
Subject: Comment candidacy for the EPA science advisory board
Date: Thursday, May 20, 2021 1:42:26 PM

Dear Dr. Thomas Armitage,

I am providing a public comment in support of Shanti Gamper-Rabindran Environmental Protection Agency's Science Advisory Board. I am familiar with her work and she is a leading expert on the environmental impacts of fracking, and has multiple publications on how energy transition is impacting environmental sustainability and social factors. I think her combination of rigorous technical analysis and integration of social factors will be of huge benefit to the EPA.

Best,
Destenie

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***Destenie Nock, PhD***

Assistant Professor

Civil & Environmental Engineering | Engineering & Public Policy

Carnegie Mellon University

Website: [www.DestenieNock.com](http://www.DestenieNock.com)

Twitter: @DestenieNock, *pronouns: She, her, hers*

**Recent publications:**

"Wind energy's bycatch: Offshore wind deployment impacts on hydropower operation and migratory fish" <https://www.sciencedirect.com/science/article/pii/S1364032121001799>

"Who is marginalized in energy justice? Amplifying community leader perspectives of energy transitions in Ghana" <https://doi.org/10.1016/j.erss.2021.101933>

**From:** [Mandi Murphy](#) on behalf of [Ted Lyon](#)  
**To:** [Armitage, Thomas](#); [Bloomer, Bryan](#)  
**Subject:** Comment for Dr. Odenchantz  
**Date:** Wednesday, June 9, 2021 5:34:38 PM  
**Attachments:** [image002.png](#)  
[2021.06.09 - Letter for Dr. Armitage.pdf](#)

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Please find the attached letter for support of Dr. Odenchantz.

If you have any questions or would like to discuss please feel free to call me at (972) 279-6571.

Thank you,

Ted Lyon



**Ted B. Lyon & Associates, P.C.**

[tblyon@tedlyon.com](mailto:tblyon@tedlyon.com)

Town East Tower – Suite 525

18601 LBJ Freeway | Mesquite, Texas 75150

Ph: 972.279.6571 | Fax: 972.279.3021

[www.tedlyon.com](http://www.tedlyon.com)

**From:** [Jodi Swick](#)  
**To:** [Armitage, Thomas](#); [Bloomer, Bryan](#)  
**Subject:** In Support of Dr. Joe Odencrantz for EPA Science Advisory Board  
**Date:** Friday, June 4, 2021 7:04:58 PM

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Dear Dr. Armitage,

Dr. Odencrantz was engaged by my previous law firm as an expert on the gasoline additive MTBE, fate and transport characteristics and the impacts of the chemical on water supply systems across the United States. Dr. Odencrantz reviewed hundreds of documents related to the case and his expert report highlighted the relevance of the technical information with an emphasis on the knowledge of the chemical's properties prior to it being added to gasoline (entering the commerce stream). It is my belief that Dr. Odencrantz's background and experience would be a tremendous asset to the EPA's SAB. I am in full support of his nomination.

All the best,  
Jodi Swick  
Partner  
McDowell Hetherington LLP

**From:** [Stallworth, Holly](#)  
**To:** [Armitage, Thomas](#); [Brennan, Thomas](#)  
**Subject:** FW: Letter in support of the nomination of Dr. Gloria B. Post  
**Date:** Monday, June 7, 2021 8:47:39 AM

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**From:** Alan Stern <ahstern1@verizon.net>  
**Sent:** Sunday, June 6, 2021 11:58 AM  
**To:** Stallworth, Holly <Stallworth.Holly@epa.gov>  
**Subject:** Letter in support of the nomination of Dr. Gloria B. Post

Dear Ms. Stallworth,

Please forgive the lateness and brevity of this letter in support of Dr. Gloria B. Post's nomination to the full SAB as I am dealing with several other issues.

For more than 20 years until my recent retirement, I was Dr. Post's immediate supervisor in the Bureau for Toxicology and Risk Assessment of the Division of Science and Research of the NJ Dept. of Environmental Protection. Through that entire period, I can honestly say that I knew (or currently know) no one inside or outside NJ government who was a more focused, knowledgeable, deliberative or dedicated scientist. Dr. Post almost literally lives and breathes toxicology and risk assessment. Since the early 1990's, Dr. Post has maintained her board certification as a diplomate in toxicology (through the American Board of Toxicology), and has continued to publish in respected scientific journals (including as a co-author with me). She has made herself a world-class authority on the toxicology, exposure and occurrence of the PFAS. She understands both the little and big pictures of any subject she tackles. Equally importantly, Dr. Post knows what she does not know and has no pretensions to expertise that she does not possess.

I recently completed two terms as a member of the SAB's Chemical Assessment Advisory Committee, so I understand what the SAB is, how it works, and who possesses the strengths and qualities to make a meaningful contribution to the SAB. With that in mind, I wholeheartedly endorse Dr. Post's nomination to the full SAB.

Please feel free to contact me with any questions.

Sincerely,  
Alan H. Stern Dr.P.H., D.A.B.T.

**From:** [Stallworth, Holly](#)  
**To:** [Armitage, Thomas](#); [Brennan, Thomas](#)  
**Subject:** FW: Endorsement of Dr. Daniel Walsh for the SAB  
**Date:** Thursday, May 13, 2021 7:30:53 AM

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**From:** Greenblott, Joseph <Greenblott.Joseph@epa.gov>  
**Sent:** Wednesday, May 12, 2021 7:38 PM  
**To:** Stallworth, Holly <Stallworth.Holly@epa.gov>  
**Subject:** Endorsement of Dr. Daniel Walsh for the SAB

Dear Holly,

I want to share my unqualified endorsement of Dr. Daniel Walsh for the SAB.

I have known Dr. Walsh professionally for more than 30 years. When I was on detail to the SAB staff, Dr. Walsh became a member of and made significant contributions to the Homeland Security Advisory Subcommittee that I helped establish. Dr. Walsh possesses a rare combination of scientific and technical expertise, combined with unparalleled leadership and government and organizational experience. His list of accomplishments is long, and all of them are grounded in the application of environmental sciences and research.

Dr. Walsh is a unique applied researcher who uses his research results to directly change urban public policy. In his role as a leader in New York City (NYC) government, he designed and operated programs to achieve environmental protection and environmental equity and justice. There are many examples but I will provide two. His scientific research focuses on the pollution of soil in NYC and resultant public health exposures to soil pollutants in low income communities. Based on this research he created effective governmental programs to address pollutant exposure in these communities and improve environmental justice outcomes. Two notable examples include his founding, design, and operation of (1) the nation's first city-run land cleanup program, which targets reduction of pollutant exposures and promotes development of affordable housing in disadvantaged communities and communities of color, and (2) the NYC Clean Soil Bank. The latter is a revolutionary clean soil exchange that uses surplus clean soil excavated during urban development projects and recycles that soil locally, through a process of direct transfer, that allows soil to be used to cover polluted soils for community gardens and backyards (to directly lower exposure) and to improve resilience to climate change and sea level rise.

These are two of the best examples I have witnessed on the use of scientific research to inform public policy and achieve goals for environmental protection, public health protection and environmental justice and equity. I can't overstate the difficulty that attends development of first-of-their-kind programs of this type, including requirements to first establish authorizing legislation and landmark agreements with state environmental agencies and to secure support of local stakeholders. Dr. Walsh is among the rare scientists that have both the academic and public policy credentials to achieve both environmental research objectives and also the public policy design and program development objectives.

It is notable that he has achieved these goals while also serving as an appointed official in New York City government. I would like to conclude with this observation. Due to his long career of government service, Dr. Walsh may lack the large number of publications and academic honors typical of many SAB candidates; however, his depth and breadth of expertise and experience in environmental science and the application of science to address real world problems will make him an extremely valuable member of the SAB. I urge you to consider this when evaluating his qualifications.

Sincerely,  
Joe

Dr. Joseph M. Greenblott  
Director, Analysis Division  
Office of Planning, Analysis and Accountability  
Office of the Chief Financial Officer  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W. (2722A)  
Washington, DC 20460  
Tel: 202-564-4250

**From:** [SARA ELIZABETH GRINESKI](#)  
**To:** [Armitage, Thomas](#); [Figueroa, Zaida](#)  
**Subject:** public comment / EPA science advisory board  
**Date:** Tuesday, June 8, 2021 11:37:19 AM

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To Whom it May Concern:

I am writing in support of Jayajit Chakraborty's nomination for the Environmental Justice (EJ) Subcommittee of the EPA Science Advisory Board. I have known Jay for 15 years and have collaborated with him on several grant-funded projects and many publications, making me well-qualified to recommend him to you.

Dr. Chakraborty is an outstanding scholar of EJ and someone who would bring a calm and reasoned voice to discussions related to EJ while on the Board. He has made important methodological contributions to the field that have changed the way we do EJ research. Dr. Chakraborty is a trusted and well-respected person in the EJ community. He is also an upstanding person with integrity. I have no doubt that he would take the role very seriously and would contribute much to the Board. Please seriously consider him!

Best,  
Sara Grineski, Ph.D.  
Professor, Sociology and Environmental Studies  
Co-Director, Center for Natural and Technological Hazards  
Co-Director, NIEHS R25 (HAPPIEST)  
Director of Undergraduate Studies in Sociology  
University of Utah

**From:** [Ryan B Holifield](#)  
**To:** [Armitage, Thomas](#); [Figueroa, Zaida](#)  
**Subject:** Letter of support for Sacoby Wilson  
**Date:** Monday, June 7, 2021 7:55:30 PM

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Dr. Figueroa and Dr. Armitage,

I'm pleased to offer my support for the appointment of Professor Sacoby Wilson to the Environmental Justice Committee of the EPA Science Advisory Board. Professor Wilson is a leading international expert on numerous aspects of environmental justice, and he currently serves as the lead editor of the journal *Environmental Justice* (for which I serve as associate editor).

The aspects of Professor Wilson's wide-ranging work that I am most familiar with are his groundbreaking contributions to community-based participatory research and related approaches to environmental justice. Working with several of his students, Professor Wilson contributed what in my opinion is one of the most valuable chapters to the *Routledge Handbook of Environmental Justice* (which I co-edited with Jayajit Chakraborty and Gordon Walker), focusing on the spectrum of community-based approaches to EJ. I now make his chapter required reading in my upper-level course on environmental justice, and I also include interviews with Professor Wilson as part of an assignment to help students understand the significance and distinctiveness of these approaches.

I have served as associate editor of *Environmental Justice* for less than a year, but so far I have been very impressed with Professor Wilson's leadership of the journal so far. It is clear that Professor Wilson has made tremendous strides to raise the profile of the journal, and I am excited to see where he takes it in the coming years.

I haven't met Professor Wilson in person (just yet), but I've found him to be highly collegial in our email correspondence. He is a leader and an innovator whose expertise would be a tremendous asset for the SAB with the growing importance of community-based approaches to research.

In short, I believe Professor Wilson is a perfect fit for the SAB, and I support his nomination enthusiastically. Please let me know if I can be of further assistance.

Sincerely,  
Ryan Holifield

=====  
Ryan Holifield  
Associate Professor  
Department of Geography  
University of Wisconsin-Milwaukee  
Bolton Hall, Room 434  
PO Box 413  
Milwaukee, WI 53201-0413  
Email: [holifiel@uwm.edu](mailto:holifiel@uwm.edu)  
=====

**From:** [Ryan B Holifield](#)  
**To:** [Armitage, Thomas](#); [Figueroa, Zaida](#)  
**Subject:** Letter of support for Jayajit Chakraborty  
**Date:** Monday, June 7, 2021 7:44:23 PM

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Dr. Figueroa and Dr. Armitage,

I'm pleased to offer my support for the appointment of Professor Jayajit Chakraborty to the Environmental Justice Committee of the EPA Science Advisory Board. Professor Chakraborty is one of the world's leading experts in spatial analysis of environmental justice and equity issues, and I believe his expertise would enable him to make exceptionally valuable contributions to the SAB. His work has dramatically advanced the sophistication of EJ analysis over the past two decades; he was a pioneer in bringing geospatial regression techniques (which have now become the gold standard) into EJ analysis, and he was also among the first to use such techniques as plume modeling to measure the equity of air pollution. His work tackles a wide array of environmental justice issues, including both hazards and amenities, and he participates in EJ outreach and partnership activities along the US-Mexico border. I have used his excellent work in my own upper-level environmental justice class for many years, and it has proven to be an outstanding introduction to methodological challenges and innovations in quantitative EJ research.

On a personal note, I can add that Professor Chakraborty is exceptionally collegial and dependable – truly a pleasure to work with. We worked together as co-editors (with Gordon Walker) of the international *Routledge Handbook of Environmental Justice*, and his contributions to the process were excellent. I would work with him again without hesitation.

In short, I believe Professor Chakraborty is a perfect fit for the SAB, and I support his nomination enthusiastically. Please let me know if I can be of further assistance.

Sincerely,  
Ryan Holifield

=====  
Ryan Holifield  
Associate Professor  
Department of Geography  
University of Wisconsin-Milwaukee  
Bolton Hall, Room 434  
PO Box 413  
Milwaukee, WI 53201-0413  
Email: [holifiel@uwm.edu](mailto:holifiel@uwm.edu)  
=====

**From:** [Kirby, Russell](#)  
**To:** [Armitage, Thomas](#); [Figueroa, Zaida](#)  
**Subject:** Nomination for advisory board  
**Date:** Friday, June 4, 2021 2:32:31 PM  
**Attachments:** [image003.png](#)  
[Letter re Chakraborty EPA 6-21.pdf](#)

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Please accept my letter supporting the nomination of Dr Jay Chakraborty for the scientific advisory board.

Yours,  
Russ

**Russell S. Kirby, PhD, MS, FACE**

Distinguished University Professor and Marrell Endowed Chair  
Strategic Area Faculty Lead for Population Health Science

College of Public Health

University of South Florida

813-396-2347

[kirbyr@usf.edu](mailto:kirbyr@usf.edu)

13201 Bruce B. Downs Blvd, MDC 56, Tampa, FL 33612

3220 USF Banyan Circle, Tampa, FL 33613 (physical)

*Fax: Please scan to PDF and email rather than faxing*



**From:** [Vivek Maru](#)  
**To:** [Armitage, Thomas](#); [Jay Monteverde](#)  
**Subject:** in support of Sacoby Wilson for EPA SAB  
**Date:** Thursday, June 10, 2021 6:34:55 AM

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Dear Dr. Armitage,

We are writing in support of Sacoby Wilson's nomination to the EPA Scientific Advisory Board.

We work with Namati, which helps communities affected by environmental injustice to know, use, and shape environmental law and policy. We partner closely with Sacoby and his lab at the University of Maryland, most recently in the development of an Environmental Justice Academy for the Chesapeake region of Maryland, DC, Delaware, and Virginia. One of us (Vivek) is guest-editing an upcoming issue of the journal *Environmental Justice*, for which Sacoby serves as editor-in-chief.

Dr. Wilson combines deep scientific knowledge with an understanding of how environmental harms play out in the lives of ordinary people. He has helped communities throughout the Chesapeake region and other parts of the United States to use environmental science in pursuit of concrete solutions to environmental problems. His commitment is unwavering and his passion is infectious.

We believe Dr. Wilson will bring a crucial perspective to the Advisory Board, one that is both scientifically rigorous and deeply rooted in the experience of those bearing the brunt of environmental injustice. We support his nomination wholeheartedly.

Sincerely,

Vivek Maru, CEO, Namati  
Jay Monteverde, US Program Director, Namati

**From:** [Steve Via](#)  
**To:** [Brennan, Thomas](#)  
**Cc:** [Shallal, Suhair](#); [Armitage, Thomas](#); [Tracy Mehan](#)  
**Subject:** Science Advisory Board-Drinking Water Committee  
**Date:** Wednesday, May 5, 2021 1:07:40 AM  
**Attachments:** [image001.png](#)  
[2021\\_04\\_20 Endorsement for SAB.pdf](#)  
[2021\\_04 LeChevallier CV.pdf](#)  
[2021\\_04 Summers CV.pdf](#)

---

Good morning,

Please see the attached letter with recommendations responding to EPA's request for nominations to the Science Advisory Board Drinking Water Committee.

Thank you for your time and attention.

Best regards,  
Steve Via

**Steve Via**  
Director, Federal Relations  
American Water Works Association  
Direct +1 202.326.6130  
[svia@awwa.org](mailto:svia@awwa.org) | [www.awwa.org](http://www.awwa.org)



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American Water Works Association  
Dedicated to the World's Most Important Resource ®

**From:** [Stallworth, Holly](#)  
**To:** [Brennan, Thomas](#); [Armitage, Thomas](#)  
**Subject:** FW: Gloria Post SAB support letter.  
**Date:** Thursday, May 6, 2021 7:34:36 AM  
**Attachments:** [Post SAB support letter Strynar 5-5-21.docx](#)

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**From:** Strynar, Mark <Strynar.Mark@epa.gov>  
**Sent:** Wednesday, May 5, 2021 3:47 PM  
**To:** Stallworth, Holly <Stallworth.Holly@epa.gov>  
**Subject:** Gloria Post SAB support letter.

Holly,

I understand this was due to you by May 3<sup>rd</sup> COB. I had some unforeseen things come up in the past couple of days that delayed my letter for Dr. Gloria Post. Please consider this letter as an additional support for Gloria's recommendation.

Sincerely,  
Mark

Mark Strynar  
US EPA  
Physical Scientist  
919-541-3706  
[Strynar.mark@epa.gov](mailto:Strynar.mark@epa.gov)

**From:** [Stallworth, Holly](#)  
**To:** [Brennan, Thomas](#); [Armitage, Thomas](#)  
**Subject:** FW: Letter of Support for SAB Nomination for Gloria Post  
**Date:** Wednesday, May 5, 2021 1:36:19 PM

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**From:** Goeden, Helen (MDH) <[helen.goeden@state.mn.us](mailto:helen.goeden@state.mn.us)>  
**Sent:** Tuesday, May 4, 2021 12:29 PM  
**To:** Stallworth, Holly <[Stallworth.Holly@epa.gov](mailto:Stallworth.Holly@epa.gov)>  
**Subject:** Letter of Support for SAB Nomination

Dear Dr. Stallworth,

I would like to provide the following letter of support for Dr. Gloria Post's nomination to the SAB.

I am currently a senior toxicologist at the Minnesota Department of Health (MDH) and have worked in the area of environmental toxicology and risk assessment for over 35 years. I have also served on several SABs.

I have known Dr. Post for nearly 20 years in a variety of professional roles, including as a member of the Federal State Risk Analysis Committee (FSTRAC) planning committee. Dr. Post is very knowledgeable regarding critical review of toxicological data as well as the integration of that data to inform risk assessment. She has been one of the most collaborative professionals that I have worked with, generously sharing her knowledge as well as alerting many of her colleagues across the county on new publications, guidance, etc. that directly impacts our work. I have come to rely upon her expertise and knowledge as a scientist and risk assessor, in particular, regarding PFAS compounds. Because of the high quality and thoroughness the MDH has used supporting documents and publications co-authored by Dr. Post as a starting point for our own assessments. Inclusion of an SAB member with the expertise to critically review the underlying data and rationale used to derive toxicity values as well as direct knowledge of the challenges in applying toxicity values at the state level is essential. In addition to her expertise as a scientist, Dr. Post is highly regarded and respected by her colleagues across the county for her integrity and leadership.

Sincerely,  
Helen Goeden

**Helen Goeden, PhD**

Senior Toxicologist/Risk Assessor | Health Risk Assessment Unit  
Voicemail: 651-201-4904



**From:** [Stallworth, Holly](#)  
**To:** [Brennan, Thomas](#); [Armitage, Thomas](#)  
**Cc:** [Bloomer, Bryan](#)  
**Subject:** FW: endorsing Elisabeth Gilmore's nomination for SAB Climate Science committee  
**Date:** Wednesday, May 5, 2021 11:38:21 AM

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Passing along this recommendation for Elisabeth Gilmore.

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**From:** Peter J Adams <peteradams@cmu.edu>  
**Sent:** Wednesday, May 5, 2021 11:35 AM  
**To:** Stallworth, Holly <Stallworth.Holly@epa.gov>  
**Subject:** endorsing Elisabeth Gilmore's nomination for SAB Climate Science committee

Dr. Stallworth:

I am writing to endorse the nomination of Dr. Elisabeth Gilmore to the Climate Science committee of the SAB. I was fortunate to be her thesis advisor years ago and have followed her career and remained in close contact with her since. Her extensive expertise in climate science, economics, and policy is recognized by the IPCC. She is a lead author of the North American Chapter and drafting author of the Summary for Policymakers for Working Group II. She also has experience with the needs and responsibilities of the EPA from holding an AAAS fellowship in the EPA's Climate Division. In summary, she would bring a unique interdisciplinary perspective and deep commitment to this role. Do not hesitate to reach out if you have any additional questions.

Peter

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Peter J. Adams  
Department Head, Department of Engineering and Public Policy  
Professor, Department of Civil and Environmental Engineering  
Director, Center for Atmospheric Particle Studies  
Baker Hall 129H  
Carnegie Mellon University  
Pittsburgh, PA 15213

W: 412-268-5624  
F: 412-268-7813  
[petera@andrew.cmu.edu](mailto:petera@andrew.cmu.edu)

**From:** [Stallworth, Holly](#)  
**To:** [Brennan, Thomas](#); [Armitage, Thomas](#)  
**Subject:** FW: Letter of Support for SAB Nomination of Gloria Post  
**Date:** Wednesday, May 5, 2021 10:17:12 AM

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**From:** Goeden, Helen (MDH) <[helen.goeden@state.mn.us](mailto:helen.goeden@state.mn.us)>  
**Sent:** Wednesday, May 5, 2021 9:24 AM  
**To:** Stallworth, Holly <[Stallworth.Holly@epa.gov](mailto:Stallworth.Holly@epa.gov)>  
**Subject:** FW: Letter of Support for SAB Nomination

Good morning Dr. Stallworth,  
The email I sent yesterday apparently was not delivered.  
I know I had several emails, all sent to EPA email addresses, that were kicked back.

Hope that this reaches you on the second try.

Best,  
Helen

**Helen Goeden, PhD**

Senior Toxicologist/Risk Assessor | Health Risk Assessment Unit  
Voicemail: 651-201-4904



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**From:** Goeden, Helen (MDH)  
**Sent:** Tuesday, May 4, 2021 11:29 AM  
**To:** [stallworth.holly@epa.gov](mailto:stallworth.holly@epa.gov)  
**Subject:** Letter of Support for SAB Nomination

Dear Dr. Stallworth,  
I would like to provide the following letter of support for Dr. Gloria Post's nomination to the SAB.

I am currently a senior toxicologist at the Minnesota Department of Health (MDH) and have worked in the area of environmental toxicology and risk assessment for over 35 years. I have also served on several SABs.

I have known Dr. Post for nearly 20 years in a variety of professional roles, including as a

member of the Federal State Risk Analysis Committee (FSTRAC) planning committee. Dr. Post is very knowledgeable regarding critical review of toxicological data as well as the integration of that data to inform risk assessment. She has been one of the most collaborative professionals that I have worked with, generously sharing her knowledge as well as alerting many of her colleagues across the county on new publications, guidance, etc. that directly impacts our work. I have come to rely upon her expertise and knowledge as a scientist and risk assessor, in particular, regarding PFAS compounds. Because of the high quality and thoroughness the MDH has used supporting documents and publications co-authored by Dr. Post as a starting point for our own assessments. Inclusion of an SAB member with the expertise to critically review the underlying data and rationale used to derive toxicity values as well as direct knowledge of the challenges in applying toxicity values at the state level is essential. In addition to her expertise as a scientist, Dr. Post is highly regarded and respected by her colleagues across the county for her integrity and leadership.

Sincerely,  
Helen Goeden

**Helen Goeden, PhD**

Senior Toxicologist/Risk Assessor | Health Risk Assessment Unit  
Voicemail: 651-201-4904



**From:** [Stallworth, Holly](#)  
**To:** [Brennan, Thomas](#); [Armitage, Thomas](#)  
**Subject:** Letter of recommendation for Gloria Post  
**Date:** Monday, May 3, 2021 2:02:09 PM  
**Attachments:** [Gloria Post Nomination.pdf](#)

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**From:** Graziano, Joseph <jg24@cumc.columbia.edu>  
**Sent:** Monday, May 3, 2021 1:59 PM  
**To:** Stallworth, Holly <Stallworth.Holly@epa.gov>  
**Subject:** Nomination for EPA SAB

Dear Dr. Stallworth,

I write to provide a letter of nomination for Dr. Gloria Post to become a member of the EPA SAB. She will be an absolutely extraordinary addition to the SAB.

Best regards,

Joe

Joseph Graziano, PhD  
Professor Emeritus  
Department of Environmental Health Sciences  
Columbia University  
Mailman School of Public Health

**From:** [Stallworth, Holly](#)  
**To:** [Brennan, Thomas](#); [Armitage, Thomas](#)  
**Subject:** Letter of recommendation for Gloria Post  
**Date:** Monday, May 3, 2021 2:01:33 PM  
**Attachments:** [ATT00001.txt](#)  
[Post SAB Nomination.pdf](#)

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**From:** DeWitt, Jamie <DEWITTJ@ecu.edu>  
**Sent:** Monday, May 3, 2021 1:56 PM  
**To:** Stallworth, Holly <Stallworth.Holly@epa.gov>  
**Subject:** Support of EPA SAB nominee

Dear Dr. Stallworth,

Attached, please find a letter of support for the nomination of Dr. Gloria Post to the EPA SAB.

Sincerely,

Jamie DeWitt

~~~~~

Jamie DeWitt, PhD, DABT
Associate Professor
Department of Pharmacology & Toxicology
Brody School of Medicine
East Carolina University
Greenville, NC 27834
(252) 744-2474 (voice)
dewittj@ecu.edu (email)
she/her/hers



From: [Stallworth, Holly](#)
To: [Brennan, Thomas](#); [Armitage, Thomas](#)
Subject: FW: Letter of recommendation for Dr. Adam Finkel to the EPA SAB
Date: Monday, May 3, 2021 12:55:28 PM

Passing along this letter of recommendation for Adam Finkel.

From: Dennis Paustenbach <Dennis@paustenbachandassociates.com>
Sent: Friday, April 30, 2021 8:12 PM
To: Stallworth, Holly <Stallworth.Holly@epa.gov>
Cc: Dennis Paustenbach <Dennis@paustenbachandassociates.com>
Subject: Letter of recommendation for Dr. Adam Finkel to the EPA SAB

Holly:

I understand that Dr. Adam Finkel has been nominated to be a member of one of the EPA SAB panels that are being “rebuilt”. I am sending this note in support of his appointment.

I have known Adam for twenty-five years. We have both been very active in the risk assessment community and have been leaders in the Society for Risk Analysis.

It is my view that Dr. Finkel is one of the most talented persons in the nation in the broad fields of the environmental and occupational health sciences. His views are normally left leaning but they have always been a good counter-balance to those on the right. I have been a firm believer that corporations normally try to do the right thing with respect with occupational and environmental health and, even though Adam may not share those views, we have always respected one another. Not surprisingly, Adam is strongly identified to be aligned with the interests of most environmental NGOs.

Adam would be a valuable addition to any SAB panel under the Biden administration. He firmly embraces the precautionary principle and I believe this fits into the current views of EPA. Beyond that, Adam is quite comfortable in tackling nearly any scientific or economic issue due to his substantial experience, as well as his ample intellect. I have always put Dr. Finkel in the small club of persons with whom I don't care to have an intellectual chess match!

He has a genuine love of “all things scientifically challenging” and he enjoys sharing his wisdom in the classroom. Adam took my position as an Adjunct Professor at the University of Michigan School of Public Health after I left and I believe students have benefited from his views.

I would not be surprised if there were persons who oppose his nomination when it appears in the Federal Register. He has not been a wallflower during his career and he rarely minces words about the motivations of persons who don't seem to be acting in the best interests of

the public. For an Ivy leaguer who came from a comfortable childhood, he has come to respect the dignity of the blue collar worker and the plight of the underserved. I respect him considerably for being a person of integrity.

He is special in that he brings to the party strong academic credentials, substantial experience, a high level of interest in our profession, a good understanding of statistics, quantitative risk assessment, exposure science, regulatory policy, economics and the law.

I support his nomination without reservation.

Respectfully,

Dennis Paustenbach, PhD, DABT, CIH, FATS
President of a Risk Assessment and Toxicology Consulting Firm

From: [Stallworth, Holly](#)
To: [Brennan, Thomas](#); [Armitage, Thomas](#)
Subject: FW: recommendation for Dr. Gloria Post for EPA SAB
Date: Monday, May 3, 2021 11:49:11 AM
Attachments: [Gloria Post EPA SAB 5.1.21 signed.pdf](#)

From: Linda Birnbaum <birnbaum.tox@outlook.com>
Sent: Saturday, May 1, 2021 7:51 PM
To: Stallworth, Holly <Stallworth.Holly@epa.gov>
Subject: recommendation for Dr. Gloria Post for EPA SAB

Please do not hesitate to contact me if I can provide any more information. Dr. Post would be a terrific member of the EPA SAB.

Linda S. Birnbaum, Ph.D., D.A.B.T., A.T.S.
Scientist Emeritus and Former Director

National Institute of Environmental Health Sciences and National Toxicology Program
Scholar in Residence, Nicholas School of the Environment, Duke University

[Birnbaum.tox@outlook.com](mailto:birnbaum.tox@outlook.com)

919-280-2884

From: [Stallworth, Holly](#)
To: [Brennan, Thomas](#); [Armitage, Thomas](#)
Subject: Letter of recommendation for Gloria Post
Date: Thursday, April 29, 2021 4:12:30 PM
Attachments: [Gloria Post recommendation.pdf](#)

From: Alan Ducatman <alan.ducatman@gmail.com>
Sent: Thursday, April 29, 2021 4:11 PM
To: Stallworth, Holly <Stallworth.Holly@epa.gov>
Subject: attached letter of recommendation for SAB

Please find attached letter, nominating Gloria Post Ph.D.
If I have left something out, please do not hesitate to contact me.

From: [Stallworth, Holly](#)
To: [Brennan, Thomas](#); [Armitage, Thomas](#)
Subject: Letter of recommendation for Dr. Post
Date: Thursday, April 29, 2021 3:37:59 PM
Attachments: [GloriapostEPASAB.docx](#)

From: Keith Cooper <keith.cooper@rutgers.edu>
Sent: Thursday, April 29, 2021 1:33 PM
To: Stallworth, Holly <Stallworth.Holly@epa.gov>
Cc: Keith Cooper <keith.cooper@rutgers.edu>
Subject: Nomination Dr. Post

Dear Dr. Stallworth, I am emailing this nomination letter for Dr. Gloria Post to serve on the EPA SAB. I have attached a letter to that effect. In my opinion she would be a tremendous addition to the EPA SAB because of her experience with State regulations, and her exceptional scientific mind.

Thank you for your consideration of this matter.

Keith R. Cooper, PhD
Professor Rutgers University and
Chairperson New Jersey Drinking Water Quality Institute

From: [Stallworth, Holly](#)
To: [Brennan, Thomas](#); [Armitage, Thomas](#)
Subject: FW: Recommendation of Gloria Post for SAB membership
Date: Wednesday, April 28, 2021 9:57:25 AM
Attachments: [210428 Post rec for SAB by JWW.docx](#)

As promised, I'm passing along this letter of recommendation for Gloria Post to the two of you.

From: Washington, John <Washington.John@epa.gov>
Sent: Wednesday, April 28, 2021 9:48 AM
To: Stallworth, Holly <Stallworth.Holly@epa.gov>
Subject: Recommendation of Gloria Post for SAB membership

Hi Dr. Stallworth,

I am emailing you to recommend Dr. Post for membership on the SAB in the attached Word file.

Thank you for your attention,
John Washington

From: [Stallworth, Holly](#)
To: [Brennan, Thomas](#); [Armitage, Thomas](#); [Bloomer, Bryan](#)
Subject: FW: Recommendation for Elisabeth Gilmore for SAB climate science committee
Date: Monday, May 10, 2021 7:52:09 AM
Attachments: [Gilmore SAB recommendation.pdf](#)

Passing along this recommendation from Jim Hammitt of the Harvard Center for Risk Analysis for Elisabeth Gilmore for the SAB (and Climate Science Committee).

From: Hammitt, James K. <jkh@hsph.harvard.edu>
Sent: Friday, May 7, 2021 8:13 PM
To: Stallworth, Holly <Stallworth.Holly@epa.gov>
Subject: Recommendation for SAB climate science committee

Dear Holly,

I write to support the nomination of Elisabeth Gilmore to the SAB climate science committee (see attached).

I hope that all goes as well as can be for you and your family in these difficult (but improving) times. I have fond memories of working with you on SAB/Council matters, long ago.

Best wishes,
Jim

From: [Stallworth, Holly](#)
To: [Brennan, Thomas](#); [Armitage, Thomas](#); [Bloomer, Bryan](#)
Subject: FW: Letter on E Gilmore from G. Morgan
Date: Thursday, May 6, 2021 7:33:57 AM
Attachments: [GM on Gilmore for EPA SAB.pdf](#)

Letter of recommendation for Elisabeth Gilmore (climate scientist) from former SAB Chair Granger Morgan.

From: M Granger Morgan <gm5d@andrew.cmu.edu>
Sent: Wednesday, May 5, 2021 8:49 PM
To: Stallworth, Holly <Stallworth.Holly@epa.gov>
Subject: Letter on E Gilmore from G. Morgan

Attached

Granger Morgan

From: [Brahm P Verma](#)
To: [Figueroa, Zaida](#)
Cc: [Armitage, Thomas](#); [Brahm P Verma](#)
Subject: Comments supporting Dr. Thomas (Tom) L. Richard - Candidate for EPA Science Advisory Board on Agriculture
Date: Wednesday, June 9, 2021 10:42:14 AM
Attachments: [2021.06.08 Tom Richard- EPA SAC on Ag.pdf](#)

Zaida I. Figueroa Correa, DrPh, MSc
U.S. EPA Office of the Administrator,
Science Advisory Board Staff Office

Dr. Correa,

In response to your invitation for public comment on individuals who are candidate for EPA's Science Advisory Board on Agriculture, I am attaching my comments on the candidacy of Dr. Thoms (Tom) L. Richard who is a professor at Pennsylvania State University and director of the Institutes of Energy and the Environment facilitating collaborative works of over 500 faculty members from multiple disciplines and overseeing annual expenditures exceeding \$100 M.. I request your consideration of my comments on Dr. Richard when reviewing his potential to contribute on issues presented to the Board.

If you have any questions on my comments, please feel free to contact me directly.

Thank you,

Brahm

Brahm P. Verma, PhD

Professor and Associate Director *Emeritus*
College of Engineering; College of Agricultural and Environmental Sciences
University of Georgia, Athens, GA. 30602-4435
Phone: 706-207-5126
Founding President, Institute of Biological Engineering (IBE)
IBE - A Society for Advancing Biology-Inspired Engineering; Join IBE: www.ibe.org



June 3, 2021

Memo concerning Dr. Jay Chakraborty's candidacy for the Environmental Justice Subcommittee of the EPA Science Advisory Board

DEPARTMENT OF
SOCIOLOGY &
ANTHROPOLOGY

To whom it may concern:

I am very pleased to recommend Dr. Jayajit ("Jay") Chakraborty for a position on the Environmental Justice Subcommittee of the EPA Science Advisory Board. Dr. Chakraborty would be an excellent subcommittee member as I can attest from my experience working with him as the chair of his department. Jay is a cooperative, hard-working, and smart colleague who has been a great asset to our department. More specifically, I would like to emphasize the following aspects of Jay's career and relevance to the subcommittee:

- Dr. Chakraborty has almost 25 years of experience in environmental justice research and scholarship. He has authored numerous journal articles that have made important methodological and empirical contributions to the EJ literature, and edited The Routledge Handbook of Environmental Justice, considered to be the most comprehensive volume on this subject with contributions from 90 leading scholars from more than 20 countries.
- As the Founding Director of UTEP's Socio-Environmental and Geospatial Analysis (SEGA) Laboratory, Jay currently directs multiple collaborative and interdisciplinary projects that align with the Lab's mission of applying geospatial methodologies and technologies to examine adverse environmental risk burdens and health impacts that affect socially disadvantaged and vulnerable communities across the world.
- His research utilizes a variety of traditional and emerging methodologies, including applications of GIScience and cutting-edge geospatial techniques, as well as social surveys and mixed-methods approaches.
- Dr. Chakraborty has been actively involved in the formulation of policy solutions for addressing environmental and social injustices in the US. Contributed to the first national symposium on Strengthening Environmental Justice Research and Decision Making organized by the EPA, development of EJSCREEN--the EPA's online environmental justice mapping/screening tool, and formulation of environmental justice indicators for the Florida Department of Transportation for estimating the impacts of transportation system changes.
- Jay's collaborations and partnerships with a wide range of local organizations and stakeholders epitomize his contributions to community-engaged research. He is currently involved in several environmental justice-related outreach activities and university-community partnerships with local organizations in the El Paso-Juárez binational urban area.
- Dr. Chakraborty has taught environmental justice courses for almost two decades and supervised more than 30 student thesis/dissertation projects on various environmental justice-related

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EL PASO, TEXAS
79968-8900
PH: (915) 747-5740
FAX: (915) 747-5505



topics. Most of his student advisees are underrepresented minority and first-generation college students.

For all of these reasons, it is a great pleasure to recommend Dr. Chakraborty.

Thank you very much.

Sincerely,

A handwritten signature in cursive script that reads "Howard Campbell". The signature is written in black ink and is positioned to the right of the typed name.

Howard Campbell

Professor of Anthropology and Chairman



**American Water Works
Association**

Dedicated to the World's Most Important Resource™

Government Affairs Office
1300 Eye Street NW
Suite 701W
Washington, DC 20005-3314
T 202.628.8303
F 202.628.2846

May 4, 2021

Mr. Tom Brennan
Director
Science Advisory Board
Mail Code 1400R
Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington DC 20460

RE: Request for Nominations of Experts to the EPA Science Advisory Board Drinking Water Committee

Dear Mr. Brennan,

The American Water Works Association (AWWA) respectfully requests that the Environmental Protection Agency (EPA) appoint Dr. Mark LeChevallier and Dr. Scott Summers to the Science Advisory Board (SAB) Drinking Water Committee via the process described in EPA's April 1, 2021 notice.

Dr. Mark LeChevallier

Dr. Mark LeChevallier is the principal and manager of Dr. Water Consulting, a part-time consulting business, after retiring from American Water at the end of 2017. Dr. LeChevallier received his Bachelor of Science and Master's degrees in Microbiology from Oregon State University, and his Ph.D. in Microbiology from Montana State University. Dr. LeChevallier's expertise is in water quality, treatment, and innovation for potable water, reclaimed water, and desalination.

Research areas have included bacterial regrowth, disinfection of biofilms, corrosion, bacterial nutrients, AOC measurement techniques, biological treatment, Legionella, Mycobacterium, microbial recovery and identification, modeling and impact of pressure transients on water quality, and detection, treatment and survival of Giardia and Cryptosporidium. He has authored or coauthored over 300 research papers, book chapters, or reports; most in peer-reviewed journals. Several of his papers have received awards from the American Water Works Association for outstanding contributions to the science of water treatment. He was the recipient of the George Warren Fuller award in 1997 from the New Jersey section of the American Water Works Association, the Abel Wolman Award from the American Water Works Association in 2012, and the A.P. Black award for research from the American Water Works Association in 2015. He is a fellow of the American Academy of Microbiology. Dr. LeChevallier has been the principal investigator, co-investigator or participant on over 100 research grants totaling over \$43 million from the US Environmental Protection Agency, American Water Works Association, the Water Research Foundation, WateReuse Research Foundation, WERF, and various State agencies. Dr. LeChevallier was named by Public Works magazine as a 2005 Trendsetter to "recognize leaders in the public works

community who have defined policy, brought their community or an issue into the spotlight, or set the standard within the industry.”

Dr. LeChevallier currently serves as a member of the Water Science Technology Board of the National Academy of Science and was appointed in 2019 to the Drinking Water Subcommittee of the USEPA Science Advisory Board. He was a member of the National Academy of Science workgroup on Legionella. He is a past member of the Journal of the American Water Works Association editorial advisory board. He was a negotiator representing the National Association of Water Companies on the USEPA Federal Advisory Committee for revisions to the Total Coliform Rule and served on the Research and Information Collection Partnership panel for research to develop the Distribution System Rule. He was a member of the Distribution System Committee for the National Academy of Science, National Research Council. Dr. LeChevallier has served on a variety of professional committees and was the past-chair of the AWWA Water Science and Research Division, past-chair of Division Q of the American Society for Microbiology, past chair of the Peer Review Editorial Board for the Journal of the American Water Works Association, past chair of the AWWA Total Coliform Rule Technical Action Workgroup (TCR TAW), past member of the Applied and Environmental Microbiology editorial board, and past chair of the Unsolicited Proposal Review Committee for the Water Research Foundation. He has served several terms as a member and subgroup chair of the AWWA Research Foundation Research Advisory Committee and as a member of the Strategic Initiative group that directed a \$5 million, 5-year program on distribution system research. He was a member of the Water Environment & Reuse Foundation (WE&RF) Research Advisory Council and chair of the Water Reuse Research Foundation Research Advisory Committee. He has been an active participant in several USEPA committees: the Disinfection By-Product Council Technical Advisory Group, the STAR peer review panel, SBIR review panels, and the Drinking Water Advisory Committee.

Dr. Scott Summers

Dr. Summers has been a leader in the field of disinfection byproducts research, specializing in the control of DBPs as well as other contaminants. He has also played a leading role in national water policy discussions around DBP and microbial risk mitigation. He has been a technical advisor or facilitator for several pivotal EPA federal advisory committee processes. Dr. Summers has contributed both to developing the solutions that are currently used to manage DBPs and the policy framework that guides the drinking water sector in this arena. In 2015 AWWA recognized Dr. Summers' research and contributions to the field with the A.P. Black Award.

Dr. Summers was DeRISK Center director at UC-Boulder. The DeRISK Center focuses on identifying, developing, demonstrating and facilitating widespread acceptance and applicability of novel and innovative technologies and approaches to measure or treat groups of microbiological or chemical contaminants, or their precursors; applying novel new information technology systems; and improving the sustainability of small drinking water systems. He currently is co-director of the UC-Boulder Water Reuse Program.

Both Dr. LeChevallier and Dr. Summers have firsthand knowledge of the diverse and unique challenges facing water utilities and regulatory agencies as they seek to assure a safe and reliable water supply will serve the SAB well. AWWA strongly believes these two individuals would provide sound scientific expertise to the Agency and thereby to national water science-policy discussions.

If you have questions regarding AWWA's endorsement, please contact me or Steve Via at (202) 628-8303.

Tom Brennan
Nomination to SAB Drinking Water Committee
Page 3

Best regards,

ON BEHALF OF THE AMERICAN WATER WORKS ASSOCIATION



G. Tracy Mehan, III
Executive Director for Government Affairs

cc: Dr. Suhair Shallal
Dr. Thomas Armitage

Attached:

1. Mark LeChevallier, Curriculum vitae
2. Scott Summers, Curriculum vitae

What is the American Water Works Association?

The American Water Works Association is an international, nonprofit, scientific and educational society dedicated to providing total water solutions assuring the effective management of water. Founded in 1881, the Association is the largest organization of water supply professionals in the world. Our membership includes over 3,900 utilities that supply roughly 80 percent of the nation's drinking water and treat almost half of the nation's wastewater. Our nearly 50,000 total memberships represent the full spectrum of the water community: public water and wastewater systems, environmental advocates, scientists, academicians, and others who hold a genuine interest in water, our most important resource. AWWA unites the diverse water community to advance public health, safety, the economy, and the environment.

R. SCOTT SUMMERS

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EDUCATION

1986	Ph.D.	Environmental Engineering and Science	Stanford University
1977	M.S.	Environmental Engineering	University of Cincinnati
1975	B.S.	Civil Engineering	University of Cincinnati

PROFESSIONAL EXPERIENCE

2020-	Co-Director	Water Reuse Program
2013-2019	Director	Environmental Engineering Program, University of Colorado-Boulder
2014-2018	Director	DeRISK Center
2000-2014	Program Coordinator	Graduate Environmental Engineering Program, University of Colorado-Boulder
1998-present	Professor	University of Colorado-Boulder
1997-2004	Director	Center for Drinking Water Optimization
1995-2000	Technical Director	Summers & Hooper, Inc.
1995	Visiting Fulbright Professor	University of Crete, Greece
1993-1998	Associate Professor	University of Cincinnati
1988-1993	Assistant Professor	University of Cincinnati
1988-1998	Program Coordinator	Water, Waste Water and Hazardous Waste Program, University of Cincinnati
1986-1988	Research Associate	Universitat Karlsruhe, Germany
1977-1979	Project Engineer	U.S. EPA, Municipal Environmental Research Laboratory, Cincinnati, OH

HONORS AND SCHOLARLY AWARDS

Walter Hughes Scholarship, University of Cincinnati, 1970-73
Chi Epsilon, 1975
Eugene Carcy Award, Engineering and Science Society of Cincinnati, 1975
Sigma Xi, 1977
Reynolds Fellowship, Stanford University, 1981-82
Marx-Moreno Fellowship, Stanford University, 1981-82, 1985
Academic Achievement Award, Ph.D. Dissertation, American Water Works Association, 1987

Graduate Teaching Award, CEE Department, University of Cincinnati, 1989-90
Research Division Best Paper Award, Journal of the American Water Works Association, 1990
Tau Beta Pi Professor Award, University of Cincinnati, 1991
Academic Achievement Award, MS advisor, American Water Works Association, 1993
Graduate Teaching Award, CEE Department, University of Cincinnati, 1993-1994
USEPA Scientific and Technological Achievement Award, 1994
Best Poster Award, AWWA Research Foundation, 1994
Best Poster Award, AWWA Research Foundation, 1995
Academic Achievement Award, PhD advisor, American Water Works Association, 1995
Senior Fulbright Award, University of Crete, 1995
Research Division Best Paper Award, Journal of the American Water Works Association, 1996
Academic Achievement Award, MS advisor, American Water Works Association, 1996
Academic Achievement Award, PhD advisor, American Water Works Association, 1996
Faculty Achievement Award, University of Cincinnati, 1996
Certificate of Merit, Best Presentation, American Chemical Society, 1996
Research Division Best Paper Award, Journal of the American Water Works Association, 1997
Academic Achievement Award, MS advisor, American Water Works Association, 1998
Academic Achievement Award, MS advisor, American Water Works Association, 1999
Academic Achievement Award, MS advisor, American Water Works Association, 2000
CEAE Department Research Award, University of Colorado 2007
CEAE Department Teaching Award, University of Colorado 2009
CEAE Department Student's Favorite Professor Award, University of Colorado 2010
CEAE Department Service Award, University of Colorado 2011
A.P. Black Award, American Water Works Association, 2013
Water Quality Division Best Paper Award, Journal American Water Works Association, 2016
Water Quality Division Best Paper Award, Journal American Water Works Association, 2018
Best Paper Award, Journal American Water Works Association, 2018
Charles R. O'Melia Distinguished Educator Award, Association of Environmental Engineering and Science Professors, 2020

RESEARCH AND TEACHING INTERESTS

Water reuse and drinking water quality, treatment and modeling, with special interest in natural organic matter, disinfection by-products, trace organic contaminants and taste & odor as related to activated carbon adsorption, biological treatment, coagulation, filtration, membrane processes, disinfectant behavior and distribution systems. For the last 15 years he has also researched water treatment technologies for low and middle income communities including ceramic water filters, slow sand filters and biochar.

BOOKS

- 1) Roberts P.V., Summers R.S., Regli S., Editors. Adsorption Techniques in Drinking Water Treatment, EPA 570/9-84-005, USEPA, Office of Drinking Water, Washington, D.C., (1984):892 pp. Released as a special issue of J. Environ. Pathology, Toxicology and Oncology, 7, 7/8, (1987):1-435.

- 2) Sontheimer H., Crittenden J.C., Summers R.S.: Activated Carbon for Water Treatment, 2nd Edition, DVWG Forschungsstelle, Karlsruhe, Germany: (1988):722pp.
- 3) Clark R.M., Summers R.S., Editors: Strategies and Technologies for Meeting SDWA Requirements, Technomic Publishing Co., Inc., Lancaster, PA (1993):396 pp.
- 4) Chowdhury, Z.K., Summers, R.S., Westerhoff, G. P., Leto, B.J., Nowack, K.O., Corwin, C.J., Passantino, L.B.(Technical Editor), Activated Carbon: Solutions for Improving Water Quality, Amer. Water Works Assoc., Denver, CO (2013); 318 pp.

PEER-REVIEWED PUBLICATIONS

Journal Articles (* student)

- 1) Roberts, P.V., Summers, R.S.: "Granular Activated Carbon Performance for Organic Carbon Removal," *J. Amer. Water Works Assoc.*, 74(1982):113-118.
- 2) Summers, R.S., Roberts, P.V.: "Simulation of DOC Removal in Activated Carbon Beds," *J. Env. Eng., ASCE*, 110(1)(1984):73-92.
- 3) Roberts, P.V., Cornel, P.K., Summers, R.S.: "External Mass Transfer in Fixed-Bed Adsorption," *J. Env. Eng., ASCE*, 111(6)(1985):891-905.
- 4) Cornel, P.K., Summers, R.S., Roberts, P.V.: "Diffusion of Humic Acid in Dilute Aqueous Solution," *J. Colloid and Interface Sci.*, 110(1) (1986):149-164.
- 5) Cornel, P.K., Sontheimer, H., Summers, R.S., Roberts P.V.: "Sorption of Dissolved Organics from Aqueous Solution by Polystyrene Resins. Part II: External and Internal Mass Transfer," *Chem. Eng. Sci.*, 41(7)(1986):1801-1810.
- 6) Kaastrup, E., Summers, R.S., Roberts, P.V.: "Adsorption Equilibrium of DOC by Activated Carbon and the Influence of Preozonation," *Ozone: Sci. and Eng.*, 8(4)(1986):277-298.
- 7) Roberts, P.V., Goltz, M.N., Summers, R.S., Crittenden, J.C., Nkedi-Kizza, P.: "The Influence of Mass Transfer on Solute Transport in Column Experiments with an Aggregated Soil," *J. Contaminant Hydrology*, 1(1987):375-393.
- 8) Summers, R.S., Roberts, P.V.: "Rate of Humic Substance Uptake during Activated Carbon Adsorption," *J. Env. Eng., ASCE*, 113, 6(1987):1333-1349.
- 9) Summers, R.S., Cornel, P.K., Roberts, P.V.: "Molecular Size Distribution and Spectroscopic Characterization of Humic Substances," *The Sci. of the Total Environ.*, 62(1987):27-37.
- 10) Summers, R.S., Roberts, P.V.: "Activated Carbon Adsorption of Humic Substances. I. Heterodisperse Mixtures and Desorption," *J. Colloid and Interface Sci.*, 122(2)(1988):367-381.
- 11) Summers, R.S., Roberts, P.V.: "Activated Carbon Adsorption of Humic Substances. II. Size Exclusion and Electrostatic Interactions," *J. Colloid and Interface Sci.*, 122(2)(1988):382-397.
- 12) Summers, R.S., Haist, B., Koehler, J., Ritz, J., Zimmer, G., Sontheimer, H.: "The Influence of Background Organic Matter on GAC Adsorption," *J. Amer. Water Works Assoc.*, 81(5)(1989):66-74.
- 13) Crittenden, J.C., Reddy, P.S., Arora, H., Trynoski, J., Hand, D.W., Perram, D.L. and Summers, R.S.: "Predicting GAC Performance With Rapid Small Scale Column Tests," *J. Amer. Water Works Assoc.*, 83(1)(1991):77-87.
- 14) Krovvidy, S.*, Wee, W.G., Summers, R.S., Coleman J.J.: "An AI Approach for Wastewater Treatment Systems," *Applied Intelligence*, 1(1991):247-261.

- 15) Shukairy, H.M.*, Summers, R.S.: "The Impact of Preozonation and Biodegradation on the Formation of Disinfection By-Products," *Water Research*, 26(9)(1992):1217-1227.
- 16) Shukairy, H.M.*, Miltner, R.J., Summers, R.S.: "Control of Disinfection By-Products and Biodegradable Organic Matter Through Biological Treatment," *Revue des Sciences de l'Eau*, 5(1-15)(1992).
- 17) Lytle D.A.*, Summers, R.S., Sorg, T.J.: "Removal of Beryllium from Drinking Water by Chemical Coagulation and Lime Softening," *J. Water Supply Research and Technology - AQUA*, 41(6)(1992):330-339.
- 18) Miltner R.J., Shukairy, H.M.*, Summers, R.S.: "Disinfection By-Product Formation and Control by Ozonation and Biotreatment," *J. Amer. Water Works Assoc.*, 84(11)(1992):53-62.
- 19) Summers R.S., Benz, M., Shukairy, H.M.*, Cummings, L.*: "Effect of Separation Processes on the Formation of Brominated Trihalomethanes," *J. Amer. Water Works Assoc.*, 85(1)(1993):88-95.
- 20) Goldgrabe, J.C.*, Summers, R.S., Miltner, R.J.: "Particle Removal and Head Loss Development in Biological Filters," *J. Amer. Water Works Assoc.*, 85(12)(1993):94-106.
- 21) Cummings, L.*, Summers, R.S.: "Prediction of Field-scale GAC Control of DBP Formation Using RSSCTs," *J. Amer. Water Works Assoc.*, 86(6)(1994):88-97.
- 22) Shukairy, H.M.*, Miltner, R.J., Summers, R.S.: "Bromide's Effect on Disinfection By-Product Formation, Speciation and Control: Part 1 Ozonation," *J. Amer. Water Works Assoc.*, 86(6)(1994):72-87.
- 23) Krovvidy, S.*, Wee, W.G., Suidan, M.T., Summers, R.S., Coleman J.J., Rossman, L.: "SOWAT: Sequence Optimizer for Wastewater Treatment," *IEEE Expert*, 9, (6)(1994):15-20.
- 24) Allgeier, S.C.*, Summers, R.S.: "Evaluating Nanofiltration for DBP Control with the RBSMT," *J. Amer. Water Works Assoc.*, 86(3) (1995): 87-99.
- 25) Summers, R.S., Hooper, S.M.*, Solarik, G.*, Owen, D.M., Hong, S.*: "Bench-Scale Evaluation of GAC for NOM Control," *J. Amer. Water Works Assoc.*, 87(8)(1995): 69-80.
- 26) Robertson, J.A., Cromwell, J., Krasner, S., McGuire, M., Owen, D., Regli, S., Summers, R.S.: "The D/DBP Rule: Where did the Numbers Come From?" *J. Amer. Water Works Assoc.*, 87(10)(1995): 46-57.
- 27) Shukairy, H.M.*, Miltner, R.J., Summers, R.S.: "Bromide's Effect on Disinfection By-Product Formation, Speciation and Control: Part 2 Biotreatment," *J. Amer. Water Works Assoc.*, 87(10)(1995): 71-82.
- 28) Wang, J.Z.*, Summers, R.S., Miltner, R.J.: "Biofiltration Performance: Part I, Relationship to Biomass," *J. Amer. Water Works Assoc.*, 87(12)(1995): 55-63.
- 29) Miltner, R.J., Summers, R.S., Wang, J.Z.*: "Biofiltration Performance: Part II, Effects of Backwashing," *J. Amer. Water Works Assoc.*, 87(12)(1995): 64-70.
- 30) Wang, J.*, Summers, R.S.: "Biodegradation Behavior of Ozonated Natural Organic Matter in Sand Filters," *Revue des Sciences de l'Eau*, 1, (1996):3-16.
- 31) Summers, R.S., Hooper, S.*, Shukairy, H.*, Solarik, G.*, Owen, D.M.: "Assessing DBP Yield: Uniform Formation Conditions," *J. Amer. Water Works Assoc.*, 88(6) (1996): 80-93.
- 32) Hooper, S.M.*, Summers, R.S., Solarik, G., Owen, D.M.: "Improving GAC Performance by Optimized Coagulation", *J. Amer. Water Works Assoc.*, 88(8) (1996):107-120.
- 33) Paode, R.*, Amy, G., Krasner, S., Summers, R.S., Rice, E.: "Formation and Removal of Aldehydes and BOM," *J. Amer. Water Works Assoc.*, 89(6) (1997): 79-93.
- 34) Moll, D.M.*, Summers, R.S., Breen, A.: "Microbial Characterization of Biological Filters Used for Drinking Water Treatment," *Appl. Environ. Microbiol.*, 64(7) (1998): 2755-2759.

- 35) Speth, T.F.*, Summers, R.S., Gusses, A.M.: "Nanofiltration Foulants from a Treated Surface Water," *Environ. Sci. & Technol.*, 32 (24) (1998): 3612-3617.
- 36) Moll, D.M.*, Summers, R.S., Fonseca, A.C., Matheis, W.: "Impact of Temperature on Drinking Water Biofilter Performance and Microbial Community Structure," *Environ. Sci. & Technol.*, 33 (14) (1999): 2377-2382.
- 37) Moll, D.M.*, Summers, R.S.: "Assessment of Drinking Water Filter Microbial Communities Using Taxonomic and Metabolic Profiles," *Wat. Sci. Technol.*, 39 (7) (1999): 83-89.
- 38) Tryby, M.E.*, Boccelli, D.L.*, Koechling, M.T.*, Uber, J.G., Summers, R.S., Rossman, L.A.: "Booster Chlorination for Managing Disinfectant Residuals," *J. Amer. Water Works Assoc.*, 91 (1) (1999): 95-108.
- 39) Graham, M.*, Summers, R.S., Simpson, M., MacLeod, B.: "Modeling Equilibrium Adsorption of 2-Methylisobornel and Geosmin in Natural Waters," *Water Research*, 34(8) 2291-2300 (2000).
- 40) Speth, T.F.*, Gusses, A.M., Summers, R.S.: "Evaluation of Nanofiltration Pretreatments for Flux Loss Control," *Desalination*, 130 (1), 31-44 (2000).
- 41) Fonseca, A.C.*, Summers, R.S., Hernandez, M.T.: "Comparative Measurements of Microbial Activity in Drinking Water Biofilters," *Water Research*, 35(16) 3817-3824(2001).
- 42) Boccelli, D.L.*, Tryby M.E., Uber J.G., Summers R.S.: "A Reactive Species Model for Chlorine Decay and TTHM Formation under Rechlorination Conditions," *Water Research*, 37(11) 2654-2666 (2003).
- 43) Seidel, C.J.*, McGuire, M., Summers, R.S., Via, S.: "Have Utilities Switched to Chloramines?" *J. Amer. Water Works Assoc.* 97 (10), 87-97 (2005).
- 44) Hong, S.*, Summers R.S.: "Effect of Backwashing on Activated Carbon Adsorption Using the Plug Flow Pore-Surface Diffusion Model," *Korean J. Chem. Eng.*, 23(1), 57-62 (2006).
- 45) Kim, T-U.*, Drewes J., Summers R.S., Amy G.L.: "Solute transport model for trace organic neutral and charged compounds through nanofiltration and reverse osmosis membranes," *Water Research*, 41(17), 3977-3988 (2007).
- 46) Fonseca, A.C.*, Summers, R.S., Greenberg, AR., Hernandez, M.T.: "Extra-Cellular Polysaccharides, Soluble Microbial Products, and Natural Organic Matter Impact on Nanofiltration Membranes Flux Decline," *Environ. Sci. Technol.*, 41(7), 2491-2497 (2007).
- 47) Ahn, H., Chae, S.*, Kim S.*, Wang, C., Summers, R.S.: "Efficient taste and odour removal by water treatment plants around the Han River water supply system," *Water Science & Technol.*, 55 (5), 103-109 (2007).
- 48) Zachman, B.A.*, Rajagopalan B., Summers R.S.: "Modeling NOM Breakthrough in GAC Adsorbers Using Nonparametric Regression Techniques," *Environ. Engineering Sci.*, 24(9), 1280-1296 (2007).
- 49) Dickenson, E.*, Summers, R.S, Croue, J.P., Gallard, H.: "Haloacetic acid and Trihalomethane Formation from the Chlorination and Bromination of Aliphatic beta-Dicarbonyl Acid Model Compounds," *Environ. Sci. Technol.*, 42(9), 3226-3233 (2008)
- 50) Towler, E.*, Rajagopalan, B., Seidel, C., Summers, R.S.: "Simulating Ensembles of Source Water Quality Using a K-Nearest Neighbor Resampling Approach," *Environ. Sci. Technol.*, 43 (5), 1407-1411 (2009).
- 51) Seidel, C.J.*, Roberson, J.A., Summers, R.S., Zearley, T., Tang, G.: "Incorporation of Research Plan Results into Regulatory Policy: An Evaluation" *J. Amer. Water Works Assoc.*, 101 (12) 42-56 (2009).

- 52) Beggs, K.M.H.*, Summers, R.S., McKnight, D.M.: "Characterizing chlorine oxidation of dissolved organic matter and disinfection byproduct formation with fluorescence spectroscopy and parallel factor analysis," *J. Geophys. Res.*, 114, G04001, doi:10.1029/2009JG001009 (2009).
- 53) Towler, E.*, Rajagopalan, B., Summers, R.S.: "Using Parametric and Nonparametric Methods to Model TOC, Alkalinity, and pH after Conventional Surface Water Treatment," *Environ. Engineering Sci.*, 26 (9) 1299-1308 (2009).
- 54) Bielefeldt, A.R., Kowalski, K.*, Summers, R.S.: "Bacterial Treatment Effectiveness of Point-of-Use Ceramic Water Filters," *Water Research*, 43(14), 3559-3565 (2009).
- 55) Zachman, B.A.*, Summers, R.S.: "Modeling TOC Breakthrough in Granular Activated Carbon Adsorbers," *Journal of Environmental Engineering, ASCE*, 136(2), 205-210 (2010).
- 56) Corwin, C.J.*, Summers, R.S.: "Scaling Trace Organic Contaminant Adsorption Capacity by Granular Activated Carbon," *Environ. Sc. Technol.*, 44 (14), 5403-5408 (2010).
- 57) Bielefeldt, A. R., Kowalski, K*., Schilling, C*., Schreier, C*., Kohler, A*., Summers, R.S.: "Removal of virus to protozoan sized particles in point-of-use ceramic water filters," *Water Research*, 44 (5) 1482-88 (2010).
- 58) Towler, E.*., Rajagopalan, B., Gilleland, E., Summers, R.S., Yates, D., Katz, R.W.: "Modeling hydrologic and water quality extremes in a changing climate: A statistical approach based on extreme value theory," *Water Resources Research*, 46, W11504, doi:10.1029/2009WR008876, (2010).
- 59) Towler, E.*., Rajagopalan, B., Summers, R.S., Yates, D., "An approach for probabilistic forecasting of seasonal turbidity threshold exceedance," *Water Resources Research*, 46, W06511, doi:10.1029/2009WR007834 (2010).
- 60) Corwin, C.J.*., Summers, R.S., "Adsorption and desorption of trace organic contaminants from granular activated carbon adsorbers after intermittent loading and throughout backwash cycles," *Water Research*, 45 (2) 417-26 (2011).
- 61) Beggs, K.M.H.*., Summers, R.S.: "Character and Chlorine Reactivity of Dissolved Organic Matter from a Mountain Pine Beetle Impacted Watershed," *Environ. Sci. Technol.*, 45 (13), 5717-5724 DOI: 10.1021/es1042436 (2011).
- 62) Towler, E.*., Raucher, B., Rajagopalan, B., Rodriguez, A., Yates, D., Summers, R.S.: "Incorporating Climate Uncertainty in a Cost Assessment for a New Municipal Source Water," *Journal of Water Resources Planning and Management ASCE*, 138:396-402 doi:10.1061/(ASCE)WR.1943-5452.0000150 (2012).
- 63) Corwin, C. J.*., Summers, R. S.: "Controlling Trace Organic Contaminants with Granular Activated Carbon Adsorption," *J. Amer. Water Works Assoc.* 104 (1) 43 E36-E47, [doi.org/10.5942/jawwa.2012.104.0004](http://dx.doi.org/10.5942/jawwa.2012.104.0004) (2012).
- 64) Zearley, T*., Summers, R. S. Removal of Trace Organic Micropollutants by Drinking Water Biological Filters *Environ. Sci. Technol.*, 46(17):9412-9. doi: 10.1021/es301428e (2012).
- 65) Bielefeldt, A.R., M. W. Stewart*, E. Mansfield, R.S. Summers, J.N. Ryan. "Effects of chlorine and other water quality parameters on the release of silver nanoparticles from a ceramic surface," *Water Research*. 47(12), 4032-4039 (2013).
- 66) Beggs, K.H.M.*., Billica, J.A., Korak, J., Rosario-Ortiz, F., McKnight, D.M. and Summers, R.S.: "Spectral evaluation of watershed DOM and DBP precursors," *J. Amer. Water Works Assoc.*, <http://dx.doi.org/10.5942/jawwa.2013.105.0063> 105(4) E173-E188 (2013).

- 67) Towler, E.*, Rajagopalan, B., Yates, D., Rodriguez, A., Summers, R.S. “Integrated Approach to Simulate Stream Water Quality for Municipal Supply under a Changing Climate,” *J. Environ. Eng.*, 139(12), 1432–1440 (2013).
- 68) Summers, R.S., Kim, S.M*, Shimabuku, K*, Chae, S.H*, Corwin, C.J.*, “Granular activated carbon adsorption of MIB in the presence of dissolved organic matter.,” *Water Research*, 47(10),3507-3513 (2013).
- 69) Haagenson, E.*, Rajagopalan, B., Summers, R.S., Roberson, A., “Projecting Demand Extremes under Climate Change Using Extreme Value Analysis,” *J. Amer. Water Works Assoc.* <http://dx.doi.org/10.5942/jawwa.2013.105.0013>. 105 (2) E40-50 (2013).
- 70) Korak, J.A.*, A.D. Dotson, R.S. Summers, and F.L. Rosario-Ortiz, “Critical analysis of commonly used fluorescence metrics to characterize dissolved organic matter,” *Water Research*, 49 (1) 327-338 (2014).
- 71) Kearns, J.P.*, L.S. Wellborn, R.S. Summers, and D.R.U. Knappe, “2,4-D adsorption to biochars: Effect of preparation conditions on equilibrium adsorption capacity and comparison with commercial activated carbon literature data.” *Water Research*, 62 (1) 20-28 (2014).
- 72) Kearns, J.P.*, D.R.U. Knappe, and R.S. Summers, “Synthetic organic water contaminants in developing communities: an overlooked challenge addressed by adsorption with locally generated char,” *Journal of Water, Sanitation and Hygiene for Development*, 4 (3) 422–436 doi:10.2166/washdev.2014.073 (2014).
- 73) Shimabuku, K.K*., H. Cho, E. Townsend, F.L. Rosario-Ortiz, R.S. Summers, “Modeling non-equilibrium adsorption of MIB and sulfamethoxazole by powdered activated carbon and the role of dissolved organic matter competition,” *Environ. Sci. Technol.*, DOI: 10.1021/es503512v 48 (23), 13735–13742 (2014).
- 74) Kennedy, A.M*., A.M. Reinert, D.R.U. Knappe, I. Ferrer, and R.S. Summers, “Full- and pilot-scale GAC adsorption of organic micropollutants,” *Water Research*, 68 (1) 238-248 (2015).
- 75) Kearns J*, Shimabuku KK, Mahoney RB, Knappe DRU, Summers RS., Meeting multiple water quality objectives through treatment using locally generated char: Improving organoleptic properties and removing synthetic organic contaminants and disinfection byproducts. Accepted *Journal of Water Sanitation and Hygiene for Development* 5 (3) 359-372; DOI: 10.2166/washdev.2015.172 (2015).
- 76) Kearns J. P.*, Knappe D. R.U., and Summers R.S., Feasibility of Using Traditional Kiln Charcoals in Low-Cost Water Treatment: Role of Pyrolysis Conditions on 2,4-D Herbicide Adsorption, *Environmental Engineering Science*. doi:10.1089/ees.2015.0243.32(11): 912-921 (2015).
- 77) Kennedy, A.M.* and Summers, R.S., “Effect of DOM Size on Organic Micropollutant Adsorption by GAC,” *Environ. Sci. Technol.*, DOI: 10.1021/acs.est.5b0041149 (11), pp 6617–6624 (2015).
- 78) Saunders, J.F., Hohner, A.K.*, Summers, R.S., Rosario-Ortiz, F.L., “Regulating Chlorophyll a to Control DBP Precursors in Water Supply Reservoirs,” *J. Amer. Water Works Assoc.*, <http://dx.doi.org/10.5942/jawwa.2015.107.0153>, 107 (11) E603-E612 (2015).
- 79) Zearley, T.* and R.S. Summers, “MIB and 2,4-D Removal by Biofilters During Episodic Loading,” *J. Amer. Water Works Assoc.* <http://dx.doi.org/10.5942/jawwa.2015.107.0177>, 107 (12) E1-E9 (2015).
- 80) Korak, JA*, Rosario-Ortiz, FL and Summers, RS, “Evaluation of optical surrogates for the characterization of DOM removal by coagulation,” *Environ. Sci.: Water Res. Technol.*, DOI: 10.1039/C5EW00024F, 1, 493-506 (2015).

- 81) Hohner, A. K.*, Cawley, K., Oropeza, J., Summers, R. S., & Rosario-Ortiz, F. L.. Drinking water treatment response following a Colorado wildfire. *Water Research*, 105, 187-198 (2016).
- 82) Samson, C. C.*, Rajagopalan, B., & Summers, R. S. Modeling Source Water TOC Using Hydroclimate Variables and Local Polynomial Regression. *Environ. Sci. Technol*, 50(8), 4413-4421 (2016).
- 83) Kempisty, D. M.* & Summers, R. S. Effect of Influent Groundwater Quality on Adsorption of Low Concentrations of 1, 2 Dichloroethane by Granular Activated Carbon. *Journal of Environmental Engineering*, 142(12), 04016064 (2016).
- 84) Shimabuku, K. K.*, Kearns, J. P., Martinez, J. E., Mahoney, R. B., Moreno-Vasquez, L., & Summers, R. S. Biochar sorbents for sulfamethoxazole removal from surface water, stormwater, and wastewater effluent. *Water Research*, 96, 236-245 (2016).
- 85) Thompson, K. A*., Shimabuku, K. K., Kearns, J. P., Knappe, D. R., Summers, R. S., & Cook, S. M. Environmental Comparison of Biochar and Activated Carbon for Tertiary Wastewater Treatment. *Environ. Sci. Technol*, 50(20), 11253-11262 (2016).
- 86) Shimabuku, K.K.*, Kennedy, A.M., Mulhern, R.E. & Summers, R.S. "Evaluating activated carbon adsorption of DOM and micropollutants using fluorescence spectroscopy." *Environ. Sci. Technol*, 51 (5), 2676-2684 (2017). DOI: 10.1021/acs.est.6b04911
- 87) Hohner, A.*, Terry, P.L., Townsend, E., Summers, R.S. & Rosario-Ortiz, F.L. "Water treatment process evaluation of wildfire-affected sediment leachates." *Environmental Science: Water Research & Technology*, 3 (2): 352-365 (2017). DOI: 10.1039/C6EW00247A.
- 88) Kennedy, A.M.*, Reinert, A.M., Knappe D.R.U. & Summers, R.S. "Prediction of Full-Scale GAC Adsorption of Organic Micropollutants." *Environmental Engineering Science*, 34(7): 496-507 (2017). <https://doi.org/10.1089/ees.2016.0525>
- 89) Shimabuku K.K.*, Paige J.M., Luna-Aguero M. & Summers R.S. "Simplified Modeling of Organic Contaminant Adsorption by Activated Carbon and Biochar in the Presence of Dissolved Organic Matter and Other Competing Adsorbates." *Environ. Sci. Technol.*, 51 (17) 10031-10040 (2017).
- 90) Mulhern, R.*, Dickenson, E. & Summers, R.S. "Evaluating and modeling the activated carbon adsorption of wastewater-derived N-nitrosodimethylamine precursors" *Environmental Science: Water Research & Technology*, 3 (5), 844-856 (2017). DOI: 10.1039/C7EW00123A.
- 91) Thompson, K.A*., Summers, R.S. & Cook, S.M. "Development and experimental validation of the composition and treatability of a new synthetic bathroom greywater (SynGrey)." *Environmental Science: Water Research & Technology*. 3(6), 1120-1131(2017). DOI:10.1039/C7EW00304H..
- 92) Seidel C.J., Samson C.C., Bartrand T., Ergul A., & Summers R.S. "Disinfection Byproduct Occurrence at Large Water Systems After Stage 2 DBPR." *J. Amer. Water Works Assoc.* 109 (7), 17-30 (2017).
- 93) Samson C.C.*, Seidel C.J., Summers R.S., & Bartrand T. "Assessment of HAA9 Occurrence and THM, HAA Speciation in the United States." *J. Amer. Water Works Assoc.* 109 (7), 288-301 (2017).
- 94) Terry, L.G.*, and Summers R.S. "Biodegradable organic matter and rapid-rate biofilter performance: A review," *Water Research* no. 128:234-245 (2018.)
- 95) Greiner, B.G*, Shimabuku, K.K., Summers, R.S. Influence of Biochar Thermal Regeneration on Sulfamethoxazole and Dissolved Organic Matter Adsorption. *Environmental Science: Water Research & Technology*, 4, 169 – 174 (2018).

- 96) Jones, C.H*., L.G. Terry, R.S. Summers, S.M. Cook, Environmental life cycle comparison of conventional and biological filtration alternatives for drinking water treatment, *Environ. Sci.: Water Res. Technol.*, 4, 1464-1479 (2018).
- 97) Terry, L.G*., P. Pruisner, E. Peterson, E. Dickenson, J. Wang and R.S. Summers, Scale-Up Methodology for Biological Filtration Removal of Dissolved Organic Matter, *Environmental Engineering Science*,(2019).
- 98) Kempisty DM*, Summers RS, Abulikemu G, Niranjana V. Deshpande N, Rebholz JA, Roberts K, Pressman J., Granular activated carbon adsorption of carcinogenic volatile organic compounds at low influent concentrations. *AWWA Wat Sci.* 1(2) 2019 e1128 (2019).
- 99) Shimbaku, K.*, Zearley, T., Dowdell, K., Summers, R.S.; Biodegradation and attenuation of MIB and 2,4-D in drinking water biologically active sand and activated carbon filters, *Environmental Science: Water Research & Technology*, EW-ART-01-2019-000054.R1(2019)
- 100) Kearns, J.P.*., K.K. Shimabuku, D.R.U. Knappe, R.S. Summers, High temperature co-pyrolysis/thermal air activation enhances biochar capacity for uptake of herbicides from surface water, *Environmental Engineering Science*, EES-2018-0476.R1 (2019)
- 101) Hohner AK*, Summers RS, Rosario-Ortiz FL Laboratory simulation of postfire effects on conventional drinking water treatment and disinfection byproduct formation *AWWA Water Science* 1 (5), e1155 (2019).
- 102) Cuthbertson AA, Kimura SY, Liberatore HK, Summers RS, Knappe DRU, Stanford BD, Maness JC, Mulhern RE*, Selbes M, Richardson SD. "Does Granular Activated Carbon with Chlorination Produce Safer Drinking Water? From Disinfection Byproducts and Total Organic Halogen to Calculated Toxicity." *Environ. Sci. Technol.*, 53 (10) : 5987-5999 (2019)
- 103) Meyer, J.*., Seidel, C., Summers, R.S., Evaluation of Population-Weighted Risk Reduction for Several Disinfection By-product Control Strategies, *ASCE Journal Environmental Engineering*, 146 (3) ARTN 04019131(2020).
- 104) Raseman WJ*, Kasprzyk JR, Summers RS, Hohner AK, Rosario-Ortiz FL. "Multi-objective optimization of water treatment operations for disinfection byproduct control." *Environmental Science: Water Research & Technology*, 6 (3): 702-714 (2020).
- 105) Cuthbertson AA, Kimura SY, Liberatore HK, Knappe DRU, Stanford B, Summers RS, Dickenson ER, Maness JC, Glover C, Selbes M, "GAC to BAC: Does it make chloraminated drinking water safer?" *Water Research*, 172: ARTN 115432. (2020).
- 106) Bentley MJ*, Summers RS. "Ash pretreatment of pine and biosolids produces biochars with enhanced capacity for organic micropollutant removal from surface water, wastewater, and stormwater." *Environmental Science: Water Research & Technology*, 6 (3): 635-644 (2020).
- 107) Thompson KA*, Valencia EW*, Summers RS, Cook SM. "Sorption, coagulation, and biodegradation for graywater treatment." *Water Science & Technology*, 81 (10): 2152-2162 (2020).
- 108) Verdugo EM, Gifford M, Glover C, Cuthbertson AA, Trenholm RA, Kimura SY, Liberatore HK, Richardson SD, Stanford BD, Summers RS, "Controlling disinfection byproducts from treated wastewater using adsorption with granular activated carbon: Impact of pre-ozonation and pre-chlorination." *Water Research X*, 9 (2020).
- 109) Summers RS, Shiokari ST*, Johnson S*, Peterson E*, Yu Y, Cook S. "Reuse treatment with ozonation, biofiltration, and activated carbon adsorption for total organic carbon control and disinfection byproduct regulation compliance." *AWWA Water Science*. 2 (5) e1190 (2020).

- 110) Tolofari DL, Masters SV, Bartrand T, Hamilton KA, Haas CN, Olson M, Summers RS, Rasheduzzaman M, Young A*, Singh R, et. al. "Full factorial study of pipe characteristics, stagnation times, and water quality." *AWWA Water Science*. 2 (5) e1204 (2020).
- 111) Kearns J, Dickenson E, Aung MT, Joseph SM, Summers SR, Knappe D. "Biochar Water Treatment for Control of Organic Micropollutants with UVA Surrogate Monitoring." *Environmental Engineering Science* (November 13, 2020): ees.2020.0173.

Book Chapters – Peer reviewed

- 1) Summers, R.S., Roberts, P.V.: "Dynamic Behavior of Organics Removal in Full-Scale Granular Activated-Carbon Columns," in Treatment of Water by Granular Activated Carbon, Advances in Chemistry Series No. 202, Editors: M. McGuire and I.H. Suffet, Amer. Chem. Soc., Washington, DC (1983).
- 2) Summers, R.S., Roberts, P.V.: "Behavior of Dissolved Organic Molecular Weight Fractions During Activated Carbon Adsorption," in Fundamentals of Adsorption, Editors: A.L. Myers and G. Belfort, Engineering Foundation and Amer. Inst. Chem. Eng., New York, NY (1984).
- 3) Roberts, P.V., Reinhard, M., Hopkins, G.D., Summers, R.S.: "Advection- Dispersion-Sorption Models for Simulating the Transport of Organic Contaminants," Chap. 23 in Groundwater Quality, Editors: C.H. Ward, W. Giger and P.L. McCarty, John Wiley & Sons, New York, NY (1985).
- 4) Summers, R.S., Fuchs, F., Sontheimer, H.: "The Fate and Removal of Radioactive Iodine in the Aquatic Environment," in Aquatic Humic Substances: Influence on Fate and Treatment of Pollutants, Advances in Chemistry Series No. 219, Editors: I.H. Suffet and P. MacCarthy, Amer. Chem. Soc., Washington, D.C. (1989).
- 5) Summers, R.S., Crittenden, J.C.: "The Use of Mini-Columns for the Prediction of Full-Scale GAC Behavior," in Design and Use of Granular Activated Carbon: Practical Aspects, Amer. Water Works Assoc. Res. Found., Denver, CO (1989).
- 6) Johannsen, K., Summers, R.S., "Adsorption Processes in Water Treatment," in Ullmann's Encyclopedia of Industrial Chemistry, Vol. A28, Water (1996).
- 7) Shukairy, H., Summers, R.S.: "DBP Speciation and Kinetics as Affected by Ozonation and Biotreatment," in Disinfection By-products in Water Treatment, Editors: R.A. Minear and G.L. Amy, CRC Press, Boca Raton, FL (1996).
- 8) Moll, D., Summers, R.S.: "Performance, Biomass and Community Structure Profiles of Biological Rapid Media Filters," in Advances in Slow Sand and Alternative Biological Filtration, Editors: N. Graham and R. Collins, John Wiley and Sons, Chichester, England (1996).
- 9) Koechling, M.T., Shukairy, H.M., Summers, R.S.: "Effect of Ozonation and Biotreatment on Molecular Size and Hydrophilic Fractions of Natural Organic Matter" in Water Disinfection and Natural Organic Matter, Editors: R.A. Minear and G.L. Amy, American Chemical Society, Washington, DC (1996).
- 10) Solarik G., Summers, R.S., Sohn, J., Swanson, W., Chowdhury, Z., Amy, G.: "Extensions and Verifications of the Water Treatment Plant Model for Disinfection By-Product Formation," in Natural Organic Matter and Disinfection By-Products, Barrett, S., Krasner, K. and Amy, G. Editors, ACS Symposium Series 761, American Chemical Society, Washington D.C. (2000).

- 11) Snoeyink, V.L., Summers, R.S., "Adsorption of Organic Compounds," in Water Quality and Treatment, fifth edition, Amer. Water Works Assoc., McGraw-Hill, New York, NY (1998).
- 12) Servais, P., Prevost, M., Laurent, P., Joret, J.C., Summers, R.S., Hamsch, B., Ventresque, C., "Biodegradable Organic Matter in Drinking Water Treatment" in Biodegradable Organic Matter in Drinking Water Treatment and Distribution, M. Prevost, P. Laurent, P. Servais, and J.C. Joret, Editors. Amer. Water Works Assoc., Denver, CO (2005).
- 13) Summers, R.S., Chae, S., Kim, S.M., Ahn, H.W., Biodegradation of MIB and Geosmin in Biological Sand and BAC Filters: Acclimation, Steady-State and Varying Influent Conditions in Recent Progress in Slow Sand and Alternative Biofiltration Processes, Editor(s): Gimbel R., Graham N., Collins M.R. International Water Association, London, UK (2006).
- 14) Metz, D.H., Pohlman, R.C., Vogt, J., Summers, R.S., "Removal of MIB and Geosmin by Full-Scale Biological Sand Filters," in Recent Progress in Slow Sand and Alternative Biofiltration Processes, Editor(s): Gimbel R., Graham N., Collins M.R. International Water Association, London, UK (2006).
- 15) Summers, R.S., Knappe, D.R.U., Snoeyink, V.L., "Adsorption of Organic Compounds by Activated Carbon," in Water Quality and Treatment, sixth edition, Amer. Water Works Assoc., McGraw-Hill, New York, NY (2010).
- 16) Korak, J.A.; Rosario-Ortiz, F.L.; Summers, R.S., "Fluorescence characterization of humic substance coagulation: Application of new tools to an old process," In Advances in the Physicochemical Characterization of Organic Matter; Rosario-Ortiz, F.L., Ed; ACS Symposium Series 1160; American Chemical Society: Washington DC, pp 281-300 (2014).
- 17) Arias, S.A., Summers, R.S. "Fate of Characterized and Uncharacterized Halogenated Organic Matter during Coagulation of Natural Waters with Chlorine or Chlorine Dioxide Application," In Advances in the Physicochemical Characterization of Organic Matter; Rosario-Ortiz, F.L., Ed; ACS Symposium Series 1160; American Chemical Society: Washington DC (2014).
- 18) Summers, R. S., Shimabuku, K., Zearley, T., "A Review of Biologically-Based Drinking Water Treatment Processes for Organic Micropollutant Removal," In Progress in Slow Sand and Alternative Biofiltration Processes – Further Developments and Applications, IWA Book, M. Collins and N. Graham editors (2014).
- 19) Brown, J., Summers, R. S., Dickenson, E., Upadhyaya, G., Biological removal of hazardous pollutants in drinking water. Hazardous Pollutants in Biological Treatment Systems: Fundamentals and a Guide to Experimental Research edited by [F. Çeçen](#) and [U. Tezel](#), IWA Publishing, London, 2018.

Conference Proceedings – Peer-reviewed

- 1) Bielefeldt, A., Amadei, B., Moeller, W., Pinnell, M., Sandekian, R., Shah, J., Summers, R.S.: Creating an Engineering for Developing Communities Emphasis in Environmental Engineering. Proc. *American Society for Engineering Education (ASEE) Conference and Exposition. Portland, OR. June 2005*. Peer reviewed paper published in the conference proceedings. Nominated for best paper award.
- 2) Bielefeldt, A., Amadei, B., Summers, R.S.: Incorporating Earth Systems Engineering Concepts throughout the Civil Engineering Degree to Create the Engineering of the 21st Century. *American Society for Engineering Education (ASEE) Conference and Exposition. Portland, OR. June 2005*: Peer reviewed paper published in the conference proceedings.

- 3) Bielefeldt, A.R., Amadei, B., Summers, R.S., Strzepek, K.M., Chinowsky, P.S., Molenaar, K.R.: "An Educational Initiative to Address Earth Systems Engineering for Developing Communities," W107 Construction in Developing Economies International Symposium Construction in *Developing Economies: New Issues and Challenges*, Santiago, Chile, (2006).
- 4) Summers, R.S., Finau-Starkey, L. (2016), Work-in-Progress – Development of a student-based mentorship program for first-year environmental engineering students, Proceedings First-Year Engineering Experience (FYEE) Conference, July 31 – August 2, 2016, Columbus, OH.
- 5) Uleau, J., Summers, R.S. (2017), Revised third year assessment of a student-based mentorship program for first-year environmental engineering students, Proceedings First-Year Engineering Experience (FYEE) Conference, August 6 – August 8, 2017, Daytona FL.

Reports – Peer-reviewed

- 1) Summers R.S., Cummings L., DeMarco J., Hartman D., Metz D., Howe E.W., MacLeod B., Simpson M.: *Standardized Protocol for the Evaluation of GAC*, 90615-5/92, Amer. Water Works Assoc. Research Foundation, Denver, CO (1992).
- 2) Summers R.S., Solarik G., Hooper S.M., Chowdhury Z.K., Owen D.M.: *Removal of DBP Precursors by GAC Adsorption*, Report 816, Amer. Water Works Assoc. Research Foundation, Denver, CO, (1998).
- 3) Graham M.R., Najam I., Simpson M.R., MacLeod B., Summers R.S., Cummings, L: *Optimization of Powdered Activated Carbon Application for Geosmin and MIB Removal*, Report 909, Amer. Water Works Assoc. Research Foundation, Denver, CO, (2000).
- 4) Uber, J., M. Tryby, D. Boccelli, R.S. Summers: *Optimized Booster Disinfection to Improve Water Quality*, Amer. Water Works Assoc. Research Foundation, Denver, CO, (2002).
- 5) Westerhoff, P., Summers, R.S., Chowdhury, Z. and Kommineni, S.: *Ozone-Enhanced Biofiltration for Geosmin and MIB Removal*. Report 91075, Amer. Water Works Assoc Research Foundation, Denver, CO (2005).
- 6) Chowdhury Z., Passantino L., Summers R.S., Work L., Smith N., Rossman L., Uber J.: *Assessment of Chloramine and Chlorine Residual Decay in the Distribution System*, Report 91124, Amer. Water Works Assoc Research Foundation, Denver, CO (2006).
- 7) Chowdhury Z., Hill C.P., Mahmood F., Sclimenti M., Summers R.S., Valenti C.: *Evaluation of Disinfection Practices for DBP and Precursor Occurrence in Consecutive Systems*, Report 91245, Water Research Foundation, Denver, CO (2009).
- 8) Schendel D., Chowdhury Z., Hill C., Summers R.S., Towler E., Balaji R., Raucher R., Cromwell, R.: *Decision Tools to Help Utilities Develop Simultaneous Compliance Strategies*, Report 91263, Water Research Foundation, Denver, CO (2009).
- 9) Chowdhury Z., Traviglia A., Carter J., Brown T., Summers R.S., Corwin C., Zearley T., Thurman M., Ferrara I., Barron P.: *Cost-Effective Regulatory Compliance With GAC Biofilters*, Report 4155, Water Research Foundation, Denver, CO (2010).
- 10) Summers, R.S., Kennedy, A.M., Knappe, D.R.U., Reinert, A.M., Fotta, M.E., Mastropole, A.J., Corwin, C.J., & Roccaro, J.. *Evaluation of Available Scale-Up Approaches for the Design of GAC Contactors*, Project #4235. Water Research Foundation, Denver, CO (2014).
- 11) Summers, R.S., Kempisty, D., Dougherty, T. Knappe, D.R.U., *Removal of Volatile Organic Contaminants (VOCs) from Drinking Water via Granular Activated Carbon*, Project #4440. Water Research Foundation, Denver, CO (2015).

- 12) Knappe, R.D.U, Ingham, R.S., Moreno-Barbosa, J.J., Sun, M., Summers, R.S., Dougherty, T., *Evaluation of Henry's Law Constants and Freundlich Adsorption Constants for VOCs*, Project #4462. Water Research Foundation, Denver, CO (2017).
- 13) Stanford, B. D.; Selbes, M.; Reinert, A.; Pierce, M.; Rosenfeldt, E.; Knappe, D. R. U.; Maness, C.; Zhang, C.; Summers, R. S.; Mulhern, R.; et al. *GAC Control of Regulated and Emerging DBPs of Health Concern*; Project #4560. Water Research Foundation, Denver, CO (2019).
- 14) Kasprzyk, J., Stewart, J., Heldmeyer, A., Reeves, K., Raseman, W., Rajagopalan, B., Summers, R.S., Rosario-Ortiz, F., Livneh, B., *An Integrated Modeling and Decision Framework to Evaluate Adaptation Strategies for Sustainable Drinking Water Utility Management under Drought and Climate Change*, Project #4636. Water Research Foundation, Denver, CO (2019).

NON-PEER-REVIEWED PUBLICATIONS

Book Chapters

- 1) Roberts P.V., Summers R.S.: "Symposium Overview" in Adsorption Techniques in Drinking Water Treatment, EPA 570/9-84-005, Editors: P.V. Roberts, R.S. Summers, and S. Regli, USEPA, ODW, Washington, D.C. (1984).
- 2) Shukairy H.M., Summers R.S.: "Biological Treatment for the Control of Disinfection By-Products: A Review," in Strategies and Technologies for Meeting SDWA Requirements, Editors: R.M. Clark and R.S. Summers, Technomic Publishing Co., Inc., Lancaster, PA (1993).
- 3) Bielefeldt, A.R., R.S. Summers, and T. Relph. TEC Project Report: National Inventory of Regional Collaboration among Water and Wastewater Utilities. *J. Amer. Water Works Assoc.* doi: 10.5942/jawwa.2012.104.0110, 104 (7), 67-78.

Proceedings (peer reviewed abstracts)

- 1) Roberts P.V., Summers R.S.: "GAC Performance Criteria for Organic Carbon Removal," Proc., Amer. Water Works Assoc. Conference, St. Louis, MO (1981).
- 2) Summers R.S., Roberts P.V., Harnish R., Sanchez W.J.: "Granular Activated-Carbon Removal of Organic Compounds for Wastewater Reclamation," Proc., Water Reuse Symposium II, AWWA Res. Found., Denver, CO (1981).
- 3) Summers R.S., Roberts P.V.: "Size Effects in Adsorption of Macro-molecular Organic Matter," Proc., ASCE Environmental Engineering Conference, Los Angeles, CA (1984).
- 4) Kaastrup E., Summers R.S., Roberts P.V.: "Adsorption Equilibrium: DOC Isotherms and Preozonation," Proc., ASCE Environmental Engineering Conference, Los Angeles, CA (1984).
- 5) Summers R.S., Haist B., Koehler J., Ritz J., Zimmer G., Sontheimer H.: "Activated Carbon Adsorption of Chlorinated Hydrocarbons: The Influence of Organic Matter from the Rhine River," Proc., Amer. Water Works Assoc. Conference, Orlando, FL (1988).
- 6) Shukairy H.M., Summers R.S.: "The Impact of Preozonation and Biodegradation the Formation of Halogenated Organic Compounds after Chloramination and Chlorination," Proc., Amer. Water Works Assoc. Conference, Cincinnati, OH (1990).
- 7) Mogren E., Scarpino P.V., Summers R.S.: "Measurement of Biodegradable Dissolved Organic Matter in Drinking Water," Proc., Amer. Water Works Assoc. Conference, Cincinnati, OH (1990).

- 8) Summers R.S., DiCarlo D., Palepu S.S.: "GAC Adsorption in the Presence of Background Organic Matter: Pretreatment Approaches and Attenuation of Shock Loadings," Proc., Amer. Water Works Assoc. Conference, Cincinnati, OH (1990).
- 9) Howe E.W., Summers R.S., Namuduri P., Cummings L., Hubel R.E.: "Chemical Spill Control: Treatment Options for Protecting the Consumer," Proc., Amer. Water Works Assoc. Conference, Philadelphia, PA (1991).
- 10) Namuduri P., Summers R.S.: "Attenuation of Shock Loadings by GAC Adsorbers: Modeling and the Impact of Pulse Size, Preloading and Adsorbability," Proc., Amer. Water Works Assoc. Conference, Philadelphia, PA (1991).
- 11) Summers R.S., Cummings L., Howe E., DeMarco J., Hartman E., Metz D.: "Development of a Standardized Protocol for the Evaluation of Granular Activated Carbon," Proc., Amer. Water Works Assoc. Water Quality Technology Conference, Orlando, FL (1991).
- 12) Joslyn B., Summers R.S.: "Control of Disinfection By-Product Precursors by Ozonation, Biofiltration and Carbon Adsorption," Proc., Amer. Water Works Assoc. Conference, Vancouver, BC (1992).
- 13) Shukairy H.M., Summers R.S., Miltner R.J.: "Control and Speciation of Disinfection By-Products by Biological Treatment," Proc., Amer. Water Works Assoc. Conference, Vancouver, BC (1992).
- 14) Miltner R.J., Summers R.S.: "A Pilot Scale Study of Biological Treatment," Proc., Amer. Water Works Assoc. Conference, Vancouver, BC (1992).
- 15) Amy G.L., Chowdhury Z., Green R., Krasner S., Paode R., Rice E., Summers R.S.: "Biodegradability of Natural Organic Matter," Proc., Amer. Water Works Assoc. Conference, Vancouver, BC (1992).
- 16) Benz M., Summers R.S., Haist-Gulde B., Kochling M., Sontheimer H.: "Combined Use of Ion Exchange and Granular Activated Carbon for the Control of Organic Matter and Disinfection By-Products," Proc., Amer. Water Works Assoc. Conference, Vancouver, BC (1992).
- 17) Miltner R.J., Summers R.S., Wang J., Swertfeger J., Rice E.W.: "The Response of Biological Filters to Backwashing," Proc., Amer. Water Works Assoc. Water Quality Technology Conference, Toronto, Canada (1992).
- 18) Goldgrabe J., Summers R.S., Miltner R.J., Fox K.R.: "Particle Counting as a Method of Evaluating Conventional and Biological Filter Performance," Proc., Amer. Water Works Assoc. Water Quality Technology Conference, Toronto, Canada (1992).
- 19) Cummings L., Summers R.S., Howe E.W.: "Use of the Rapid Small-Scale Column Test to Predict Full-Scale GAC Adsorber Breakthrough of Disinfection By-Products," Proc., Amer. Water Works Assoc. Water Quality Technology Conference, Toronto, Canada (1992).
- 20) MacLeod B.M., Simpson M.R., Summers R.S., Cummings L.: "Evaluation of Activated Carbon for Geosmin and 2-Methylisoboreneol Removal Using Pilot-Scale and Rapid Small-Scale Column Tests," Proc., Florida Water Resources Conference, Daytona Beach, FL (1992).
- 21) Goldgrabe J., Summers R.S., Miltner R.J.: "An Assessment of Particle Removal and Headloss Development in Biological Filters," Proc., Amer. Water Works Assoc. Annual Conference, San Antonio, TX (1993).
- 22) Shrive C.A., Summers R.S., Speth T.: "The Effect of Preoxidation on GAC Adsorption Capacity and the Attenuation of Spills," Proc., Amer. Water Works Assoc. Annual Conference, San Antonio, TX (1993).

- 23) Swertfeger J., Summers R.S., Miltner R.J., Rice E., Dryfuse M., Nolan S.: "The Control of Ozone By-Products by Biological Filtration," Proc., Amer. Water Works Assoc. Annual Conference, San Antonio, TX (1993).
- 24) Cummings L., Summers R.S.: "Background Matrix Impact on the Adsorption Capacity of Activated Carbon for 1,2-Dichloropropane," Proc., Amer. Water Works Assoc. Annual Conference, San Antonio, TX (1993).
- 25) Solomon T.L., Summers R.S., Speth T.: "The Reduction of Membrane Fouling by Physical, Chemical and Biological Pretreatment," Proc. Intl. Water Supply Assoc. and Amer. Water Works Assoc. Membrane Technology Conference, Baltimore, MD (1993).
- 26) Jackson J., Hong S., Summers R.S.: "The Use of Ultrafiltration to Characterize GAC Breakthrough of Organic Matter Molecular Size Fractions," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Miami, FL (1993).
- 27) Metz D.H., Summers R.S., DeMarco J.: "The Assessment of Preozonation, Biotreatment and GAC Adsorption of DBP Precursors and Ozone DBPs using the Rapid Small Scale Column Test," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Miami, FL (1993).
- 28) Tryby M., Miltner R., Summers R.S.: "TOC Removal as a Predictor of DBP Control," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Miami, FL (1993).
- 29) Wang J., Summers R.S.: "The Evaluation of Organic Matter and DBP Control in Biofilms with Biomass and Bioactivity Analyses," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Miami, FL (1993).
- 30) Summers R.S.: "Biocharacterization of Natural Organic Matter," Proc. AWWA Research Foundation Natural Organic Matter Workshop, Chamonix, France (1993).
- 31) Summers R.S., Hong S., Hooper S., Solarik G.: "Adsorption of Natural Organic Matter and Disinfection By-Product Precursors," Proc. Amer. Water Works Assoc. Annual Conference, New York, NY (1994).
- 32) Summers R.S., Hooper S., Hong S., Solarik G.: "The Use of RSSCTS to Predict GAC Field-Scale Performance," Proc. Amer. Water Works Assoc. Annual Conference, New York, NY (1994).
- 33) Summers R.S., Hooper S., Shukairy H., Owen D.: "Development of Uniform Formation Conditions for the Assessment of Disinfection By-Product Formation," Proc. Amer. Water Works Assoc. Annual Conference, New York, NY (1994).
- 34) Berg G., Hollowell T., Summers R.S., Rice E.: "Potentiation by Ground Water-Derived Drinking Water of Inactivation of Male-Specific Coliphage MS2 by Chlorine," Proc. Amer. Water Works Assoc. Annual Conference, New York, NY (1994).
- 35) Hong S., Summers R.S.: "Impact of Backwashing and Desorption on GAC Breakthrough of Natural Organic Matter," Proc. Amer. Water Works Assoc. Annual Conference, New York, NY (1994).
- 36) Miltner R., Nolan S., Dryfuse M., Summers R.S.: "The Control of DBPs by Enhanced Coagulation," Proc. of the American Water Works Assoc. Annual Conference, New York, NY (1994).
- 37) Owens J., Berg G., Summers R.S., Rice E., Reasoner D., Clark R.: "Survival of a Fraction of Heterotrophic Bacteria Indigenous to the Ohio River After Prolonged Exposure to Free Chlorine," Proc. Amer. Water Works Assoc. Annual Conference, New York, NY (1994).

- 38) Shukairy H., Koechling M., Summers R.S.: "Fractionated Organic Matter DBP Formation: Kinetics, Reactivity and Speciation," Proc. Amer. Water Works Assoc. Annual Conference, New York, NY (1994).
- 39) Wang J., Summers R.S.: "Modeling of Biofiltration of Natural Organic Matter in Drinking Water Treatment," Proc. ASCE Environmental Engineering Conference, Boulder, CO. (1994).
- 40) Hooper S., Summers R.S., Shukairy H., Owen D.: "Development of a New Test for the Assessment of Disinfection By-Product Formation: Uniform Formation Conditions," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, San Francisco, CA (1994).
- 41) Wulfeck W.M. Jr., Summers R.S.: "Control of DBP Formation Using Retrofitted GAC Filter-Adsorbers and Ozonation," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, San Francisco, CA (1994).
- 42) Allgeier S.C., Summers R.S., Shukairy H.: "Formation and Control of Bromate During Ozonation," Proc. Amer. Water Works Assoc. Annual Conference, Anaheim, CA (1995).
- 43) Solarik G., Hooper S.M., Summers R.S., Owen D.M.: "Predicting and Characterizing the Removal of DBP Precursors by GAC," Proc. Amer. Water Works Assoc. Annual Conference, Anaheim, CA. (1995).
- 44) Hooper S.M., Hong S., Solarik G., Summers R.S., Owen D.M.: "The Impact of Optimized Coagulation on Granular Activated Carbon Adsorption of Natural Organic Matter and Disinfection By-Product Control," Proc. Amer. Water Works Assoc. Annual Conference, Anaheim, CA (1995).
- 45) Wang J.Z., Summers R.S.: "Biomass Growth and Distribution in Drinking Water Biofilters and Its Impact on Natural Organic Matter Removal," Proc. Amer. Water Works Assoc. Annual Conference, Anaheim, CA (1995).
- 46) Moll D.M., Wang J.G., Summers R.S.: "NOM Removal by Distinct Microbial Populations in Biofiltration Processes," Proc. Amer. Water Works Assoc. Annual Conference, Anaheim, CA (1995).
- 47) Dryfuss M.J., Miltner R.J., Summers R. S., "The Removal of Molecular Size and Humic/Nonhumic Fractions of DBP Precursors by Optimized Coagulation," Proc. Amer. Water Works Assoc. Annual Conference, Anaheim, CA (1995).
- 48) Owen D.M., Chowdhury Z.K., Summers R.S., Hooper S.M., Solarik G., "Technology and Costs for Determination of GAC Treatment Using the ICR Methodology," Proc. Amer. Water Works Assoc. Annual Conference, Anaheim, CA (1995).
- 49) Speth T.F., Fromme W.R., Summers R.S., "Evaluation of Membrane Performance and Fouling by Pyrolysis - GS/MS," Proc. Amer. Water Works Assoc. Membrane Technology Conference, Reno, NV (1995).
- 50) Allgeier S.C., Summers R.S., "The Effect of Mass Transfer Resistance and System Recovery on Membrane Permeation," Proc. Amer. Water Works Assoc. Membrane Technology Conference, Reno, NV (1995).
- 51) Allgeier S.C., Summers R.S., "Development of a Rapid Bench-Scale Membrane Test for the Evaluation of Nanofiltration Membranes," Proc. Amer. Water Works Assoc. Membrane Conference, Reno, NV (1995).
- 52) Graham M.R., Summers R.S., MacLeod B., Simpson M., Cummins L., Najm I.: "Control of Taste-and-Odor Problems with Powdered Activated Carbon," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, New Orleans, LA (1995).

- 53) Dugan N.R., Summers R.S., Miltner R.J., Shukairy H.M.: "Modeling Chlorine Residuals and Assessing Chlorine Demand Chemistry," Proc. Amer. Water Works Assoc. Water Technology Conference, New Orleans, LA (1995).
- 54) Solarik G., Summers R.S., Cummings L., Bella J., Pasquariello L., Moody V., Slezak R.: "DBP Precursor Treatment Studies at Little Falls, New Jersey, to Meet the ICR Requirements," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, New Orleans, LA (1995).
- 55) Koechling M., Summers R.S.: "Evaluation of Ultrafiltration and Hydrophobic Separation for Characterizing Natural Organic Matter," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, New Orleans LA (1995).
- 56) Shukairy H.M., Miltner R.J., Summers R.S.: "Ozonation and Biotreatment for the Control of DBPs in Drinking Water," Proc., Amer. Soc. of Civil Engineering, Save the Environment Conference, Beirut, Lebanon (1995).
- 57) Graham M., Summers R.S.: "The Role of Floc Formation and Presence on Adsorption by Powdered Activated Carbon," Proc. Amer. Water Works Assoc. Conference, Toronto, Ontario, Canada (1996)
- 58) Hooper S.M., Summers R.S., Solarik G., Hong S.: "GAC Performance for DBP Control: Effect of Influent Concentration, Seasonal Variation, and Pretreatment," Proc. Amer. Water Works Assoc. Conference, Toronto, Ontario, Canada (1996).
- 59) Ollier L., Summers R.S., Bissonette E.: "Impact of Storage and Handling on Discrete Particle Counts," Proc. Amer. Water Works Assoc. Conference, Toronto, Ontario, Canada (1996).
- 60) Solarik G., Hooper S.M., Summers R.S., Owen D.M.: "The Impact of Ozonation and Biotreatment on GAC Performance for NOM Removal and DBP Control," Proc. Amer. Water Works Assoc. Conference, Toronto, Ontario, Canada (1996).
- 61) Uber J., Summers R.S., Boccelli D.L., Koechling M.T., Tryby M.E., Rossman L.A.: "Booster Chlorination," Proc. Amer. Water Works Assoc. Conference, Toronto, Ontario, Canada (1996).
- 62) Chowdhury Z.K., Solarik G., Owens D.M., Hooper S.M., Summers R.S.: "NOM Removal by GAC Adsorption: Implications of Blending," Proc. Amer. Water Works Assoc. Conference, Toronto, Ontario, Canada (1996).
- 63) Miltner R.J., Summers R.S., Dugan N.R., Koechling M., Moll D.M.: "A Comparative Evaluation of Biological Filters," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Boston, MA (1996).
- 64) Allgeier S.C., Summers R.S., Jacangelo J.G., Hatcher V.A., Moll D.M., Hooper S.M., Swertfeger J.W., Green R.B.: "A Simplified and Rapid Method for Biodegradable Dissolved Organic Carbon Measurement," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Boston, MA, (1996).
- 65) Hooper S.M., Summers R.S., Hong S., "A Systematic Evaluation of the Role of Influent TOC and pH on GAC Performance After Enhanced Coagulation," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Boston, MA (1996).
- 66) Allgeier S.C., Gusses A.S., Speth T.F., Summers R.S.: "Verification of the Rapid Bench-Scale Membrane Test for Use in the ICR," Proc. Amer. Water Works Assoc. Membrane Conference, New Orleans, LA (1997).
- 67) Gusses A.M., Speth T.F., Allgeier S.C., Summers R.S.: "Evaluation of Surface Water Pretreatment Processes Using the Rapid Bench-Scale Membrane Test," Proc. Amer. Water Works Assoc. Membrane Conference, New Orleans, LA (1997).

- 68) Speth T.F., Gusses A.M., Allgeier S.C, Summers R.S., Swertfeger, J.W., MacLeod B.W.: "Predicting Pilot-Scale Membrane Performance with Bench-Scale Studies," Proc. Amer. Water Works Assoc. Membrane Conference, New Orleans, LA (1997).
- 69) Koechling M.T., Summers R.S.: "The influence of Ozonation and Biological Oxidation on the Chlorine, Chloramine and UV Absorbance Reaction Kinetics," Proc. Int. Ozone Assoc. Conference, Berlin, Germany (1997).
- 70) Solarik G., Summers R.S., Hooper S.M., Owen D.M.: "Enhancement of GAC Performance by Ozonation and Biotreatment," Proc. Int. Ozone Assoc. Conference, Berlin, Germany (1997).
- 71) Uber J., Summers R.S., Boccelli D.L., Koechling M.T., Tryby M.E., Rossman L.A.: "Rechlorination to Maintain Chlorine Residuals," Proc. Amer. Water Works Assoc. Conference, Atlanta, GA (1997).
- 72) Koechling M.T., Summers R.S., Dugan N.R., Shukairy H., Miltner R.J.: "Modeling Chlorine Decay Using Ultraviolet Absorbance," Proc. Amer. Water Works Assoc. Conference, Atlanta, GA (1997).
- 73) Koechling M.T., Benz M.A., Summers R.S.: "Combination of Ion Exchange Resin and Granular Activated Carbon: An Alternative Method of DBP Precursor Removal," Proc. Amer. Water Works Assoc. Conference, Atlanta, GA (1997).
- 74) Boccelli D.L., Tryby M.E., Koechling M.T., Summers R.S., Uber J.: "Bulk Decay Kinetics of Rechlorinated Water: Experimental Results and Model Development," Proc. Amer. Water Works Assoc. Conference, Atlanta, GA (1997).
- 75) Dugan N.R., Summers R.S.: "A Biomass Based Model to Predict Substrate Utilization in Field-Scale Drinking Water Biofilters," Proc. Amer. Water Works Assoc. Conference, Atlanta, GA (1997).
- 76) Graham M.R., Summers R.S., Simpson M.R., MacLeod N., Cummings L.: "Modeling the Effect of NOM on the Adsorption of MIB and Geosmin," Proc. Amer. Water Works Assoc. Conference, Atlanta, GA (1997).
- 77) Moll D.M., Summers R.S., "The Role of Ozone and Backwashing on Microbial Community Structure in Biofilters," Proc. Amer. Water Works Assoc. Conference, Atlanta, GA (1997).
- 78) Ollier L., Miltner R., Summers R.S.: "Microbial and Particulate Control under Conventional and Enhanced Coagulation," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Denver, CO (1997).
- 79) Solarik G., Hatcher V.A., Isabel R.S., Stile J.F., Summers R.S.: "Prechlorination and DBP Formation: The Impact of Chlorination Point and Enhanced Coagulation," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Denver, CO (1997).
- 80) Summers R.S., Solarik, G., Hatcher V.A., Isabel R.S., Stile J.F.: "Analyzing the Impacts of Preinfection through Jar Testing," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Denver, CO (1997).
- 81) Koechling M.T., Rajbhandari A.N., Summers R.S.: "Use of Humic/Nonhumic Distribution of Natural Organic Matter for Predicting Bulk Chlorine Decay," Proc. Amer. Water Works Assoc. Conference, Dallas, TX (1998).
- 82) Matheis W., Koechling M.T., Summers R.S., Frimmel F.: "Impact of Drinking Water Treatment on Chlorine Decay Kinetics," Proc. Amer. Water Works Assoc. Conference, Dallas, TX (1998).
- 83) Stile J.F., Summers R.S., Solarik, G., Hatcher V.A., Isabel R.S.: "Assessing Prechlorination, Coagulation and DBP Formation," Proc. Amer. Water Works Assoc. Conference, Dallas, TX (1998).

- 84) Boccelli D.L., Tryby M.E., Koechling M.T., Summers R.S., Uber J., Rossman L.A.: "Booster Disinfection: Bulk Decay Kinetics, THM Formation and Model Development," Proc. Amer. Water Works Assoc. Conference, Dallas, TX (1998).
- 85) Miltner R.J., Ollier, L.L., Brown, T.A., Summers R.S.: "Assessing the Point of Application of Ozone during Conventional Treatment," Proc. Amer. Water Works Assoc. Conference, Dallas, TX (1998).
- 86) Boccelli, D. L., Tryby, M. E., Koechling, M. T., Summers, R. S., Uber, J. G., and Rossman, L. A.: "Booster Chlorination: Residual Maintenance and Trihalomethane Formation," Proc., Protecting Water Quality in the Distribution System: What is the Role of Disinfection Residuals, AWWA, Philadelphia, PA (1998).
- 87) Merkel, T.H., Speth, T. F., Wang, J.Z. and Summers, R. S.: "Performance of Nanofiltration in the Treatment of Bank-Filtered Water," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, San Diego, CA (1998).
- 88) Summers, R. S., Chowdhury, Z.K., Solarik, G., Sohn, J., Swanson, W., Amy, G.L. and Owen, D.M.: "Modification And Extension Of The Water Treatment Plant Model," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, San Diego, CA (1998).
- 89) Summers R.S, Chowdhury Z.K., Solarik G., Swanson W., Sohn J., Amy G.L.: "Extensions and Verification of The Water Treatment Plant Model," Proc. Amer. Water Works Assoc. Conference, Chicago, IL (1999).
- 90) Fonseca A.C., Moll D., Matheis W., Summers R.S., Miltner R.J.: "Impact of Temperature on Biofilter Performance and Microbial Community Structure," Proc. Amer. Water Works Assoc. Conference, Chicago, IL (1999).
- 91) Boccelli D.L., Tryby M.E., Uber J.G., Summers R.S., Rossman L.A.: "Modeling Rechlorination Kinetics Considering A Reactive Species," Proc. Amer. Water Works Assoc. Conference, Chicago, IL (1999).
- 92) Mukherjee J., Summers R.S.: "Evaluation of Virus Removal during Direct Filtration," Proc. Amer. Water Works Assoc. Conference, Chicago, IL (1999).
- 93) Rajbhandari A.N., Koechling M.T., Summers R.S.: "Assessment of Chloramine Decay in Treated Waters; Impact of Treatment and Free Chlorine Contact Time," Proc. Amer. Water Works Assoc. Conference, Chicago, IL (1999).
- 94) Pawlecki-Vonderheide A.M., Hooper S.M., Hooper M.L., Hatcher V., Summers R.S.: "Implications of HAA5-Based GAC Treatment Goals on the Formation of HAA9," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Tampa, FL (1999).
- 95) Handra A.M., Allgeier S.C., Summers R.S.: "Assessment of Nanofiltration Membranes for NOM and Bromide Removal from Surface Waters," Proc. Amer. Water Works Assoc. Membrane Conference, Long Beach, CA (1999).
- 96) Gusses A.M., Allgeier S.C., Speth T.F., Summers R.S.: "Impact of Membrane Sample Variability on the Performance of the Rapid Bench-Scale Membrane Test," Proc. Amer. Water Works Assoc. Membrane Conference, Long Beach, CA (1999).
- 97) Speth T.F., Gusses A.M., Summers R.S.: "Evaluation of Nanofiltration Pretreatments for Flux Loss Control," Proc. Amer. Water Works Assoc. Membrane Conference, Long Beach, CA (1999).
- 98) Chowdhury Z.K., Swanson W., Rosen J., Frey M., Summers R.S., Regli S.: "Modeling Of Water Treatment Plant Process Improvement Decision Tree for Regulatory Alternative

- Assessment," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Tampa, FL (1999).
- 99) Isabel, R., G. Solarik, M. Koechling, M. Anzek, R.S. Summers: "Modeling Chlorine Decay in Treated Waters," Proc. Amer. Water Works Assoc. Conference, Denver, CO (2000).
 - 100) Seidel C., M. Frey, R.S. Summers: "Understanding Disinfection By-Product Behavior in Water Distribution Systems," Proc. Amer. Water Works Assoc. Conference, Denver, CO (2000).
 - 101) Uber, J., M. Webster, M. Tryby, E. Bissonnette, R.S. Summers: "Observational Study of Population Exposure to Regulated Disinfection Byproducts," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Salt Lake City, UT (2000).
 - 102) Seidel C., M. Frey, R.S. Summers: "Applying Uncertainty to DBP Predictions," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Salt Lake City, UT (2000).
 - 103) Seidel C., M. Frey, R.S. Summers, Z. Chowdhury, W. Swanson: "Modeling Tools to Predict National Compliance and DBP Exposure," Proc. Amer. Water Works Assoc. Conference, Washington, DC (2001).
 - 104) Chowdhury Z., W. Swanson, M. Frey, R.S. Summers, J. McLain: "Surface Water Analytical Tool: An Approach for Evaluation of Regulatory Alternatives and Planning Water Treatment Process Improvements," Proc. Amer. Water Works Assoc. Conference, Washington, DC (2001).
 - 105) Summers, R.S., G. Solarik, A. Rajbhandari, M. Koechling: "Modeling Chloramine Residuals in Treated Waters," Proc. Amer. Water Works Assoc. Conference, Washington, DC (2001).
 - 106) Swanson, W., Z. Chowdhury, R.S. Summers, G. Solarik: "Predicting DBPs at Full-Scale: Calibration and Validation of the Water Treatment Plant Model Using ICR Data," Proc. Amer. Water Works Assoc. Conference, Washington, DC (2001).
 - 107) Arias M., J. Caufield, R.S. Summers: "Optimizing Preoxidation for Disinfection By-Product Control and Its Impact on Filter Performance," Proc. Amer. Water Works Assoc. Conference, New Orleans, LA (2002).
 - 108) Dickenson, E., L. Work, R.S. Summers: "Short-Term Chlorine Decay and Disinfection By-Product Formation," Proc. Amer. Water Works Assoc. Conference, New Orleans, LA (2002).
 - 109) Grooters, S., R.S. Summers, G. Amy: "Nanofiltration Scale-up Issues: Using Bench-Scale Testing as a Cost-Effective Approach for Membrane Selection," Proc. Amer. Water Works Assoc. Conference, New Orleans, LA (2002).
 - 110) Fonseca C.A., R.S. Summers: "Evaluation of Different Ozonation Strategies and of Temperature Effects on Biological Filter Performance," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Philadelphia, PA (2003).
 - 111) Arias M., J. Priestley, J. O'Brien R.S. Summers: "Preoxidation Optimization for DBP Control: A Scale-up Study," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Philadelphia, PA (2003).
 - 112) Dickenson, E., R.S. Summers: "Using Chlorine Exposure (CT) to Predict Trihalomethane Formation," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Philadelphia, PA (2003).
 - 113) DeMers, L., A. Gusses Dugan, R.S. Summers, J. Uber: "Optimization Beyond Turbidity – Fine Tuning the Disinfection Process and Control of Byproduct Formation," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Philadelphia, PA (2003).
 - 114) Arias M., R.S. Summers: "Understanding and Optimizing Chlorine Interactions During Coagulation," Proc. Amer. Water Works Assoc. Conference, Anaheim, CA (2003).

- 115) Fonseca C.A., R. S. Summers, A. Greenberg, M. Hernandez: "Isolating and Modeling Critical Factors Governing Biofouling of Nanofiltration Membranes," Proc. Amer. Water Works Assoc. Membrane Technology Conference, Atlanta, GA (2003).
- 116) Arias M., R.S. Summers: "Effect of TOC on Preoxidation Optimization," Proc. Amer. Water Works Assoc. Conference, Orlando, FL (2004).
- 117) Dickenson, E., R.S. Summers: "Bromide and Prechlorination Effects upon Disinfection By-product Formation within a Chlorine/Chloramine Disinfection Approach," Proc. Amer. Water Works Assoc. Conference, Orlando, FL (2004).
- 118) Seidel, C., M. Carr, R. S. Summers, M. Frey, N. Landi, B. Zachman: "The MIEX Process: A Technology for Removing Inorganic Contaminants," Proc. Amer. Water Works Assoc. Conference, Orlando, FL (2004).
- 119) Work L., R.S. Summers: "Modeling Chlorine-NOM reactions Kinetics with Fluorescence," Proc. Amer. Water Works Assoc. Conference, Orlando, FL (2004).
- 120) Arias M., E. Dickenson, R.S. Summers: "Optimization of Preoxidant and Powdered Activated Carbon Addition," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, San Antonio, TX (2004).
- 121) Arias M., R.S. Summers: "The Formation and Fate of Disinfection Byproducts during Coagulation with Chlorine and Chlorine Dioxide Preoxidation," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, San Antonio, TX (2004).
- 122) Zachman B., R.S. Summers: "The Effect of Water Quality Characteristics and RSSCT Design Parameters on TOC Breakthrough in GAC Columns," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, San Antonio, TX (2004).
- 123) Work L., N. Smith, R.S. Summers: "Practical Modeling of Chlorine and Chloramine Decay in Drinking Water," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, San Antonio, TX (2004).
- 124) O'Brien J.C., R.S. Summers: "Filter Performance: The Effects of ETSW and Preoxidation with Optimal and Suboptimal Coagulation," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, San Antonio, TX (2004).
- 125) Lagerquist J.M., R.S. Summers: "Disinfection Byproduct Control with Chlorine Dioxide and Other Alternative Oxidant Strategies," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, San Antonio, TX (2004).
- 126) Meyer, K.J., Summers, R.S., Westerhoff, P., Metz, D.H. "Biofiltration for Geosmin and MIB Removal," Proc. Amer. Water Works Assoc. Conference, San Francisco, CA (2005).
- 127) Dickenson, E., R.S. Summers, J.P. Croué, H. Gallard: "Fast-Reacting Chlorinated Disinfection By-Product Precursors," Proc. Amer. Water Works Assoc. Conference, San Francisco, CA (2005).
- 128) Zachman, B., R. S. Summers, B. Rajagopalan: "A Model to Predict TOC Breakthrough in Small- and Field-Scale GAC Adsorbers," Proc. Amer. Water Works Assoc. Conference, San Francisco, CA (2005).
- 129) Seidel, P., M. McGuire, R. S. Summers, S. Via: "Have Utilities Switched to Chloramines? Results from the AWWA Disinfection Practices Survey," Proc. Amer. Water Works Assoc. Conference, San Francisco, CA (2005).
- 130) Kim, S.M., Summers, R.S.: "Control of MIB and Geosmin by Granular Activated Carbon," Proc. Amer. Water Works Assoc. Conference, San Antonio, TX (2006).
- 131) Seidel, C., Summers, R.S., Roberson, A.: "The Safe Drinking Water Act: A Regulatory Development Assessment" Proc. Safe Drinking Water: Where Science Meets Policy

- Symposium, Carolina Environmental Program, University of North Carolina, Chapel Hill (2006).
- 132) Beggs, K., Zachman, B., Valenti, C., Summers, R.S.: "Predicting Disinfection Byproducts Using Molecular Fluorescence," Proc., Amer. Water Works Assoc. Water Quality Technology Conference, Denver, CO (2006).
 - 133) Towler, E., Rajagopalan, B., Summers, R.S., Seidel, C.: "Characterizing Influent Water Quality Across the United States," Proc., Amer. Water Works Assoc. Water Quality Technology Conference, Denver, CO (2006).
 - 134) Kang, S., Summers, R.S., Amy, G.: "Removal of Trace Anionic Organic Compounds in Water by Ion Exchange Resins," Proc., Amer. Water Works Assoc. Water Quality Technology Conference, Denver, CO (2006).
 - 135) Kim, S.M., Summers, R.S., Ahn, H.: "Development of a Decision Support System for Taste and Odor Control," Proc., Amer. Water Works Assoc. Water Quality Technology Conference, Denver, CO (2007).
 - 136) Kerstiens, J., MacPhee, M., Sullivan, L., Bryck, J., Summers, R.S., Cho, H.: "Designing Plants to Meet Taste and Odor Objectives With Inadequate Historical Data," Proc., Amer. Water Works Assoc. Water Quality Technology Conference, Denver, CO (2006).
 - 137) Chae, S., Kim, S.M., Ahn, H., Summers, R.S.: "Biofiltration of MIB and Geosmin under Varying Influent Conditions," Proc., Amer. Water Works Assoc. Water Quality Technology Conference, Denver, CO (2006).
 - 138) Loveland, J., Seidel, C., Means, E., Pennell, G., Summers, R.S.: "When Even RO Does Not Remove It, Just Add GAC! Bench and Pilot-scale Results for 1,2,3 TCP Control," Amer. Water Works Assoc. Water Quality Technology Conference, Denver, CO (2006).
 - 139) Valenti, C.C., Beggs, K., Summers, R.S.: Evaluating DBP Formation in the Distribution System with Hold Studies, Proc. Amer. Water Works Assoc. Conference, Toronto, Ontario, Canada (2007).
 - 140) Cho H., Summers, R.S.: MIB Removal by Powdered Activated Carbon: Impact of NOM, Kinetics and Pretreatment, Proc. Amer. Water Works Assoc. Conference, Toronto, Ontario, Canada (2007).
 - 141) Kim, S.M., Summers, R.S., Ahn, H.: "Predicting MIB Breakthrough in Granular Activated Carbon Adsorbers," Proc. Amer. Water Works Assoc. Conference, Toronto, Ontario, Canada (2007).
 - 142) Zachman, B.A., Summers, R.S., Swanson W.: TOC Breakthrough Models: Practical Application and Case Studies, Proc. Amer. Water Works Assoc. Conference, Toronto, Ontario, Canada (2007).
 - 143) Cho, H., Summers, R.S.: Powdered Activated Carbon for Controlling Total Organic Carbon: Application and Model Development, Amer. Water Works Assoc. Water Quality Technology Conference, Charlotte, NC (2007).
 - 144) Hill, C.P., Chowdhury, Z.K., Scilimenti, M.J., Krasner, S.W., Summers, R.S., Uber, J.: Occurrence and Control of Disinfection Byproducts in Consecutive Drinking Water Systems, Amer. Water Works Assoc. Water Quality Technology Conference, Charlotte, NC (2007).
 - 145) Dani, D., Linden K., Summers R.S., Kim S.M., "Evaluating UV/H₂O₂ for Removal of Taste and Odor," Amer. Water Works Assoc. Water Quality Technology Conference, Charlotte, NC (2007).

- 146) Corwin, C., Cardenas, J., Summers, R.S.: "Micropollutant Control by Activated Carbon Adsorbers: Effect of Backwashing and Pulse Loading," Proc. Amer. Water Works Assoc. Conference, Atlanta, GA (2008).
- 147) Passantino, L., Chowdhury, Z., Summers, R.S., Corwin, C., Bryck, J.: "Overcoming Implementation Challenges for the Stage 2 DBPR: Retrofitting Water Treatment Plants for Granular Activated Carbon," Proc. Amer. Water Works Assoc. Conference, Atlanta, GA (2008).
- 148) Summers R.S., Kim, S.M., Chae, S., Cho, H., Dani, D.: "Process Modeling for MIB and Geosmin Control: Powdered & Granular Activated Carbon, Biological Filtration and Advanced Oxidation (UV/H₂O₂)," keynote address IWA Symposium on Off-Flavours in the Aquatic Environment, Daejeon, Korea, October 5-9th, 2008.
- 149) Kowalski, K., Bielefeldt, A., Summers, R.S.: "Bacterial Growth in Point-of-Use Ceramic Water Filters. Proc. of Institute for the Environment Environmental Symposium: Sustainable and Safe Drinking Water in Developing and Developed Countries: Where Science Meets Policy, edited by Phil Singer. University of North Carolina – Chapel Hill, NC (2008).
- 150) Corwin, C., Parker, A., Summers, R.S.: "Effect of Oxidation of Dissolved Organic Matter on Micropollutant Adsorption by Granular Activated Carbon," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Cincinnati, OH (2008).
- 151) Valenti, C., et al.: "Disinfection By-Product Control Strategies in Consecutive Drinking water Systems," Proc. Amer. Water Works Assoc. Water Quality Technology Conference, Cincinnati, OH (2008).
- 152) Corwin, C., Summers, R.S.: "Assessing the Scalability of Fouling of GAC Adsorbers by Competing Organic Matter," Proc. Amer. Water Works Assoc. Water Quality and Technology Conference, Seattle, WA, (2009).
- 153) Beggs, K.M.H., Summers, R.S., Billica, J.: "Disinfection By-Product Formation from Dissolved Organic Matter Produced from Pine Beetle Epidemic in Rocky Mountains," Proc. Amer. Water Works Assoc. Water Quality and Technology Conference, Seattle, WA (2009).
- 154) Bielefeldt, A.R., Summers, R.S., Kohler, A., Kowalski, K.: "Bacteria and Virus Removal in Point-Of-Use Ceramic Water Filters," Proc. Water Environment Federation Disinfection – International Ceramic Pot Filter Workshop (2009).
- 155) Zearley, T., Summers, R.S.: "Retained Removal Capacity of Biofilters for Trace Micropollutants Degradation during Episodic Influent Events" Proc. of the Amer. Water Works Assoc. Water Quality and Technology Conference, Savannah, GA (2010).
- 156) Panacewicz, L.P., Bielefeldt, A.R., Schulz, C., Summers, R.S., Relph T.: "Enhanced ceramic water filtration system for contaminant removal for households in developing countries," Proc. of the Amer. Water Works Assoc. Water Quality and Technology Conference, Savannah, GA (2010).
- 157) Stewart, M.W., Bielefeldt, A.R., Mansfield, E., Summers, R.S., Ryan J.N., "Effects of water quality parameters on the release of silver nanoparticles from a ceramic surface using a quartz crystal microbalance," Proc. of the Amer. Water Works Assoc. Water Quality and Technology Conference, Savannah, GA (2010).
- 158) Ghosh, A., Tang, G., Seidel, C., Hohner, A., Rosario-Ortiz, F., Summers, R.S., Rodgers, M.: "Connecting the Dots: Can Climate Change Influence Algal Blooms that Lead to Disinfection By-Product Formation in Your Drinking Water?" Proc. of the Amer. Water Works Assoc. Water Quality and Technology Conference, Phoenix, AZ (2011).

- 159) Corwin, C., Summers, R.S., Kennedy, A., Cardenas, J., Mastropole, A., Knappe, D.: "Impact of DOC, EBCT, and Pretreatment on the GAC Adsorption of Trace Organic Contaminants," Proc. of the Amer. Water Works Assoc. Water Quality and Technology Conference, Phoenix, AZ (2011).
- 160) Ghosh, A., Acquafredda, S., Seidel, C., Corwin, C., Summers, R.S., Xerxis, M.: "Bench-Scale Testing Pre-Treatment and GAC Synergies for the Scottsdale, Arizona Chaparral WTP," Proc. of the Amer. Water Works Assoc. Water Quality and Technology Conference, Phoenix, AZ (2011).
- 161) Dowdell, K., Zearley, T., Summers, R.S.: "Micropollutant Biodegradation and Adsorption in Biologically Active Drinking Water Filters with Granular Activated Carbon," Proc. of the Amer. Water Works Assoc. Water Quality and Technology Conference, Phoenix, AZ (2011).
- 162) Zearley, T., Summers, R.S.: "Removal of Micropollutants Through Biologically Based Processes," Proc. of the Amer. Water Works Assoc. Water Quality and Technology Conference, Phoenix, AZ (2011).
- 163) Zearley, T., Meyer, S.H., Chae, K., Dowdell, R.S., Summers, R.S.: "Trace Organic Pollutant Degradation in Drinking Water Biological Filters," Proc. of the Amer. Water Works Assoc. Water Quality and Technology Conference, Toronto ON, Canada (2012).
- 164) Kennedy, A., Reinert, R.S., Summers, I., Ferrer, M., Thurman, D.R.U., Knappe, D.: "Scale-Up of the GAC Adsorption of Trace Organic Compounds," Proc. of the Amer. Water Works Assoc. Water Quality and Technology Conference, Toronto ON, Canada (2012).
- 165) Kennedy, A.M., Summers, R.S.: "Fouling Effects of NOM Size Fractions on the Scale-up of GAC Adsorption." Proc. of the Amer. Water Works Assoc. Annual Conference and Exposition, Denver, CO (2013).
- 166) Korak, J.A.; Dotson, A.D.; Summers, R.S.; Rosario-Ortiz, F.L. Critical Analysis of Commonly Used Fluorescence Metrics. AWWA Water Quality and Technology Conference, Long Beach, CA, November 3-6 (2013).
- 167) Terry, L.G and R.S Summers, "Understanding the Performance of Extended EBCT Biofilters Based on Biomass Development and Distribution Compared to a Rapid Media Filter," proceedings SGEM 2016 International Conference, Vienna, Austria, November, 2016.

Reports

- 1) Eberle S.H., Fuchs F., Haberer K., Summers R.S., Sontheimer H.: "Radioaktivkontaminierte Rhowasser bei der Trinkwassergewinnung," Agrar-und Umweltforschung in Baden-Wurtemberg, Band 17, Ministerium fur Ernährung, Landwirtschaft, Umwelt and Forsten (1986).
- 2) Haist B., Summers R.S., Zimmer G., Baechle A., Weiss H.: "Die Entfernung von organischen Stoffen aus Rheinuferfiltrat durch Aktivkohlenfiltration," Arbeitsgemeinschaft Wasserwerke Bodensee-Rhein (AWBR), Jahresbericht (1987).
- 3) Summers R.S., Hooper S.M., and Hong S.: "ICR Manual for Bench-and-Pilot- Scale Treatment Studies, Part 2: Granular Activated Carbon Precursor Removal Studies," EPA 814-B-96-003, Office of Water, U.S. EPA, Washington, DC (1996).

INVITED TALKS

Invited Presentations

- 1) Amer. Water Works Assoc. Conference, "GAC Seminar", Kansas City, MO, June 14-18, 1987. "Application of European Experiences with Granular Activated Carbon to the United States."
- 2) Amer. Water Works Assoc. Res. Found./U.S. EPA Symposium, "Design and Use of Granular Activated Carbon: Practical Aspects," Cincinnati, OH, May 9-10, 1989. "The Use of Mini-Columns as a Predictive Tool."
- 3) Amer. Water Works Assoc. Res. Found./U.S. EPA Symposium, "The Design and Use of Granular Activated Carbon; Practical Aspects," Cincinnati, OH, May 9-10, 1989. "German Experiences with Granular Activated Carbon."
- 4) 15th International Symposium on Wastewater Treatment and Drinking Water, Montreal, Canada, November 17-19, 1992. "The Impact of Ozonation and Biological Treatment on Disinfection By-Products."
- 5) Lyonnaise des Eaux-Dumez/AWWA Research Foundation, "Natural Organic Matter Workshop," Chamonix, France, September 19-22, 1993. "Biocharacterization of Natural Organic Matter."
- 6) Amer. Water Works Assoc. Water Quality Technology Conference, "Enhanced Coagulation Seminar," Miami, FL, Nov. 7-10, 1993. "TOC Removal as a Predictor of DBP Control."
- 7) Amer. Water Works Assoc. Conference, "Activated Carbon Seminar", New York, NY, June 19-23, 1994. "The Use of RSSCTs to Predict GAC Field-Scale Performance."
- 8) Austrian Gas and Water Works Assoc., "Water Technology Seminar," Vienna, Austria, December 15, 1995. "Drinking Water Disinfection By-Product Formation and Control: The Situation in the U.S.A."
- 9) Amer. Water Works Assoc. Conference., "NOM Seminar", New York, NY, June 19-23, 1994. "Adsorption of Natural Organic Matter and Disinfection By-Precursors."
- 10) Amer. Water Works Assoc. and U.S. EPA, "GAC, Membranes and the ICR: A Workshop on Bench-Scale and Pilot-Scale Evaluations," Cincinnati, OH, March 3-5, 1996. "The Use of GAC to Meet the ICR Requirements: Guidance Manual Review."
- 11) Amer. Water Works Assoc. Conference, "Pathogens and Disinfection By-products: Balancing the Goals Seminar", Toronto, Ontario, Canada, June 23-27, 1996. "Granular Activated Carbon for DBP Precursor Control."
- 12) Southeast Regional Technology Transfer Conference, "Practical Application of Current Research for Public Water Supply," cosponsored by Amer. Water Works Assoc. and Amer. Water Works Assoc. Research Found., Greenville, SC January 23-24, 1997. "GAC Treatment for Natural Organic Matter and DBP Control."
- 13) Amer. Water Works Assoc. Water Quality Technology Conference, "M/DBP Rule Cluster Seminar," Denver, CO, Nov. 8, 1997. "Analyzing the Impacts of Pre-Disinfection through Jar Testing."
- 14) Amer. Water Works Assoc. Water Quality Technology Conference, "New Developments in Characterizing and Monitoring NOM in Water Treatment Seminar," Denver, CO, Nov. 8, 1997. "GAC Adsorption: Preferential Removal of NOM Fractions."
- 15) U.S. EPA Region IV, Georgia Env. Protection Div, and Assoc. of State Drinking Water Administrators, "Advanced Drinking Water Technology Conference," Atlanta, GA, May 3-6, 1998. "Applications of Ozone, Biofiltration and GAC in Water Treatment."

- 16) Amer. Water Works Assoc. Water Quality Technology Conference, Salt Lake City, UT, Nov. 5, 2000. "Using GAC Biofiltration to Meet D/DBP Stage 1 Requirements."
- 17) International Water Association Biological Activated Carbon Filtration Workshop, May 29-31, 2002, Delft University, The Netherlands. "Review of Drinking Water Based Biofiltration Models."
- 18) Amer. Water Works Assoc. Water Quality Technology Conference, November 17, 2010, Savannah, GA, "Biological Drinking Water Treatment."
- 19) Utah Water Quality Alliance: Biological Filtration Workshop, January 20, 2011, Salt Lake City, UT, "Emerging Contaminants Removal in Drinking Water Biofilters," (Zearley, T.)
- 20) 9th Annual U.S. EPA Drinking Water Workshop, Small Drinking Water Systems: Compliance strategies, Sept 11-13, 2012 Cincinnati OH, "Granular Activated Carbon Treatment Fundamentals."
- 21) 2nd International Faecal Sludge Management Conference, Oct 29-31, 2012, Durban, South Africa, "Solar Biochar Toilet."
- 22) RES EAU Water Network Annual Meeting Program, Nov 3-4, 2012, Toronto, ON, Canada, "Treatment Technologies for Small Systems: Innovation and Sustainability."
- 23) Front Range Taste and Odor Workshop, Feb 9, 2012, Erie, CO, "Treatment Options for MIB and Geosmin."
- 24) Aerobic Biological Filtration, Biological Treatment Symposium, Amer. Water Works Assoc. March 29, 2013, Denver, CO.
- 25) A.P. Black Keynote address, Four Decades of Activated Carbon: Consumer, Regulation and Safety Driven, Amer. Water Works Assoc. Annual Conference and Exposition, Denver, CO. June 9-13, 2013.
- 26) The 5th International Slow Sand and Alternative Biological Filtration International Water Association Conference "Progress in Slow Sand and Alternative Biofiltration Processes – Further Developments and Applications" Nagoya, Japan, June 17-19, 2014.
- 27) 11th Annual U.S. EPA Drinking Water Workshop, Small Drinking Water Systems: Challenges and Solutions, DeRISK Center Overview, Cincinnati OH, Sept 9-11, 2014.

Invited Lectures and Seminars

- Agricultural University, Wageningen, The Netherlands.
- Societe Lyonnaise des Eaux, Paris, France.
- University of Geneva, Geneva, Switzerland.
- Centre National de la Recherche Scientifique, Nancy, France.
- University of Massachusetts, Amherst, Massachusetts.
- USEPA-ORD-Water Engineering Research Lab., Cincinnati, Ohio.
- Swiss Federal Institute of Water Supply and Water Pollution Control (EAWAG), Zurich, Switzerland
- University of Alberta, Edmonton, Canada.
- Vanderbilt University, Nashville, Tennessee.
- Universitat Karlsruhe, Germany
- University of Cincinnati-Medical Center, Cincinnati, Ohio.
- University of Colorado, Boulder, Colorado

- DVGW Water Technology Center, Karlsruhe, Germany
- University of Crete, Greece
- Universitat fur Bodenkultur, Vienna, Austria
- Colorado School of Mines, Golden, Colorado
- Korean Water Resources Company, Seoul, Korea
- University of New Hampshire

CONFERENCE PRESENTATIONS (Without Proceedings)

- 1) Sigma Xi Research Symposium, University of Cincinnati, April 21, 1977. "A Mathematical Model of Declining Flow Rate Water Filtration."
- 2) Amer. Inst. Chem. Engr. National Meeting, Cleveland, OH, August 29 - September 1, 1982. Roberts P.V., Summers R.S.: "Simulation of TOC Removal in Fixed-Bed Activated Carbon Treatment."
- 3) Fundamentals of Adsorption Conference, Engineering Foundation, Santa Barbara, CA, May 4-9, 1986. Summers R.S., Roberts P.V.: "Diffusion of Humic Substances in Activated Carbon."
- 4) Amer. Water Works Assoc. Conference, Denver, CO, June 22-26, 1986. Cornel P.K., Summers R.S., Roberts P.V.: "Diffusion of Humic Acid in Dilute Aqueous Solution."
- 5) Inter. Humic Substance Soc. Third Inter. Meeting, Oslo, Norway, August 4-8, 1986. Summers R.S., Roberts P.V., Cornel P.K.: "Molecular Size Distribution and Spectroscopic Characterization of Humic Substances."
- 6) Amer. Water Works Assoc. Conference, Kansas City, MO, June 14-18, 1987. Summers R.S., Roberts P.V.: "Activated Carbon Adsorption of Humic Substances: Effects of Molecular Size and Heterodispersity."
- 7) Amer. Water Works Assoc. Conference, Los Angeles, CA, June 18-22, 1989. Summers R.S., Benz M., Hofmann P., Sontheimer H.: "Adsorption of Dissolved Organic Carbon by Activated Carbon: Scale-up, Modeling and Desorption."
- 8) Amer. Water Works Assoc. Water Quality Technology Conference, San Diego, CA, November 11-15, 1990. Summers R.S., Mogren E., Scarpino P., Aieta E.M.: "Assessment of Regrowth Potential by Biodegradable Dissolved Organic Carbon."
- 9) Central State University 10th Annual Science Symposium, Wilberforce, OH, April 11, 1992. Jackson J., Summers R.S.: "The Use of Ultrafiltration to Characterize Organic Matter in Drinking Water."
- 10) 106th Annual AOAC Inter. Meeting, Cincinnati, OH, August 31- September 3, 1992. Green R., Allgeier S., Swertfeger J., Summers R.S.: "Measurement of the Biodegradable Fraction of Low Level Aquatic Organic Carbon."
- 11) General Meeting of the American Society for Microbiology, Las Vegas, NV, May 23-27, 1994. Moll D.M., Summers R.S.: "Microbial Assessment of a Full-Scale Drinking Water Filter Biofilm Community."
- 12) Enhanced Coagulation Research Workshop, Charleston, SC, December 4-6, 1994. Lytle D.A., Dryfuss M.J., Miltner R.J., Schock M.R., Summers R.S.: "An Evaluation of the Secondary Effects of Enhanced Coagulation."
- 13) General Meeting of the Amer. Society for Microbiology, Washington, DC, May 24-28, 1995. Moll, D.M., Summers, R.S.: "Characterization of Microbial Populations from Drinking Water Filters."

- 14) AWWA Membrane Technology Conference, Reno, NV, August 13-16, 1995. Speth, T.F., Fromme, W.R., Summers, R.S. "Evaluation of Membrane Performance and Fouling by Pyrolysis-GC/MS."
- 15) 21st Annual RREL Hazardous Waste Research Symposium, Cincinnati, OH April 4-6, 1995. Speth, T.F., Fromme, W.R., Summers R.S.: "Evaluation of Membrane Performance and Fouling by Pyrolysis-GC/MS."
- 16) Abstracts of the 96th General Meeting of the American Society for Microbiology, New Orleans, LA, May 19-23, 1996. Moll, D., Summers, R. S.: "Drinking Water Filter Microbial Communities: Taxonomic and Functional Changes Due to Differences in Source Water pH."
- 17) Fourth International BOM Conference, Waterloo, Ontario, Canada, June 20-21, 1996. Moll, D.M., Summers, R.S.: "Assessment of the Impact of Operational Parameters on Drinking Water Filter Microbial Communities Using Taxonomic and Metabolic Profiles."
- 18) GAC, Membranes and the ICR: A Workshop on Bench-Scale and Pilot-Scale Evaluations, Cincinnati, OH, March 3-5, 1996. Hooper, S.M., Summers, R.S., Hong, S, Solarik, G., Owen, D.M.: "GAC Performance as Affected by Influent Concentration, Pretreatment and Variability."
- 19) GAC, Membranes and the ICR: A Workshop on Bench-Scale and Pilot-Scale Evaluations, Cincinnati, OH, March 3-5, 1996. Speth, T.F., Allgeier, S.C., Summers, R.S., Swertfeger, J., Mylin, M.L.: "Evaluating Bench-Scale Nanofiltration Studies for Predicting Full-Scale Performance"
- 20) GAC, Membranes and the ICR: A Workshop on Bench-Scale and Pilot-Scale Evaluations, Cincinnati, OH, March 3-5, 1996. Allgeier, S.C., Gusses A.M., Speth, T.F., Westrick J.J., Summers, R.S.: "Verification of the Rapid Bench-Scale Membrane Test and ICR Requirements"
- 21) 212th American Chemical Society National Meeting, Orlando, FL, August 25-29, 1996. Speth, T.F., Summers, R.S., Gusses, A.M.: "Evaluating Membrane Foulants from Conventionally-Treated Drinking Water,"
- 22) IWSA Natural Organic Matter Workshop, Poitiers, France, September 18-19, 1996. Speth, T.F., Summers, R.S., Gusses, A.M. "Evaluating Membrane Foulants from Conventionally-Treated Drinking Water."
- 23) IWSA Natural Organic Matter Workshop, Poitiers, France, September 18-19, 1996. Koechling, M., Summers, R.S., "Ultraviolet Absorbance: A Parameter for Assessing Chlorination Reaction Kinetics."
- 24) 97th General Meeting of the American Society for Microbiology, Miami Beach, FL, May 4-8, 1997. Moll, D., Summers, R. S.: "Ozonation and Backwashing Conditions Impact Microbial Populations in Drinking Water Biofilter".
- 25) 60th Annual Ohio Section Conference - American Water Works Association, Cincinnati, OH, Sept. 22-25, 1998. Speth, T.F., Gusses, A.M., Summers R.S.: "Nanofiltration Pretreatment for Ohio River Water".
- 26) Association of State Drinking Water Administrators Annual Conference, Portland OR (2000). Barrett, J., R.S. Summers, G. Solarik, E. Bissonette, A. Gusses, L. DeMers: "Total System Optimization: A Framework for Optimizing Treatment Performance and System Management."
- 27) Third NSF International Symposium on Small Drinking Water and Wastewater Systems, Washington, DC, April 22-25, 2001. Barrett, J., R. S. Summers, E. Bissonette, L. DeMers, J. Uber: "The Center for Drinking Water Optimization: Maximizing Public Health Protection through Total System Optimization."

- 28) North American Membrane Society Annual Meeting, Lexington, KY, May 17, 2001. Foncesa A. C., M. T. Hernandez, R. S. Summers, A. Greenberg: "Effect of Microbial Cells and Exocellular Polysaccharides on Nanofiltration Membrane Flux Decline."
- 29) RMSAWWA/RMWEA Annual Conference, Angel Fire, NM, September 9-12, 2001. Grooters, S., R. S. Summers, G. Amy: "A Comparison of Microfiltration with Biological Processes as Pretreatment for Colorado River Water Nanofiltration."
- 30) RMSAWWA/RMWEA Annual Conference, Steamboat Springs, CO, September 15-18, 2002, Caufield J., M. Arias, R.S. Summers: "Optimizing Preoxidation for DBP Control and Filter Performance"
- 31) RMSAWWA/RMWEA Annual Conference, Steamboat Springs, CO, September 15-18, 2002 Work L., N. Smith, R.S. Summers: "Short-term Decay and Long-term Chloramine Decay."
- 32) RMSAWWA/RMWEA Annual Conference, Steamboat Springs, CO, September 15-18, 2002 Graziano, N., C. Siedel, B. Tekada, J. McEnroe, R.S. Summers: "An Alternative Approach Using Distribution System Models."
- 33) International Water Association Biological Activated Carbon Filtration Workshop, Delft University, The Netherlands, May 29-31, 2002, Solarik, G., R.S. Summers: "Enhancement of Granular Activated Carbon Performance by Ozonation and Biotreatment."
- 34) RMSAWWA/RMWEA Annual Conference, Grand Junction, CO, September 12-15, 2004, Swanson, W., L. DeMers, R.S. Summers: "Assessing Plant Performance Using the DBP (DBP-CPE) Comprehensive Performance."
- 35) RMSAWWA/RMWEA Annual Conference, Grand Junction, CO, September 12-15, 2004 O'Brien J.C., R.S. Summers, T. Reichenberger, R. Luna: "An Advanced Backwashing Technique to Minimize Filter to Waste."
- 36) International Water Association 7th Symposium on Off-Flavours in the Aquatic Environment, October 2-7th, 2005, Cornwall, ON, Canada, Chae, S.H., S. Kim, K.H. Lee, H.W. Ahn, J.L. Lim, S.M. Kim, R.S. Summers: "Efficient Taste and Odour Removal by Water Treatment Plants around the Han River Water System."
- 37) U.S. EPA's Invited Workshop Optimizing the Design and Interpretation of Epidemiologic Studies to Consider Alternative Disinfectants of Drinking Water, June 2-3, 2005, Raleigh, NC, Dickenson, E., R.S. Summers: "Disinfection By-product Formation under a Chlorine/Chloramine Disinfection Approach."
- 38) Association of Environmental Engineering and Science Professors (AEESP) Research and Education Conference, July 2005, Clarkson University, NY, Environmental Engineering in a Global/Societal Context session. Bielefeldt, A., R.S. Summers, B. Amadei, R. Sandekian. "Engineering for Developing Communities (EDC) Theme Attracts Diverse Student Interest." Abstract published in conference proceedings.
- 39) Mascaro Engineering Sustainability Conference, Pittsburgh, April 10-12, 2005, Bielefeldt A., R.S. Summers, S. Givler, C. Fahlin, K. Medina, K. Kowalski, H. Wright, A. Malhotra, L. Hollenkamp, "Evaluating the Water Treatment Effectiveness of the Filtrón."
- 40) Gordon Research Conference, Drinking Water Disinfection By-Products: Integrating Occurrence and Formation, Exposure, Toxicity, and Epidemiology, August 13-18, 2006 South Hadley, MA, Scilimenti M.J., Chowdhury Z., Scilimenti M., Summers R.S., Uber J., Krasner S.: "An Assessment of Occurrence and Exposure to DBPs in Consecutive Systems" .
- 41) USEPA's People, Prosperity and Plant Conference, May 8-10, 2006 Washington DC, Shah J., Cornejo-Warner P., Bielefeldt A., Summers R.S.: "Sustainability of Filtrón for Microbial Disinfection."

- 42) Water Environment Federation Disinfection International Ceramic Pot Filter Workshop. March 1, 2009, Atlanta, GA, Bielefeldt, A.R., R.S. Summers, A. Kohler, and K. Kowalski, "Bacteria and Virus Removal in Point-Of-Use Ceramic Water Filters."
- 43) AWWA Water Quality Technology Conference, Nov. 15-18, 2009, Seattle, WA, Bielefeldt, Angela R., R. Scott Summers, A. Kohler, K. Kowalski, "Performance Evaluation of Point-of-Use Ceramic Water Filters."
- 44) Oklahoma University International WaTER (Water Technologies for Emerging Regions) Conference. Oct. 26-27, 2009 Norman, OK, Kohler, A., S. Soundarrajan, M. Stewart, R.S. Summers, A. Bielefeldt, "Impact of Silver on Long-term Disinfection by Point-of-Use Ceramic Water Filters."
- 45) 12th Annual Colloquium on International Engineering Education. Oct. 22-25, 2009, Ames, IA, Bielefeldt, Angela R., B. Amadei, R. Sandekian, R.S. Summers, K. Linden, "Engineering for Developing Communities Program: Education for Sustainable Development."
- 46) Gordon Research Conference on Drinking Water Disinfection By-Products, 2009, Mount Holyoke, MA, Beggs, K.M.H., R.S. Summers, "Tracking DBP precursors in the watershed using fluorescence spectroscopy."
- 47) AWWA Research Symposium Emerging Organic Contaminants, Feb 12-12, 2009, Austin, TX, Thurman, E. M., I. Ferrer and R.S. Summers, "Trace Micropollutant Removal by Field-Scale Anthracite and GAC Biofilters."
- 48) CA-NV AWWA – 90th Anniversary Fall Conference, October 6, 2010, Sacramento, CA, Zearley, T.L., Summers, R.S., "Trace Micropollutant Removal by Granular Activated Carbon and Biofilters."
- 49) International Water Associations – Leading Edge Technology Conference, June 1, 2010, Phoenix, AZ, Zearley, T.L., Summers, R.S., "Micropollutant Removal in Drinking Water Biofilters: Critical Issues."
- 50) International DOM Spectroscopy Workshop, May 19-21, 2010, Granada, Spain, Beggs, K.M.H., R.S. Summers, "Watershed specific PARAFAC models for assessing coagulation and formation of disinfection byproduct formation." (poster)
- 51) Amer. Chem. Soc. National Meeting, August 2011, Denver, CO, Zearley, T., K. Dowdell, R.S. Summers: "Long-term Trace Organic Pollutant Biodegradation and Adsorption in Drinking Water Biological Activated Carbon Filters."
- 52) Amer. Chem. Soc. National Meeting, August 2011, Denver, CO, Kearns, J., K. Shimabuku, L. Wellborn, D.R.U. Knappe, R.S. Summers: "Biochar production for use as low-cost adsorbents: Applications in drinking water treatment serving developing communities."
- 53) RMSAWWA/RMWEA Annual Conference, September 12-15, 2011 Loveland, CO, Corwin, C. R.S. Summers: "GAC Performance for the control of DBPs, Taste & Odor, and Trace Organic Contaminants."
- 54) Institute for the Environment Environmental Symposium: Sustainable and Safe Drinking Water in Developing and Developed Countries: Where Science Meets Policy, Oct 2011, Chapel Hill, NC, Kearns, J., B. Nyer, E. Mansfield, H. McLaughlin, D. Rutherford, D. Knappe, R.S. Summers: "Top-Lit-Up-Draft (TLUD) Cookstove Biochar: Appropriate Technology for Sustainable Low-Cost Household Clean Energy, Water Treatment, Agronomic Enhancement, and Distributed CO₂ Sequestration." (poster)
- 55) Amer. Water Works Assoc. Water Quality and Technology Conference, Nov 12-18, 2011, Phoenix, AZ, Hohner, A., A. Khan, D. McKnight, R.S. Summers, Fernando Rosario-Ortiz:

“The Role of Nutrient Levels and Algae on DBP Formation in Colorado Watersheds: Implications for Source Water Quality Management.”

- 56) Amer. Water Works Assoc. Annual Exposition and Conference, June 10-14, 2012, Dallas, TX. Reinert, R.S., D.R.U. Knappe, A. Kennedy, R.S. Summers, “Comparing Scale-Up Approaches To Predict Granular Activated Carbon Adsorber Performance For Micropollutant Removal.”
- 57) America Chemical Society Rocky Mountain Regional Meeting Oct. 19, 2012, Denver CO. Mahoney, R.B., J. Kearns, R.S. Summers: “Chlorine residual control using biochars to facilitate sustained safe water consumption.”
- 58) America Chemical Society Rocky Mountain Regional Meeting Oct. 19, 2012, Denver CO. Kearns, J., K. Shimabuku, L. Wellborn, D.R.U. Knappe, R.S. Summers: “Chemical contamination using charcoal /biochar.”
- 59) Corwin, C. J. and Summers, R. S. "New Directions for GAC in Water Treatment," Amer. Water Works Assoc. Annual Conference and Exposition, Denver, CO. June 9-13, 2013.
- 60) Kearns, K., Shimabuku, K., Mahoney, R., Knappe, D., Summers R.S., Biochar for water pollution control North American Biochar Symposium, University of Massachusetts, Amherst, MA October 2013.
- 61) Kearns, K., Shimabuku, K., Mahoney, R., Noikaew, R., Niamjan, S., Reents, N., Mansfield, E., Rutherford, D., McLaughlin, H., Knappe, D., Summers R.S., Problematic organic compound sorption/desorption by biochars produced from traditional kiln and low-cost gasifier systems: Applications in sustainable decentralized water treatment for developing communities. American Chemical Society, Division of Environmental Chemistry New Orleans, LA, April 2013.
- 62) Kempisty, D., Summers, R.S., - Removal of Volatile Organic Compounds (VOCs) from Groundwater to sub- $\mu\text{g/L}$ levels using Granular Activated Carbon, Amer. Water Works Assoc. Annual Conference and Exposition, Denver, CO. June 9-13, 2013.
- 63) Kempisty, D., Summers, R.S., The Effect of Background Matrix and Competition of GAC Adsorption of Carcinogenic VOCs in Natural Waters, Amer. Water Works Assoc. Water Quality and Technology Conference, Long Beach, CA, November 3-6, 2013.
- 64) Kennedy, AM, RS Summers. 2013. “Fouling Effects of NOM Size Fractions on the Scale-up of GAC Adsorption.” Proceedings of the American Water Works Association Annual Conference and Exposition, Denver, CO.
- 65) Korak, J.A.; Rosario-Ortiz, F.L.; Summers, R.S. Removal of DBP Precursors Using Coagulation. Amer. Water Works Assoc. Annual Conference and Exposition, Denver, CO. June 9-13, 2013.
- 66) Korak, J.A.; Dotson, A.D.; Summers, R.S.; Rosario-Ortiz, F.L. Critical Analysis of Commonly Used Fluorescence Metrics. Amer. Water Works Assoc. Water Quality and Technology Conference, Long Beach, CA, November 3-6, 2013.
- 67) Korak, J.A.; Rosario-Ortiz, F.L.; Summers, R.S.; Framework for using fluorescence spectroscopy to evaluate changes in organic matter. 245th ACS National Meeting. New Orleans, LA, April 7-11, 2013
- 68) Samson, C., Summers, R.S, Balaji, R., Determining Influent TOC Thresholds for Meeting Stage 2 D/DBP Rule, Amer. Water Works Assoc. Annual Conference and Exposition, Denver, CO. June 9-13, 2013.

- 69) Samson, C., Summers, R.S, Balaji, R., Modeling the Impact of Climate Change on TOC Threshold Exceedances for Meeting DBP Regulations, Amer. Water Works Assoc. Water Quality and Technology Conference, Long Beach, CA, November 3-6, 2013.
- 70) Samson, C., Summers, R.S, Balaji, R., Modeling TOC Threshold Exceedances for Meeting DBP Drinking Water Regulations under the Impact of Climate Change , ASA, CSSA, & SSSA International Annual Meetings Tampa, FL, November 4, 2013
- 71) Shimabuku, K., Townsend, E., Summers, R.S., Rosario-Ortiz, F. The Influence of DOM Characteristics on MIB, Sulfamethoxazole, and DOM Control With Powdered Activated Carbon Amer. Water Works Assoc. Annual Conference and Exposition, Denver, CO. June 9-13, 2013.
- 72) Zearley, T.L., Kennedy, A., Cardenas, J., Summers, R.S., 2013 "Biological GAC Filtration and Micropollutants: Design and Operational Guidelines" Amer. Water Works Assoc. Annual Conference and Exposition, Denver, CO. June 9-13, 2013.
- 73) Zearley, T.L., Summers, R.S., 2013 "Biofiltration of Organic Compounds Under Challenging Conditions" Amer. Water Works Assoc. Annual Conference and Exposition, Denver, CO. June 9-13, 2013.
- 74) Zearley, T.L., Dowdell, K.S., Shimabuku, K., Summers, R.S., 2013 "Biodegradation and Attenuation of Trace Organic Contaminants in Biological Drinking Water Filters" AWWA-Biological Treatment Symposium, March 29, 2013, Denver, CO.
- 75) Zearley, T.L., Dowdell, K.S., Shimabuku, K., Summers, R.S., 2013 "Impacts of Nitrification on Organic Micropollutant Removal in Drinking Water Biological Filters" AWWA-Biological Treatment Symposium, March 29, 2013, Denver, CO.
- 76) Kearns, J.P., M.T.L. Anh, N.W. Reents, K.K. Shimabuku, R.B. Mahoney, R.S. Summers, & D.R.U. Knappe Oral presentation: Trace organic contaminant removal from drinking water using local char. Water, Engineering and Development Centre, 37th International Conference, Hanoi, Vietnam September 2014
- 77) Kearns, J.P. , K.K. Shimabuku, R.B. Mahoney, N.W. Reents, R.S. Summers, D.R.U. Knappe Oral presentation: Trace organic contaminant removal from drinking water using local char or... Toxic organic chemical contaminants: The biggest problem you're completely unaware of Water and Health Conference: Where Science Meets Policy, University of North Carolina October 2014
- 78) Dougherty, T. Kempisty, D., Summers, R.S., "The Effect of Dissolved Organic Matter, GAC Type and Temperature the Adsorption of Carcinogenic VOCs," Amer. Water Works Assoc. Water Quality and Technology Conference, New Orleans, LA, November 16-20, 2013.
- 79) Hohner, M., Cawley, K., Omur-Ozbek, P., Summers, R.S., Rosario-Ortiz, F. "Assessing Wildlife Impacted Source Water Quality and Treatability through a Lab-based Leaching Study," Amer. Water Works Assoc. Water Quality and Technology Conference, New Orleans, LA, November 16-20, 2013.
- 80) Hyeongki, L., Summers, R.S., "The Effect of Influent Nutrient Conditions and Biofiltration Pretreatment on Membrane Biofouling," Amer. Water Works Assoc. Water Quality and Technology Conference, New Orleans, LA, November 16-20, 2013.
- 81) Travis, E., Yacob, T., Summers, R.S., Linden, K.G., "Hydrogen Sulfide Adsorption onto Human Feces-Derived Biochar Creating Marketable Products from Human Waste" Water and Health Conference - Where Science Meets Policy. University of North Carolina, October 13-17, 2014. Poster

- 82) Neethling, J., Mahoney, R.B., Stetina, K., Yacob, T., Linden, K.G., Summers, R.S. (2014) "Recovery of nutrients from source-separated urine via biochar adsorption and precipitation" Water and Health Conference - Where Science Meets Policy. University of North Carolina, October 13-17, 2014. Poster
- 83) Meyer, J., C. Seidel, R.S Summers, "Modeling the Relative Health Impacts of Disinfection By-products Using Predictive Drinking Water Treatment Models," Amer. Water Works Assoc. Water Quality and Technology Conference, Salt Lake City, UT, November 15-19, 2015.
- 84) Gilmore, P.L., R.S. Summers, "Organic Matter Removal via Biological Drinking Water Filters: Removal Efficacy Based on Quantifiable System Factors," Amer. Water Works Assoc. Water Quality and Technology Conference, Salt Lake City, UT, November 15-19, 2015.
- 85) Hohner, M., P.L. Gilmore, E. Townsend, R.S Summers, F. Rosario-Ortiz, "The Assessment of a Lab-Based Approach to Evaluate Wildfire Impacts on Treatment Processes," Amer. Water Works Assoc. Water Quality and Technology Conference, Salt Lake City, UT, November 15-19, 2015.
- 86) Summers, R.S., F. Rosario-Ortiz, M. Hohner, K. Cawley, J. Oropeza, "Assessing the Impacts of Wildfires on Source Water Quality and Treatment," Amer. Water Works Assoc. Annual Conference and Exposition, Anaheim, CA. June 8-10, 2015.
- 87) Summers, R.S. "DeRISK Center: Technologies and Implementation," Amer. Water Works Assoc. Annual Conference and Exposition, Anaheim, CA. June 8-10, 2015.
- 88) Seidel, C. R.S.. Summers, "Assessment and Implementation of Innovative Technologies for Small Systems by the DeRISK Center," Amer. Water Works Assoc. Annual Conference and Exposition, Anaheim, CA. June 8-10, 2015.

TEACHING AND RESEARCH GRANTS AND CONTRACTS

He has been the PI or coPI of over 40 research projects (>\$10 million) sponsored by a wide range of agencies including Water Research Foundation (AWWARF), EPA-ORD, EPA-OGWDW, Bureau of Reclamation, Bill & Melinda Gates Foundation, NOAA and NSF and state and local municipalities (OH, CO, CA, AZ, KY, NY, IN, ND, NM, FL). Current projects:

- Water Conservation and Water Quality: Understanding the Impacts of New Technologies and New Operational Strategies, USEPA / Drexel University
- Advanced Wastewater Treatment by Coagulation, Ozonation/Biofiltration and GAC Adsorption for the Control of Disinfection by Products, Brown&Caldwell/ NSF/ Water Research Foundation/ and various utilities
- Modifications to the USEPA Water Treatment Plant Model - Microbial and Disinfectant By-Products Data Collection and Analysis, Cadmus
- Sorption of organic micropollutants in San Juan River water by biochar and activated carbon: flow-through column prediction using rapid batch sorption tests, US Bureau of Reclamation.
- Technical and Administrative Support for the USEPA National Drinking Water Program, Cadmus

COURSES TAUGHT

University of Colorado

EVEN 1000 - Intro to Environmental Engineering,
CVEN 3424 - Water and Wastewater Treatment,
CVEN 5834 - Sp Topics – Small Community Water and Wastewater Systems
CVEN 5834 - Sp Topics – Appropriate Treatment Technology for Developing Communities
CVEN 5834 – Sp Topics – Natural Organic Matter and Disinfection Byproducts
CVEN 5464/4464 - Environmental Engineering Processes,
CVEN 5524 - Water Treatment
CVEN 6504 - Advanced Physical-Chemical Processes for Water and Water Reuse Treatment

University of Cincinnati

Environmental Engineering I
Environmental Engineering II
Environmental Engineering III
Water Treatment

STUDENTS ADVISED

Post-Doctoral Fellows

- 1) Dr. Mathias Benz, 1990 - 1992
- 2) Dr. Klaus Johansen, 1993
- 3) Dr. Hiba Shukairy, 1995
- 4) Dr. Seongho Hong, 1996
- 5) Dr. Seonha Chae, 2006
- 6) Dr. Kate Beggs, 2010
- 7) Dr. Chris Corwin, 2011
- 8) Dr. Pablo Cornejo, 2016
- 9) Dr. Yun Yu, 2018-2019

Doctoral Students

- 1) Hiba Shukairy (1994)
The Control of Disinfection By-Product Formation By Ozonation and Biotreatment
- 2) Jack Wang (1994)
The Assessment of Biodegradation Kinetics of Natural Organic Matter in Drinking Water Biofilters
- 3) Seongho Hong (1995)
Activated Carbon Adsorption of Organic Matter: Backwashing, Desorption and Attenuation
- 4) Thomas Speth (1998)
Evaluation of Nanofiltration Foulants from Treated Surface Waters
- 5) Debbie Moll (1998)
Microbial Community Structure Analysis of Drinking Water Biofilters
- 6) Margaret Koechling (1998)
Assessment and Modeling of Chlorine Reactions with Natural Organic Matter
- 7) Joydeep Mukherjee (1999)

- Evaluation of Virus Removal during Direct Filtration
- 8) A. Cristina Fonesca (co-advised) (2002)
Biofouling of Nanofiltration Membranes and In-Situ Biofilm Detection
 - 9) Principal Dissertation Advisor for Miguel Arias (2005)
 - 10) Principal Dissertation Advisor for Chad Seidel (2006)
 - 11) Principal Dissertation Advisor for Eric Dickenson (2005)
 - 12) Principal Dissertation Advisor for Soo M. Kim (2006)
 - 13) Principal Dissertation Advisor for Lori Work (2006)
 - 14) Principal Dissertation Advisor for Sukhyung Kang (2009)
 - 15) Principal Dissertation Advisor for Chris Corwin (2010)
 - 16) Principal Dissertation Advisor for Kate Beggs (2010)
 - 17) Principal Dissertation Co-Advisor for Erin Towler (2010)
 - 18) Principal Dissertation Advisor for Thomas Zearley (2012)
 - 19) Principal Dissertation Co-Advisor for Julie Korak (2013)
 - 20) Principal Dissertation Advisor for David Kempisty (2014)
 - 21) Principal Dissertation Advisor for Anthony Kennedy (2014)
 - 22) Principal Dissertation Co-Advisor for Carleigh Samson (2016)
 - 23) Principal Dissertation Advisor for Josh Kearns (2016)
 - 24) Principal Dissertation Advisor for Kyle Shimabuku (2017)
 - 25) Principal Dissertation Advisor for P. Leigh Gilmore Terry (2017)
 - 26) Principal Dissertation Co-Advisor for Kyle Thompson (2018)
 - 27) Principal Dissertation Advisor for Matt Bentley (2020)
 - 28) Principal Dissertation Co-Advisor for Kelsey Reeves (in progress)
 - 29) Principal Dissertation Co-Advisor for Eric Peterson (in progress)

Master of Science (with thesis)

- 1) J. Ritz (1987)
Adsorptive Entfernung von aliphatischen und aromatischen Spurenverunreinigungen aus Rheinuferfiltrat (Universität Karlsruhe)
- 2) J. Koehler (1988)
Untersuchungen zur adsorptiven Entfernung von aliphatischen Spurenverunreinigungen (Universität Karlsruhe)
- 3) M. Koechling (1992)
Untersuchungen zur Wirkungsweise eines kombinierten Prozesses Anionenaustauscherharz und Aktivkohle zur Trinkwasseraufbereitung (Universität Karlsruhe)
- 4) P. Namuduri (1990)
Response of Granular Activated Carbon Adsorbers Subjected to Shock Loadings
- 5) E. Mogren
Winter 1989 - Fall 1990
Measurement of Biodegradable Dissolved Organic Carbon in Drinking Water
- 6) E.J. Tollett (Pickford)
Fall 1988 - Spring 1991
Development of a Screening Test for Spill Impact on a Wastewater Treatment Plant
- 7) D. Lindberg (co-advised)
Fall 1989 - Fall 1991
The Impact of Size Distribution and Fines Concentration on the Flow Properties of Granular Activated Carbon Slurries
- 8) D. Lytle
Winter 1990 - Summer 1991

- Removal of Beryllium from Drinking Water by Coagulation and Lime Softening
- 9) S. Palepu Fall 1988 - Winter 1992
Effect of the Background Matrix in the Ohio River Water on Granular Activated Carbon Adsorption of Specific Organic Compounds
 - 10) T. Solomon Fall 1989 - Winter 1992
The Use of Pretreatment Processes to Reduce Ultrafiltration Membrane Fouling
 - 11) L. Cummings Fall 1989 - Fall 1992
Activated Carbon Adsorption of Disinfection By-Product Precursors and Natural and Synthetic Organic Compounds
 - 12) B. Joslyn Fall 1989 - Fall 1992
Control of Disinfection By-Product Precursors by Ozonation, Biofiltration and Carbon Adsorption
 - 13) J. Goldgrabe Fall 1990 - Fall 1992
Particle Counting as a Method of Evaluating Biological and Conventional Filter Performance
 - 14) C. Shrive Summer 1990 - Spring 1993
The Effect of Preoxidation on Granular Activated Carbon Adsorption Capacity and Attenuation of Spills
 - 15) J. Jackson Summer 1991 - Summer 1993
The Impact of Drinking Water Treatment Processes on the Molecular Size of Organic Matter
 - 16) S. Allgeier Summer 1993 - Spring 1995
Bench-Scale Evaluation Nanofiltration: Organic Solute Rejection and Control of Disinfection By-products
 - 17) D. Metz Fall 1983 - Spring 1995
The Assessment of Prezonation, Biotreatment and GAC Adsorption of DBP Precursors and Ozone DBPs Using the Rapid Small-Scale Column Test
 - 18) M. Dryfuse Summer 1993 - Spring 1995
An Evaluation of Conventional and Optimized Coagulation for NOM Removal
DBP Control on Bulk and Fractionated Waters
 - 19) J. Swertfeger Fall 1991 - Winter 1996
Biological Degradation of Ozone By Products During Drinking Water Treatment
 - 20) S. Hooper Fall 1992 - Summer 1996
Granular Activated Carbon Adsorption of Natural Organic Matter and
Disinfection By Product Control: Impact of Optimized Coagulation Pretreatment
 - 21) G. Solarik Fall 1993 - Winter 1997
NOM Removal and DBP Control by GAC: Optimization and the Impact of
Ozonation and Biotreatment
 - 22) M. Graham Fall 1994 - Winter 1997
Optimization of Powdered Activated Carbon Use in Water Treatment
 - 23) W. Mathis (co-advised) Fall 1996 - Fall 1997
The Influence of Drinking Water Treatment on Chlorine Decay Kinetics
(University of Karlsruhe, Germany)
 - 24) R. B. Green Fall 1990 - Spring 1998
Application of Lipid Analysis Techniques to the Study of Biomass in the
Biodegradable Dissolved Organic Carbon Assay

- 25) W.M. Jr. Wulfeck Fall 1990 - Spring 1998
Control of DBP Formation Using Retrofitted GAC Filter-Adsorbers and Ozonation
- 26) A. Gusses Summer 1995 - Spring 1998
Verification and Use of the Rapid Bench-Scale Membrane Test
- 27) N. Dugan Fall 1995 - Spring 1998
Evaluation and Modeling of the Influences of Ozonation and pH on the Biological Utilization of NOM
- 28) L. Ollier Fall 1995 - Spring 1998
Microbial and Particulate Control Under Conventional and Enhanced Coagulation
- 29) R. Smith (co-advised) Fall 1995 – Spring 1999
Initial Breakthrough of Spores, Heterotrophic Plate Counts, Turbidity and Particle Counts as affected by Backwashing
- 30) D. Boccelli (co-advised) Fall 1996 – Fall 1999
Booster Disinfection: Bulk Decay Kinetics, By-Product Formation and Model Development
- 31) A. Rajbhandari Fall 1997- Fall 2000
Impact of Treatment, Free Chlorine Contact Time and Dose on Chloramine Decay
- 32) C. Seidel Fall 1998- Spring 2000
Understanding Disinfection Byproduct Behavior in Water Distribution Systems
- 33) S. Grooters (co-advised) Fall 1998- Fall 2000
A Comparison of Microfiltration with Biological Processes as Pretreatment for Nanofiltration
- 34) J. Burland Fall 1998- Fall 2000
Optimization of Dual Coagulants on Low Alkalinity Surface Waters
- 35) Principal Thesis Advisor for N. Smith (Cannon) (2004)
- 36) Principal Thesis Advisor for J. O’Brian (Caufield) (2004)
- 37) Principal Thesis Advisor for J. Lagerquist (Priestley) (2004)
- 38) Principal Thesis Advisor for B. Zachman (2005)
- 39) Principal Thesis Advisor for K. Meyer (2006)
- 40) Principal Thesis Advisor for H. Cho (2007)
- 41) Principal Thesis Advisor for E. Towler (2008)
- 42) Principal Thesis Advisor for C. Valenti (2008)
- 43) Principal Thesis Co-Advisor for K. Kowalski (2008)
- 44) Principal Thesis Co-Advisor for A. Kohler (2009)
- 45) Principal Thesis Advisor for J. Cardenas (2011)
- 46) Principal Thesis Co-Advisor for E. Haagenson (2012)
- 47) Principal Thesis Advisor for K. Dowdell (2012)
- 48) Principal Thesis Advisor for H. Lee (2013)
- 49) Principal Thesis Advisor for E. Townsend (2015)
- 50) Principal Thesis Advisor for T. Daugherty (2015)
- 51) Principal Thesis Advisor for N. Yang (2016)
- 52) Principal Thesis Advisor for P. Pruisner (2016)
- 53) Principal Thesis Co-Advisor for J. Meyer (2016)
- 54) Principal Thesis Advisor for R. Mulhern (2016)
- 55) Principal Thesis Advisor for B. Greiner (2016)
- 56) Principal Thesis Advisor for A. Young (2018)
- 57) Principal Thesis Advisor for S. Johnson (2018)

- 58) Principal Thesis* Advisor for A. Van Horn (2020)
 - 59) Principal Thesis* Advisor for Y. Yao (2020)
 - 60) Principal Thesis Advisor for M. Duarte Batista (2020)
 - 61) Principal Thesis Advisor for N. Jorgenson (in progress)
- * Thesis shortened to MS report due to COVID lab restrictions

Senior Theses - University of Karlsruhe:

- 1) V. Peinecke, 1987
Untersuchen zum Scale-up von Adsorptionsanlagen zur Entfernung von Spurenverunreinigungen
- 2) P. Hofmann, 1988
Awendung des Scale-up auf die Adsorption von Huminstoffen an Aktivkohle
- 3) T. Wolf, 1988
Einfluss der Vorbeladung von Aktivkohle mit verschieden vorbehandeltem Rheinferfiltrat auf das Adsorptionsgleichgewicht von chlorierten Kohlenwasserstoffen

Senior Projects - University of Cincinnati:

- 1) A. Krammer, 1992
Influence of Flocculation on Powdered Activated Carbon Adsorption
- 2) S. Allgeier, 1993
Determination of the Biodegradable Dissolved Organic Carbon Fraction in Drinking Water
- 3) M. Tryby, 1993
Removal of TOC and DBP Precursors by Jar Tests
- 4) T. Brown, 1994
Impact of Coagulation on Ozonation and Biotreatment of NOM and DBP Precursors
- 5) L. Ollier, 1994
Impact of Coagulation on Ozonation and Biotreatment of NOM and DBP Precursors
- 6) N. Dugan, 1995
Chlorine Decay Kinetics
- 7) B. Barth, 1995
Fractionation of National Organic Matter
- 8) V. Hatcher, 1997
Simplified BDOC Test Parameters
- 9) A. Rajbhandari, 1997
Chlorine Decay Kinetics of NOM Fractions
- 10) A. Driedger, 1998
Impact of pH on Chlorine Residuals in Distribution Systems
- 11) P. Parikh, 1998
Impact of Contact Time on Biodegradation of NOM
- 12) R. Isabel, 1999
Impact of Treatment on Chlorine Decay Kinetics
- 13) M. Anzek, 1999
Impact of Operating Conditions on Chlorine Decay Kinetics

SERVICE

National and International Committees

American Water Works Association

- Water Science and Research Division – 2004-2010 Trustee
- Organics Research Committee - past
- Membrane Research Committee - past
- University Student Activities Committee -past
- Water Quality and Technology Conference Planning Committee – 2007-2010
- Activated Carbon Committee – current
- Biological Drinking Water Treatment Committee - current

Association of Environmental Engineering and Science Professors

- Program Leaders Committee – 2015 - 2019
- Education Committee - past
- Diversity Committee - past
- Awards Committee - Chairperson 1994 – 1997, 2000- current

Expert Panels

- Water Research Foundation (Amer. Water Works Assoc. Research Foundation)
 - Research Advisory Council, 1996 - 2001, liaison for M/DBP Research Council
 - Research Needs Assessment Panels

- 1989-1990 Activated carbon adsorption
- 1990 Biological treatment of drinking water
- 1997 Methods for assessing biological regrowth
- 1998 NOM in drinking waters
- 1999 Distribution systems

Technical Advisory Committees

- 2012-present Biofiltration Focus Area
- 2012-present Disinfection Byproducts Area

Unsolicited Proposal Review Committee – 2007-2009

Project Advisory Committees

- 1992-1995 An Immobilized Biofilm Reactor for the Measurement of Biodegradable Organic Matter in Drinking Water
- 1994-1999 The Investigation of RO and NF Membrane Processes for Removing Organic Contaminates
- 1997 –1998 Evaluation of Soil Aquifer Treatment for Drinking Water Reuse

U.S. EPA/ Amer. Water Works Assoc. Research Foundation M/DBP Research Council

- Research Advisory Committee, 1996 - 2001, chair
- Future Research Priority Workshop, 2001

U.S. EPA/ Amer. Water Works Assoc., review of Stage 2 D/DBP Rule Initial Distribution System Guidance Manual, 2001

U.S. EPA Information Collection Rule Data Analysis Technical Work Group, 1998-2000

U.S. EPA Information Collection Rule Treatment Studies Technical Work Group, 1998-2000

General Conference Organizing Committees

Design and Use of Granular Activated Carbon, AWWARF/USEPA Symposium
Cincinnati, OH, May 9-10, 1989.
Annual Conference Amer. Water Works Assoc., Cincinnati, OH, June 17-20, 1990.
GAC, Membranes and the ICR: A Workshop on Bench-Scale and Pilot-Scale Evaluations,
Amer. Water Works Assoc. and U.S. EPA, Cincinnati, OH, March 3-5, 1996.
4th International Slow Sand and Alternative Biological Filtration Conference, IWW
Institute, Mulheim an der Ruhr, Germany, Program Advisory Panel, May 3-5, 2006.
Conference Planning Committee, Amer. Water Works Assoc. Water Quality Technology,
2006 – 2010
AWWA VOC Workshop Organizing Committee, 2011
Biotreatment Symposium, Amer. Water Works Assoc., Denver, CO, March 28-29, 2013.
5th International Slow Sand and Alternative Biological Filtration Conference, May 3-5,
2014.

Scientific Advisory Board – RES'EAU Waternet, Vancouver, Canada, 2014-2019

Local Committees

Cincinnati State Technical and Community College, Env. Eng. Technical Advisor
Committee, 1994
Cincinnati Water Works Advisory Committee, 1996 – 1998
Front Range Drinking Water Consortium, Founding member, 1999-present

University Committees

University of Cincinnati

Graduate Faculty, 1988 - 1998
Earth Day 1990 Organizing Committee, 1990
Environmental Studies Program Organizing Committee, 1990 - 1995
U.S. EPA/U.C. Minority Mentoring Program, mentor one high school student each summer
for six weeks, 1991 - 1997
International Planning Council, 1996 - 1998
Language Mission Project, 1996 - 1998
Link-to-Excellence Program, 1997 - 1998
Search Committee for Director of the Institute for Global Studies and Affairs, 1997

University of Colorado

Environmental Science Working Group

College Committees

University of Cincinnati

USEPA Test and Evaluation Facility Technical Advisory Committee, 1988 - 1989
Hazardous Waste Research Center Steering Committee, 1988
Awards Committee, 1991
International Engineering Program Operations Committee, 1991 - 1998
Emerging Ethnic Engineers Minority Mentoring Program, 1992 - 1993, National Science
Foundation funded program
Inquisitive Women Program, 1995 - 1997, high school/ junior high school outreach program
Enrollment Management, 1996 - 1998

University of Colorado

Environmental Engineering Undergraduate (EVEN) Program Faculty 1998-present
First-level Promotion and Tenure Review 2003- 2007

Departmental Committees

University of Cincinnati

Coordinator, Water, Wastewater and Haz. Waste Graduate Program, 1988 - 1998
Chairperson, Search Committee for Professor in Environmental Engineering, 1989
Chairperson, Search Committee for Professor in Environmental Engineering, 1990
Senior Class Advisor,
Class of 1992, 1997, and 2000
CO-OP Job Team, 1992 - 1995
Member Curriculum Committee, 1993 - 1998

University of Colorado

Personnel Committee, 1998-present
Graduate Committee, 2000-2003, Chair 2008-2012
Facilities Committee, 2002-2004
Executive Committee, 2004-2007
Environmental Engineering Graduate Program Coordinator, 2000-2014

PROFESSIONAL AFFILIATIONS

American Water Works Association
Association of Environmental Engineering and Science Professors
Professional Registration, Engineer-In-Training, State of Ohio

REVIEWER

Journals

Environmental Science and Technology
Journal American Water Works Association
Journal Environmental Engineering (ASCE)
Journal Water Environment Federation
Water Research (IWA)
Aqua (IWA)
Ozone: Science and Engineering (IOA)
Revue des Sciences de l'Eau

Proceedings/Books

Advances in Chemistry - American Chemical Society
Activated Carbon Technology
American Water Works Assoc. Research Foundation

Proposals

American Water Works Assoc. Research Foundation
National Science Foundation
Natural Sciences and Engineering Research Council of Canada
US Environmental Protection Agency

Invited External Ph.D. Committees

Fabien Thomas, Universite de Nancy, Nancy, France, 10/87

Mathias Benz, Universitat Karlsruhe, Karlsruhe, Germany, 12/89

Robert Andrews, University of Alberta, Edmonton, Canada, 3/90

CONSULTING ACTIVITY

He served as the technical director of Summers & Hooper, Inc. (1995-2000) and oversaw 20 bench and pilot scale GAC treatment studies, including 12 for the USEPA-ICR. He also has served as a consultant on over 60 treatment studies for drinking water utilities.

- 1987-1994 Montgomery Watson (James A. Montgomery), Consulting Engineers Inc.
- 1990 Radian Corporation, Milwaukee, WI.
- 1990 University of Colorado, AWWA Research Foundation Project RFP#603
- 1990-1994 Kenton County Water District (KY)
- 1991 Jordan, Jones and Goulding
- 1991 Manatee County Public Works Dept., Bradenton, FL and American Norit Company
- 1992 City of Raleigh (NC)
- 1992-1994 RESOLVE Inc., Washington DC. Technical consultant to the Disinfection By-Products Negotiated Rulemaking Committee. Committee is to reach a regulations consensus on the Disinfection/ Disinfection By-Product Rule of the SDWA.
- 1992-1993 Camp, Dresser and McKee, Inc.
- 1993-1996 Environment Engineering and Technology, Inc., AWWA Research Foundation
- 1993-1995 Jones, Day, Reavis and Pogue
- 1994 University of New Hampshire, New York City Project
- 1994 Procter & Gamble
- 1995-2001 Malcolm Pirnie, Inc. California Urban Water Utilities, Expert Panel on the Bay Delta Water Quality
- 1996-2001 RESOLVE Inc., Washington DC. Technical consultant to the U.S. EPA Microbial/Disinfection By-Products Federal Advisory Committee. Committee is to reach consensus on elements of the Disinfection/ Disinfection By-Product Rule and Interim Enhanced Surface Water Treatment Rule of the SDWA
- 1997 Hagler Baily, AWWA Research Foundation Project
- 1997-1998 ICI, Development of Enhanced Coagulation Guidance Manual and M/DBP Cost and Technologies Manual
- 1998 Hazen and Sawyer, Inc.
- 1999 Carollo Engineers, Inc.
- 2000 Black and Veatch, Inc.
- 2000-2003 Water Evaluation Lab, Inc.
- 2001 RESOLVE, Inc., consultant to the USEPA's National Drinking Water Advisory Council Arsenic Cost Working Group
- 2003-2010 Montgomery Watson Harza, Inc. – Solano County, CA
- 2003 Camp, Dresser and McKee, Inc., S.F. Bay Area Water Users Association,
- 2005 USEPA, Lead and Copper Rule Workshops, facilitator
- 2006-2008 RESOLVE Inc., Washington DC. Technical consultant to the U.S. EPA Total Coliform Rule/Distribution System Advisory Committee

2009-2011	Malcolm Pirnie, Inc., California Urban Water Utilities, Expert Panel on the Bay Delta Water Quality
2009-2010	Horsley Witten Group, Review of USEPA Cost Models
2009-2011	Malcolm Pirnie, Inc., Washington Aqueduct Future Treatment Alternatives Study, Stakeholder Workshops
2017-	Corona Environmental Consulting
2018	Cadmus
2020-	Willamette Water Supply

THE LAW OFFICES OF
TED B. LYON & ASSOCIATES, P.C.

TOWN EAST TOWER - SUITE 525, 18601 LBJ FREEWAY
MESQUITE, TEXAS 75150-5632

TEL (972) 279-6571

FAX (972) 279-3021

TED B. LYON, JR.
BILL ZOOK*, *Of Counsel*
RICHARD MANN ♦
DENNIS WEITZEL*π

*Board Certified in Personal Injury and
Civil Trial Law- Texas Board of Legal Specialization

π Licensed in Texas & Florida

♦ Licensed in Texas & North Dakota

MARQUETTE WOLF°
BEN TAYLOR†
CHRISTY L. HESTER
WILLIAM F. DAVIS

° Licensed in Texas, Oklahoma & Mississippi

† Board Certified in Civil Appellate Law

Texas Board of Legal Specialization

June 9, 2021

Dr. Thomas Armitage
Designated Federal Officer
Science Advisory Board
U.S. Environmental Protection Agency
Email: armitage.thomas@epa.gov

Dear Dr. Armitage,

I am asking you to support the nomination of Dr. Joseph Odencrantz for appointment to the EPA Science Advisory Board. Dr. Odencrantz is imminently qualified for that position and has been at the forefront of investigating environmental contamination for many years. He has a great understanding of the issues and he would be an asset to the EPA.

I have been a trial lawyer for over 45 years and have handled a number of environmental cases all over the United States. I have truly enjoyed working with Dr. Odencrantz. He has done a great amount of work and would be an outstanding addition to the EPA Science Advisory Board. I would not hesitate a minute to have him on a case again.

Sincerely,



Ted B. Lyon

Philip O. Moor PE

I'm writing to support the nomination of Dr. John O'Brien to the EPA Science Advisory Board (SAB). Dr O'Brien, and I have worked together on numerous tasks over 20 years and in that time I have been able to see firsthand his education and expertise applied to a variety of assignments. In the time I've worked with John he has provided consulting to major corporations and provided litigation support as an expert witness on science, economic and ethical matters. In every assignment his work was thorough, professionally researched and his conclusions were expertly articulated. I'm writing to wholeheartedly recommend Dr. O'Brien to serve on any of three committees.

The Climate Science Committee – John has served on the Florida Energy Commission and the Florida Climate Change subcommittee. He is currently providing consulting direction to an oil and gas operator with 600 offshore oil and gas platforms to help his client meet corporate ESG goals.

The Economic Analysis Committee – John has been the CEO of several energy related businesses with full implementation and financial responsibility. He has provided economic consulting advice to developing projects ranging from advanced nuclear to smart grids.

The Environmental Justice science committee-John teaches ethics at Flagler College and has testified as an expert witness on standards for ethical behavior of corporate executives

Dr O'Brien's resume provides more detail with regard to his education, expertise and extensive experience. John has a lot to contribute to the EPA decision making process. I personally can attest that John's enthusiasm, his intense research on subjects and his communication skills would be a great asset to any of the EPA SAG committees.

Sincerely,

Philip O. Moor Managing Director ABZ Inc. (www.abzinc.com)

April 28, 2021

Holly Stallworth, Ph.D.
Economist and Designated Federal Officer
Science Advisory Board Staff Office
1300 Pennsylvania Ave., NW
Room 31179, Ronald Reagan Bldg.
Washington, DC 20004

Dear Dr. Stallworth,

For the last >20 years, I have been a Research Chemist in EPA/ORD/CEMM/EPD, located in Athens, GA. I am writing to endorse the nomination of Dr. Gloria Post for membership on the 2022 SAB.

I have read with interest Dr. Post's peer-reviewed papers on PFAS (poly- & perfluoroalkyl substances) for several years now. And I have worked with Dr. Post more closely the last few years as we investigated PFAS species and distribution in New Jersey.

Dr. Post is a very knowledgeable toxicologist, particularly on the subject of PFAS. I find her to be an engaging and productive collaborator. I think Dr. Post would make a strong member of the SAB.

Thank you,
John Washington, Ph.D.
Research Chemist
EPA/ORD/CEMM/EPD

**AAP Headquarters**

345 Park Blvd
Itasca, IL 60143
Phone: 630/626-6000
Fax: 847/434-8000
www.aap.org

Reply to**AAP Washington Office**

601 13th St NW, Suite 400N
Washington, DC 20005
Phone: 202/347-8600
E-mail: kids1st@aap.org

Executive Committee**President**

Lee Savio Beers, MD, FAAP

President-Elect

Moirra A. Szilagyi, MD, FAAP

Immediate Past President

Sara H. Goza, MD, FAAP

Secretary/Treasurer

Warren M. Seigel, MD, FAAP

CEO/Executive Vice President

Mark Del Monte, JD

Board of Directors**District I**

Wendy S. Davis, MD, FAAP

District II

Warren M. Seigel, MD, FAAP

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Margaret C. Fisher, MD, FAAP

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District V

Jeannette "Lia" Gaggino, MD, FAAP

District VI

Dennis M. Cooley, MD, FAAP

District VII

Gary W. Floyd, MD, FAAP

District VIII

Martha C. Middlemist, MD, FAAP

District IX

Yasuko Fukuda, MD, FAAP

District X

Madeline M. Joseph, MD, FAAP

At Large

Charles G. Macias, MD, FAAP

At Large

Constance S. Houck, MD, FAAP

At Large

Joseph L. Wright, MD, FAAP

May 20, 2021

Administrator Michael S. Regan
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

RE: Nomination to the EPA's Science Advisory Board

Dear Administrator Regan:

On behalf of the American Academy of Pediatrics (AAP), a non-profit professional organization of 67,000 primary care pediatricians, pediatric medical sub-specialists, and pediatric surgical specialists dedicated to the health, safety and well-being of infants, children, adolescents, and young adults, I am writing to nominate Aaron Bernstein MD, MPH, FAAP as a member of the Environmental Protection Agency (EPA) Science Advisory Board (SAB).

Dr. Bernstein is the Interim Director of The Center for Climate, Health, and the Global Environment at the Harvard T.H. Chan School of Public Health (Harvard Chan C-CHANGE), a pediatrician at Boston Children's Hospital, and an Assistant Professor of Pediatrics at Harvard Medical School. Since 2015, Dr. Bernstein has served on the AAP Council on Environmental Health Executive Committee, providing the Academy with expertise on child health and the health impacts of climate change. Dr. Bernstein is a leading national expert on issues around climate change, clean air, and numerous other issues impacting child health. The AAP offers his nomination to provide critical expertise for the child health considerations of the SAB.

Thank you for your consideration of Dr. Bernstein's nomination. The AAP believes that his scientific expertise, diversity of experience, and pediatric perspective would be of great value to the work of the SAB. If the AAP can be of any further assistance, please do not hesitate to contact Zach Laris in our Washington, D.C. office at 202/347-8600 or zlaris@aap.org.

Sincerely,

A handwritten signature in black ink, appearing to read "Lee Savio Beers".

Lee Savio Beers, MD, FAAP
President
LSB/zml

COMMUNITY HOUSING & EMPOWERMENT CONNECTIONS INC.

June 4, 2021

Thomas Armitage,
Designated Federal Officer,
US Environmental Protection Agency

Re: Public comments in support of Dr. Sacoby Wilson's nomination to the US EPA Scientific Advisory Board.

Dear Mr. Armitage,

Thank you for the opportunity to comment on the nomination of Dr. Sacoby Wilson to the US EPA Scientific Advisory Board (SAB).

I am the executive director of the Community Housing & Empowerment Connections Inc.(CHEC), chair of the Delaware Environmental Justice Community Partnership (DEJCP) and Co-PI for the ACCEL Community-Engaged Research Retreat on Health Impacts of Toxic Pollution. In these capacities I have witnessed the profound and exemplary contributions of Dr. Wilson in the scientific and health environment.

I would like to provide support for Dr. Sacoby Wilson in regard to his nomination to the US EPA Scientific Advisory Board for some important reasons:

Dr. Wilson is an environmental health scientist and have for the last 20+ years, dedicated himself to conducting applied, action-oriented research on environmental justice and health inequities in communities throughout the United States.

He has focused his energy on building community-university partnerships—leveraging institutional resources to support frontline and fence-line communities facing environmental and climate injustices. On the SAB, he would seek to continue these efforts while also personally advancing environmental justice principles and practices at the federal level.

In closing, The SAB have responsibilities that may benefit from Dr. Wilson's depth and wealth of knowledge that include:

- Reviewing the quality and relevance of scientific and technical information being used by EPA or proposed as the basis for Agency regulations,

- Reviewing EPA research programs and plans,
- Providing science advice as requested by the EPA Administrator, and
- Advising the agency on broad scientific matters.

Therefore, it is my honor to support Dr. Sacoby Wilson's nomination to the US EPA Scientific Advisory Board.

Sincerely,



Penny Dryden
CHEC INC.,
DEJCP

NAAQS Regulatory Review and Rulemaking Coalition

June 9, 2021

COMMENTS OF THE NAAQS REGULATORY REVIEW (NR3) COALITION ON THE LIST OF CANDIDATES FOR THE ENVIRONMENTAL PROTECTION AGENCY'S SCIENCE ADVISORY BOARD

The NAAQS Regulatory Review and Rulemaking (NR3) Coalition offers the following comments on the list dated May 19, 2021 of candidates for service as a member of the Science Advisory Board (SAB or Board) that the Environmental Protection Agency (EPA) posted on the SAB's website. By way of background, companies represented by members of the NR3 Coalition are committed to compliance with requirements of the Clean Air Act (CAA) and other environmental statutes, while continuing to facilitate economic growth in the United States. The Coalition notes that air quality improved significantly between 1970 and 2020, while both the U.S. gross domestic product and population grew substantially.

The NR3 Coalition participates in EPA proceedings concerning National Ambient Air Quality Standards (NAAQS), NAAQS implementation, and related matters. In this regard, the Coalition's members and the companies they represent have followed the recent actions of the SAB on reduced-form modeling tools and on EPA's Proposed Rule on the consideration of benefits and costs in CAA rulemakings. Taking into account our observation of those proceedings, we offer the following comments concerning the list of candidates for possible SAB membership.

As a preliminary matter, we note that Administrator Regan's action in ending the terms of all members of the SAB simultaneously is unprecedented and disruptive to ongoing activities and practices. At least some continuity of membership would be helpful. EPA has not indicated its intentions in rebuilding the SAB membership or how it plans to use the reconstituted SAB. We encourage EPA to continue its pursuit of transparency by providing more information on its plans and extending the comment period so that stakeholders can consider that information in preparing their comments.

In the interim, the NR3 Coalition highlights the following requirements for SAB's membership for EPA to consider in developing its plans for the SAB.

- The Environmental Research, Development, and Demonstration Authorization Act (ERDDAA), which directed EPA to establish the SAB, indicates that the Board must have at least nine members. ERDDAA does not limit the number of SAB members, but requires each member to "be qualified by education, training, and experience to evaluate scientific and technical information on matters referred to the Board." ERDDAA gives the SAB broad responsibility. It can consider "any proposed criteria document, standard, limitation or regulation" under the CAA, other environmental statutes, or "any other authority of the Administrator."
- The SAB's Charter states, "The objective of the SAB is to provide independent advice and peer review to EPA's Administrator on the scientific and technical aspects of environmental issues." Reiterating the need for independence from EPA, the Charter indicates, "Members will be independent experts in the field of science, engineering, and economics and other social

sciences to provide a range of expertise required to assess the scientific and technical aspects of environmental issues.” It indicates that the SAB will have “about 45 members.”

- President Biden’s Memorandum of January 27, 2021 on “Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking” explains that SAB members must be “selected based on their scientific and technological knowledge, skills, experience, and integrity, including experiences conducting and overseeing scientific research and utilizing scientific and technological information and data in agency decision-making, prioritizing experience with evidence-based, equitable, inclusive, and participatory practices and structures for the conduct of scientific research and the communication of scientific results.”
- The SAB is subject to the requirements of the Federal Advisory Committee Act (FACA). Section 5(b)(3) of FACA requires that the SAB’s membership be “fairly balanced in terms of the points of view represented and the function to be provided by” the Board.
- EPA’s own *Peer Review Handbook* includes several important criteria to help ensure those selected to serve on the SAB are independent and impartial.
 - The *Handbook* makes clear that members of the SAB should not be associated with the generation, either directly or indirectly, of materials that the Board will review, but that they should have technical expertise in the subject matter of the materials that they will be reviewing.
 - The *Handbook* instructs EPA to evaluate potential peer reviewers, including SAB members, to determine if their participation in the review might pose ethical issues such as potential conflicts of interest or the appearance of a loss of impartiality.
 - To help inform this determination, the *Handbook* explains that the conflict of interest analysis by the official selecting members of a peer review panel such as the SAB—and the conflict of interest certification by the potential peer reviewer—should address whether the candidate to serve as a peer reviewer has “made any public statements or taken positions on or closely related to the subject topic under review?”
 - This important criterion is consistent with guidance by the National Institutes of Health (NIH) for “Managing Conflict of Interest in NIH Peer Review of Grants and Contracts.” <https://grants.nih.gov/policy/peer/peer-coi.htm>. That guidance defines the appearance of a conflict of interest as “[a]ny situation that could cause a reasonable person with all the relevant facts to question the impartiality of the reviewer or that leads a reviewer to question his or her objectivity”

Considering these requirements, the NR3 Coalition recommends the following:

- To ensure the SAB’s advice is independent of EPA, those serving as members of the SAB should not have worked for EPA on a “criteria document, standard, limitation, or regulation” that may come before the SAB for peer review. Furthermore, the independence of any candidate who has previously been contracted by EPA for work on such a matter should be thoughtfully

assessed. At a minimum, to avoid even an appearance that impartiality is lacking, any member who has done such work for EPA should be required to recuse themselves from the review of that work or of conclusions or recommendations that rely on it. Moreover, any candidate who has previously performed work on an issue for any stakeholder, including both private industry and environmental groups, should be treated in a similar manner as a candidate who has previously performed work for EPA. If a former EPA contractor is allowed to be a member of the SAB, with or without recusal, then a candidate who has performed work for a stakeholder should be given the same opportunities.

- To avoid any appearance of a lack of impartiality, prior statements or writings of each candidate for SAB membership must be reviewed to ensure that the candidate has not previously made judgements that could indicate a lack of impartiality on matters that could come before the SAB. Testimony before a congressional committee or in a judicial proceeding, for example, could suggest prejudgment and could be of concern if it is on an issue likely to come before the SAB. Several of the nominees for SAB membership appear to have provided such testimony.
- Diversity of viewpoints, career experience, and impartiality in terms of both science and policy should be taken into account in appointing members to the SAB to provide the required balance.
 - SAB members must focus on the scientific and technical merit of EPA's work, rather than advocating for a particular policy outcome. Furthermore, the Board's membership must include balance in terms of any previously expressed policy positions.
 - Membership on the SAB should reflect the full diversity of scientific perspective. Balance on the Board should go beyond a balance in expertise to include a balance in viewpoints on key scientific issues under consideration.
 - The SAB should also include diversity of education and experience among its members. Because those affiliated with a particular educational institution or employer are more likely to share the same perspective, diversity on the SAB would be better served if no more than one member of the Board were to have ties to a single organization.
 - Finally, the SAB should encompass the breadth of expertise needed to assist EPA in evaluating the applicability, and honing its analysis, of science underlying regulatory decision-making. Its size allows for such breadth.
 - Specifically, the SAB requires the expertise to translate scientific findings appropriately into risk assessment. This translation process includes, but is not limited to, hazard identification, dose-response relationship assessment, and exposure characterization.
 - We also encourage inclusion on the SAB of members with expertise in causal analysis, evidence integration, chemical risk assessment, ecological risk

NAAQS Regulatory Review & Rulemaking Coalition

assessment, and biostatistics. The inclusion of candidates who have experience in integrating evidence is important because expertise in conducting research in a particular field is not equivalent to expertise in the integration and synthesis of evidence in that field with other evidence. As concentrations of pollutants continue to decrease across the full range of media, due to the steadfast efforts across the public and private sectors, it becomes increasingly important to ensure the accuracy and precision of EPA's assessments and a clear, transparent understanding of the underlying uncertainty.

We hope that these comments are helpful and look forward to continuing to follow the SAB's work. If you have questions about these comments, please contact Joe Stanko (jstanko@huntonak.com or 202/955-1529) or Cindy Langworthy (clangworthy@huntonak.com or 202/955-1525).



Northeastern University

School of Public Policy & Urban Affairs

June 7, 2021

Dear Dr. Armitage,

I am writing this letter in support of Tracy Corley's nomination to the Scientific Advisory Board at the Environmental Protection Agency (EPA). Dr. Corley is a brilliant and accomplished researcher and a policy practitioner who has made tremendous contributions in the areas of economic and environmental justice. Given her exceptional research skills and extensive experience in public leadership, she promises to make outstanding contributions as a member of the Scientific Advisory Board. I cannot think of anyone better suited to this role.

My primary experience in working with Dr. Corley was as her dissertation advisor in the PhD program in Law and Public Policy at Northeastern University. Dr. Corley is one of the strongest doctoral students I have worked with during my more than 20 years as a faculty member at the University of Michigan and Northeastern University. She had come back to doctoral work after more than a decade and a half in a variety of leadership roles in the State of Washington as an entrepreneur, policy consultant, and policy advisor. This previous experience showed in her exceptional work in the program. Throughout the dissertation process she proved to be a highly professional and methodologically and theoretically sophisticated researcher who was committed to questions of social justice.

Dr. Corley's dissertation focused on the informalization of work in contemporary Germany. She was drawn to this topic by the contradictory co-existence of an unusually stringent set of institutions and laws regulating work in Germany, and the apparent growth of informal economic activities there. The forces that were placing pressures on the German government's capacity to enforce its own definition of 'legitimate' work included global economic competition, increasing labor mobility across borders, and the emergence of new regulatory imperatives with European Union (EU) integration. Tracy drew on literature on the social construction of legal categories and political institutions to explain the ways that German society has struggled with structural imperatives that are reshaping politically and socially embedded norms and institutions regarding what is considered 'legitimate' work. She employed her outstanding German language skills to conduct interviews with leading policy-makers, and engaged in an extensive review of German language documents. The dissertation makes a foundational contribution to the comparative study of labor relations in Europe and beyond.

Since completing her PhD, Dr. Corley has gone on to important research and policy analysis positions. As a Transit Oriented Development Fellow at MassINC, Dr. Corley led important research initiatives on transportation and economic development, with some focus on the regeneration of the Commonwealth's deindustrialized 'gateway cities'. She worked closely with government leaders and educational institutions (including Northeastern University) to foster new modes of collaboration between academia and local government. Since moving on to the Conservation Law Foundation, she has led that organization in taking on new research agendas, and has particularly strengthened research in the areas of citizen science and participatory action research. She has emerged through these positions as a key thought leader in the state, driving research agendas on pressing environmental and social issues.

In sum, in terms of ability, professional experience, and leadership potential, Dr. Corley is ideally positioned to take on a role on the EPA's Scientific Advisory Board. I urge you to give her this opportunity to deepen her impact on research in the areas of environmental and social justice. Please let me know if there is any further information I can give in support of her nomination.

Sincerely,



Gavin Shatkin, Professor

Director, MS in Urban Planning and Policy Program

Director, MA in International Affairs Program

School of Public Policy and Urban Affairs

Northeastern University

118 Antrim Street
Cambridge, MA 02139

June 8, 2021

Dr. Thomas Armitage
Designated Federal Officer
Science Advisory Board
U.S. Environmental Protection Agency
armitage.thomas@epa.gov

Dear Dr. Armitage,

I am writing in support of the selection of Dr. Tracy A Corley to serve as a member of EPA's Scientific Advisory Board.

Dr. Corley recently joined the Conservation Law Foundation as its director of research and partnerships. She has a broad set of responsibilities and is an integral part of the foundation's work in support of research and science related to climate change and environmental justice across New England.

Her recent work arguing for equity in transit-oriented development, particularly for "gateway cities" – the former industrial centers that have struggled to retain and regain a foothold since deindustrialization in the 1970s and 1980s – is pioneering and should be better known. This original research focuses on cities left behind during the Massachusetts Miracle, several of which, such as Chelsea and Springfield, are now the recipients of environmental *injustices*. This original research shines light on three principles of equity, viz., integrative land use planning, equitable transportation, and inclusive economic development. In as much as EPA's work focuses on not only setting pollution limits but also on examining the broader impact of such policies on minority and marginalized communities, Dr. Corley's experience will be invaluable.

Another aspect of her work that bears highlighting is her dissertation research on German *Schwarzarbeit* – informal, undeclared or illegal work. Though this subject may not be directly pertinent to SAB's work, this research has familiarized her with German regulatory policies and given her fluency in the German language, both of which can be highly advantageous to the SAB's work.

As a part of her various research projects, Dr. Corley has relied on bringing people together from disparate communities to define issues and problems and to devise solutions, using the lens of economic justice, and more recently, climate justice. I know Dr. Corley personally well and I am certain that she will be a collaborative, pleasant and hard-working member of the SAB. I would highly recommend for SAB membership.

Thank you very much,

Rashid Shaikh, Ph.D.
Rshaikh20@healtheffects.org
(646) 733-8480

ELEANOR HOLMES NORTON
DISTRICT OF COLUMBIA

COMMITTEE ON
TRANSPORTATION AND
INFRASTRUCTURE

SUBCOMMITTEES

CHAIR, HIGHWAYS AND TRANSIT

AVIATION

ECONOMIC DEVELOPMENT, PUBLIC
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Congress of the United States
House of Representatives
Washington, DC 20515-1501

COMMITTEE ON OVERSIGHT AND
REFORM

SUBCOMMITTEES

CIVIL RIGHTS AND CIVIL LIBERTIES

GOVERNMENT OPERATIONS

June 4, 2021

Dr. Thomas Armitage
Designated Federal Officer (DFO), Science Advisory Board
U.S. Environmental Protection Agency Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 1400R
Washington, DC 20460
Via Email: armitage.thomas@epa.gov

Re: Invitation for Public Comment on the List of Candidates For EPA's Scientific Advisory Board (SAB)

Dear Dr. Armitage:

I am writing to express support for Dr. Crystal Romeo Upperman's consideration as a nominated candidate to the U.S. Environmental Protection Agency's (EPA) Science Advisory Board (SAB). As a member of the House Committee on Oversight and Reform's Subcommittee on Environment I focus on the numerous public health and environmental concerns, including climate change, environmental protection, public lands, endangered species, air and water quality, conservation, energy policy, research and development, and the regulatory affairs of these issues. Combatting climate change has long been one of my top priorities in Congress. It is important that we protect our public health and the environment for future generations.

Dr. Upperman has a salient understanding of science and policies that are necessary to protect the environment. Dr. Upperman has deep knowledge and understanding in Environmental Science, Climate Change, and Public Health and is aware of the considerations necessary to address disparities that environmental decisions that have historically posed nuisance for communities. Dr. Upperman has the unconventional and essential background of past work experience in the public, private and nonprofit sectors—all in support of advancing environmental protection. She brings with her not only the unique experience as a Black woman but also as scientists with a balanced perspective to think outside the box and bring creative and innovative policy solutions to the EPA's SAB—solutions that can protect human lives and the environment while addressing climate change.

Thank you for your consideration on these important issues and my recommendation in support of Dr. Crystal Romeo Upperman as a candidate to the EPA's SBA.

Sincerely,

A handwritten signature in blue ink that reads "Eleanor H. Norton".

Eleanor Holmes Norton
Member of Congress

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OCEAN PROTECTION COUNCIL

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Ben Allen | State Senator
Mark Stone | State Assemblymember
Michael Brown | Public Member
Jordan Diamond | Public Member

June 5, 2021

Mr. Thomas Armitage
US EPA Science Advisory Board staff
1200 Pennsylvania Ave., NW
Washington D.C. 20460

RE: SUPPORT FOR THE APPOINTMENT OF DEB SMITH TO THE EPA SCIENCE ADVISORY BOARD

Mr. Armitage:

I strongly recommend the appointment of Deb Smith to the EPA Science Advisory Board, for her 30+ years of leadership and depth of experience in Clean Water Act program implementation. She has served on national EPA workgroups, and brought her scientific background to inform key regulatory and policy advances in addressing contemporary water-pollution challenges.

In my 30 years of working with Ms. Smith as the President of the environmental group, Heal the Bay, and then as the UCLA Associate Vice Chancellor for Environment and Sustainability, I have seen first hand her leadership and innovation skills at work in her successful effort to protect and restore water quality. In the early 1990s, she developed a comprehensive monitoring program and database for the California Regional Water Quality Control Board, which informed the EPA biennial water quality assessments and led to the groundbreaking step of listing trash as an impairing pollutant on the S.303d list in 1996. She developed and led adoption of the first trash TMDL in the country, which paved the way nationally for the contemporary focus on marine debris and its land-borne sources.

Under her leadership, the Los Angeles Regional Board adopted the first bacteria TMDL in the state as well as developed precedent-setting implementation plans. As the national trend toward TMDL litigation took hold, Ms. Smith led the development and adoption of all 100 TMDLs required under the EPA federal consent decree with environmental groups. In recent years, she led California's approach to adopting numeric limits for toxicity in NPDES permits, a key step to understanding and addressing unknown sources impairing California waters. Her efforts at the LA Region in the early 2000s were the model for the recently adopted statewide toxicity approach. Ms. Smith led the Board's adoption of monitoring Constituents of Emerging Concern (CECs) in NPDES permits: a critical element to ensuring that reclaimed water was safe for consumption and did not degrade groundwater or receiving waters. She led efforts to support the many water reclamation projects in the region while ensuring that the underlying groundwater was protected for current and future use, a vital step which informs contemporary drought policies. And I worked with her closely on

California's reclaimed water policy that was approved in 2009. Ms. Smith also co-authored the first Climate Framework for Water in California which became a model throughout California. In addition, she developed a novel approach to stormwater regulation that incentivized water re-use and other environmental benefits.

In sum, Ms. Smith will bring to the Science Advisory Board an unmatched breadth and depth of experience and technical expertise in implementing water-pollution programs, and understanding the cutting-edge needs for scientific research and policy development to address current and emerging challenges.

Sincerely,

A handwritten signature in cursive script that reads "Mark Gold".

Mark Gold, D.Env.
Deputy Secretary for Coastal and Ocean Policy
Executive Director, California Ocean Protection Council

May 25, 2021

Dr. Thomas Armitage
Designated Federal Officer
US-EPA Science Advisory Board Selection
armitage.thomas@epa.gov

Dear Dr. Armitage:

I am pleased write this letter of support on behalf of Prof. Dominique van der Mensbrugghe who has been nominated to serve on the EPA Science Advisory Board. Dr. van der Mensbrugghe is Research Professor and Director of the Global Trade Analysis Project (GTAP) at Purdue University. GTAP comprises a network of more than 21,000 individuals in 175+ countries undertaking computable general equilibrium (CGE) analysis of trade and environmental policies. The GTAP Advisory Board, which advises the Director on future directions and policy priorities, includes 33 of the leading national and international institutions, including the US-EPA, undertaking CGE analysis of global economic issues. In this context, Dr. van der Mensbrugghe is an extremely effective leader and his advice and expertise are frequently sought out by the GTAP Board members.

Dr. van der Mensbrugghe's particular area of expertise is the integrated assessment of climate impacts and climate change mitigation policies. He is a world leader in this field and has worked on this topic over the last four decades, contributing critical inputs to policy formulation during his stints at the OECD, the World Bank and the UN-FAO. Prof. van der Mensbrugghe is committed to offering the best possible science-based advice for these policies, and for this reason he joined Purdue University five years ago, where he has full scientific independence and can support the basic knowledge infrastructure required for sound economic analysis of climate change. In light of the renewed emphasis on these topics by the Biden Administration and the EPA, Dr. van der Mensbrugghe's expertise will be invaluable as a new science foundation is laid for the forthcoming policies at both national and international levels.

In closing let me note that, in addition to being an effective leader, Prof. van der Mensbrugghe is a good team player and has served effectively on many advisory committees, including a recent EPA Science Panel on CGE analysis of environmental policies. I give him my strongest possible endorsement for this position on the SAB.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas W. Hertel".

Thomas W. Hertel
Distinguished Professor and Executive Director

*Center for Global Trade Analysis
Department of Agricultural Economics*



May 20, 2021

To: Dr. Armitage

RE: Dr. John O'Brien, EPA's Scientific Advisory Board Candidate

Dear Dr. Armitage

Having constructed several advisory boards in my past, I seek candidates who aren't just smart, they are willing to put the effort into the position it deserves. Reading the materials, thinking about the different angles and consequences, collaborating on both the status quo and the art of the possible with management are some of the key attributes I seek.

If you are of a like mind on the type of person you are seeking for a board advisor, then Dr. John O'Brien is a perfect fit.

His resume can only define how well rounded his experience and background fit are. What the pages cannot articulate is John's uncanny ability to dig through complex documents and research and identify that one critical thing no one else in the room thought of. Having collaborated with, been a colleague of, and observed his public roles firsthand, I have lost count of how many times I have thought "why didn't anyone else think of this."

I would be pleased to discuss my experiences with John and answer any questions you or others vetting him have. Feel free to contact me at peterw@skippingstone.com or 248-635-5405.

Sincerely,

Peter Weigand

Chairman & CEO

A handwritten signature in blue ink that reads "Peter Weigand". The signature is written in a cursive, flowing style.

Sasaki Foundation

8 June 8, 2021

Dr. Thomas Armitage
Designated Federal Officer
Environmental Protection Agency

Dear Dr. Armitage:

I am writing to recommend that you select Dr. Tracy Corley for the Environmental Protection Agency's Science Advisory Board. My colleague Wendell Joseph and I worked with Dr. Corley on an equitable transportation and mobility research project in partnership with the Massachusetts Institute for Technology, and with sponsorship from the Barr Foundation. Dr. Corley provided thought-provoking critical analysis to ensure that the participatory planning and research project included communities with limited access to technology and considered mediating variables – specifically the unique factors that influence “how”, “when”, and “why” people commute.

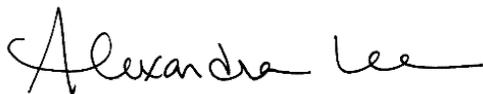
Dr. Corley's training as an architect comes through in her ability to think holistically about an issue, break it down into its constituent parts to assess connections and causes in research and planning, then rebuild the vision or reframe the leading questions. Building on her research as a TOD Fellow at Mass Inc., Dr. Corley inspired our team to reframe areas of our research to contextualize the project for a Greater Boston audience. A key component of this reframing centered Massachusetts's Gateway Cities, communities that have historically served as welcoming entry points into regional economies for many people. While the state, in general, has witnessed an economic boom over the past decade, many cities and communities, including the 26 Gateway Cities, have not. This reality disproportionately affects Black, Indigenous, and People of Color as their share of the population within Gateway Cities has increased in the past decade.

With a particular focus on environmental justice communities, we shifted our approach to explore the unique challenges that individuals might face regarding equitable access to mobility choices. Additionally, through her leadership and professional connections, we partnered with local stakeholders who participated in and contributed to our study. We look forward to continuing this work with Dr. Corley in her new role at the Conservation Law Foundation, as we brainstorm ways to apply our methodology and findings to other communities across the region.

In choosing Dr. Corley for your committee, you will witness her commitment to the complex and connected factors that define the urgent need for environmental justice as a research agenda and as a frame for other areas of research, planning, and policymaking. She exhibits her dedication to improving people's lives and livelihoods sustainably and equitably by rolling up her sleeves and asking probing questions about methods and assumptions. These qualities, in addition to her personable character and ability to bring people together around a critical, often divisive issue, make her an excellent candidate for the board and the Environmental Justice Committee.

Thank you for considering these comments. If you have any questions, please reach out at any time.

Sincerely,



Alexandra Lee
Executive Director

June 9, 2021

By Email

Dr. Thomas Armitage
Designated Federal Officer
Science Advisory Board
U.S. Environmental Protection Agency

Dear Dr. Armitage:

I am pleased to provide strong and unqualified support for the nomination (already submitted to you) of Dr. Jason Low, Assistant Deputy Executive Officer of the Monitoring and Analysis Division for Science & Technology Advancement at the South Coast Air Quality Management District (SCAQMD), for appointment to the EPA Science Advisory Board (SAB).

I understand that Dr. Low has provided you with his credentials and qualifications. I will not repeat them here, but I hope you agree that they demonstrate clearly his tremendous expertise in air quality science, particularly in ambient air monitoring, air toxics and the analysis of localized air pollution impacts. Within the community of air pollution control agencies, Dr. Low is a teacher, mentor and thought leader whose advise and expertise are highly sought after by his federal, state and local colleagues.

Dr. Low is an active and longstanding participant in the National Association of Clean Air Agencies (NACAA), a national, non-partisan, non-profit association of 115 air pollution control agencies in 41 states, the District of Columbia, four territories and 116 metropolitan areas. Since 2016, he has been a member of NACAA's Monitoring Steering Committee (MSC), a group comprising a dozen of the most experienced and accomplished air monitoring experts in NACAA's member agencies. The MSC meets regularly with EPA to share perspectives and advice on air monitoring implementation issues and to discuss emerging issues and scientific research in monitoring and advanced sensor technologies. From the beginning of his tenure, Dr. Low has distinguished himself as one of the group's most prolific and insightful members. He is also a frequent speaker at national air quality meetings and conferences, where he has acquired a well-earned reputation for his high intellect, approachability, measured demeanor and enthusiasm for air quality science.

Dr. Low's innovative work in the implementation of special monitoring projects focused on air toxics and environmental justice is particularly noteworthy. He has played a key role in SCAQMD's implementation of AB 617, a groundbreaking California law requiring the identification of communities that face high cumulative exposure burdens to air pollution, as well as the development of community air monitoring and action plans to address those burdens. This work required the development of innovative monitoring methods, including the deployment of advanced sensor technologies, to detect highly localized air pollution impacts. Dr. Low's work in community monitoring will be a model for agencies across the country that embark on similar efforts to address the inequitable burdens of air pollution. Dr. Low has a strong personal interest and commitment to environmental justice, and if selected for the SAB, I believe he would be an outstanding addition to the Environmental Justice Science Committee.

If appointed to the chartered SAB, Dr. Low would be a superb scientific advisor on air quality issues and would bring to the table every quality sought by the Administrator. I fully support his nomination with great enthusiasm.

If you have any questions, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Miles Keogh'. The signature is fluid and cursive, with a large loop at the end.

Miles Keogh
NACAA Executive Director



May 27, 2021

Dr. Thomas Armitage
Designated Federal Officer
Science Advisory Board
U.S. Environmental Protection Agency
E: armitage.thomas@epa.gov

Dear Dr. Armitage,

I am writing to support the nomination of Dr. Joseph E. Odencrantz to be a member of the USEPA Science Advisory Board. The Science Advisory Board plays an important role in providing independent scientific and technical review, consultation, advice and recommendations to the EPA Administrator to address our nation's environmental challenges. I firmly believe that the development of approaches for resolving these challenges would be advanced by the analysis and advice that Dr. Odencrantz would bring to the table.

Dr. Odencrantz is a nationally recognized environmental expert with unique qualifications in academic research, and over thirty years of practical experience in environmental engineering, state-of-the-art investigation and remediation techniques. Dr. Odencrantz is highly proficient at document review and has extensive experience as an expert whereby thousands of pages of technical information are central to the development of his expert reports. In addition, Dr. Odencrantz has consistently made an effort to reach out to promote and disseminate new ideas and to collaborate on research in a broad field of environmental issues. This unique set of experiences gives him a clear advantage in providing the EPA Administrator with advice and recommendations for solving complex real-world environmental problems.

For all of these reasons I believe that Dr. Odencrantz would be an excellent choice for the USEPA Science Advisory Board and urge the Committee to move as expeditiously as possible to ensure that the EPA Administrator has the benefit of his scientific and technical advice.

Sincerely,

A handwritten signature in black ink that reads 'Yakov Galperin'. The signature is fluid and cursive, with the first name 'Yakov' being more prominent than the last name 'Galperin'.

Yakov Galperin, Ph.D.
Principal
Environmental geochemistry Consulting

cc Dr. Bryan Bloomer,
E: bloomer.bryan@epa.gov



SETH MOULTON
MASSACHUSETTS

June 8, 2021

Dear Dr. Armitage,

It is my pleasure to enthusiastically support Dr. Tracy Corley for a position on the Scientific Advisory Board with the Environmental Protection Agency. I have known Dr. Corley for several years now, and she has been instrumental to incorporating environmental justice into my work in Congress. As a thought leader on transportation and environmentalism, officials throughout New England and beyond look to her research and recommendations for best practices to promote environmental justice. Most importantly, her personal and professional values align closely with my own and mirror those of the Biden Administration. Dr. Tracy Corley would be a tremendous asset to the EPA's Scientific Advisory Board.

An example of how Dr. Corley has been a great resource for my office is how we have incorporated her perspectives into my American High-Speed Rail Act. Transportation and infrastructure transformation is a high-priority goal of my office, and Tracy has helped us ensure that our legislative work delivers results that are transformative at all levels. High-speed rail offers tremendous economic returns for the communities it serves, but it must also improve the communities it simply passes through: the intermediate communities not large enough for stations, the neighborhoods it impacts, the under-served, the people who will rarely ride the system. Considering the wide-ranging impacts of such a major investment—from noise pollution (much-reduced compared to highways) to land use (also much reduced) to the equities of ticket-pricing and access to other rail services on high-speed lines—is critical to ensuring the overall success of such an investment. Tracy has helped us carefully consider and address these issues as we design the intricate details of the policy.

One reason Dr. Corley's perspective is so valuable is that she has worked within both the natural and social sciences, researching issues using both quantitative and qualitative methods at the Conservation Law Foundation and beyond. The value of this approach hit home during the pandemic. While quantitative data can point to a plan of action, it is the qualitative data that helps explain why, ensuring that we're quantifying the right things and providing a more realistic plan of action, grounded in elements such as logistics, economics, and the effects on public health and equity. Dr. Corley's balanced approach to scientific analysis and review would serve the Scientific Advisory Board well.

In Congress, I lead my team with a set of values to which we all subscribe: courage, empathy, authenticity, action, transparency and growth. While I believe you can attribute all of these to Dr. Corley, I want to focus on three that ring especially true: empathy, action, and growth. Dr. Corley's research and expertise highlight shortcomings in environmental justice and advocacy within urban planning and policymaking. She leads with empathy to provide equitable urban and

transportation planning solutions for communities that may not have the resources to voice their concerns. Armed with evidence and close connections with stakeholders on all sides, she develops and implements action plans, which turn theoretical ideas into physical results, such as the local transportation plans she's helped develop around Boston. Furthermore, she promotes those around her to help them grow. Tracy is always eager to engage and promote her students, interns, and colleagues to expand their skills and horizons and to consider environmental justice and equitable urban planning in their future endeavors. With the Biden Administration's EPA committing to promoting environmental justice initiatives, I can think of no better advocate to bring empathy, action, and growth to the Scientific Advisory Board.

Members of Congress must learn to be selective in whose research and recommendations to trust, and I have learned to put tremendous trust in Dr. Corley. She is a widely-respected expert in her field and is a remarkably natural fit for the Biden Administration's values and priorities. I strongly recommend her for a position on the Environmental Protection Agency's Scientific Advisory Board, and would be happy to furnish additional detail upon request.

Sincerely,

A handwritten signature in black ink, appearing to read "Seth Moulton". The signature is fluid and cursive, with a large initial "S" and a long horizontal stroke at the end.

Congressman Seth Moulton

Danielle Diamond
Senior Director of Research and Resources
Socially Responsible Agriculture Project
Golden, Colorado

June 9, 2021

Via email: armitage.thomas@epa.gov

Dr. Thomas Armitage
Designated Federal Officer
Environmental Protection Agency's Science Advisory Board
United States Environmental Protection Agency
Washington, DC

RE: Public Comment Recommending Dr. Sacoby Wilson to be Appointed to the
Environmental Protection Agency's Science Advisory Board

To Whom It May Concern:

I am writing to recommend Dr. Sacoby Wilson of the University of Maryland be appointed to serve on the United States Environmental Protection Agency's (USEPA) Science Advisory Board (SAB). Dr. Wilson's science and research credentials as they relate to human health and the environment are unmatched. He is a nationally renowned authority in a number of the scientific disciplines that USEPA is seeking expertise in.

I have had first-hand experience working with Dr. Wilson and can attest to the fact that his work has significantly contributed to a greater understanding of human health and the environment. He has extensive experience and expertise in environmental health sciences in the areas of exposure science, environmental justice, environmental health disparities, community-engaged research including community-based participatory research, citizen science, and crowd science, water quality analysis, air pollution studies, built environment, industrial animal production, climate change, community resiliency, and sustainability.

Not only is he a leader in these fields, but he also understands how to study and address environmental injustices and health issues through local community partnerships and how to translate research to action. As the Director of the Center for Community Engagement, Environmental Justice and Health (CEEJH), he has focused on providing technical assistance and research support to communities fighting against environmental injustices and environmental health disparities in the Delmarva region, as well as nationally. He brings scientific credibility to the lived experiences of people and communities that have had negative health impacts caused by environmental pollution.

In short, the SAB and the people of the United States would be well served by his appointment. Thank you for your consideration.

Danielle Diamond
danielled@sraproject.org

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment

June 8, 2021

Dr. Thomas Armitage
Designated Federal Officer
EPA Science Advisory Board
U.S. Environmental Protection Agency
Via e-mail: armitage.thomas@epa.gov

Dear Dr. Armitage,

I am writing today to highly endorse the nomination of Dr. Sacoby Wilson to join the US Environmental Protection Agency's Scientific Advisory Board (SAB). In many ways exceeding the requirements and expectations of the SAB, Dr. Wilson's ardent advocacy for environmental justice and applied science complement the stellar community of current and past SAB members and make him highly deserving of the honor and opportunity to participate on the SAB.

Dr. Wilson has been an extraordinary guide and partner as the Department of Energy and Environment has strived to more thoroughly integrate environmental justice principles into its work. Dr. Wilson has not only been an amazing resource for us, but we have seen the results of the work he does directly with frontline communities facing environmental injustices. Dr. Wilson has been a thoughtful connector from the scientific and government spheres for these communities – enhancing understanding and expanding application of science in communities that have been historically overburdened and overlooked. I strongly believe that his perspective and skills in community-engaged research including community-based participatory research (CBPR), citizen science, and crowd science will enhance the overall makeup of the SAB.

I cannot speak highly enough of Dr. Wilson's dedication to environmental justice and to his ability to leverage community, NGO, and government partners to deepen understanding of environmental health science and enact change in the DC region. We are incredibly grateful for his past work advancing the field of environmental justice science for our region (in addition to several other areas across the country) including the numerous studies he has led on health, air quality, and justice. For these reasons and more, I fully support his nomination to the SAB.

To further support this nomination, I would be pleased to express in more detail my personal insights into Dr. Wilson's unique talents and qualifications. Please feel free to contact me with any questions.

Sincerely,



Kelly Crawford

Associate Director
Air Quality Division
Department of Energy and Environment



OFFICE OF THE VICE PROVOST FOR RESEARCH

Caroline Attardo Genco, Ph.D.

Vice Provost for Research | Tufts University

Arthur E. Spiller, M.D. Professor | Department of Immunology | Tufts School of Medicine

June 7, 2021

Dr. Armitage and the SAB Review Committee,

On behalf of Tufts University, I write in support of Dr. Elena N. Naumova's nomination to the Environmental Protection Agency (EPA) Science Advisory Board (SAB). Dr. Naumova is an esteemed educator, researcher, and renowned leader in her field. Dr. Naumova's research focuses on modeling transient processes in environmental epidemiology, infectious diseases, and public health; she examines the impacts of natural disasters, climate change, and extreme weather on vulnerable subpopulations. Her extensive multi-disciplinary scholarship across diverse regions and populations of the United States and internationally would provide immense value to the EPA Science Advisory Board.

Dr. Naumova is Professor and Chair of the Division of the Nutrition Epidemiology and Data Science at the Tufts University Friedman School of Nutrition Science and Policy as well as a Director of the Tufts Initiative for the Forecasting and Modeling of Infectious Diseases. She has excelled in many leadership roles including as Co-Director of the Tufts Institute of the Environment, Associate Dean for Research at the Tufts School of Engineering, and Tufts Representative for the National Federal Demonstration Partnership in Washington, DC. She has advised over 60 PhD/MS/MPH students at Tufts and is an outstanding mentor for Tufts graduate students.

Dr. Naumova's expertise has been recognized by numerous federal agencies, including the EPA, as well as a variety of international organizations. Between 2007-2013, she served as a statistical consultant on an EPA-funded study of the relationships between climate change and waterborne infections. For over two decades, Dr. Naumova has served on National Institutes of Health (NIH) and National Science Foundation (NSF) review panels. She has additionally served as a Technical Advisor in statistical methodology for the World Health Organization (WHO) Environment and Health Information System (EHIS), an evidence-based information system designed to support public health and environmental policies in the WHO European Region. Dr. Naumova leads several large-scale projects, including training grants funded by NSF and the U.S. Department of Agriculture National Institute of Food and Agriculture (NIFA) to improve graduate education in data-rich disciplines. As part of ongoing research, she is testing modeling tools for wastewater surveillance systems and is involved in the five-year \$100 million STOP Spillover project launched by the United States Agency for International Development (USAID) to address threats posed by the emerging zoonotic diseases with the high risk of jumping from animals to humans.

Indicative of her reputation amongst peers, Dr. Naumova was elected as Editor-in-Chief of the *Journal of Public Health Policy* (Nature Publishing Group). She is also a member of editorial boards for other scientific journals, including the *Environmental Health Perspectives* and is an advisory board member of the *International Journal of Environmental Research and Public Health*.

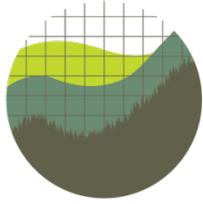


In my role, I have seen how much Tufts University has benefited from Dr. Naumova's prolific scholarship. I wholeheartedly offer my support for Dr. Naumova's nomination to serve on the EPA SAB and know the agency would gain a valuable member of the board who would help shape EPA's important mission for years to come.

Sincerely,

A handwritten signature in cursive script that reads "Caroline Attardo Genco".

Caroline Attardo Genco, Ph.D.
Vice Provost for Research



Institute *for*
Policy Integrity

NEW YORK UNIVERSITY SCHOOL OF LAW

June 9, 2021

To: Dr. Thomas Armitage, Designated Federal Officer, SAB
armitage.thomas@epa.gov

Re: Comments Supporting Dr. Caroline Cecot for Appointment to the SAB

We write to express enthusiastic support for appointing Dr. Caroline Cecot to the SAB. Dr. Cecot's biosketch details the scope of her relevant work and her public service appointments, including her recent membership on the SAB's Economic Guidelines Review Panel—all of which speaks persuasively for itself.

We write to emphasize the value that Dr. Cecot's deep knowledge of administrative and environmental law—combined with her expertise on benefit-cost analysis, economics, environmental justice, risk assessment, and behavioral sciences—can bring to the SAB. When rendering advice to EPA, it is often necessary for the SAB to understand the constraints that statutes may place on EPA's policy options, as well as how courts will view the scientific and economic analyses that underpin EPA's policy decisions. Because she can draw on the expertise gained when earning both her law degree and her economics degree, Dr. Cecot is particularly qualified to help the SAB execute its important work.

Respectfully submitted,

Richard L. Revesz, Director of the Institute for Policy Integrity and AnBryce Professor of Law and
Dean Emeritus at NYU School of Law

Jason A. Schwartz, Legal Director of the Institute for Policy Integrity



Jolene Ivey
Council Member
District 5

June 3, 2021

Dr. Thomas Armitage
The Ronald Reagan Building
1300 Pennsylvania Avenue NW
Washington, DC 20004

Dr Thomas Armitage:

I am writing in support of Dr. Sacoby Wilson's nomination to be named to the U.S. Environmental Protection Agency's Scientific Advisory Board. I have worked with Dr. Wilson on his successful grant proposal submitted to the Prince George's County (Maryland) Council on behalf of the Community Engagement, Environmental Justice, and Health Laboratory at that University of Maryland's School of Public Health, to develop and implement a network of low-cost, real-time air monitors to detect air pollutants in the Town of Cheverly, Maryland.

Dr. Wilson has been an important leader working to advance the science and cause of Environmental Justice. He is well-known and respected in the field, and is a two-time EPA STAR fellow, EPA MAI fellow, Udall Scholar, NASA Space Scholar, and Thurgood Marshall Scholar.

It is for these and many other reasons I support Dr. Sacoby Wilson's nomination to the EPA's Science Advisory Board.

Sincerely,

Jolene Ivey
Prince George's County Council
District 5

April 28, 2021

Re: Diversifying Federal Advisory Committees

The undersigned scientific and academic organizations are writing to support racial, ethnic, and gender diversity in federal science advice, as laid out in the Biden Administration's January 27th *Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking*. The memo triggered a review process for all government agencies to assess the current and future needs for science advisory committees, including relevant changes to policies, processes, and practices related to vetting and selection of members[1].

In particular, the memo is explicit about the need for increased diversity and a wider range of experience and expertise of scientists serving on these committees. It asks that agencies work to "ensure that members and future nominees reflect the diversity of America in terms of gender, race, ethnicity, geography, and other characteristics; represent a variety of backgrounds, areas of expertise, and experiences; provide well-rounded and expert advice to agencies; and are selected based on their scientific and technological knowledge, skills, experience, and integrity, including prioritization of experience with evidence-based, equitable, inclusive, and participatory practices and structures for the conduct of scientific research and the communication of scientific results." Given that federal advisory committees are an important way the scientific community informs policy decisions, and that participation provides valuable career opportunities for scientists and experts looking to contribute their knowledge and perspectives at the intersection between science and policy decisions, we believe it is imperative that agencies take this directive seriously and implement it rigorously.

Lack of racial, ethnic, and gender diversity in the federal government is a persistent problem which exacerbates longstanding inequities and stifles progress[2]. Research has shown that diverse scientific teams achieve better results than racially and/or socioeconomically homogenous teams, due in part to differing backgrounds and varying perspectives[3]. In addition, the problems that agencies address and progress that agencies make have not been experienced or distributed equitably. Race, gender, sexual identity, income, and other sociodemographic factors are directly linked to environmental, health, and safety impacts[4]. The more diverse and representative science advisory committees are, the more individuals from these communities will be represented and the unique challenges they face reflected in science-based recommendations.

The administration has named racial equity as a top priority and such efforts must also ensure that federal science advice reflects the diversity of the nation. As the Biden administration takes steps to address these inequities within the federal government, we would urge agency heads to shift outreach plans, compensation models, and membership balance on federal advisory committees so that hiring external advisors is reflective of changes to internal hiring practices.

By law, federal advisory committees are required to be fair and balanced, but that definition has traditionally been narrowly focused on balanced expertise and viewpoints rather than membership inclusive and representative of different races, ethnicities, genders, backgrounds, institutions, regions, and experiences. Agency heads working collaboratively with Chief Science Officers and Designated Federal Officials can:

- Update committee charters to include more explicit and inclusive language on qualifications for members. These qualifications should not necessarily be limited to individuals with terminal degrees in a particular field, tenured academics, or individuals solely within STEM fields. Scientific expertise could include individuals with experience living, working, and conducting community science in environmental justice communities, and/or holders of Traditional Ecological Knowledge (TEK), for example.
- Change committee membership selection processes to include a range of backgrounds and experiences within the committee's definition of "balance" and explicitly ask for demographic information on committee nomination forms.
- Design incentive structures, such as compensation for committee meeting time, to recruit a broader pool of the best candidates, including qualified early-career scientists, and reduce barriers to participation for open committee positions.
- Include in efforts to solicit committee nominations outreach to:
 - Academic institutions that serve historically underrepresented communities, including Historically Black Colleges and Universities (HBCUs), Asian American and Native Pacific Islander-Serving Institutions, Tribal Colleges and Universities, Hispanic Serving Institutions and their consortia (i.e. American Indian Higher Education Consortium (AJHEC), Hispanic Association of Colleges and Universities), and institutions that serve higher rates of Pell Grant recipients, rural, first-generation, and other similarly underrepresented communities [5].
 - Administrators and principal investigators of existing agency programs, and their networks, which fund and support the advancement of underrepresented scientists, for example: the National Institute of General Medical Sciences Institutional Training Grants and Research Education Programs, the National Science Foundation's Centers of Research Excellence in Science and Technology (CREST) and HBCU Research Infrastructure for Science and Engineering (HBCU-RISE), the US Department of Education Office of Postsecondary Education Federal TRIO Programs, and other relevant programs [6].

Moreover, there should be accountability in this undertaking. Data collection and analyses on these efforts would help the administration and agencies understand outcomes from this review process, best practices, and ways to improve. Transparency in the process and methodologies of this change in policy and practice would allow researchers and the public to understand whether committees are becoming more inclusive.

We believe that broader, more diverse representation on science advisory committees will lead to more comprehensive and equitable decision making at the federal level. We would like to offer the collective power and specialized expertise of our organizations and the scientific community to help with this undertaking. Collectively, our organizations and others can offer a variety of resources for implementing meaningful changes to agency practices:

- 500 Women Scientists has a website dedicated to resources for finding women, including women of color, who are experts in a variety of technical fields[7].
- Scientific organizations representing scientists of color, like the National Society of Black Engineers, the Society for Advancement of Chicanos/Hispanics and Native Americans in Science, and the Black Doctoral Network, have thousands of members who could be reached when there are openings on committees in need of relevant expertise[8].
- The National Science Foundation (NSF) has designated states with lower percentages of 5-year funding of NSF research projects in its Established Program to Stimulate Competitive Funding (EPSCoR), so agencies can target inclusion of those states as potentially underrepresented. Similar strategies could be taken at agencies to prioritize membership shifts necessary on various science advisory committees[9].
- Green 2.0 serves as a watchdog for diversity, equity, and inclusion in the environmental sector, tracking how institutions are doing and providing resources to help implement concrete changes[10]. Similar tracking and accountability mechanisms would help ensure federal agencies are making progress toward better representation of a wider range of experts on its advisory committees.

As the Biden administration works to advance diversity, equity, and inclusion, it must embrace equal opportunity within the federal scientific workforce and the thousands of science committee advisors that support agencies on a range of scientific and technical matters. Now is the time to make changes to the U.S. science advice infrastructure that will provide for more rich, complex, and valuable expert input and serve as a model for science advice across the U.S. and abroad.

Please let us know if you would like to meet to discuss the content of this letter. You may contact Genna Reed at the Union of Concerned Scientists at GReed@ucsusa.org to schedule a meeting with representatives from the organizations signed onto this letter.

Sincerely,

Union of Concerned Scientists

500 Women Scientists

American Association of University Professors (AAUP)
American Federation of Teachers
American Geophysical Union
American Institute of Biological Sciences
American Public Health Association
Antioch University
Association of Environmental Studies and Sciences
Ciencia Puerto Rico
Global Council for Science and the Environment
Human Impact Partners
International Society for Environmental Epidemiology -- North American Chapter
Natural Science Collections Alliance
National Society of Black Engineers (NSBE) Public Policy SIG
Society of Women Engineers

Cc:

Centers for Disease Control and Prevention, Director Rochelle Walensky
Census Bureau, Acting Director Ron Jarmin
Department of Commerce, Secretary Gina Raimondo
Department of Energy, Secretary Jennifer Granholm
Department of Human Health Services, Secretary Xavier Becerra
Department of Interior, Secretary Deb Haaland
Department of Labor, Secretary Marty Walsh
Department of Transportation, Secretary Pete Buttigieg
Environmental Protection Agency, Administrator Michael Regan
Health Resources and Services Administration, Deputy Administrator Diana Espinosa
National Aeronautics and Space Administration, Acting Administrator Steve Jurczyk
National Institutes of Health, Director Francis Collins
National Institute for Occupational Safety and Health, Director John Howard
National Institute of Standards and Technology,
Associate Director for Laboratory Programs James Olthoff
National Marine Fisheries Service, Acting Assistant Administrator Paul Doremus
National Oceanic and Atmospheric Administration,
Acting Assistant Administrator Nicole LeBoeuf
Nuclear Regulatory Commission, Chairman Christopher Hanson
National Science Foundation Director, Sethuraman Panchanathan
Occupational Safety and Hazard Administration,
Acting Assistant Secretary James Frederick
Substance Abuse and Mental Health Services Administration,
Acting Assistant Secretary Tom Coderre
U.S. Department of Agriculture, Secretary Thomas Vilsack
U.S. Fish and Wildlife Service, Principal Deputy Director Martha Williams
U.S. Food & Drug Administration, Acting Commissioner Janet Woodcock
U.S. Geological Survey, Acting Director Dave Applegate

- [1] <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/memorandum-on-restoring-trust-in-government-through-scientific-integrity-and-evidence-based-policy-making/>
- [2] <https://science.house.gov/staff-reports/scientific-brain-drain-quantifying-the-decline-of-the-federal-scientific-workforce;>
https://www.sciencemagazinedigital.org/sciencemagazine/09_april_2021_Main/MobilePagedArticle.action?articleId=1675739&app=false#articleId1675739
- [3] [https://www.si.edu/content/OEEMA/OSTP-OPM_ReportDigest.pdf;](https://www.si.edu/content/OEEMA/OSTP-OPM_ReportDigest.pdf)
<https://doaj.org/article/379ec5d0302540aeb66893c40b554fb2>
- [4] [https://digitalcommons.law.yale.edu/yjil/vol18/iss1/12/;](https://digitalcommons.law.yale.edu/yjil/vol18/iss1/12/)
<https://www.nature.com/articles/nrcardio.2015.152>
- [5] [https://www.aanapisi.net/;](https://www.aanapisi.net/) <http://www.aihec.org/index.html>; <https://www.hacu.net/hacu/default.asp>
- [6] <https://www.nigms.nih.gov/research-training/resources/funded-institutional-training-grants;>
https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=6668&org=NSF;
<https://www2.ed.gov/about/offices/list/ope/trio/index.html>
- [7] <https://500womenscientists.org/related-resources>
- [8] [https://www.nsbe.org/home.aspx;](https://www.nsbe.org/home.aspx) [https://www.sacnas.org/;](https://www.sacnas.org/) <https://www.blackphdnetwork.com/>
- [9] <https://www.energy.gov/articles/us-department-energy-announces-21-million-research-epscor-states>
- [10] <https://diversegreen.org/about/>



Empowering communities to Power Change

Founders

Vernice Miller-Travis
Peggy M. Shepard
Chuck Sutton

Peggy M. Shepard
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Chair

Rory Christian

Secretary

Sarangji Iyengar

Treasurer

Ken P. Mak

May 24, 2021

Dr. Thomas Armitage
Designated Federal Officer (DFO), Science Advisory Board
U.S. Environmental Protection Agency Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 1400R
Washington, DC 20460
Via Email: armitage.thomas@epa.gov

Members

Gregory Anderson
Peter Bokor
Dennis Derryck,
Ph.D.
David Evans,
Ph.D.
Abiola Fasehun
Eric A. Goldstein,
Esq.
Jeff Jones
Vernice Miller-Travis
Phillip Morrow
Dart Westphal

Re: Invitation for Public Comment on the List of Candidates For EPA's Scientific Advisory Board (SAB)

Dear Dr. Armitage:

I respectfully submit this comment in response to the list of candidates nominated to serve on the U.S. Environmental Protection Agency's (EPA) Science Advisory Board (SAB). The chartered SAB provides scientific advice to the EPA Administrator on a variety of EPA science and research topics. The SAB Staff Office invited nominations of individuals to serve on the chartered SAB with expertise or extensive experience in the following scientific disciplines and topics as they relate to human health.

On May 19, 2021, EPA issued a call for public comment on the list of candidates for the EPAs SAB. I have been director of WE ACT For Environmental Justice for the past 32 years, I have worked to ensure that frontline communities are not subject to poor air quality. In the past, I have been active in working with EPA Region 2 on the fine particulate standard and on increasing air monitoring in environmental justice communities that are not in attainment of clean air standards. As the co-chair of the White House Environmental Justice Advisory Council, I am concerned that the CASAC has diverse expertise and has members whose focus has been on the communities most impacted by air toxics.

The EPA has long been criticized for the lack of fresh perspectives on the SAB



when accessing balance on the Board. This notion of perspectives stems from EPA's Peer Review Handbook instructing that the Agency "rotate membership among qualified scientists to obtain fresh perspectives and reinforce the reality and perception of independence."¹ These fresh perspectives often arise with the introduction of candidates who understand the human element and interdisciplinary impacts of EPA's decisions; this is the reason why strong consideration should be given to Dr. Crystal Upperman.

Dr. Upperman leads the integration of public health information and informed risk characterization into Aclima's air pollution and greenhouse gas measurement and analysis products. In her prior roles, she was a Senior Research Associate at the World Resources Institute on the Global Commission on Adaptation, at AECOM she was the Climate Adaptation and Resilience Lead for the Southeast US, Latin America, and the Caribbean, and she managed the CDC's Building Resilience Against Climate Effects (BRACE) program for Maryland Department of Health. She worked as an environmental regulator, very early in her career, for the New Jersey Department of Environmental Protection and the Georgia Environmental Protection Division's Ambient Air Quality Program. Crystal's research focus is in exposure science and spatial epidemiology and has included a national assessment of the impact of climate change, pollen exposure, and extreme heat on chronic respiratory diseases. Crystal is a Trustee of The Nature Conservancy, and is an Advisory Board Member for the American Public Health Association's Center for Climate, Health, and Equity. Crystal earned a PhD in Marine, Estuarine, and Environmental Science from the University of Maryland as a U.S. EPA Science to Achieve Results Fellow and an NSF Louis Stokes Alliance for Minority Participation Fellow, a Master of Public Administration in Nonprofit Management from Kennesaw State University, and a Bachelor of Science in Environmental Science from Spelman College.

Dr. Upperman's background and experience reflects the rigor and acumen necessary to help the U.S. EPA make informed environmental actions to protect public health. In addition to her scientific expertise, I believe that she will bring a needed perspective on equity, and experience working in frontline communities that will make a difference in developing policies that are equitable and founded on health based standards.

Sincerely,



Peggy M. Shepard
Executive Director & Co-Founder

¹ Environmental Protection Agency, Science and Technical Policy Council, Peer Review Handbook, 4th Ed. (Oct. 2015). https://www.epa.gov/sites/production/files/2020-08/documents/epa_peer_review_handbook_4th_edition.pdf



June 8, 2021

Dr. Thomas Armitage, Designated Federal Officer
US EPA Science Advisory Board
VIA EMAIL
armitage.thomas@epa.gov

Re: Nomination to join the US Environmental Protection Agency's Scientific Advisory Board (SAB)

Dear Dr. Armitage,

On behalf of Green Amendments For the Generations, I am writing in support of Dr. Sacoby Wilson's appointment to the US Environmental Protection Agency's Scientific Advisory Board (SAB).

Green Amendments For the Generations (GAFTG) works to advance passage of Green Amendments, constitutional environmental rights amendments which recognize and protect the inalienable rights of all people to pure water, clean air, a stable climate and healthy environments, in the Bill of Rights section of every state constitution, and ultimately at the federal level.

Dr. Wilson's extensive credentials prove that he will be an asset to the SAB, bringing over 20 years of environmental health science experience and a unique focus on advocating for frontline communities facing environmental and climate injustices. He has worked with communities from Washington DC to Maryland, Texas, Alabama, and the Carolinas, and his multidisciplinary expertise spans exposure science, water quality analysis, air pollution studies, industrial animal production, sustainability and climate resiliency.

Dr. Wilson is a member of the USEPA's National Environmental Justice Advisory Council (NEJAC), member of the National Academy of Science's Board on Environmental Studies and Toxicology (BEST), board member of the Citizen Science Association, Editor in Chief of Environmental Justice, a past Chair of the APHA Environment Section, and former Board member of Community-Campus Partnerships for Health. These memberships illustrate a life of dedication to environmental and community health, and I am confident Dr. Wilson will bring a holistic and innovative perspective to the SAB.

Green Amendments For the Generations supports Dr. Sacoby Wilson's appointment to the US Environmental Protection Agency's Scientific Advisory Board. Thank you for your consideration.

Respectfully,

Maya K. van Rossum
Founder, Green Amendments For the Generations

Harvard Center for Risk Analysis



7 May 2021

Holly Stallworth
EPA Science Advisory Board Staff Office
Stallworth.Holly@epa.gov

Dear Holly,

I understand that Elisabeth Gilmore has been nominated to the new SAB climate science committee. I write to support her nomination.

I have known Elisabeth for many years, perhaps since her days as a doctoral candidate at CMU. In that time, I have found her to be a creative and thoughtful scholar and a strong contributor to professional organizations, including the Society for Risk Analysis. She brings a strong background in climate science and its application to policy, including service as a lead author of the North American Chapter and drafting author of the Summary for Policymakers for IPCC Working Group 2. Early in her career, she even served as an AAAS fellow in the Climate Division at EPA, giving her some experience of the Agency's perspective.

I am confident that Elisabeth would be a valued contributor to the SAB climate science committee.

Cordially,

A handwritten signature in blue ink, appearing to read 'James K Hammitt'.

James K Hammitt
Professor of Economics and Decision Sciences
Director, Harvard Center for Risk Analysis

May 1, 2021

Dr. Holly Stallworth

DFO, EPA SAB

Stallworth.Holly@epa.gov

RE: Nomination of Dr. Gloria Post to EPA SAB

Dear Dr. Stallworth,

I am writing in strong support of the nomination of Dr. Gloria Post to the EPA Science Advisory Board. She has already been nominated by Betsy Behl of the EPA Office of Water.

I have known Dr. Post for over 30 years, since soon after she joined NJDEP in 1986. At that time, she reached out to me at NTP with questions about NTP studies of several chemicals for which she was developing drinking water risk assessments, primarily VOCs. Since that time, I often interacted with her at meetings of government scientists and at the Society of Toxicology. We have been in close contact during the past few years because we both have a strong interest in per- and polyfluoroalkyl substances (PFAS).

As is evident from her CV, Dr. Post has strong scientific expertise in toxicology, risk assessment, and related areas of science. Importantly, she has applied her scientific knowledge to the protection of public health throughout her career, with a focus on contaminants of emerging concern including PFAS and many others. Based on her previous evaluations of a wide variety of contaminants, Dr. Post recognized that PFAS are of great public health concern due to their unique characteristics when she first learned about them in the early 2000s, long before they were known to most scientists, regulators, or the general public; she has focused on them since that time. Because she is a recognized expert on this topic, she is the "go-to" person when someone wants to know something specific about PFOA and PFNA. I invited her to write a paper on PFAS as emerging contaminants when I was the guest editor for PLOS Biology's collection of papers on "Challenges in Environmental Health: Closing the Gap between Evidence and Regulations" in 2017.

In addition to her many publications on PFAS, including several highly cited reviews, she was the lead scientist for the State of New Jersey's comprehensive scientific evaluations of several PFAS. These evaluations formed the basis for New Jersey's groundbreaking drinking water guidance for PFOA in 2007, as well as the later adoption of NJ drinking water standards for PFOA, PFOS, and PFNA that have been a model for several other states' PFAS guidelines. One of these PFAS, PFNA, is a contaminant of a high concern in New Jersey due to a specific industrial source. Led by Dr. Post, New Jersey developed the first comprehensive evaluation and risk assessment of PFNA, resulting in the adoption of a New Jersey PFNA drinking water standard (MCL) which was the first MCL for any PFAS in the United States. Her current focus is on the evaluation of newly identified PFAS that, although used as replacements for

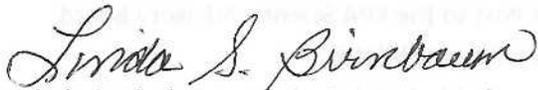
PFOA and PFNA in New Jersey, are of equal public health concern due to their similar or greater toxicity and bioaccumulation.

More generally, Dr. Post is a talented scientist with a very thorough knowledge of both the scientific literature and current policy and regulatory issues. She is extremely conscientious and dedicates as much time and effort as needed to any project that she is part of. She has strong skills in scientific writing, reviewing, and editing, and she consistently takes the time to share relevant scientific information with her colleagues. These qualities, in addition to her perspective as a scientist within a state environmental agency, will allow her to make valuable contributions to the EPA SAB.

In summary, I highly recommend that Dr. Post be appointed to the EPA SAB.

Please do not hesitate to contact me if I can provide additional information.

Sincerely,



Linda S. Birnbaum, Ph.D., D.A.B.T., A.T.S.

Scientist Emeritus and Former Director, NIEHS and NTP

Scholar in Residence, Duke University

Adjunct Professor, Yale University

Phone: 919-280-2884

Email: birnbaum.tox@outlook.com

May 3, 2021

Holly Stallworth, Ph.D.
Economist and Designated Federal Officer
Science Advisory Board Staff Office
1300 Pennsylvania Ave., NW
Room 31179, Ronald Reagan Bldg.
Washington, DC 20004

Re: Nomination of Dr. Gloria Post to the EPA SAB

Dear Dr. Stallworth,

It gives me great pleasure to write to nominate Dr. Gloria Post to the EPA Scientific Advisory Board. I have followed Dr. Post's work at the New Jersey DEP for many years, particularly her work on per-and poly-fluorinated compounds. Her contributions to that field both as a scientist and as a member of the regulatory committees have been extraordinary, and I consider her to be a leader in the PFAS field.

As background, I have been a member of the faculty at Columbia University for 42 years, first as a Professor of Pharmacology the medical school. In 1991 I was recruited as chairman of the Department of Environmental Health Sciences at Columbia University's Mailman School of Public Health, a position I held for 15 years; I subsequently served as Associate Dean for Research for seven years. From 2000-2020 I served as the Principal Investigator of Columbia's Superfund Research Program, entitled "Health Effects and Geochemistry of Arsenic." In these capacities I've had ample opportunity to judge scientific talent in the fields of toxicology, risk assessment and environmental health, and I consider Gloria Post to be among the very best I've ever encountered. I have found her to have sound and unbiased scientific judgement.

After hearing Gloria give a lecture concerning drinking water contaminants and standards at a Society of Toxicology meeting about five years ago, I came to the conclusion that every student of toxicology should hear that lecture it was (and is) a tour de force. I subsequently invited her to give a lecture on that topic to graduate students in toxicology at Columbia, a lecture that she has kindly given for the last four years. Students absolutely love her lectures and benefit

enormously from her “real world” experience at the New Jersey DEP. The depth of her skills and experience, covering many different environmental contaminants and issues is truly remarkable. And, she has been extremely gracious as a teacher and mentor to our students.

The list of Gloria’s accomplishments on her CV is truly remarkable and of the caliber that one would hope for as a member of the EPA SAB. I nominate her without hesitation and believe that her appointment to the SAB would widely be viewed as an outstanding recruitment.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Graziano', with a long horizontal flourish extending to the right.

Joseph Graziano, PhD
Professor Emeritus
Department of Environmental Health Sciences
Columbia University
Mailman School of Public Health

Holly Stallworth, Ph.D.
Economist and Designated Federal Officer
Science Advisory Board Staff Office
1300 Pennsylvania Ave., NW
Room 31179, Ronald Reagan Bldg.
Washington, DC 20004

Re: Gloria Post; recommendation to SAB
By: Alan Ducatman MD, MS

This letter provides a recommendation for Gloria Post, Ph.D., as a valuable addition to US Environmental Protection Agency Science Advisory Board (EPA SAB). As a previous external committee advisor (both member and chair of a CDC Board of Scientific Counselor), I am generally aware of the importance of nature, sensitivity, usefulness, and national/international importance of external advising to our most important federal agencies. As a former academic medicine department chair and interim founding dean of a school of public health, I am also aware of the importance of teamwork and integrity for advising activities. It is both a pleasure and an honor to recommend Dr. Post for the EPA SAB. She is uniquely qualified to help the committee achieve critical goals that are in the national interest.

I became aware of Dr. Post's work around a decade ago. She began to create innovative, thorough, and informative work concerning health outcomes and risk assessment of the per- and polyfluoroalkyl substances ("PFAS") that many scientists were reading for our own understanding. Subsequently, I heard her contributions at scientific conferences, where she is generally a podium presenter and sometimes an organizer, and where I had the opportunity to meet her personally on several occasions. I was able to observe how many other scientists from a variety of disciplines also appreciated and sought her judgment concerning health risk appraisal for specific topics, as well as for her knowledge of the general principles of risk assessment. We both served on a national advising committee (regarding federal agency plans for next steps in research on PFAS health effects, organized by the US National Academy of Sciences and Engineering). In each environment, primary scientists benefitted from her encyclopedic comprehension of the details and her ability to describe the big picture. Dr. Post has an extraordinary memory for the underlying data, and a substantial capability to summarize and synthesize the key points and principles for colleagues. In addition, my impression is that Dr. Post's integrity and capability are valued across disciplines.

Dr. Post's long-standing work with the New Jersey Drinking Water Quality Institute provides her with a state agency perspective, which is inherently valuable to EPA. Her ability to work at the interface of toxicology (her discipline) and risk assessment (her work) is similarly valuable. Dr. Post's career experience is in the context of the real-world challenges of the application of scientific principles to the even more difficult topic of actual decision making. This too is

important to EPA and an ever-present topic for the EPA SAB. Those of us who have spent our careers in academia lack this experience and acknowledge its importance. In this real-world environment, Dr. Post has consistently produced reviews that are highly cited and formal documents that have stood the test of time and are used as templates by other agencies. This frequent imitation speaks to the centrality and excellence of her work. Unsurprisingly, she is the recipient of public service awards.

Dr. Post also has substantial experience with voluntary public service on important committees, such as her long-standing service to the Federal State Toxicology and Risk Assessment Committee. Important to EPA and the public it serves, Dr. Post is invariably supportive and helpful to colleagues, aware of the sensitivity, importance, and scientific foundations of government agency missions, and able to network broadly with a wide array of colleagues on behalf of gathering consensus across disciplines and perspectives. She is an ideal EPA SAB committee member.

Sincerely,

A handwritten signature in blue ink, appearing to read "Alan Ducatman".

Alan Ducatman, MD, MS

aducatman@hsc.wvu.edu

Carnegie Mellon University

M. Granger Morgan

Department of Engineering and Public Policy (EPP)
Hamerschlag University Professor of Engineering
Founding Head, EPP (1977-2014)

Carnegie Mellon University
Baker Hall 129
5000 Forbes Avenue
Pittsburgh, Pennsylvania 15213-3890

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Phone: 412-268-2672
Fax: 412-268-3757
www.cmu.edu/epp

Dr. Holly Stallworth
Economist
US Environmental Protection Agency

Dear Dr. Stallworth

Elisabeth Gilmore tells me that she has recently been nominated to be a member of a subcommittee of the EPA SAB that will address a set of issues related to climate change and has asked if I might provide you with a supporting letter.

Elisabeth did her PhD in Carnegie Mellon's Department of Engineering and Public Policy while I was Department Head. Her doctoral research addressed applications for distributed generation (DG) that are consistent with air quality and human health objectives. In 2006, she published a paper on the initial phases of this work in the leading refereed journal *Environmental Science & Technology* (with economist Lester Lave and aerosol expert Peter Adams). She was awarded the best doctoral presentation at the meeting of the Technology and Management Policy Graduate Consortium 2006 in Lisbon, Portugal for this same work. She went on to publish several more papers based on her PhD work that included an investigation of the benefits and costs of distributed electric energy storage projects with respect to air quality and the interactions between air quality and climate change policies and DG applications.

Upon graduating Elisabeth took up a faculty position at the University of Maryland. At Maryland she developed and taught a number of new and innovative courses. For a variety of reasons, her research career there got off to a slow start. In more recent years, after moving to Clark University, she has hit her stride in terms of research productivity. She and co-workers and students have published several strong papers on issues related to climate change vulnerabilities, migration, and other societal interactions.

A recent paper in *PNAS* with her PhD student Elizabeth Tennant provides a first-rate analysis of how mortality from tropical cyclones (whose intensity is likely to increase as sea surface temperatures continue to rise) is related to measures of government effectiveness when one controls for other variables such as storm frequency and intensity.

Elisabeth has developed and taught a variety of courses on climate relate policy issues. She has had a variety of involvements with the UNFCCC and the IPCC and is knowledgeable about domestic and international climate policy.

Elisabeth is highly personable, hardworking, inventive, and entrepreneurial. She thinks, writes, and speaks clearly and well. She combines a strong technical background with good modern economic, social science, and policy analytic skills. She works well with others from a diverse range of backgrounds.

In summary, I can recommend Elisabeth Gilmore. She is a very good candidate to join the new SAB committee on climate change.

Yours,



M. Granger Morgan
Hamerschlag University Professor of Engineering



ENVIRONMENTAL FINANCE CENTER

Mr. Thomas Armitage
Designated Federal Officer, EPA Science Advisory Board
US Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 20460
Via email: Armitage.thomas@epa.gov

Dear Mr. Armitage,

It is a great pleasure to write in strong support of Dr. Marccus Hendricks' nomination to the US Environmental Protection Agency's Science Advisory Board (US EPA SAB). Dr. Hendricks' academic background, research focus and approach, and community-based experience make him well-qualified for this position, particularly given the urgent need to turn the resources of the Agency to addressing the challenges of climate and equity.

Having been with the Region 3 Environmental Finance Center at the University of Maryland for over 15 years and as the sitting President of the broader Environmental Finance Center Network, I have a solid understanding of the mission and objectives of US EPA. As the Agency prepares to address this mission and these objectives with a renewed energy, Dr. Hendricks' would offer the Scientific Advisory Board a science-based, community-driven perspective on both current and proposed programs, plans, policies and regulations.

Dr. Hendricks' CV and undoubtedly countless other letters of recommendation will speak to just how profoundly qualified he is to serve on the SAB due to his expertise in the academic and research realms, yet he brings even more to the table that I find equally, if not more so, important. Over the course of his career, Dr. Hendricks' research findings and outcomes have been rooted in good science while also balanced with a community engagement methodology that makes certain these findings are well-informed not only by what is happening in the research arena, but also by what is happening on the ground, so that intended outcomes are well-aligned with local priorities and that their implementation is feasible for the community they are designed to serve. Dr. Hendricks' does this with a keen eye to the fair, equitable distribution of resources, services and investments. His participation in the Science Advisory Board would ensure the lifting up of communities long suffering environmental injustice advancing the basic human rights of access to clean air and water and basic public health and safety, while also offering pathways to improved social, economic and environmental outcomes.

Dr. Hendricks is a wonderful colleague and team player with a wealth of academic knowledge, premiere research skills and practical community engagement experience. Having served on many advisory boards myself, and having a long-standing professional relationship with US EPA, I can think of few who I would rather see as a member of the Science Advisory Board than Dr. Hendricks. I encourage you to invite him to contribute to this important work, and please contact me if you have questions or need additional information.

Sincerely,

Jennifer Cotting

Director, Environmental Finance Center
President, Environmental Finance Center Network
University of Maryland, College Park



Gavin Newsom, Governor
Jared Blumenfeld, Secretary for Environmental Protection
Lauren Zeise, Ph.D., Director

May 3, 2021

Holly Stallworth, Ph.D.
Science Advisory Board Staff Office
U.S. Environmental Protection Agency
1300 Pennsylvania Ave NW
Washington DC 20460

Dear Dr Stallworth:

I am writing to support the nomination of Dr Gloria Post of the New Jersey Department of Environmental Protection to the U.S. EPA's Science Advisory Board. My name is Vincent Cogliano, and I worked at the U.S. EPA's Office of Research and Development for more than 25 years between 1985 and 2019, except for an assignment at the World Health Organization from 2003 through 2010. Since 2019, I have been working at the California Office of Environmental Health Hazard Assessment, where I am its deputy director for scientific programs.

I have known Dr Post professionally since the 1990s. She has strong expertise in toxicology and human health risk assessment, including mode-of-action evaluation and risk assessment approaches used by the U.S. EPA. She has a thorough knowledge of current regulatory and policy issues related to human health risk assessment, emerging contaminants, drinking water, and other aspects of environmental protection.

While I was serving as director of the U.S. EPA's IRIS health assessment program, we invited Dr Post to speak at a major IRIS public stakeholder meeting in 2012. I remember that Dr Post had made quite an effort get input from many states for her remarks, and she proved to be a thoughtful and knowledgeable commenter on behalf of her state and other states as well.

Since I began working for the state of California, I have become aware of the role of state environmental agencies in implementing environmental programs and in identifying scientific initiatives to improve environmental protection for their states' residents. Thus, the perspective of scientists with experience in state environmental agencies would provide an important and necessary perspective on the Science Advisory Board, one that differs from those of scientists in the academic, industrial, and advocacy sectors. In this regard, Dr Post would be an excellent choice as a senior scientist from a state environmental agency.

Holly Stallworth, Ph.D.

May 3, 2021

Page 2

Thank you for considering these comments on the nomination of Dr Gloria Post for membership on the U.S. EPA's Science Advisory Board.

Sincerely yours,

VJCogliano

VJCogliano (May 3, 2021 14:54 PDT)

Vincent Cogliano, Ph.D.

Deputy Director for Scientific Programs

Dr. Thomas Armitage
Environmental Protection Agency
Science Advisory Board Designated Federal Officer

2 June 2020

Dear Dr. Armitage:

I am writing to recommend Dr. Jayajit Chakraborty for an appointment as a member of the EPA's Science Advisory Board. I have known Jay for decades, having served as his PhD advisor when he was a student at the University of Iowa in the late 1990s. I have kept in contact with him over the years and am familiar with his career trajectory and ongoing research activity.

Jay has emerged as one of the leading social scientists in North America working in the general area of environmental justice, with a particularly strong set of skills relating to the use of GIScience to address problems in this domain. In addition to his well-developed strengths in environmental justice, one of the topics listed in your invitation for public comment, Jay also has substantial expertise in several other areas listed, including risk assessment, modeling, flood hazards, and statistics. He has a very well-established scholarly presence, publishing in top journals at a high frequency. His work has also been consistently supported by a variety of competitive funding sources.

Jay has also developed as a scholar who has also made strong commitments to service, at both the local and national/professional levels. He has served, for example, in several administrative capacities at USF and UTEP, but of equal importance is the role that he has played and continues to play on NSF panels and as a member of the editorial board of three journals. As such it is safe to say that Jay would provide high levels of service as a member of your SAB.

In addition to having a very strong research and service record, Jay is a very affable, social, well-rounded individual. He is genuinely a nice person who works well with others, willingly assumes responsibilities and enjoys collaboration. In short, he is an excellent faculty member and would make a tremendous addition to your Science Board. I give him my highest recommendation and strongly encourage you to appoint him to this prestigious position.

Sincerely,

Marc P. Armstrong
Professor and CLAS Collegiate Fellow
Department of Geographical and Sustainability Sciences
The University of Iowa



Yale School of the
Environment

Thomas E. Graedel
Professor Emeritus of
Industrial Ecology
195 Prospect Street
New Haven, CT 06511
203.432.9733 Telephone
203.432.5556 Facsimile
thomas.graedel@yale.edu

May 25, 2021

Dr. Thomas Armitage
U.S. Environmental Protection Agency
Washington, D.C.

Dear Dr. Armitage,

This is a recommendation letter for Dr. Jeremiah Johnson, a candidate for membership on EPA's Science Advisory Board. Dr. Johnson was a graduate student under my direction while at Yale University, where he received his Ph.D. in Environmental Engineering in 2007. He was a productive and valuable faculty member at the School of Natural Resources and Environment, University of Michigan, and is now an Associate Professor at North Carolina State University. Because he and I spent considerable time together during his time at Yale, I feel I know him and his abilities quite well.

Dr. Johnson has a broad background in industrial ecology and sustainable engineering. His current research involves wind power, solar photovoltaics, and related topics, generally connected to issues of energy efficiency and energy systems analysis. His class teaching covers these topics regularly as well. He is personable, dedicated, and a good colleague. He has told me that he hopes to be invited to join the SAB.

The EPA call for nominations lists a number of topics for which individuals with appropriate expertise are sought. Dr. Johnson's interest and expertise would fit nicely into such areas as energy and the environment, general engineering, sustainability, and waste management. I feel he would be a valuable member of SAB and I feel he would benefit from the SAB community. I hope you will find it possible to offer him a position on the SAB.

Sincerely,

A handwritten signature in black ink that reads "Thomas E. Graedel".

Thomas E. Graedel

June 4, 2021

Dr. Thomas Armitage (Armitage.Thomas@epa.gov)
U.S. Environmental Protection Agency
Science Advisory Board Office

Re: Recommendation letter for Dr. Joseph Odencrantz

Dear Dr. Armitage:

I am writing to provide my strongest recommendation for Dr. Joseph Odencrantz, who is a candidate for service on US EPA Science Advisory Board. Dr. Odencrantz received his Ph.D. from the University of Illinois at Urbana Champaign in 1992 under my supervision. His Ph. D. dissertation broke new ground in the field of numerical modeling of groundwater contamination processes, since it was the first time that so-called operator splitting numerical methods were used to tackle coupled groundwater flow and reaction processes. This method is now the standard approach in well-known modeling packages developed by the USGS and DOE (e.g., MODFLOW-MT3DMS/RT3D; CRUNCHFLOW). These modeling platforms are widely used by consultants and regulators to support management of hazardous waste sites under various state and federal environmental statutes. Another notable and unique aspect of Odencrantz's graduate training was that he completed all the degree requirements in both our environmental/water quality and hydraulics/hydrology programs.

Following completion of his Ph.D., Dr. Odencrantz worked with a major environmental consulting company in California prior to starting his own independent firm, Tri-S Environmental. I have remained in contact with Joe in the intervening years and continue to be impressed by his success in both the business and technical side of environmental consulting. He has returned to his alma mater on several occasions to present seminars and hold workshops with graduate students about the challenges of real-world work in environmental engineering. In 1998 he was selected by our department's Alumni Association as the recipient of the Young Civil Engineering Alumni Achievement Award, quite an honor as Illinois has the largest number of alumni of any civil engineering department in the nation.

There are many reasons why I believe that Dr. Odencrantz would be an excellent choice for the EPA SAB. His niche as a consultant is in cutting-edge and complex projects, which have required him to fully comprehend the latest research on contaminant fate, transport, and remediation. For example, he was on the vanguard of addressing risk of MTBE contamination in groundwater in his role as consultant for the City of South Lake Tahoe. He was also among the first consultants who recognized the significance of the vapor pathway for volatile organic compound contaminated sites, and he has been a pioneer in development of passive gas monitoring systems. He has a breadth of experience, having also done top-level technical consulting on landslide/dewater forensics, water rights conflicts, oil pipeline failure, and land development.

Unlike many academics, Dr. Odenchantz has direct experience engaging with regulators and stakeholders from industry, local and state government, and the general public. He knows the high-stakes implications of EPA regulations and guidance documents for these stakeholders. He has been heavily involved in several high-profile projects, including the South Lake Tahoe MTBE and Stringfellow Superfund cases. In addition, Odenchantz has never received research funding from the EPA and hence will be widely recognized as an unbiased expert.

Dr. Odenchantz will bring a balance perspective to the SAB and he will be uniquely able to speak to the important real-world implications of issues under consideration. After a long career working with clients, the public, and regulators on real-world projects directly subject to EPA policy, Dr. Odenchantz is eager to serve EPA and contribute to improving its science-based policy decision-making process.

Please feel free to contact me if you have any questions.

Sincerely,



Albert J. Valocchi
Abel Bliss Professor Emeritus

cc: Bryan Bloomer Bloomer.Bryan@epa.gov



June 3, 2021

Dr. Thomas Armitage
Designated Federal Officer
United States Environmental Protection Agency

Dear Dr. Armitage,

I highly support the nomination of Jeremiah Johnson to the US EPA Science Advisory Board.

I worked closely with Jeremiah at the Center for Sustainable Systems at the University of Michigan School for Environment and Sustainability from 2012-2017. I've also known him in various capacities within the industrial ecology community since 2001.

Jeremiah brought invaluable real world expertise from his five years in energy consulting and became an indispensable member of our faculty before departing for NC State. Jeremiah's research in electricity infrastructure modeling is valuable from both a theoretical and practical perspective that would allow for excellent contributions on the EPA SAB. He uses an economic dispatch model to assess the potential environmental impacts of changes to the electricity sector. Given the increasing popularity of state Renewable Portfolio Standards, the challenges associated with integrating renewable energy into the grid, and the shift in natural gas extraction to hydraulic fracturing operations, Jeremiah's work is highly relevant and will continue to be important in the foreseeable future. One of the aspects of his work that I find particularly interesting is determining how increased penetration of fracked natural gas will affect future adoption of renewable energy technologies. He is also conducting innovative work around energy storage that is sure to impact both the academic community, but also have real world impact in the electricity sector. Jeremiah's work has the capacity to explore those types of issues as well as others related to smart grid technologies and other questions related to changing grid infrastructure.

Unlike many of us working in life cycle assessment of energy systems, Jeremiah has practical real-world knowledge that allows him to understand how these systems actually work. Rather than the simplified electricity dispatch assumptions found in many life cycle studies on the electricity system, Jeremiah's work integrates complex modeling techniques to inform more realistic, practical, and useful assessments. As such, he is high demand across the campus and currently collaborates on a number of different sustainable energy projects throughout the university and he has an aptitude to work with individuals from a variety of disciplinary backgrounds.

I've had the opportunity to collaborate with Jeremiah on several research proposals and student projects. Jeremiah is a thoughtful and thought-provoking collaborator, continually trying to find ways to advance the scientific basis of the research.

Finally, Jeremiah is a genuinely likeable individual who is an excellent collaborator and colleague, who I imagine will be highly committed to the overall mission and work of the SAB. He always contributed to faculty discussions in a thoughtful and collegial manner and his opinion is highly respected by the faculty at large. I have no doubt that he would be a highly valuable contributor to the SAB.

Please feel free to contact me with any questions or concerns.

Sincerely,

Shelie Miller
Jonathan W. Bulkley Collegiate Professor of Sustainable Systems
Director, Program in the Environment
School for Environment and Sustainability
University of Michigan



CENTER FOR COLLABORATIVE RESEARCH IN HEALTH DISPARITIES
UNIVERSITY OF PUERTO RICO, MEDICAL SCIENCES CAMPUS
SAN JUAN, PUERTO RICO



May 25, 2021

Dr. Thomas Armitage, DFO
Designated Federal Officer
Office of the Science Advisory Board (SAB)
U.S. Environmental Protection Agency (EPA)
Washington, D.C. 20460

Dear Dr. Thomas Armitage:

As Executive Director and Principal Investigator of the Center for Collaborative Research in Health Disparities (CCRHD, NIH RCMI-Grant U54-MD-007600), I strongly support the nomination of Dr. Edna L. Negrón Martínez as a member of the Science Advisory Board (SAB) of the U.S. Environmental Protection Agency (EPA).

Dr. Negrón Martínez's research activities and tasks in environmental health have been carried on different fronts. She participated in research-related initiatives sponsored by the RCMI-CCRHD at the University of Puerto Rico Medical Sciences Campus for many years applying for grant funding and support, especially those relevant to environmental public health. Worth noted, her research aimed to monitor and assess the risks of exposure resulting from the detection of microbial water indicators and disease-causing microorganisms as a critical function of sanitary and public health microbiology.

Dr. Negrón's recognition among peers can be evidenced by her appointment to the Editorial Board of the Journal for Microbiology and Biology Education of the American Society for Microbiology and the Committee for Items Writing of Public Health Certification Exam of the National Board of Public Health Examiners. During 2012-2015, the Environmental Protection Agency (US EPA) appointed her to the National Environmental Education Advisory Council of the Environmental Protection Agency, EPA Region 2, Representative of colleges and universities.

One of her most recent and important contributions to environmental public health has been the publication of a textbook, "Public Health and the Environment," in December 2018. Dr. Negrón's book is timely as it focuses on the necessity to learn about existing environmental challenges and how they affect individuals and collective actions. She gave special attention to the ecological and health effects of pollution and the role of science education in environmental health. The book also highlights the need for addressing a comprehensive perspective on environmental health sustainability and have received excellent reviews.



CENTER FOR COLLABORATIVE RESEARCH IN HEALTH DISPARITIES
UNIVERSITY OF PUERTO RICO, MEDICAL SCIENCES CAMPUS
SAN JUAN, PUERTO RICO



Dr. Thomas Armitage

Page 2

May 25, 2021

Due to her more than 30 years of demonstrated commitment to environmental teaching, research, and service, as well as her track record in building alliances to develop and implement environmental public health projects, I strongly recommend Dr. Edna L. Negrón Martínez as a member of the Science Advisory Board (SAB) of the U.S. Environmental Protection Agency (EPA).

I have no doubts that she will contribute to the success of SAB's mission and responsibilities.

Sincerely,

Emma Fernandez Repollet 5-25-2021

Emma Fernández-Repollet, Ph.D.
Professor Pharmacology
Former Vice President Research and Technology
University of Puerto Rico System
Executive Director and Principal Investigator
Center for Collaborative Research in Health Disparities
UPR Medical Sciences Campus
Tel: 1-787-763-9401
E-mail: e.fernandez@upr.edu



INDIANA UNIVERSITY
ENVIRONMENTAL RESILIENCE INSTITUTE
Office of the Vice President for Research

May 23rd, 2021

Re: Recommendation for Filippelli to EPA Science Advisory Board

Dear Dr. Armitage:

I am writing this letter in strong support of Gabriel Filippelli's nomination to the Environmental Protection Agency Science Advisory Board. Gabe is a fantastic researcher and colleague and I have no doubt that his service on this board would advance the EPA's mission considerably.

Do not hesitate to contact me if you have any further questions at alexjahn@iu.edu.

Sincerely,

A handwritten signature in blue ink, appearing to read "Alex Jahn", with a stylized flourish at the end.

Dr. Alex E. Jahn
Senior Research Scientist
Environmental Resilience Institute
Indiana University

Congress of the United States
Washington, DC 20515

June 13, 2021

Dr. Thomas Armitage
Designated Federal Officer (DFO), Science Advisory Board
U.S. Environmental Protection Agency Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 1400R
Washington, DC 20460
Via Email: armitage.thomas@epa.gov

Re: Invitation for Public Comment on the List of Candidates for EPA's Science Advisory Board (SAB)

Dear Dr. Armitage:

I am writing to express support for Dr. Crystal Romeo Upperman's consideration as a nominated candidate to the U.S. Environmental Protection Agency's (EPA) Science Advisory Board (SAB). As a member of the House Committee on Transportation and Infrastructure's Subcommittee on Water Resources and Environment, I focus on public health and environmental concerns.

Dr. Upperman has deep knowledge and understanding in Environmental Science, Climate Change, and Public Health and is aware of the considerations necessary to address disparities that environmental decisions have posed for communities. Dr. Upperman has work experience in the public, private and nonprofit sectors—all in support of advancing environmental protection. She brings with her not only the unique experience as a Black woman but also as a scientist with a balanced perspective to think outside the box and bring creative and innovative policy solutions to the EPA's SAB—solutions that can protect human lives and the environment, while addressing climate change.

In 2016 Dr. Upperman joined AECOM, two weeks after defending her doctoral dissertation. Over the course of approximately 4 years, she became a leader in climate change adaptation, helping governments and private companies protect against climate risks. After years at AECOM, the Global Commission on Adaptation (GCA) was launched to galvanize political will and financial investments toward adaptation actions globally. At that time, Dr. Upperman joined the World Resources Institute to lead on scientific research that would shape recommendations around how governments can best prepare for climate risks globally. Her tenure with the GCA provided a first-hand and nuanced view of the global barriers and enablers to addressing climate and environmental problems while working alongside international scientists. Much of the research Dr. Upperman conducted was included in the flagship report *Adapt Now* which was presented at international conferences and received coverage in top-tier news outlets.

Dr. Upperman began her career as a researcher for BASF, in the Environmental Technologies department, where she worked on laboratory research of catalyst coatings used to help vehicles abate to pollution emissions standards. Thereafter, she worked as a regulator in environmental protection for the Georgia Department of Natural Resources, the New Jersey Department of Environmental Protection,

Congress of the United States
Washington, DC 20515

the District of Columbia's Department of Health and the Maryland Department of Health. The four years she spent at the Maryland Department of Health was focused on managing all the research of the state's U.S. Centers for Disease Control and Prevention Building Resilience Against Climate Effects grant. This grant led to the State of Maryland's first Climate and Health Profile Report that evaluated the impact of climate change on the health of Marylanders.

Over the course of her education, Dr. Upperman engaged in many research internships at the U.S. Department of Energy. During her doctoral matriculation she was an EPA STAR Fellow and a National Science Foundation Louis Stokes Alliance for Minority Participation Fellow.

Thank you for your consideration on these important issues and my recommendation in support of Dr. Crystal Romeo Upperman as a candidate to the EPA's SAB.

Sincerely,



Frederica S. Wilson
Member of Congress



June 4, 2021

Zaida I. Figueroa Correa, DrPh, MSc
U.S. Environmental Protection Agency
Office of the Administrator
Science Advisory Board Staff Office
1200 Pennsylvania Ave., NW (MC-1400R)
Ronald Reagan Building (3rd Floor)
Washington, DC 20460

By Email: figueroa.zaida@epa.gov, armitage.thomas@epa.gov

I write today to support the nomination of Dr. Jayajit Chakraborty for the Environmental Protection Agency's Science Advisory Board. Dr. Chakraborty is Professor of Geography in the Department of Sociology & Anthropology, and Director of Socio-Environmental & Geospatial Analysis Lab at the University of Texas at El Paso. He was my colleague at USF for several years prior to joining the UTEP faculty in 2015.

Dr. Chakraborty has emerged as a leading researcher examining the effects of pollutants, weather and other natural events on the health of human populations, combining environmental science, geography and spatial analysis to provide a comprehensive synthesis of these phenomena. He is a very prolific researcher, both on his own projects and when working collaboratively, and he would be a valuable asset to the Scientific Advisory Board.

I strongly endorse his nomination, and would be happy to provide additional details if needed.

Sincerely,

A handwritten signature in black ink that reads "Russell S. Kirby". The signature is written in a cursive style and is positioned above the printed name.

Russell S. Kirby, PhD, MS, FACE

Distinguished University Professor and Marrell Endowed Chair
Strategic Area Faculty Lead for Population Health Science • College of Public Health
University of South Florida • 13201 Bruce B. Downs Blvd., MDC56 • Tampa, FL 33612-3805
(813) 396-2347 • Fax (813) 974-7830 • Email: kirbyr@usf.edu • www.publichealth.usf.edu



June 6, 2021

Dr. Thomas Armitage, DFO
Designated Federal Officer
Office of the Science Advisory Board (SAB)
U.S. Environmental Protection Agency (EPA)
Washington, D.C. 20460

Dear Dr. Armitage,

It is with great pleasure; I write to express my support to Dr. Edna L. Negrón to be considered to the Science Advisory Board (SAB) of the Environmental Protection Agency. Dr. Negrón is currently a Regular Scientific Member of the Institutional Review Board (IRB) of the University of Puerto Rico, Medical Sciences Campus, after being reappointed by the Chancellor's Office in November 2020.

Dr. Negrón, formerly served and was also reappointed twice from 2012 to 2017. She contributes to the Committee Meetings (virtual) with her in-depth analysis of research protocols, and timely presents her online platform reviews. Her evaluation and recommendations on the virtual meetings welcome hearing other members' comments and the committee's final decisions on approvals. Her performance has been very professional and ethical. It has been a pleasure working with her and other scientific and non-scientific members in the IRB.

Negrón-Martínez holds a seasoned career as a professor and researcher of environmental public health; advisor of graduate student's thesis projects; author of published and unpublished research papers; lecturer and organizer of public health workforce training; and consultant services to higher education councils in environmental public health. Also, have the expertise as a peer reviewer of scientific journals to assess and evaluate the whole product: purpose, focus, coherence, and manuscript organization.

Therefore, I have no doubt that Dr. Negrón will go a long way in contributing to the SAB with a comprehensive viewpoint sustained with her formal education and experience in environmental health and pioneering relevant biosocial sciences projects during her academic career.

It is an honor and privilege to support Dr. Negrón in her interest of being part of SAB of the Environmental Protection Agency. I wish her all the best.

Sincerely,



Marta Rivero Méndez, RN, DNS, GCG
Professor of Nursing
University of Puerto Rico
School of Nursing
Graduate Department
Chair
Institutional Review Board-Committee 1
Medical Sciences Campus
Email: marta.rivero1@upr.edu



Dr. Thomas Armitage
Designated Federal Officer
U.S. EPA

Munich 8 June 2021

Dear Dr. Armitage,

I understand that Shanti Gamper-Rabindran has been nominated as a candidate to the EPA Science Advisory Board. I am writing this letter in strong support of this nomination. Dr. Gamper-Rabindran is a meticulous scholar with a deep understanding of U.S. and global energy and climate policy. She is also an ardent defender of science in environmental policy making.

Prof. Gamper-Rabindran and I have worked together in the past. At her invitation I have lectured about German and European climate policies at the University of Pittsburgh and participated in an edited book project which she led comparing different national perspectives on fracking. I also invited Prof. Gamper-Rabindran in 2017 and again in 2018 to lecture on her book project, *The Shale Dilemma*, at the Technical University of Munich, where I am Professor of Environmental and Climate Policy and Dean of Studies.

I also wrote a review of her book, *America's Energy Gamble: How Oil and Gas Expansion Risks the Economy, People and Planet*, for Cambridge University Press. I provide some excerpts from my review:

I would strongly urge Cambridge UP to publish this manuscript. It is excellent. It addresses issues which are at the heart of US politics, including energy policy, US domestic and foreign climate policy, the role of science versus the role of lobbying in political decision making, and the future of democracy in the US. In its critique of energy policy making, especially under the Donald Trump administration, the manuscript sounds alarm bells regarding recent efforts to discredit science and scientific establishments in the interest of oil and gas firms and at the cost of people (health and democracy), planet (wilderness, oceans, and climate), and economy (short-term profits at the expense of long-term stability).

The manuscript is very well researched, data and arguments are meticulously cited, there is a clear red line of argumentation, and the issues are at the core of US politics. Oil and gas politics are still the dominant sources of US energy consumption



and successive governments have supported fossil fuel exploration. Yet, no government (as that under Donald Trump) has been so blatant not only in its disregard of scientific warnings regarding the climate impacts, air pollution, and offshore pollution linked to fossil fuel exploration, extraction, and use, but also so intent to dismantle rules and institutions designed to protect people and planet....

While many readers may know this general story, this manuscript acts like a detective novel, going behind the scenes to show how individual politicians, conservative think tanks, and political appointees to administrative positions have been chipping away at laws and regulations established by earlier administrations and based on the advice of scientific expert groups....

In today's era of populism, nationalism, and post-truth politics, it is hard to argue against a book that is concerned about maintaining a role for objective science in decision making processes, worried about the long-term impacts of the Trump administration's energy and anti-science policies, and issuing a cry to society to recognize what is happening around them.

Prof. Gamper-Rabindran is a prolific scholar, who publishes in top level presses. She is internationally networked and has organized several international environmental conferences. She also has the breadth that one would like to see in a science advisor. She deals with a range of environmental and energy issues and different regulatory and incentive-based policy approaches. In addition to her work on the politics of fossil fuels and climate change, she has led projects on industry self-regulation in the chemical sector and Superfund remediation.

I enthusiastically recommend Prof. Gamper-Rabindran to you. She will make an excellent Science Advisor.

Sincerely,

Miranda A. Schreurs
Professor of Environmental and Climate Policy
Dean of Studies, TUM School of Governance

June 8, 2021

Designated Federal Office
U.S. Environmental Protection Agency (EPA)
Science Advisory Board (SAB)
Staff Office
Attn: Dr. Thomas Armitage
Re: Candidates for the Environmental Protection Agency's Science Advisory Board

Dear Dr. Armitage:

Thank you for the opportunity to submit comments on the list of nominees to serve on the EPA's Science Advisory Board. In a strong personal and professional show of confidence in her leadership and technical knowledge, it is my measure to submit this letter of comment to support the nomination of Dr. Tracy Corely to serve on the SAB. As a political economist and law and public policy scholar, Dr. Corely has extensive knowledge of and experience leading research to examine the connections between the natural and built environments, climate change, and environmental injustice, and population health.

It is my strong belief that Dr. Corely will bring a wealth of knowledge and a valuable perspective on the importance of diversifying the mix of research methodologies used to conduct research that informs critical climate justice and equitable climate adaptation policies, plans, and strategies. In her roles as the Director of Reserach and Partnerships at the Conservation Law Foundation (Boston, MA), Transit-oriented Development Fellow at MassInc (Boston, MA), and in her international work in Germany, Dr. Corely utilized and advocated for the broad use of diverse research methodologies and approaches to environmental research that foster greater civic participation in research and translation of findings into policy and action. With deep experience in the application of citizen science, qualitative methods, ethnography, legal analysis, and participatory action research to climate-related issues, I believe Dr. Corely is a well-fit candidate for the SAB.

Sincerely,



Vedette R. Gavin MPH, MPA
Verge Impact Partners
Principal Consultant and CEO
vedette@vergeimpactpartners.com

UNIVERSITY OF ILLINOIS
AT CHICAGO

College of Medicine
Department of Urology (MC955)
820 S. Wood Street
Chicago, IL 60612-7316

Gail S. Prins, PhD
Michael Reese Professor
of Urology and Physiology

June 6, 2021

I post this commentary in strong support of Dr. Patricia Morris as a member of the EPA Scientific Advisory Board (SAB). I have known Dr. Morris on a professional basis for the past 25 years through interactions in the fields of environmental health and reproduction, scientific review panels and committees as well as lectures and presentations at national scientific meetings. Dr. Morris is a first rate scientist who is held in the highest regard by all of her colleagues around the world. Her basic research programs over the years have identified key regulatory pathways and transcription factors that control spermatogenesis, Sertoli cell and Leydig cell function and testicular homeostasis at the cellular and molecular levels. These studies include seminal findings with regards to Jak-Stat signaling, IFN γ actions, Trf2 function, small RNAs, SUMO proteins and chromatin compaction during spermatogenesis in cell and stage-specific manners. Her publications on these detailed findings appear in well-respected journals including *Science*, *Nature*, *Endocrinology*, *Genes & Development*, *Developmental Biology* and *Cancer Research*. Importantly, Dr Morris' research has been exceptionally well funded over the course of her career and includes multiple R01 grants, training grants, and two U54 Center grants as a principal investigator. These achievements attest to her outstanding scientific capabilities and the highest level of regard for her work by external scientific reviewers. Importantly, these awards include multiple collaborations with several scientists which documents her research credibility and leadership capabilities will advise her decisions as a member of the EPA's SAB.

Of equal importance to her position as a key SAB member at the EPA, Dr. Morris' leadership positions are particularly noteworthy and meritorious and include current President of FASEB, and previous role as the Executive Director for R&D and Biomedical Research, the Population Council at Rockefeller University. In that capacity, Dr. Morris provided strong direction and oversight as she guided the Council in its promotion of reproductive health and contraceptive development on a global scale. She traveled the continents, particularly in third-world nations, to train fellow scientists, build reproductive health centers and develop scientific programs at numerous institutes. She has mastered interactions with politicians and enabled several R&D and funding opportunities in the countries that she visited. She currently serves as a consultant for reproductive issues for World Health Organization. Her work on the role of environmental exposures and climate change as they affect reproductive health and her current involvement with GeoHealth initiatives place her in a *unique and critical position for the EPA to provide necessary input and expertise on the role of environmental factors that impact reproductive outcomes in the United States and worldwide*.

Thank you for your consideration,



Gail S. Prins, Ph.D.
Michael Reese Professor, College of Medicine and School of Public Health, UIC
Co-Director, Chicago Center for Health and Environment (NIEHS P30 Center)



Weill Cornell Medicine

Department of Urology

Dolores J. Lamb, Ph.D.

Dow Professor of Urology

Vice Chair for Research, Department of Urology

Director, Center for Reproductive Genomics

Sunday, May 30, 2021

Dr. Thomas Armitage
Designated Federal Officer
United States Environmental Protection Agency
Email: armitage.thomas@epa.gov

RE: Comments on Dr. Patricia L. Morris, Candidate for Appointment to the EPA's Scientific Advisory Board

Dear Dr. Armitage:

I am delighted to write this letter of support for Dr. Patricia Morris' candidacy for a position on the EPA's Scientific Advisory Board (SAB). I can think of no better candidate for this position than Dr. Morris.

I am quite familiar with Dr. Morris' career, as I served with her on various NIH, NIEHS, DOD and foundation grant review panels, as well as a World Health Organization Expert Panel on the development of Infertility guidelines for use throughout the world, but specifically targeting the needs for access to reproductive care (male and female) in under-developed areas. Certainly, I also know her because of her strong work in andrology and contraceptive research, specifically focused in the areas of spermatogenesis, environmental impacts, global health and challenges in population needs in reproductive health. In recognition of her expertise and attesting to her leadership skills, Dr. Morris is the incoming President of Federation of American Societies for Experimental Biology (FASEB, July 2021), and immediate past Vice President for Science Policy. In recent years, she was appointed to the International Federation of Fertility Societies (IFFS), an exclusive leadership group that has profound impacts again focusing on global health issues in reproductive medicine and biology, including significant environmental impacts on this health issue. She also has held leadership positions in the American Society of Andrology.

Dr. Morris was an experienced leader of a large research team at the Population Council and faculty at Rockefeller U. This team is the Biomedical Research group. The group is divided into two working groups—one team focused on development of technologies and products aimed at preventing HIV transmission and the second on contraceptive development. The two teams currently work together on development of a contraceptive ring that also provides dual protections against HIV transmission and other infectious agents. The biomedical research team that she headed has a broader approach with more basic research investigations on controls of spermatogenesis and identification of new contraceptive targets (male—such as adjuvant/Sertoli cell blood testis barrier and female which is more developed and applied with studies on potential agents and their off-target effects as well). Dr. Morris had primary, day-to-day responsibility for the leadership serving as a Director of the long-funded U54 Contraceptive Center grant award to the Population Council, as well as serving as a Project and Core leader. She brings unique knowledge of health policy. Importantly, she is experienced working for the research mission of the institution which she has done tirelessly for the FASEB and the Endocrine Society. She is comfortable going to Capitol Hill (in D.C.) visiting congressmen and women, Senators and their staff discussing not only funding needs but basic health policy matters. She certainly communicates effectively to the public as well as the private sector and state and local sources as well on the need for continued and increased support for the research mission.

Her own research focused on the impact of environmental agents, chemicals and inflammatory cytokines in both male fertility regulation and infertility. Her studies used both in vivo (human testicular tissues) and in vitro models with human drosophilia and rodent models of spermatogenesis. She was consistently funded for these studies for 30 years by the NIH.

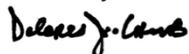
Her strengths include her broad training in pharmacology, physiology, molecular and cellular biology, endocrinology and men's health. She is highly respected in the fields of Andrology and Reproductive Toxicology and this has led to her service to the World Health Organization on Male Infertility guidelines (a panel that I also served on), as a superb peer reviewer and NIH and NIEHS study sections and as study section chair for a number of years and more recently on a number of initiatives focused on geohealth and the environment, diversity and equity inclusion and health disparities.

Dr. Morris has not only shown strong leadership skills, she has elicited change in the teams and committees she led as evidenced by the substantial successes at the professional society levels of large scientific groups, for both the contraceptive and HIV teams (grants, product development, advancements to clinical trials) and her own personal success with grants and large grant applications. She changed reporting structures, required interactive group interactions and team building exercises. The groups and committees became far more cohesive and synergistic under her guidance and oversight and/or membership. She also successfully fought for fair salaries for the team members, as well as fair distribution of research funds from the foundation endowment (which had been heavily directed towards the social scientists' activities at the Council). Her high level of integrity and quality serves as a role model to others.

As I mentioned, some of her most significant and unique strengths are in the areas of scientific interactions (at all levels), advocacy (with members of Congress and the senate, political action) and her interactions with her peers and committee members, as well as with all members of the team, from the technical and administrative staff to the more senior leadership. She is mindful of the need for rigor and reproducibility in research- a significant need in the area of environmental research areas given the challenges with relating an exposure or toxicant to a physiological or phenotypic consequence. I will also address her one minor weaknesses. Dr. Morris is very task driven and determined to achieve all her goals (this is a strength), manages an enormous workload, but she works tirelessly in her quest and can be very directed and focused on her challenges. You will find her working at all hours of the day, night and weekends as working through these leadership responsibilities and her research are her passion in life, perhaps to the detriment of her free time. She loves her work! She has a supportive husband (I met him at an ASRM conference in Hawaii) so this isn't a problem for home life but her life's focus, aside from her family, is on her work responsibilities. I am not certain that Scientific Advisory Board is directly impacted by this type of positive time commitment to work goals, administration and science, but rest assured that the Environmental Protection Agency and this SAB committee will certainly benefit hugely from her work ethic.

I have tried to provide my thoughts on the issues I thought were germane to finding the best candidate(s) to fill the position(s) on the EPA's SAB. If you need any additional information I would be delighted to discuss this by phone if you have additional questions concerning Dr. Morris' qualifications for this position. I think that the EPA's SAB will benefit greatly from recruiting Dr. Morris, as individuals of her caliber and broad scope of expertise are difficult to find and attract to these types of positions. She is superb. Many thanks for allowing me the opportunity to provide my thoughts to you.

Sincerely,



Dolores J. Lamb, Ph.D.

June 5, 2021

Mr. Thomas Armitage
US EPA Science Advisory Board staff
1200 Pennsylvania Ave., NW
Washington D.C. 20460

RE: Support for the appointment of Deborah Smith to the EPA Science Advisory Board

Mr. Armitage:

I am writing to recommend the appointment of Deborah Smith to the EPA Science Advisory Board. Deborah has over 30 years of distinguished service at the CA Regional Water Quality Control Board where she rose through the managerial ranks to the Executive Officer position. The Los Angeles Regional Board serves a dense and diverse urban population of 11 million people, a complex mix of industries (from several oil refineries to thousands of small plating shops), and as such, demands cutting-edge technical and policy solutions to safeguard its world-class coastal watersheds.

As the Governor-appointed Regional Board chairman and member supervising Ms. Smith, I worked with her extensively during my 10- year tenure on the Board and was always impressed by her knowledge and insight. She is quite exceptional in her ability to navigate very technical issues, given her education and experience in biological and ecosystems management while at the same time managing a large staff developing permits, policies and other products from the many Clean Water Act programs. At the highest levels of management at the Water Board, she engaged with other stakeholders in public meetings and workshops about highly technical issues. Her facility with understanding the technical and political complexities, coupled with her ability to discern the connections across all programs, made her a true water quality visionary in California.

Ms. Smith was highly respected by the Water Board members, staff, and myriad stakeholders in both the regulated and environmental arenas. She worked effectively with all parties while developing progressive water quality plans and policies. In 2000, she was asked to represent California and the EPA Region 9 area for ACWA (formerly ASWIPCA, comprising water quality leaders from each state) and other EPA national workgroups focused on the complexities of Water Quality Standards.

I believe that she would bring a very valuable perspective to the SAB given her breadth and depth of experience in water quality protection.

Regards,

H. David Nahai

President, David Nahai Companies
Former General Manager and Commission President of the Los Angeles Dept. of Water and Power
Current member and four-time Chair of the CA Regional Water Quality Control Board
Former Senior Advisor to the Clinton Climate Initiative

Sent via Email

June 8, 2021

Dr. Thomas Armitage
Designated Federal Officer
Science Advisory Board
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Reference: Science Advisory Board Nomination
Dr. Joseph Odencrantz, P.E.

Dear Dr. Armitage:

Thank you for the opportunity to comment on the candidates being considered for service on the USEPA Science Advisory Board. I am writing to support the nomination of Dr. Joseph E. Odencrantz for selection as a member of the Board. I strongly believe that Dr. Odencrantz is singularly capable of providing outstanding analysis, advice, and recommendations related to the review of research plans and programs as well as the review of scientific and technical information used as the basis for USEPA regulations. His experience and knowledge would enable him to contribute sound and beneficial advice to the USEPA on a broad field of scientific matters.

Dr. Odencrantz has a strong educational background and extensive experience with environmental projects and initiatives in both the public and private sectors. He is nationally recognized as an expert in environmental matters, and new and innovative environmental solutions. As such, he keeps pace with the current academic literature and state of the art techniques. He is also well versed in relatively new environmental concerns, such as emerging contaminants. The work undertaken by Dr. Odencrantz throughout his career often required and continues to require a great deal of research and document review, particularly for expert testimony preparation. Further, his thorough research efforts have resulted in a number of published works and have enabled him to advise government agencies both in the United States and abroad. This experience and the nature of his work history and efforts make him uniquely qualified to serve on the Science Advisory Board. I am certain the Science Advisory Board and the USEPA would benefit significantly from his professional knowledge and abilities.

For these reasons and because I have no doubt that Dr. Odencrantz would be a dedicated and committed member, I urge you to choose him for membership on the Science Advisory Board.

Thank you for your time and favorable consideration.

Sincerely,

SADAT ASSOCIATES, INC.



Lahbib Chibani, Ph.D., P.E.
President

c. Dr. Bryan Bloomer, via email



June 9, 2021

**Comments from the
Natural Resources Defense Council
On the FY22 Candidates for the
EPA Chartered Science Advisory Board**

Submitted by email to Dr. Thomas Armitage, Designated Federal Officer, at armitage.thomas@epa.gov

In a Federal Register Notice on April 1, 2021 (Vol. 86, No. 61, 17148-9) EPA invited nominations of experts for the EPA Science Advisory Board (SAB). On May 19, EPA invited public comments on the list of 351 candidates, due by June 9th, 2021.¹ We appreciate the opportunity to provide comments in advance of the selection of members to the SAB. The Natural Resources Defense Council (NRDC) has no direct or indirect financial or fiduciary interest in the manufacture or sale of any chemical or methodology that would be the subject of the deliberations of this Committee.

Background

The SAB is a scientific/technical advisory committee. The objective of the SAB is to provide independent advice and peer review on the scientific and technical aspects of environmental issues to the EPA's Administrator. For the Agency to accomplish its mission to protect human health and the environment, members of the community that review its regulatory priorities and health concerns must not benefit financially from lax or failed environmental safeguards. We respectfully remind the Agency of its duty under the Federal Advisory Committee Act (FACA) to transparently vet financial conflicts of interest that bias panel members toward undervaluing scientific evidence of health harms or adverse environmental impacts.

¹ Text of Federal Register Notice:

<https://www.govinfo.gov/content/pkg/FR-2021-04-01/pdf/2021-06647.pdf>

Candidates and biosketches here:

[https://yosemite.epa.gov/sab/sabproduct.nsf/0/8DA79C5C3D6F8A4C852586A1005DEE46/\\$File/shortlist%20bios%20FY22%20w.memo-5.19.21post.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/0/8DA79C5C3D6F8A4C852586A1005DEE46/$File/shortlist%20bios%20FY22%20w.memo-5.19.21post.pdf)

Include representatives from labor unions, environmental justice groups, and environmental health advocacy organizations.

The SAB would benefit greatly from members with first-hand knowledge and experience in the way that workplaces and communities experience the issues, policies, and subjects that are the deliberations of the SAB. These include for example workers, union health and safety representatives, industrial hygienists, nurses, community health experts, and social scientists. It also includes tribal representatives, environmental justice representatives, and spokespersons for susceptible populations. Experts that may lack the privilege of formal academic degrees bring a field expertise that is tremendously valuable to ground-truth EPA policies and practices.² NRDC recommends that EPA include community experts on the SAB. EPA already recognizes this; for example, EPA supports citizen science projects with several tools including public databases, sensors and monitors, information and training.³

From the list of candidates identified by EPA, we recommend the following nominees:

Environmental Justice expertise and perspectives:

Baptista, Ana	Morello-Frosch, Rachel	Wilson, Sacoby
Hendricks, Marccus	Pullen Fedinick, Kristi	
Hollis, Adrienne	Upperman, Crystal	

Environmental and Occupational Health expertise and perspectives:

Ashford, Nicholas	Dunnick, Jane	Nachman, Keeve
Baptista, Ana	Finkel, Adam	Portier, Christopher
Bennett, Deborah Hall	Goldman, Gretchen	Pullen-Fedinick, Kristi
Bernstein, Aaron	Hattis, Dale	Samet, Jonathan
Blumberg, Bruce	Hayes, Tyrone B	Shonkoff, Seth
Bucher, John R	Heiger-Bernays, Wendy J	Sinks, Thomas
Chen, Aimin	Landrigan, Philip	Thorne, Peter
Chiu, Weihsueh	Lanphear, Bruce	Torres, Gerald
Cory-Slechta, Deborah	LeBlanc, Gerald	Woodruff, Tracey
Cote, Ila	Leung, Angela	

² Anderson, B.E., Naujokas, M.F. and Suk, W.A., 2015. Interweaving knowledge resources to address complex environmental health challenges. *Environmental health perspectives*, 123(11):1095-1099.

³ <https://www.epa.gov/citizen-science>

We note that the list of 351 candidates still lacks representatives with many of these critical perspectives, and encourage EPA to continue to expand participation on the SAB to experts in these fields.

In particular, the inclusion of labor and environmental justice representatives must be expanded significantly. Communities of color, low-income communities, and Indigenous communities face greater environmental and health hazards compared to communities with more white or affluent people. Low-income, Indigenous, Black, and/or other populations of color are also more likely to lack access to health care facilities, healthy food, and adequate formal education opportunities.

The White House Executive Order 13990 issued in January 2021 specifically instructs federal agencies to:

"... listen to the science; to improve public health and protect our environment; to ensure access to clean air and water; to limit exposure to dangerous chemicals and pesticides; to hold polluters accountable, including those who disproportionately harm communities of color and low-income communities; to reduce greenhouse gas emissions; to bolster resilience to the impacts of climate change; to restore and expand our national treasures and monuments; and to prioritize both environmental justice and the creation of the well-paying union jobs necessary to deliver on these goals."⁴

The SAB must be composed of experts – such as the individuals we are supporting, above – that can advise EPA as it moves forward with effective and timely implementation of E.O.13990.

Conflicts of interest for *ad hoc* panel members must be publicly disclosed and minimized

The scientific credibility of the EPA is damaged by committees with real or perceived bias

The mission of the SAB is to provide credible and independent scientific analysis and advice to the EPA. Panels whose members have conflicts of interest, or a strong bias toward the perspective of regulated industries, undermine the credibility of the Agency. EPA should protect its objectivity, integrity, independence, and competence as its most valuable asset. The scientific credibility of the Committee and the EPA is damaged by panels with real or perceived bias.

EPA committees must be composed in order to ensure that industry bias is publicly disclosed, minimized, and eliminated if possible.

The Federal Advisory Committee Act (FACA) imposes requirements on agencies when they establish or utilize any advisory committee, defined as a group of individuals including at least one non-federal employee which provides collective advice or recommendations to the agency.⁵ When an agency seeks to obtain such advice or recommendations it must ensure the advisory

⁴ Executive Order 13990: Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis. January 20, 2021

<https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-protecting-public-health-and-environment-and-restoring-science-to-tackle-climate-crisis/>

⁵ 5 U.S.C. App. II, § 3(2)

committee is, "in the public interest"⁶ is, "fairly balanced in terms of points of view represented and the function to be performed,"⁷ and does not contain members with inappropriate special interests.⁸

Need for transparent and effective disclosure policies

EPA must strictly enforce its own ethics policies regarding disclosure and financial conflicts.⁹ Effective disclosure policies play an essential role in protecting EPA and committee work products. If such interests are discovered later, it may seem that either the EPA or the individual was intentionally hiding this information from the public, thereby casting doubt on the Committee's work products, and on EPA's ability to identify conflicts and enforce its own policies.

The following nominees with financial interests should be excluded

Advocates for the industry and regulated perspective are over-represented in EPA's list of 2017 candidates,¹⁰ and could be over-represented in the final panel composition. The financial interests of candidates must be fully disclosed so that EPA and the public can accurately assess the candidate's perspectives, biases and financial conflicts. Committee membership should exclude experts with financial interests.

Belzer, Richard	Cox, Louis Anthony (Tony)	Mundt, Kenneth
Bus, James	Dourson, Michael	Paustenbach, Dennis
Clewell, Harvey	Erraguntla, Neeraja	Sahmel, Jennifer
Clewell, Rebecca	Jayjock, Michael	

While we do not seek to disparage the qualifications or personal reputations of the above listed candidates, NRDC opposes the following individuals due to their financial interests tied to the regulated industries that could be directly impacted by the deliberations of this Committee.

Below, we provide some details and evidence of direct financial conflicts for the above industry nominees:

Belzer, Richard - Dr. Belzer is a frequent consultant and collaborator with the regulated chemical industry. Although his bio says that he is a "regular contributor to scholarly professions through journal peer review and service to professional societies" he seems to have very few actual publications. A search on PubMed, the NIH library of over 10 thousand scientific and medical journals, turned up only three publications with his name in the last fifteen years.¹¹ In addition

⁶ id. App. II, § 9(2)

⁷ id. § 5(b)(2)

⁸ id. § 5(b)(3).

⁹ <https://yosemite.epa.gov/sab/sabproduct.nsf/Web/ethics?OpenDocument>

¹⁰

[https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebProjectsCurrentBOARD/09ED9DB7B1C5BFF18525814B00711533/\\$File/SAB%202017%20biosketches%20LOC%20post%2009062017.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebProjectsCurrentBOARD/09ED9DB7B1C5BFF18525814B00711533/$File/SAB%202017%20biosketches%20LOC%20post%2009062017.pdf)

¹¹ <https://www.ncbi.nlm.nih.gov/pubmed/?term=Belzer+RB+%5Bau%5D>

to his lack of scientific presence, Dr. Belzer's clients include Exxon Mobil, the American Chemistry Council, and California Manufacturing Technology Association according to his previous SAB bio, under the Trump EPA.¹² However, his current SAB bio fails to identify any clients at all. Instead, it contains this statement, "In 2021, he is working on methods to implement within regulatory impact analysis recent presidential directives concerning distributional effects and environmental justice," but fails to disclose the client that is funding this work. In any case, Dr. Belzer's work is in the service of chemical manufacturers and polluting industries, as is made clear by his disclosure of clients in his bio submitted to EPA under the Trump Administration.

Bus, James - Frequent consultant and collaborator with the regulated chemical industry. Employed by Exponent, Inc, whose clients include many regulated chemical manufacturers and users. Exponent has a portion of its practice dedicated to "Chemical Regulation and Food Safety" where it promises its clients, "high-quality, creative, and practical solutions to problems that affect our clients' ability to conduct business globally", including access to its staff of "technical and regulatory consultants."¹³ The Exponent website says, "We assist chemical manufacturers, pesticide registrants, grower/commodity groups, and trade associations in dealing with issues that affect their ability to do business effectively...We specialize in resolving difficult pesticide and non-pesticide issues involving the U.S. EPA..."¹⁴ All these client services are directly financial impacted by EPA actions and SAB deliberations. That is, weakening or avoiding EPA regulations would directly financially benefit Exponent's clients; placing Exponent staff on the SAB provides a means for Exponent to deliver on these promises to their industrial clients.

Clewell, Harvey – We appreciate that Dr. Clewell's SAB biosketch discloses a number of his funding sources, including many industry clients: 3M, ACC, Afton, Bayer, Denka, Dow Corning, DuPont, EPRI, Johnson and Johnson, Pfizer, Procter and Gamble, Syngenta, Unilever. These corporations make the chemical products that are regulated by EPA. The regulated industry, and its industry consultants like Dr. Clewell, have financial conflicts – direct and indirect – that should prevent them from service on the SAB.

Cox, Louis Anthony. Dr. Cox's appointment to the Trump EPA's Clean Air Science Advisory Committee was widely criticized by environmental and public health experts, including NRDC.¹⁵ The Center for Public Integrity reported in 2017 that, "Since 1988, Cox has consulted for the American Petroleum Institute, a lobby group that spent millions to dispute the cancer-causing

¹² https://www.eenews.net/assets/2017/09/08/document_gw_03.pdf

¹³ <https://www.exponent.com/services/practices/environmental-sciences/chemical-regulation--food-safety/?servicelId=0546eed8-a627-4fed-b360-0de396c65f96&loadAllByPageSize=true&knowledgePageSize=3&knowledgePageNum=0&newseventPageSize=3&newseventPageNum=0>

¹⁴ <https://www.exponent.com/services/practices/environmental-sciences/chemical-regulation--food-safety/capabilities/chemical-regulation-and-technical-support/chemical--regulatory-support-services-overview/?servicelId=8a534e4f-b0c7-432d-ae89-e24023bd0ccf&loadAllByPageSize=true&knowledgePageSize=3&knowledgePageNum=0&newseventPageSize=3&newseventPageNum=0>

¹⁵ <https://www.nrdc.org/trump-watch/guy-leading-epas-review-air-pollution-standards-little-too-cozy-oil-and-gas-industry>

properties of benzene, an ingredient in gasoline, and is now working to discredit the science on smog-causing ozone. He's also testified on behalf of the chemical industry and done research for tobacco giant Philip Morris."¹⁶ Mr. Cox's financial conflicts should eliminate him from serving on the SAB.

Dourson, Michael – Dr. Dourson, a long-time industry consultant, was a short-lived and highly contentious Trump nominee to EPA, but ultimately withdrew his nomination when it was opposed by both Democrats and Republicans, based on his industry-favorable chemical assessments. Senator Tom Carper summed up his position: “Dr. Dourson, an individual who has spent most of his career promoting less protective chemical safety standards, had no business overseeing our nation’s chemical safety laws”.¹⁷ Mr. Dourson, like many industry consultants, also works on government contracts, sometimes on the same chemicals, or on methods or policies that have a bearing on interests of both the regulators and the regulated entities. Emails from Dr. Dourson that were reported in the New York Times reveal that his work paid for by the regulated chemical industry and its trade association, American Chemistry Council (ACC), is used by Dr. Dourson to recommend weaker pollution standards to regulators.¹⁸ For example, in two paper funded by PPG industries on 1,4-dioxane, Dr. Dourson recommends a ‘safe’ level in drinking water that is 1,000 times weaker than EPA’s guideline.¹⁹ Emails about the chemical analyzed by Dr. Richard Denison at Environmental Defense Fund, revealed that Dourson then promoted his industry-funded 1,4-Dioxane paper in meetings requested by the state of Kentucky, followed by a request to ACC that it make a donation to support his work.²⁰ In short, Dr. Dourson’s financial conflicts, both direct and indirect, are too extensive for him to meet the conflicts of interest standards to serve on the SAB.

Erraguntla, Neeraja - Employed by the American Chemistry Council (ACC), the trade organization for the world’s largest chemical manufacturing companies including ExxonMobil (see nominee Jeffery Lewis), Dow, DuPont and BASF. The ACC and its member companies have a direct and very substantial financial interest in weakening, eliminating, or preventing EPA policies and regulations that would safeguard human health and the environment from toxic industrial products and pollution. For example, EPA enforcement actions in 2014 targeted Shell and DuPont – both ACC members²¹ - for dangerous air toxics released during industrial flaring at their refineries and chemical plants; this was noted to be particularly harmful to the health of

¹⁶ <https://apps.publicintegrity.org/united-states-of-petroleum/venue-of-last-resort/>

¹⁷ <https://www.washingtonpost.com/news/energy-environment/wp/2017/12/13/facing-senate-rejection-controversial-pick-to-head-epa-chemical-office-bows-out/>

¹⁸ <https://www.nytimes.com/2017/12/13/science/epa-chemical-safety-trump.html>

¹⁹ Dourson M, Reichard J, Nance P, Burleigh-Flayer H, Parker A, Vincent M, McConnell EE. Mode of action analysis for liver tumors from oral 1,4-dioxane exposures and evidence-based dose response assessment. *Regul Toxicol Pharmacol.* 2014 Apr;68(3):387-401. doi: 10.1016/j.yrtph.2014.01.011. Epub 2014 Feb 1. PMID: 24491968.

Dourson ML, Higginbotham J, Crum J, Burleigh-Flayer H, Nance P, Forsberg ND, Lafranconi M, Reichard J. Update: Mode of action (MOA) for liver tumors induced by oral exposure to 1,4-dioxane. *Regul Toxicol Pharmacol.* 2017 Aug;88:45-55. doi: 10.1016/j.yrtph.2017.02.025. Epub 2017 Mar 30. PMID: 28366800.

²⁰ Richard Denison (2017) <http://blogs.edf.org/health/2017/12/21/dourson-emails-show-he-was-paid-by-and-worked-closely-with-acc-when-providing-states-advice-on-chemicals-made-by-acc-members/>

²¹ <https://www.americanchemistry.com/Membership/MemberCompanies/>

minority and low-income communities living nearby.²² ACC member company Arkema Inc²³ made national news after it had explosions and toxic chemical spills associated with the flooding from Hurricane Harvey in Texas, initiating an investigation by the Chemical Safety Board.²⁴ Weakening EPA rules and regulations would bring an immediate and substantial financial benefit to these chemical companies and other ACC members.

Jayjock, Michael – Jayjock Associates, founded by Michael Jayjock in 2011, discloses his consulting company's current client list as including "specialty chemical companies," Dow Chemical Company, Ciba-Geigy Chemical Corp, and several corporate defense law firms.²⁵ It is foreseeable that many issues taken up by the SAB will be of direct financial interest to the Jayjock Associates client list.

Mundt, Kenneth – Dr. Mundt, a consultant with Cardno ChemRisk, has a long history of generating product defense documents for polluting industries. The Hill reported that, "Mundt has worked to defend hexavalent chromium — the contaminant at play in the Erin Brockovich film — as well as formaldehyde and chloroprene, used in the production of synthetic rubber neoprene. Each has been linked with various types of cancer."²⁶ Currently, he is generating science in the service of Denka Performance Elastomer, whose facility in La Place, Louisiana, known as 'cancer alley' is emitting unsafe chloroprene emissions into the already overburdened community of primarily low-income and minority residents. "EPA's own environmental justice screening tool found that, '100 percent of the people living in the same census block group where Denka is located are minorities and 49 percent of them are low-income'."²⁷ "The high cancer rates in St. John the Baptist Parish are an emblematic example of environmental racism," said Maryum Jordan, an attorney with the Lawyers' Committee for Civil Rights Under Law, which is representing the activists group. "The communities affected by the Denka facility would greatly benefit from comprehensive, protective air regulations"²⁸ – something that Dr. Mundt is helping Denka to fight against. Mr. Mundt has a long history of generation science in the service of product defense. As a consultant for Philip Morris and the tobacco industry, Mundt attacked the National Cancer Institute's findings that low-tar cigarettes could cause lung cancer.²⁹

Paustenbach, Dennis – Dr. Paustenbach is a well-known corporate consultant. His SAB biosketch discloses that he been listed as an expert in product defense court cases – he fails to note that it is for the defense side – on cases that include, "dioxins, benzene, chromium, beryllium, cobalt, chlorinated solvents, and other chemicals." The SAB biosketch also fails to disclose his clients or

²²

<https://yosemite.epa.gov/opa/admpress.nsf/2dd7f669225439b78525735900400c31/59847b4dd6dced8385257db30001b42e!OpenDocument>

²³ <https://www.americanchemistry.com/Membership/MemberCompanies/>

²⁴ <http://www.csb.gov/arkema-inc-chemical-plant-fire-/>

²⁵ <https://www.jayjock-associates.com/clients/>

²⁶ <https://thehill.com/policy/energy-environment/521044-shuffle-of-epas-science-advisors-elevates-those-with-industry-tries>

²⁷ https://www.nola.com/news/environment/article_df8b0e62-af5a-11eb-ba33-83df3dfa551b.html

²⁸ https://www.nola.com/news/environment/article_df8b0e62-af5a-11eb-ba33-83df3dfa551b.html

²⁹ <https://www.theatlantic.com/politics/archive/2016/05/low-tar-cigarettes/481116/>

funding sources. Dr. David Michaels³⁰ writes that when pitted against Paustenbach in a debate convened by the Defense Research Institute of corporate law firms, Paustenbach was unable to identify any mistakes in Michaels' book, Doubt Is Their Product: How Industry's Assault on Science Threatens Your Health.³¹ In that book, Dr. Paustenbach earns eight entries in the Index, for his work to develop deceptive science as a tactic in the delay or weakening of public health regulations for benzene, beryllium, chromium, and – as Paustenbach himself notes in his SAB biosketch – “other chemicals”. Product defense consultants have direct financial conflicts, as well as a conflict with the mission of EPA to issue health protective regulations and policies.

Sahmel, Jennifer – Dr. Sahmel works for Cardno ChemRisk, for which Mr. Kenneth Mundt also consults (see comments above). In her work with Cardno ChemRisk, she recently published an article arguing that asbestos exposure from cosmetic talc use does not pose a health risk.³² Dr. Sahmel and her industry co-authors failed to update the analytical methods for measuring airborne fibers used by FDA in its 1985 risk assessment, 36 years ago. Although Dr. Sahmel and her co-authors claim that they received no outside financial support for the preparation of their article, they disclose in the Acknowledgements section that, “Three of the authors (Burns, Barlow, and Sahmel) have served as experts in talc and/or asbestos-related [defense] litigation. It is likely that this work will be relied upon in occupational health and exposure assessment research and litigation.”³³ Thus, the paper supports the expectation of future product-defense work. The SAB biosketch fails to disclose any of her clients or funding sources.

Industry experts can submit information and address the SAB as members of public

We recognize that industry experts have information that may be valuable to the deliberations of the SAB and the policies of EPA, including for example, technical, scientific, and market data. If industry representatives have relevant contributions to the SAB, then invitations to address the committee during public meetings are appropriate.

Conclusion

After the previous four years in which standards for judging conflicts of interest for SAB members were degraded and mis-used, it is critically important that the newly appointed SAB

³⁰ David Michaels PhD, MPH is an epidemiologist and professor at the George Washington University School of Public Health. His primary expertise is in worker safety and health, and he has held sub-Cabinet Senate-confirmed public health positions in the administrations of President Barack Obama (in which he was Assistant Secretary of Labor for Occupational Safety and Health) and President Bill Clinton (Assistant Secretary of Energy for Environment, Safety and Health). He has been on the faculty at GWU since 2001. <https://publichealth.gwu.edu/departments/environmental-and-occupational-health/david-michaels-phd>

³¹ See p. 9-10 of David Michael's follow-up book, *The Triumph of Doubt: Dark Money and the Science of Deception*.

³² Burns AM, Barlow CA, Banducci AM, Unice KM, Sahmel J. Potential Airborne Asbestos Exposure and Risk Associated with the Historical Use of Cosmetic Talcum Powder Products. *Risk Anal.* 2019 Oct;39(10):2272-2294. doi: 10.1111/risa.13312. Epub 2019 Apr 12. PMID: 30980426.

³³ Burns AM, Barlow CA, Banducci AM, Unice KM, Sahmel J. Potential Airborne Asbestos Exposure and Risk Associated with the Historical Use of Cosmetic Talcum Powder Products. *Risk Anal.* 2019 Oct;39(10):2272-2294. doi: 10.1111/risa.13312. Epub 2019 Apr 12. PMID: 30980426.

members be free of financial conflicts and ongoing career reliance on supporting the financial interests of chemical manufacturers.

Thank you for the opportunity to provide comments.

A handwritten signature in black ink, appearing to read 'Avinash Kar', with a stylized flourish at the end.

Avinash Kar
Senior Attorney & Interim Senior Director, Health & Food

A handwritten signature in black ink, appearing to read 'Veena Singla', with a stylized flourish at the end.

Veena Singla
Senior Scientist



9 June 2021

Mr. Thomas Armitage
U.S. Environmental Protection Agency (EPA)

SENT VIA E-MAIL

Dear Mr. Armitage,

I am writing this letter in support of Dr. John O'Brien's nomination to EPA's Science Advisory Board (SAB). I have worked in a professional capacity with Dr. O'Brien on multiple projects over the past 15 years. Our work together has focused on analyzing various aspects of the U.S. natural gas market, primarily as expert witnesses in multiple litigations addressing market economics, royalty payments, and contract disputes.

Dr. O'Brien was an early entrepreneur in natural gas markets as those markets were initially being deregulated. He has a strong understanding of how natural gas markets operate, both historically and today. This deep-seated knowledge of natural gas markets has served us well working together in analyzing complex natural gas transactions, be they related to futures markets, price hedging, or royalty calculations.

Although I cannot speak to Dr. O'Brien's knowledge and skills as a scientist, I have been impressed with the depth of his understanding of natural gas markets, how they operate, how they are changing, the economics of those operations, and the physical aspects of natural gas markets. These would include production, processing, gathering, interstate transportation, and how local distribution companies function and their interactions with their retail customers.

In my experience, Dr. O'Brien is easy to work with and listens closely to the input from and arguments of others. We have always worked together as equal partners, debating issues, resolving disputes, and developing strategies in tandem. Dr. O'Brien excels at identifying the fundamental elements an issue, which allows him to systematically assess the issue, arrive at a logical answer, and convey his findings to a non-expert.

I believe Dr. O'Brien would bring these skills to bear and provide significant value to the SAB in analyzing, debating, and resolving the many important issues that the EPA will face over the next several years. I recommend Dr. O'Brien's appointment to the SAB without reservation.

Sincerely,

Lori Schell Schell, Ph.D., ERP, SCR
Founder/Owner

cc: Dr. John O'Brien



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF RESEARCH AND DEVELOPMENT

Letter of Support
Doctor Gloria Post NJDEP
Nomination to EPA SAB

Holly Stallworth, Ph.D.
Economist and Designated Federal Officer
Science Advisory Board Staff Office
1300 Pennsylvania Ave., NW
Room 31179, Ronald Reagan Bldg.
Washington, DC 20004
Phone: 202-564-2073

5-5-21

Dear Holly,

It is my privilege to write this letter in support of Dr. Gloria Posts nomination for the EPA SAB. I understand that these letters were due to you by COB May 3rd, 2021. However, I was unable to meet that deadline due to unforeseen personal circumstances. Please consider this letter as an additional letter to support Gloria in this endeavor if it is too late.

I have known Dr. Gloria Post from my interaction with her in her work in the New Jersey Department of Environmental Protection (NJDEP) and my work revolving around the topic of per- and polyfluoro alkyl substances (PFAS) at the EPA. I have numerous interactions with Gloria in person and one the phone or at meetings concerning our work together and in separate projects.

I can only speak highly of Gloria in her unwavering dedication to the work she does at NJDEP to help lead and set very strict guidelines for PFAS in drinking water. Her agency, and I dare say Gloria was a major force, were the first to set reference doses/or MCLs for PFOA, and PFNA in drinking water that are among the most stringent in the United States. Gloria is a walking encyclopedia with respect to the scientific information on the topic of PFAS and toxicology and risk assessment. There is no question in my mind when I speak with Gloria about this topic that she has researched it in full detail and understands the nuances of the studies she refers to.

We both have been working on this topic long enough to understand there was a time when this topic of study was neither encouraged for us to work on, rather discouraged. I believe it speaks volumes of Gloria that she was able to preserve on this topic and keep it at the forefront in New Jersey with her efforts and those of her colleagues. I can speak from experience she knows what is best for the people of New Jersey, their drinking water being protected and the science/art or risk assessment. Gloria is a fighter and do what is right in the eyes of the people she serves as a public servant. She and I are kindred spirits in this approach.

I have no doubt Gloria would be a wonderful addition to the SAB. Her tireless efforts, thorough knowledge of the topics she is investigating and letting the science lead her decision making, even if it not popular, make her a great choice to include. Please feel free to follow-up if you have any further questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "M. Strynar".

Mark J. Strynar
Strynar.mark@epa.gov
919-541-3706
US EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Center for Public Health and Environmental Assessment
109 T.W. Alexander Drive, Research Triangle Park, NC 27711

OFFICE OF
RESEARCH AND DEVELOPMENT

May 3, 2021

Holly Stallworth, Ph.D.
Economist and Designated Federal Officer
Science Advisory Board Staff Office
1300 Pennsylvania Ave., NW
Room 31179, Ronald Reagan Bldg.
Washington, DC 20004

Dear Dr. Stallworth:

It is my pleasure to write in support of Dr. Gloria Post's nomination to serve on the Scientific Advisory Board at the US Environmental Protection Agency. I have known Dr. Post for well over a decade because of my research on Perfluoroalkyl Substances (PFAS) at the Office of Research and Development. When I first met her at a Society of Toxicology national meeting, I was struck by Dr. Post's breadth of knowledge about these contaminants, her astute observations of critical details from the published research, and her insistence of seeking a resolution from the ambiguous findings, all markings of an excellent risk assessor. That chancy conversation led to hundreds of subsequent interactions when I shared with her the significance of some toxicological findings (from our team and others), as well as their implications for human health risk assessment. However, the exchange of knowledge was not always just one-way. Dr. Post explained to me with great patience the practice of regulatory sciences, the rationale of methodology and how experimental results may contribute to bolster the confidence of risk evaluations. Those lessons not only helped me better frame my research questions to address the adverse effects of environmental pollutants, but also lent new perspectives to articulate research findings to our partners and stakeholders.

Dr. Post's vast experience in regulatory environmental sciences is well documented in her curriculum vitae. She has served at the NJ Department of Environmental Protection for over 35 years, supporting regulatory actions of numerous chemical contaminants in drinking water. In the past 15 years, she has focused her attention on the harmful potentials of PFAS (a group of high-profile chemicals of considerable concerns globally) in humans. Primarily through her efforts, the regulatory guidance for PFAS in drinking water provided by NJ DEP has become an exemplary model for many states in the country (some of which outright adopted their guidance values). Accordingly, Dr. Post has become an authoritative voice regarding PFAS contamination in water, which is illustrated by her numerous appointments to various national advisory boards and expert panels to review the emerging risks of these chemicals.

Although Dr. Post's primary duty is to draft internal risk assessment documents to support the regulatory actions in New Jersey, she is also actively engaged in scientific research, having published numerous invited book chapters and peer-reviewed papers in prestigious research journals. She is a highly sought-after expert peer reviewer for many of these applied and basic research journals. She regularly presented her findings at national meetings of professional societies, and as an invited speaker at universities and at federal- and state-sponsored workshops and symposia. She also frequently lectures at local universities and serves as a mentor to undergraduate and graduate students. Her influences to safeguard public health and protect our environment are indeed broad and impactful.

Throughout my career in the Agency, I have the privilege of interacting with numerous risk assessors and health advocates at regulatory agencies, industry, academia and NGO, and Dr. Post stands out as one of the most knowledgeable, passionate, and dedicated individuals. Her seemingly inexhaustible energy and inquisitive curiosity allow her to cover every nuance of the subject matter she is investigating. In addition to her in-depth understanding of regulatory practices, she is well versed in both exposure and toxicological sciences regarding environmental pollutants. She is resourceful and deliberate in formulating her opinions. She is amicable, well organized and works collaboratively within a team concept, and is a natural leader to spearhead group endeavors. She will be an invaluable asset to the Scientific Advisory Board in our Agency. Therefore, I endorse her nomination with utmost enthusiasm. Please do not hesitate to contact me if you have any questions regarding this endorsement.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Chris Lau', with a stylized flourish at the end.

Christopher Lau, Ph.D.
Research Biologist
Reproductive and Developmental Branch
Public Health and Integrative Toxicology Division



Department of Pharmacology and Toxicology

The Brody School of Medicine

East Carolina University

Room 6S10

600 Moye Blvd.

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David A. Taylor, Ph.D.
Professor and Chairperson
252-744-2734

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Abdel A. Abdel-Rahman, PhD
Jamie C. DeWitt, PhD
Lisa M. Domico, PhD
Korin Leffler, PhD
Jacques Robidoux, PhD
Mustafa Selim, PhD
Ken Soderstrom, PhD
Srinivas Sriramula, PhD
Rukiyah Van Dross, PhD
Tracey Woodlief, PhD

Emeritus Faculty

Donald Barnes, PhD
Saeed Dar, PhD
Alphonse Ingenito, PhD
Brian A. McMillen, PhD
Wallace Wooles, PhD

May 3, 2021

RE: Letter of support of nominee to the EPA Science Advisory Board (SAB)

Dear Dr. Stallworth,

It is my pleasure to support the nomination of Dr. Gloria Post to the EPA SAB. I first met Dr. Post when I was a postdoctoral trainee at the EPA in partnership with the University of North Carolina. Dr. Post and I both work with contaminants known as per- and polyfluoroalkyl substances (PFAS), a class of contaminants of great interest to the EPA. As a result, I have closely followed Dr. Post's work, interact with Dr. Post regularly at scientific meetings and events, and consider her a colleague and a friend.

Dr. Post is a toxicologist with deep expertise in risk assessment approaches from both a scientific perspective and from a practical perspective. As a state government scientist, Dr. Post is charged with assessing volumes of data, both published and unpublished, on myriad environmental contaminants, and drafting recommendations for protection of environmental health. Dr. Post has a nimble scientific mind that allows her to appreciate and understand multiple characteristics of environmental contaminants, including environmental fate and transport, toxicokinetics and toxicodynamics, adverse health outcomes, and how these characteristics may affect regulatory considerations such as reference doses and/or maximum contaminant levels for drinking water.

I have interacted with Dr. Post in numerous professional situations and know that she is committed to meeting deadlines, is responsive to critiques and requests for additional information, and has a remarkable capacity for remembering scientific details. I often reach out to Dr. Post for her input on scientific matters related to my research. Dr. Post is also very good at summarizing information on a specific topic for presentations or scientific publications and providing critical assessments of this information. These all seem ideal characteristics for a member of the EPA SAB.

I cannot think of a person more suited for participation in EPA SAB than Dr. Post. I also feel that it will be unlikely for you to find a person at her level of expertise who will complete assignments as quickly or with the attention to detail that you will with Dr. Post. I strongly support Dr. Post's nomination to the EPA SAB.

If you have additional questions, please do not hesitate to contact me.

Sincerely,

Jamie DeWitt, Associate Professor
252.744.2474 (voice)
dewittj@ecu.edu (email)

Dr. Thomas Armitage
Designated Federal Officer
Science Advisory Board
U.S. Environmental Protection Agency
E: armitage.thomas@epa.gov

Dear Dr. Armitage:

Thank you for offering the opportunity to provide input on the list of candidates for the U.S. EPA's Science Advisory Board. I am writing to express my utmost confidence and enthusiasm in supporting the appointment of Dr. Shanti Rabindran-Gamper to the board. Dr. Rabindran-Gamper stands out as an exceptionally multi-disciplinary, collaborative, and pragmatically policy-cognizant expert in many of the scientific disciplines and topics most critical to the EPA's efforts to protect human health and the environment. I am fortunate enough to have had the experience to learn from and collaborate with Dr. Rabindran-Gamper in several capacities – first as the faculty advisor for my dissertation at the University of Pittsburgh Graduate School of Public and International Affairs, and later as a collaborator and colleague in her upcoming book, an upcoming international conference, and a variety of ongoing research projects relating to equitable energy transition, environment justice, and the nexus between economics, law, and policy.

Dr. Gamper-Rabindran is trained in economics, environmental management, and law (by three of the most prestigious institutions in academia – M.I.T., Harvard, and Oxford). This combination makes her a powerful addition to sustainability and energy research, in not only academic clout, but also international and cross-disciplinary collaborative opportunities. Her courses and research have a credible grasp on the important relationships between these areas. This is evident in her forthcoming book, *America's Energy Gamble* and her preceding edited volume *The Shale Dilemma: A Global Perspective on Fracking and Shale Development* – both of which seamlessly intertwine cost-benefit analysis, legal analysis, economic methods, and environmental policy into a digestible and contextualized discussion of America's most pressing environmental challenges. She explains, inter alia, the short term and long term implications of the Trump administration's policy changes, including: how the executive branch, with the acquiescence of Congress, expanded oil and gas extraction, how the administration rolled back regulations and the implications of those changes, how the administration asserted executive powers (that are under legal challenge), how it reshaped federal agencies and the courts, and how it skewed scientific, economic and legal analyses. She skillfully uses the arguments for jobs, economic resilience, energy security, and rural development to advocate instead for renewable energy and sustainable development, while providing the supporting data to cement her case.

Dr. Gamper-Rabindran also has an inspiring optimism and collaborative nature. Her courses, which attract students across various schools in the university, teach students how to master tools from economics, politics, risk analysis, and legal analysis. She hones students' ability to think critically, to shatter misleading rhetoric (e.g., the red herring "jobs v. the environment" argument), and to advocate effectively using logic, data, and persuasion. She engages students and researchers from across

disciplines within research teams. And she empowers input at all levels in her research and policy expertise. As a very low-income first-generation college graduate from rural coal country, I never felt like my background added to my pursuits in academia. However, she helped me harness my understanding of rural Americans and the struggles of economic hardship as a skill. She has also been the driving force in bringing together my legal and economic education with my research, as well as the professional skills I have gained as an attorney. As a sustainability- minded legal professional and an academic, I cannot overemphasize my appreciation for her unique and effective approach to educating professionals in energy and environmental policy. She has inspired me to tackle the most daunting challenges, and I believe she can do the same for the EPA's Science Advisory Board. I cannot think of another person more deserving or worthy of my support.

A handwritten signature in cursive script, appearing to read "Joshua Ash".

PhD. Candidate
Graduate School of Public and International Affairs
University of Pittsburgh

Jun 9th 2021
Dr. Thomas Armitage
Designated Federal Officer (DFO)
U.S. EPA Science Advisory Board Staff Office

Re: Public Comment on Dr. Shanti Gamper-Rabindran's Candidacy for SAB

Dear Dr. Armitage,

Thank you for the opportunity to comment on candidates for the Science Advisory Board. I am a former graduate student of Dr. Gamper-Rabindran's at the University of Pittsburgh, where she also served as my academic program advisor in Energy and Environmental Policy. My current position is at the University of Pittsburgh's Graduate School of Public and International Affairs as the climate plan coordinator for the Greater Pittsburgh Region.

I would like to provide additional positive perspective regarding Dr. Shanti Gamper-Rabindran's suitability for appointment to the EPA's Science Advisory Board.

The University faculty with whom I have had the pleasure to discuss this topic with, as well as myself, have consistently praised Dr. Gamper-Rabindran for her publications around shale development and regulation, and her service with the National Academies of Sciences' committee on chemical economy. I have seen firsthand the independent, measured, and interdisciplinary approach she brings to every conversation. I can recall her exceedingly professional and constructive interactions with Pitt GSPIA's Shale Gas Governance Center and the colleagues there with whom she disagrees on substance, especially with regards to established links between fracking chemicals and health outcomes.

Her objectivity and devotion to science might only be matched by her resolute thoroughness in policy writing and review. She has never failed to cross-reference our sources and encourages dozens of edits and iterations to bring policy pieces to a robust standard, oftentimes to the chagrin of those less willing to put in the proper effort. I, as well as colleagues, have consistently credited Dr. Gamper-Rabindran when these pieces have been explicitly mentioned in interactions with potential employers.

I have watched her support women and minority professionals in our fields through encouraging discussion, personal perspective, and networking. Dr. Gamper-Rabindran has tirelessly worked and pointed those around her toward economic and energy policy that balances progress, equity, public health, and environmental protection all while instilling a compelling trust in science.

Shanti is the single-most influential professor in my academic career, with her mentorship and friendship having greatly contributed to my post-graduate work, public service, and trust in good evidence shaping policy.

I hope that she and her accomplishments may be considered for the role, and that she may be an asset to the Agency.

Sincerely,

Eric J. Raabe

M.P.A. Energy & Environment, University of Pittsburgh GSPIA



Dawn Roberts-Semple, Ph.D.
Assistant Professor
Environmental Health Science
drobertssemple@york.cuny.edu

June 8, 2021

Dr. Thomas Armitage
Designated Federal Officer
Science Advisory Board
U.S. Environmental Protection Agency
Via email: armitage.thomas@epa.gov

Dear Dr. Armitage,

Thank you for the opportunity to comment on Dr. Sacoby Miguel Wilson's nomination to join the Science Advisory Board (SAB) of the United States Environmental Protection Agency (USEPA). I am an Assistant Professor of environmental health science at The City University of New York. I engage undergraduate students and volunteers in environmental health research in communities disproportionately exposed to potential adverse effects of air pollution from airports and waste transfer facilities in Queens, New York.

Dr. Wilson is a distinguished Environmental Health Scientist with more than twenty years of experience in the field. He has served exceptionally in both academia and public arenas, as an outstanding leader in exposure science, citizen science and community-based participatory research. His work has addressed a wide range of crucial environmental justice issues such as health disparities, water quality, air pollution, industrial animal production, climate change and sustainability in cities throughout the United States. Dr. Wilson has translated his research into action through community-university partnerships in North and South Carolina, including environmental justice work in Low-Country Alliance for Model Communities, West End Revitalization Association, Graniteville Community Coalition and Environmental Justice Network. His work has had far-reaching impacts in various state regions such as the Buzzard Point area of Washington, DC, industrial farmlands on Maryland's Eastern Shore; Bladensburg, Baltimore, Brandywine; Houston, Texas; Savannah, Georgia; Uniontown, Alabama and Wilmington, Delaware.

In recognition of his outstanding efforts, Dr. Wilson received numerous awards including the Muriel R. Sloan Communitarian, Dr. Martin Luther King Jr. Social Justice, and US EPA Environmental Justice Achievement awards. He co-founded several environmental justice organizations and coalitions such as the Chesapeake Bay Environmental Justice Coalition, and 17 for Peace and Justice of University of Maryland-College Park. Dr. Wilson is very active professionally, currently as Editor in Chief of Environmental Justice, and a member of the National Environmental Justice Advisory Council, National Academy of Science's Board on Environmental Studies and Toxicology, National Black Environmental Justice Network and Citizen Science Association. He hosts the annual environmental justice symposium that brings together community members, advocates, policymakers, researchers, students and practitioners, to discuss ways to address environmental justice issues in the DMV region and around the country.

With his vast repertoire of knowledge and training, Dr. Wilson will be able to apply relevant scientific and technical information as a basis for EPA research programs and regulations. His prowess and indomitable drive will be an asset for the advancement of environmental justice principles and practice at the federal level. Further, Dr. Wilson's qualifications will allow him to provide scientific guidance for administration and broad scientific matters at the EPA.

I endorse his nomination enthusiastically and without reservation.

Sincerely,

Dr. Dawn Roberts-Semple



CHESAPEAKE BAY COMMISSION

Policy for the Bay • www.chesbay.us

June 9, 2021

Dr. Thomas Armitage, DFO
U.S. Environmental Protection Agency
Office of the Administrator
Science Advisory Board Staff Office
1200 Pennsylvania Ave., NW (MC-1400R)
Ronald Reagan Building (3rd Floor)
Washington, DC 20460

Dear Dr. Armitage,

I am pleased to submit this letter in support of the nomination of **Dr. Tom L. Richard** to the EPA Science Advisory Board, and to the standing Committee on Agricultural Science. I have known Tom for over a dozen years, starting in 2008 when I invited him to serve on a task force for the Chesapeake Bay Commission to evaluate the potential impacts of different biofuel strategies on water quality in the Bay. On that project he generously shared his expertise on the risks and tradeoffs of different strategies, including completing an analysis of the potential to expand production of cover crops and perennial grasses as both feedstocks for renewable energy and to reduce nitrogen, phosphorous and sediment loading to the Bay. In that process Tom also provided vital input on a set of policy recommendations for sustainable biofuel strategies, which the Commission was then able to share with EPA staff and with the various Bay state agriculture and environmental agencies and legislatures. Tom has since played similar roles as the Commission has considered other topics that connect agriculture and the environment, including manure management and waste to energy technologies, emerging markets for climate mitigation, soil carbon and other ecosystem services, and most recently multi-functional riparian buffers.

In all these efforts Tom has demonstrated an unusual ability to bridge agricultural disciplines, to engage with a broad range of experts and stakeholders, and to build consensus to address complex and highly controversial topics. His educational background includes degrees in natural resource economics and policy, agricultural engineering with specializations in soils and hydrology, and biological engineering with a specialization in microbiology, and his research expertise spans food, water, and energy systems. He has published extensively in science and engineering journals, and also on economics, ethics, law and policy. This interdisciplinary training and expertise allows him to connect basic science with environmental policy and to develop sound solutions to complex challenges, and Tom has both the technical skills and the

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leadership skills to build highly effective teams that get things done. Tom's leadership of the Institutes of Energy and the Environment at Penn State University connects him to hundreds of other experts with deep expertise in almost any topic, which he has leveraged to support state and federal policy development as well as the work of the Chesapeake Bay Commission.

In short, I am confident that Dr. Tom Richard will be an extremely valuable member of the EPA Science Advisory Board, and give him my strongest recommendation.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ann Swanson', with a long horizontal flourish extending to the right.

Ann Swanson
Executive Director
Chesapeake Bay Commission

May 31, 2021

Dr. Thomas Armitage
Designated Federal Officer (DFO), Science Advisory Board
U.S. Environmental Protection Agency Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 1400R
Washington, DC 20460

Re: Invitation for Public Comment on the List of Candidates For EPA's Scientific Advisory Board (SAB)

Dear Dr. Armitage:

I respectfully submit this comment in response to the list of candidates nominated to serve on the U.S. Environmental Protection Agency's (EPA) Science Advisory Board (SAB). The chartered SAB provides scientific advice to the EPA Administrator on a variety of EPA science and research topics. The SAB Staff Office invited nominations of individuals to serve on the chartered SAB with expertise or extensive experience in the following scientific disciplines and topics as they relate to human health.

On May 19, 2021, EPA issued a call for public comment on the list of candidates for the EPAs SAB. As a policy maker in Washington, DC focused on federal and local impacts of the environment, I want to be sure the FAC has strong members focused on pollution and climate impacts.

The EPA has long been criticized for the lack of fresh perspectives on the CASAC when accessing balance on the panel. This notion of perspectives stems from EPA's Peer Review Handbook instructing that the Agency "rotate membership among qualified scientists to obtain fresh perspectives and reinforce the reality and perception of independence."¹ These fresh perspectives often arise with the introduction of candidates who understand the human element and interdisciplinary impacts of EPA's decisions. I strongly recommend Dr. Crystal Upperman because she brings fresh and experienced perspective.

Dr. Upperman leads the integration of public health information and informed risk characterization into Aclima's air pollution and greenhouse gas measurement and analysis products. In her prior roles, she was a Senior Research Associate at the World Resources Institute on the Global Commission on Adaptation, at AECOM she was the Climate Adaptation and Resilience Lead for the Southeast US, Latin America, and the Caribbean, and she managed the CDC's Building Resilience Against Climate Effects (BRACE) program for the Maryland Department of Health. She worked as

¹ Environmental Protection Agency, Science and Technical Policy Council, Peer Review Handbook, 4th Ed. (Oct. 2015). https://www.epa.gov/sites/production/files/2020-08/documents/epa_peer_review_handbook_4th_edition.pdf

an environmental regulator for the New Jersey Department of Environmental Protection and the Georgia Environmental Protection Division's Ambient Air Quality Program. Dr. Upperman's research focus is in exposure science and spatial epidemiology and has included a national assessment of the impact of climate change, pollen exposure, and extreme heat on chronic respiratory diseases. Dr. Upperman is a Trustee of The Nature Conservancy, and is an Advisory Board Member for the American Public Health Association's Center for Climate, Health, and Equity. Dr. Upperman earned a PhD in Marine, Estuarine, and Environmental Science from the University of Maryland as a U.S. EPA Science to Achieve Results Fellow and an NSF Louis Stokes Alliance for Minority Participation Fellow, a Master of Public Administration in Nonprofit Management from Kennesaw State University, and a Bachelor of Science in Environmental Science from Spelman College.

Dr. Upperman's background and experience reflect the rigor and acumen necessary to help the U.S. EPA make informed environmental actions to protect public health.

Sincerely,

Robert C. White, Jr.

Freada Kapor Klein, Ph.D.

Kapor Capital
2148 Broadway
Oakland, CA 94612
(415) 297-6192
fklein@kapor.com

31st May 2021

Dr. Thomas Armitage
Designated Federal Officer (DFO), Science Advisory Board
U.S. Environmental Protection Agency Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 1400R
Washington, DC 20460

Via Email: armitage.thomas@epa.gov

Re: Invitation for Public Comment on the List of Candidates For EPA's Scientific Advisory Board (SAB)

Dear Dr. Armitage:

I respectfully submit this comment in response to the list of candidates nominated to serve on the U.S. Environmental Protection Agency's (EPA) chartered Clean Air Scientific Advisory Committee (SAB). SAB plays an important role under the Clean Air Act in providing expert advice to EPA that includes reviewing EPA's air quality criteria and national ambient air quality standards developed under Clean Air Act (CAA) sections 108 and 109, as well as providing EPA with other related scientific and technical advice.

On May 19, 2021, EPA's Science Advisory Board (SAB) issued a "Invitation for Public Comment on the List of Candidates for the SAB." I have been an investor and philanthropist on environmental science issues, amongst others, for over 20 years. My work spans non-profits/NGOs, foundations, academic institutions and for profit tech-enabled startups. For full disclosure, I was an early investor in Aclima where Dr. Upperman is now employed and in fact introduced her to the founder. It is my confidence in Dr. Upperman's commitment to rigorous environmental science and to the practical application of that science to improve human health and quality of life that led me to make the introduction. That same confidence compels me to encourage SAB to give her serious consideration. Dr. Upperman possesses a wealth of academic training and practical experience in many settings that makes her extremely well-suited to providing the EPA independent scientific advice related to the national ambient air quality standards (NAAQS).

Dr. Upperman's contributions can help blunt some of the criticisms that have been aimed at the EPA for its lack of up to date perspectives, encompassing both scientific knowledge and understanding of community concerns. This notion of perspectives stems from EPA's Peer Review Handbook instructing that the Agency "rotate membership among qualified scientists to obtain fresh perspectives and reinforce the reality and perception of independence."¹ These fresh perspectives often arise with the introduction of candidates who understand the human element and interdisciplinary impacts of EPA's decisions; this is the reason why strong consideration should be given to Dr. Crystal Upperman. Her experience can add much-needed balance on the SAB panel.

Dr. Upperman leads the integration of public health information and informed risk characterization into Aclima's air pollution and greenhouse gas measurement and analysis products. In her prior roles, she was a Senior Research Associate at the World Resources Institute on the Global Commission on Adaptation, at AECOM she was the Climate Adaptation and Resilience Lead for the Southeast US, Latin America, and the Caribbean, and she managed the CDC's Building Resilience Against Climate Effects (BRACE) program for Maryland Department of Health. She worked as an environmental regulator, very early in her career, for the New Jersey Department of Environmental Protection and the Georgia Environmental Protection Division's Ambient Air Quality Program. Crystal's research focus is in exposure science and spatial epidemiology and has included a national assessment of the impact of climate change, pollen exposure, and extreme heat on chronic respiratory diseases. Crystal is a Trustee of The Nature Conservancy, and is an Advisory Board Member for the American Public Health Association's Center for Climate, Health, and Equity. Crystal earned a PhD in Marine, Estuarine, and Environmental Science from the University of Maryland as a U.S. EPA Science to Achieve Results Fellow and an NSF Louis Stokes Alliance for Minority Participation Fellow, a Master of Public Administration in Nonprofit Management from Kennesaw State University, and a Bachelor of Science in Environmental Science from Spelman College.

Dr. Upperman's background and experience reflects the rigor and acumen necessary to help the U.S. EPA make informed environmental actions to protect public health. She melds together a deep understanding of communities most vulnerable to the consequences of climate change with her extensive academic and non-profit experience. It is this combination of unparalleled academic training, and public service that the EPA's SAB needs to be able to make informed decisions and to effectively communicate these decisions to the public.

Sincerely,



Freeda Kapor Klein, Ph.D.

¹ Environmental Protection Agency, Science and Technical Policy Council, Peer Review Handbook, 4th Ed. (Oct. 2015). https://www.epa.gov/sites/production/files/2020-08/documents/epa_peer_review_handbook_4th_edition.pdf



June 8, 2021

Dr. Thomas Armitage
Designated Federal Officer
Scientific Advisory Board
U.S. Environmental Protection Agency

Dear Dr. Armitage:

Thank you for the opportunity to provide comments on the candidates for the Environmental Protection Agency's Scientific Advisory Board (SAB). I would like to express my support for the nomination of Dr. Sacoby Miguel Wilson of the University of Maryland.

As an environmental health scientist, Dr. Wilson has a breadth of experience and expertise across several of the desired disciplines for SAB members, including air and water quality, citizen science, climate science, community environmental health, environmental justice, exposure assessment, and sustainability. For more than two decades he has conducted rigorous, action-oriented research to assess and address environmental and health inequities in the United States. At the University of Maryland, he leads the Center for Community Engagement, Environmental Justice, and Health (CEEJH) and has successfully leveraged institutional resources to support and uplift frontline and fenceline communities most burdened by environmental and climate injustice. His research has not only contributed to environmental health and justice scholarship, but has provided valuable data for use by affected communities and grassroots advocates, and helped advance evidence-based policymaking.

Outside of his own work, he is a leader in the broader environmental health community. Dr. Wilson serves as a member of the EPA's National Environmental Justice Advisory Council, the National Academic of Science's Board on Environmental Studies and Toxicology, the Citizen Science Association, and Editor-in-Chief of the peer-reviewed journal, *Environmental Justice*.

In my own experience as an environmental health advocate, I have found Dr. Wilson to be a tireless advocate for scientific integrity and transparency. He ensures that research and information are available and accessible to all, especially frontline and fenceline communities; provides sound scientific and policy guidance to countless advocates, activists, and researchers; and engages affected communities in collecting data and monitoring pollution. Dr. Wilson's development of the Maryland EJ SCREEN tool in particular has been a key resource for my own organization's research and advocacy, and is a tool that was desperately needed in the state.

Dr. Wilson would be an invaluable addition to the SAB and would fulfill the responsibilities with thoughtfulness, rigor, and an eye toward promoting environmental justice. Thank you for your consideration.

Darya Minovi, MPH
Policy Analyst
Center for Progressive Reform



University of Pittsburgh

Graduate School of Public and International Affairs

Wesley W. Posvar Hall
Pittsburgh, Pennsylvania 15260
Fax: 412-648-2605

June 14, 2021

Dr. Thomas Armitage
Designated Federal Officer,
EPA Science Advisory Board

Dear Dr. Armitage:

I am delighted to recommend Dr. Shanti Gamper-Rabindran as a candidate for the Science Advisory Board for the Environmental Protection Agency (EPA) in 2021. Dr. Gamper-Rabindran's research and experience is at the core of the EPA's mission to preserve the environment and protect it from pollution, contamination, and degradation. Her background as an environmental economist on the faculty of the Graduate School of Public and International Affairs has given her experience in analyzing environmental policy problems at local, national, and international levels of operation.

Dr. Gamper-Rabindran has already established her commitment to public service through her service on academic and professional programs. Especially noteworthy is her analysis showing the economic benefits of Superfund remediation programs, presented at Congressional hearings on the matter and reported to the EPA. Her research findings, based on a careful econometric analysis, showed an economic benefit from remediation via increased value in housing for the area close to the remediated sites. Dr. Gamper-Rabindran has further studied the economic and policy arguments for and against the contentious shale gas extraction program, with tensions running high over conflicting arguments regarding the economic benefits and environmental costs of fracking both in the United States and in other countries.

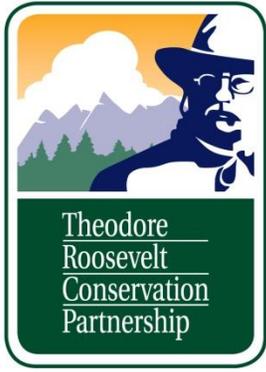
Importantly, Dr. Gamper-Rabindran led a comparative study of fracking that included an assessment of fracking programs in eight nations. Her edited book, *The Shale Dilemma*, University of Pittsburgh Press, 2017, examined the problem on four continents, benefiting from collaborative co-authors writing about their native countries – United Kingdom, Poland, France, Germany, China, Argentina, South Africa – as well as the United States. Her most recent book, *America's Energy Gamble*, is currently in production with Cambridge University Press, and gives a detailed analysis of the policies and pitfalls in energy production and distribution in the United States.

A thoughtful, gracious colleague, Dr. Gamper-Rabindran has contributed substantially to professional associations and to participation in international professional contexts. She would bring a welcome set of international colleagues to the discussion of EPA policies and law, as well as a thorough knowledge of the policy dilemmas in environmental development in the United States. For these reasons and more, I enthusiastically recommend Dr. Shanti Gamper-Rabindran as a candidate for the Science Advisory Board of the Environmental Protection Agency.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Louise K. Comfort".

Louise K. Comfort
Professor



His Vision

~

Our Mission

June 1, 2021

Mr. Thomas Armitage
Designated Federal Officer
U.S. Environmental Protection Agency
Science Advisory Board
1200 Pennsylvania Avenue, N.W.
Mail Code 1400R
Washington, DC 20460

Dear Mr. Armitage:

I am writing on behalf of the Theodore Roosevelt Conservation Partnership to offer our support for Ms. Shanna Edberg, a nominee for the EPA Science Advisory Board's Environmental Justice Committee.

Ms. Edberg is a longtime conservation advocate and promoter of environmental justice in the U.S. and abroad. She directs Hispanic Access Foundation's conservation programs to promote environmental stewardship in the Latino community, elevate Latino voices in conservation policy, activate Latino conservation leaders, and provide them the resources they need to create a more sustainable and just future. She earned her M.A. in Latin American Studies and International Economics from the Johns Hopkins School of Advanced International Studies (SAIS) and B.A. in International Studies from Johns Hopkins. Prior to joining Hispanic Access Foundation, Ms. Edberg's background includes working on sustainable development at the World Bank and Global Environment Facility as well as climate policy at the nonprofit Climate Interactive. While pursuing her education, Ms. Edberg worked in Peru to protect forests in the Amazon, researched and published on civil rights in Mexico, and supported city sustainability in Baltimore.

Ms. Edberg represents an important underrepresented constituency of the SAB's Environmental Justice Committee and would bring with her a diverse background in sustainable development, environmental and climate justice, and policy and economics research through both domestic and global lenses. I strongly encourage your consideration of Ms. Edberg's nomination for the SAB's Environmental Justice Committee.

Sincerely,

Christy Plumer
Chief Conservation Officer

529 14th ST NW
SUITE 500
WASHINGTON, DC 20045
202-639-8727
WWW.TRCP.ORG

June 4, 2021

Dear Dr. Armitage,

I am writing with my strong endorsement of Dr. Sacoby Wilson to the EPA Scientific Advisory Board. I have had the pleasure to work with Dr. Wilson at the intersection of the public and scientific experts over the last couple of years.

Through my work at Clean Water Action and Clean Water Fund, my first interaction with Dr. Wilson was as a public health and environmental justice expert who understands the importance of community understanding and involvement in advancing solutions. His use of Community-Based Participatory Research enables him to bring a unique viewpoint to the laboratory. In our work protecting the environment, projects and programs are oftentimes derailed not because of opposition to the idea at hand, but because communities are involved too late in the process, feel put upon, or otherwise are excluded from decision-making. Dr. Wilson's efforts in this space will make his experience valuable on the EPA Science Advisory Board.

I have also worked with Dr. Wilson on technical stormwater issues and have experienced him bringing together a diverse group of scientists, policy analysts, and community-based groups together. He can seamlessly operate in spaces with extreme technical experts as well as the public, and he has a deep-seated understanding of what the public needs from science and how the public can add value to science.

Dr. Wilson will be an asset to the US EPA Scientific Advisory Board. He has a long history of demonstrated commitment to environmental justice, community-based participation, and a diverse experience of air, water, and other environmental issues as they impact people and the ecosystem at large.

Thank you for this opportunity to support Dr. Wilson's nomination.

Best,

A handwritten signature in black ink, appearing to read "Emily Ranson", with a long, sweeping horizontal line extending to the right.

Emily Ranson
Maryland Director
Clean Water Action
Clean Water Fund



June 8, 2021

Dear Scientific Advisory Board Staff,

Per the invitation for public comment (86 FR 17148-17149), this letter is to strongly and enthusiastically support Sacoby Wilson's nomination to join the U.S. Environmental Protection Agency's Scientific Advisory Board (SAB). As he is a nationally renowned leader in the field of environmental epidemiology, I have followed and learned from Dr. Wilson's work for years. In the last few years, I have been honored to get to know him through various initiatives we have collaborated on in the American Public Health Association's Environment Section.

As Chair-Elect of APHA's Environment Section, I am particularly grateful for the ways that Dr. Wilson is advancing the field of environmental health, and I am certain he would excel in his duties if selected for the SAB. His scientific expertise and ongoing scholarly success in grant-seeking, publishing, and editing prepares him well to review the quality and relevance of scientific and technical information being used by EPA or proposed as the basis for Agency regulations. It is clear that he carries with him expertise built through decades of national collaborations, key leadership roles, and impactful research.

Further, as a highly respected leader who maintains scientific rigor while centering the knowledge, experience, and leadership of frontline communities, I am certain Dr. Wilson would bring important perspectives to EPA programs and plans. The work he leads at the Center for Community Engagement, Environmental Justice and Health and across the U.S. should be seen as a model for cumulative risks and impacts research. As the EPA works to rebuild its technical assistance and grantmaking opportunities and regulatory science, Dr. Wilson would bring vital and innovative solutions to our most pressing scientific challenges.

I sincerely hope you will select Dr. Wilson for the SAB, particularly as the EPA seeks to rebuild its scientific capacity and address environmental racism. I have deep respect for his expertise and leadership, and know he would be an asset to your agency and our nation in this capacity. Please contact me with further questions.

Sincerely,

Natalie Sampson, PhD, MPH
Associate Professor of Environmental Health

A handwritten signature in black ink, appearing to read 'N. Sampson'.



Southwest Native Cultures
Albuquerque, New Mexico

June 9, 2021

Dr. Thomas Armitage
Designated Federal Officer
U.S. Environmental Protection Agency
Science Advisory Board

Good morning Honorable Dr. Thomas Armitage,

Hope this message finds you and your family well and safe today. My name is Terry A. Sloan, Director of my NGO Southwest Native Cultures, through which I am an accredited member of the United Nations. I am of Navajo and Hopi Native American descent, born to the Kinyaa'áanii - Towering House People Clan and born for the Tó'aheedlínii - Water-Flows-Together Clan. My Hopi name is Duva Heptewa – Picker of nuts.

I write to you today to support Dr. Sacoby Wilson's nomination to the United States Environmental Protection Agency's (EPA) Science Advisory Board. I believe with his scientific knowledge, extensive groundbreaking work and many years of advocating for the environment, Mother Earth and her inhabitants, and the rights of those that inhabit her, that he is without question the Board member that the EPA Science Advisory Board seeks.

Therefore, with the utmost respect consider Dr. Sacoby Wilson for the U.S. EPA Science Advisory Board. He will be the scientific asset the United States needs.

Ahee'hee (thank you in Navajo) for your time and consideration today.

Be well and safe,

Terry A. Sloan
Director



Southwest Native Cultures
Albuquerque, New Mexico
tas@sloancompany.net



American Society of Agronomy • Crop Science Society of America • Soil Science Society of America

5585 Guilford Road, Madison WI 53711-5801 • Tel. 608-273-8080 • Fax 608-273-2021
www.agronomy.org • www.crops.org • www.soils.org

June 9, 2021

Dr. Thomas Armitage, Designated Federal Officer
Science Advisory Board Staff Office
U.S. Environmental Protection Agency

Dear Dr. Armitage:

The American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America are pleased to support Dr. Sylvie Brouder's nomination to the EPA Science Advisory Board.

Dr. Brouder is a Professor and Wickersham Chair of Excellence in Agricultural Research at Purdue University. She is an accomplished scientist and agroecologist working at the cutting edge of water quality, big data, and agroecology. Her agriculture, ecology, sustainability and water quality expertise was recognized by EPA when she served on the Science Advisory Board from 2014-2017.

She oversees the Water Quality Field Station, a core facility at Purdue University, and leads efforts to explore the impact of nitrogen loss to water on numerous cropping systems, including variation in nitrogen rates, manure management strategies, biomass production systems, use of cover cropping, and intercropping.

Dr. Brouder's contributions to agroecology have been recognized by her peers as a Fellow of the American Association for the Advancement of Science, Fellow of the American Society of Agronomy, and as Past President of the American Society of Agronomy.

Dr. Brouder is uniquely qualified and would be an excellent addition to the EPA Science Advisory Board.

Thank you for your consideration.

Sincerely,

Karl E. Anderson
Director, Government Relations



COLLEGE OF ENGINEERING
COLLEGE OF AGRICULTURE AND LIFE SCIENCES
BIOLOGICAL SYSTEMS
ENGINEERING
VIRGINIA TECH.

Biological Systems Engineering

1230 Washington St. SW
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mlwolfe@vt.edu

June 9, 2021

Dr. Thomas Armitage, Designated Federal Officer
armitage.thomas@epa.gov

Re: letter of support for Dr. Tom Richard appointment to EPA Science Advisory Board

Dear Dr. Armitage:

I welcome and appreciate the opportunity to offer my strongest support for appointment of Tom L. Richard, Ph.D., to the Environmental Protection Agency's Science Advisory Board (SAB). I have known of and respected Dr. Richard's professional accomplishments and expertise for many years. My knowledge of and collaboration with him has been largely through the American Society of Agricultural and Biological Engineers (ASABE) and through my service as a member of the external advisory board for his department (Agricultural and Biological Engineering) at Penn State University.

Dr. Richard would be an outstanding appointee to the SAB because of the breadth and depth of his experience and expertise, along with his outstanding record of collaboration across disciplines and demonstrated leadership abilities. He has made significant contributions through all three missions of the Land Grant University: research, teaching, and extension.

One of the essential areas of expertise to have on the SAB is agricultural systems, along with expertise in how agricultural systems interact with other systems. Dr. Richard's research focuses on the application of systems engineering principles to agricultural and environmental problems. The breadth of his expertise in agricultural systems ranges from environmental impacts including nutrients, water quality, and greenhouse gases, and the use of remote sensing, models, and decision tools to identify economically viable sustainability solutions. Dr. Richard's work and expertise ranges from the theoretical to the practical, with a passion for finding achievable solutions for farmers to implement on the land. Some specific areas in which he has made significant contributions include microbial conversion of biomass, agricultural byproducts, and manures for nutrient, energy, and organic matter recovery and value-added manufacturing; nutrient, carbon, and energy flows in agricultural ecosystems; and integrated assessment of coupled human-agroecological systems.

As ASABE president in 2015-2016, I led development of materials related to the role of engineering at the Food-Energy-Water (FEW) Nexus. That work led to an invitation through the American Institute of Chemical Engineers (AIChE) to provide an article for *Current Opinion in Chemical Engineering* related to the FEW Nexus, with particular emphasis on food. Based on my own knowledge of Dr. Richard's work and expertise, and in consultation with other leaders in ASABE, I asked him to co-author the paper with me. Collaborating on the paper, "*21st Century Engineering for On-Farm Food-Energy-Water Systems*"

(<https://doi.org/10.1016/j.coche.2017.10.005>), provided an outstanding opportunity for me to appreciate Dr. Richard's collaborative nature and expertise developed during his long-term efforts to advance agricultural sustainability.

Another of Dr. Richard's attributes that would be an asset on the SAB is his outstanding organizational leadership ability. His leadership has far-reaching impact in advancing work by large numbers of faculty and capitalizing on widespread calibration to advance solutions for agricultural sustainability. For example, as Director of Penn State Institutes of Energy and the Environment since 2008, he facilitates research, teaching, and outreach for over 500 faculty and over \$100 million of research expenditures annually; develops and implements strategic initiatives in energy and environmental research; and engages industrial, governmental and foundation partners. As director of the Northeast Sun Grant Center of Excellence at Penn State, he managed a USDA center to support Northeast bioeconomy. Dr. Richard is currently Deputy Technical Director for the National Risk Assessment Partnership, Department of Energy, National Energy Technology Laboratory, Pittsburgh, PA. He coordinates carbon storage risk assessment among five DOE National Labs.

Another noteworthy area of Dr. Richard's leadership is his commitment to inclusiveness, mentoring, and advancing the careers of women and minorities. I am familiar with some of his efforts in this realm through ASABE. For example, through an ASABE program, I am mentoring a woman from an underrepresented group in engineering who works for Dr. Richard. His commitment in this area would be another asset in his contributions to the SAB.

In summary, Dr. Tom L. Richard would be an outstanding member of the EPA Science Advisory Board, providing essential scientific advice and expertise to the EPA Administrator. I very strongly support appointment of Dr. Richard to the SAB.

Sincerely,



Mary Leigh Wolfe, Ph.D., F. ASABE, F. ABET, F. AIMBE
Professor
Department Head (2009-2018)

Dear Dr. Armitage,

We are writing to highly recommend that Dr. Tracy Corley be selected to join the Environmental Protection Agency's Science Advisory Board. We've worked with Tracy on a few different research projects over the past year and find that her work hits a unique sweet spot that's both rigorous and data-driven while also being accessible and relevant for broader audiences. Tracy is committed to ensuring that her work is used not just to advance knowledge and understanding in an abstract sense, but also to advance racial, economic, and environmental justice in tangible ways. One way she does this is by using an expansive definition of what "data" means—in her work, data are not just numbers on a spreadsheet, but also perspectives and experiences gleaned from, say, residents living in a particular neighborhood of interest. Both types of data are valuable, and Tracy demands that her research include all of it in order to come to the most accurate possible research conclusions.

Beyond this, Tracy is just a joy to work with. She's kind, funny and reliable. She's also ambitious and dedicated. When she meets new people or gets involved with a new group, she quickly develops rapport and becomes a de facto leader in the work. She looks for intersections across seemingly disconnected domains, and she thinks big. There's no doubt that you'd benefit from her engagement on the Board.

Please don't hesitate to reach out with any questions.

Sincerely,

Luc Schuster, Director
Anne Calef, Research Fellow
Boston Indicators
75 Arlington Street
Boston, MA 02116

June 1, 2021

Dr. Thomas Armitage, Designated Federal Officer, at armitage.thomas@epa.gov
Environmental Protection Agency
1200 Pennsylvania Ave. NW
Washington, DC

Re: Tracy Corley nomination to SAB

I am submitting this letter in support of the candidacy of Tracy Corley for the Scientific Advisory Board.

I have known Tracy in her roles at Northeastern University, at Mass Inc. and at the Conservation Law Foundation. My own background is as a practitioner in the field of urban planning and specifically affordable housing. Currently, I am spearheading a start-up nonprofit which is creating an inventory and making searchable our state's entire inventory of affordable housing. Previously, I headed a local charitable foundation focused on affordable housing and land use. Tracy has been a real colleague to my current work, encouraging us to draw connections to transit and thinking about how our data may be informative on environmental justice issues.

Tracy comes with a strong academic background as well as practical experience. I would hope these are already evident from her biography and resume. What is perhaps less evident is the special value Tracy brings, and I will focus there. Tracy is someone who consistently looks across disciplines and seeks to find solutions to problems that do not fit into neat categories. This is especially important for environmental issues and environmental justice related to human health. Issues are rarely just "environmental" or "pure science" problems. Rather, they are environmental issues, science issues, poverty issues, housing issues, etc.

Tracy is inquisitive, a great listener and someone who seeks to find patterns and common interests. She asks good questions and fosters productive thinking and policy across disciplines and fields of study. In case it needs clarification, she is not a dilettante, and she does not take the easy way out-- declaring something as a problem requiring "work across silos" and then offering no real solutions. I can say with all honesty that in my 25 year career in housing and land use, I have rarely met anyone with her level of range and rigor, combined with her aptitude for thinking beyond the sector boxes and drawing them together into policies and action.

Finally, Tracy cares about her colleagues and the next generation. She takes the extra step to foster connections. As a simple example, we were fortunate to have her encourage one of her former interns to apply for a position with us. I am sure she would bring that emphasis on collaboration to this role.

I am sure you have many qualified candidates. I hope that this letter highlights what a CV may not say fully enough about Tracy Corley. I hope you will strongly consider her candidacy.

Sincerely,

A handwritten signature in black ink that reads "Jennifer Gilbert". The signature is written in a cursive style with a long horizontal stroke at the end.

Jennifer Gilbert
Cambridge, MA



January 2, 2020
Dr. Thomas Armitage
Designated Federal Officer Science Advisory Board
U.S. Environmental Protection Agency
E: armitage.thomas@epa.gov

Dr. Armitage,

We are writing to recommend Dr. Tracy Corley for appointment to the Environmental Protection Agency's Science Advisory Board. We've worked with Dr. Corley on several research projects over the years and continue to rely on her expertise on the intersection between integrative land use, equitable transportation, and inclusive economic development. The reports she wrote on equitable and transformative TOD at her time with MassInc continue to be resources we reach for on a regular basis. She regularly engages with a diverse and multidisciplinary set of partners and stakeholders to produce results. This not only leads to a better project or research outcome, but helps build a network of professionals and community members focused and coordinated around equity. She connects people.

In addition to being a fantastic collaborator and research leader, something that sets Dr. Corley apart from others in the field is her ability to complement quantitative analysis with local insights and community perspectives. An example of this type of complementary analysis was a research brief she wrote with us in February 2021 exploring housing cost pressures introduced in Massachusetts' Gateway Cities during the pandemic. Dr. Corley was able to bring a level of expertise to this report to not only talk about increasing rents but also to discuss strategies for engaging community partners and charting a course for more inclusive neighborhood planning. This is just one example of how fluent and grounded Dr. Corley is in the relationships between the market, land use and development, and its impacts on the well-being of people and communities. She has consistently demonstrated this ability to get to the heart of social justice issues (and solutions) across multiple disciplines, including housing, transportation, public health, and environmental justice.

Furthermore, Dr. Corley is just plain fun to work with. Her energy for the topics of land use, mobility and equity is contagious. She always has another project coming up, or another researcher to collaborate with, and those of us that are lucky enough to work with her are always excited to see what she does next. We have no doubt that she will be an enormous benefit to the Board moving forward.

Thank you for the opportunity to comment.

Callie Clark, Director of Policy
Tom Hopper, Director of Research & Analytics
MHP's Center for Housing Data
160 Federal Street
Boston, MA 02110

160 Federal Street
Boston, Massachusetts 02110
Tel: 617-330-9955
Fax: 617-330-1919

www.mhp.net

June 7, 2021

Dr. Thomas Armitage
Designated Federal Officer, Science Advisory Board (SAB)
Environmental Protection Agency
Armitage.thomas@epa.gov

Re: Invitation for Public Comment on the List of Candidates For the Environmental Protection Agency's Science Advisory Board

The Union of Concerned Scientists, representing over 500,000 members and supporters, urges EPA to select for its Science Advisory Board (SAB) members who are qualified, independent, and reflect the diversity of the scientific community.

Specifically, we ask that SAB executive committee and subcommittee members have the appropriate qualifications and scientific expertise to review the quality and relevance of the scientific and technical information being used by the EPA or proposed as the basis for agency regulations, to review its research programs and plans, provide science advice to the Administrator, and advise the broader agency on scientific matters.

We appreciate that Administrator Regan values the role of EPA's science advisory committees and are encouraged by his decision to reconstitute SAB and CASAC membership to ensure they are comprised of high-quality experts free from conflicts of interest and are appropriately balanced. As EPA makes appointments for all of its committees, UCS encourages EPA to make public in clear, comprehensive language how individuals are vetted for membership and for participation in specific matters and how balance is defined, with respect to expertise, backgrounds, and perceived bias. It should also make public a clear description of the circumstances warranting recusal of members on specific matters and a commitment that knowledge of these recusals will be made public.¹ We would like to clarify that an SAB candidate holding a current or previous EPA grant *does not* represent a conflict of interest and should not be grounds for exclusion of individuals from consideration from science advisory committees, as has been confirmed by the courts and Administrator Regan.²

It is crucial that the EPA use SAB as a vital resource to inform the agency's decisionmaking. The EPA is charged with making policy decisions to protect public health and the environment that are grounded in the best available scientific information, and scientific recommendations from SAB are an integral part of the EPA decisionmaking process. Further, public acceptance of EPA decisions becomes more likely when SAB is comprised of accomplished, mainstream scientists without financial conflicts of interest. Thus, nominees appointed to these positions should be clearly independent and experts in their fields. This ensures the EPA has the best scientific advice in its efforts to protect public health and the environment.

Further, the Biden Administration's January 27th *Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking* is explicit about the need for increased racial, ethnic, and gender diversity and a wider range of experience and expertise of scientists serving on government science advisory committees.³ UCS led 16 scientific, professional, and academic organizations in April on a letter with recommendations for how agencies can actively follow the memo's direction to improve diversity on its committees.⁴ In its May response, EPA stated that "it is critical that all federal advisory committees leverage the available tools and resources to ensure a diverse pool of applicants. EPA agrees that this will contribute to a broader, more diverse representation on science

advisory committees and will lead to more comprehensive and equitable decision making at the federal level.”⁵ We hope to see appointments to CASAC and SAB that are reflective of that stated commitment.

In conclusion, we urge you to ensure a high standard of qualifications, independence, and diversity of identities and backgrounds for members of SAB in order to make sure that landmark public health protections promulgated by the EPA begin with rigorous science and continue to improve the lives of those in the United States.

Sincerely,

A handwritten signature in black ink that reads "Genna Reed". The signature is written in a cursive, flowing style.

Genna Reed
Senior Analyst, Center for Science and Democracy
Union of Concerned Scientists
1825 K Street NW, Suite 800
Washington, DC 20006

¹ Kelly, ML, Reed G, Goldman GT, Carter JM. Safeguarding against distortions of scientific research in federal policymaking. *Environmental Law Reporter*. 2021;51(1):10014-10025. <https://elr.info/news-analysis/51/10014/safeguarding-against-distortions-scientific-research-federal-policymaking>.

² Environmental Protection Agency. 2021. “Administrator Regan Directs EPA to Reset Critical Science-Focused Federal Advisory Committees.” Press Release, March 31. <https://www.epa.gov/newsreleases/administrator-regan-directs-epa-reset-critical-science-focused-federal-advisory>.

³ White House. 2021. “Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking.” January 27. <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/memorandum-on-restoring-trust-in-government-through-scientific-integrity-and-evidence-based-policymaking/>.

⁴ See attached letter and available at Reed, G. 2021. “Federal Government Should Embrace More Diverse and Inclusive Science Advice.” *The Equation* (blog). April 29. <https://blog.ucsusa.org/genna-reed/federal-government-should-embrace-more-diverse-and-inclusive-science-advice/>.

⁵ Reed, G. 2021. “EPA Says More Diverse Advisory Committees Will Mean More Equitable Decisions.” *The Equation* (blog). May 17. <https://blog.ucsusa.org/genna-reed/epa-more-diverse-advisory-committees-more-equitable-decisions/>.

June 1, 2021

Dr. Thomas Armitage
Designated Federal Officer (DFO), Science Advisory Board
U.S. Environmental Protection Agency Headquarters
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 1400R
Washington, DC 20460
Via Email: armitage.thomas@epa.gov

Re: Invitation for Public Comment on the List of Candidates for EPA's Scientific Advisory Board (SAB)

Dear Dr. Armitage:

I respectfully submit this letter to support for Dr. Crystal Upperman, a nominee for the U.S. Environmental Protection Agency's (EPA) Science Advisory Board (SAB). It is my understanding that the SAB Staff Office invited nominations of individuals to serve on the chartered SAB with expertise or extensive experience in the scientific disciplines and topics that relate to human health.

I currently serve as Executive Director of the Maryland/DC chapter of the Nature Conservancy (TNC). TNC is a global environmental nonprofit working to create a world where people and nature can thrive. Founded in the U.S. through grassroots action in 1951, The Nature Conservancy has grown to become one of the most effective and wide-reaching environmental organizations in the world. Thanks to more than a million members and the dedicated efforts of our diverse staff and over 400 scientists, we impact conservation in 72 countries and territories: 38 by direct conservation impact and 34 through partners. Our mission is to conserve the lands and waters on which all life depends.

The EPA strives for new perspectives on the SAB when accessing balance on the Board. This notion of perspectives stems from EPA's Peer Review Handbook instructing that the Agency "rotate membership among qualified scientists to obtain fresh perspectives and reinforce the reality and perception of independence."¹ These fresh perspectives often arise with the introduction of candidates who understand the human element and interdisciplinary impacts of EPA's decisions; this is the reason why strong consideration should be given to Dr. Crystal Upperman.

¹ Environmental Protection Agency, Science and Technical Policy Council, Peer Review Handbook, 4th Ed. (Oct. 2015). https://www.epa.gov/sites/production/files/2020-08/documents/epa_peer_review_handbook_4th_edition.pdf

Dr. Upperman leads the integration of public health information and informed risk characterization into Aclima's air pollution and greenhouse gas measurement and analysis products. In her prior roles, she was a Senior Research Associate at the World Resources Institute on the Global Commission on Adaptation, at AECOM she was the Climate Adaptation and Resilience Lead for the Southeast US, Latin America, and the Caribbean, and she managed the CDC's Building Resilience Against Climate Effects (BRACE) program for Maryland Department of Health. She worked as an environmental regulator, very early in her career, for the New Jersey Department of Environmental Protection and the Georgia Environmental Protection Division's Ambient Air Quality Program.

Dr. Upperman's research focus is in exposure science and spatial epidemiology and has included a national assessment of the impact of climate change, pollen exposure, and extreme heat on chronic respiratory diseases. Crystal is a volunteer Trustee of The Nature Conservancy's Maryland/DC chapter and is an Advisory Board Member for the American Public Health Association's Center for Climate, Health, and Equity.

Crystal earned a PhD in Marine, Estuarine, and Environmental Science from the University of Maryland as a U.S. EPA Science to Achieve Results Fellow and an NSF Louis Stokes Alliance for Minority Participation Fellow, a Master of Public Administration in Nonprofit Management from Kennesaw State University, and a Bachelor of Science in Environmental Science from Spelman College.

Dr. Upperman's background and experience reflects the rigor and acumen necessary to help the U.S. EPA make informed environmental decisions to protect public health.

Sincerely,

A handwritten signature in black ink, appearing to read 'Tim Purinton', with a long horizontal flourish extending to the right.

Tim Purinton
Executive Director

CC: Dr. Crystal Upperman



June 9, 2021

Dr. Thomas Armitage
Designated Federal Officer
Science Advisory Board (SAB) Staff Office
U.S. Environmental Protection Agency (EPA)

Re: US Water Alliance Comments on the List of Candidates for the Environmental Protection Agency's Science Advisory Board

Dear Dr. Armitage,

On behalf of the US Water Alliance, it is our pleasure to submit these comments on the list of candidates for the Environmental Protection Agency's (EPA) Science Advisory Board (SAB).

Dr. Marcus Hendricks, University of Maryland

Dr. Hendricks' groundbreaking research at the intersection of stormwater and equity is shaping conversations for advancing a One Water future across the water sector. His development of the Participatory Assessment Technique for Infrastructure (PATI), as well as ongoing research and work at the Stormwater Infrastructure Resilience and Justice (SIRJ) Lab are helping to fill important gaps in the sector's understanding of how to better create and invest in equitable solutions. He was an invaluable expert for a US Water Alliance [project working with nine cross-sector learning teams](#) (water utilities, gov't, planning, community, environmental groups) working together to design priority actions for equitable flood resilience. We recommend him for the US EPA's Scientific Advisory Board as one of the nation's foremost experts on stormwater, equity, and infrastructure, and influencer in innovative approaches for a resilient water future.

June Weintraub, San Francisco Department of Public Health

June's expertise in epidemiology and water quality has been a tremendous asset to advancing water reuse solutions that protect public health. Her close collaboration with the San Francisco Public Utilities Commission (SFPUC) has helped shape and adjust new programming for water systems that follows the best available science and ensures successful implementation. June has been a key partner on the [National Blue Ribbon Commission for Onsite Non-Potable Water Systems](#) since its inception, a coalition of public health agencies and water utilities working to take risk-based framework for water quality standards and provide guidance for the growing practice of decentralized solutions for non-potable water uses. The commission was a US Water Alliance initiative, that after 3 years was transitioned over to management under the Water Reuse Association. We recommend June for the US EPA's Scientific Advisory Board as a national expert and successful collaborator on public health and water quality.

Dr. Juliet Christian-Smith, The Water Foundation

Dr. Christian-Smith has a long-track record of translating climate and water science into practice to ensure safe, healthy, and equitable communities. Her work at the intersection of these areas has been a key informant and influencer of the US Water Alliance's work on water access, water equity, and flood resilience. In her role at The

Water Foundation, she helps ensure projects and funding throughout the water sector are held to the highest standard of using the best available science and pairing it with a growing understanding of social implications on the ground. She was also a key driver and thought-partner for the Alliance and Water Foundation report on [state and tribal innovations on drinking water](#). We recommend Dr. Christian-Smith for the US EPA's Scientific Advisory Board as a leader on water, equity, and climate with a strong scientific background and practice.

Dr. Charles Bott, Hampton Roads Sanitation District

Dr. Bott is at the forefront of technology applications and innovation to improve water quality management. Although stationed at the Hampton Roads Sanitation District (HRSD), his work continues to be instrumental throughout the water sector. HRSD's advancement of sustainable approaches and groundwater reuse is strengthening resilience in a critical area of the Eastern Seaboard and has offered a model for many US Water Alliance member utilities looking to address water challenges in the face of a changing climate. Dr. Bott's work with other water associations such as The Water Research Foundation and the Water Environment Federation center around driving research and innovation into practice at utilities. We recommend Dr. Bott for the US EPA's Scientific Advisory Board as a renowned leader and expert on utility innovation in the water sector.

Adrienne Hollis, Union of Concerned Scientists

Dr. Hollis' work in public health, environmental justice, and climate change has been instrumental shaping many sector's understanding of the intersectionality of climate impacts on vulnerable communities, including the water sector. US Water Alliance staff have leaned on her expertise for important conversations around climate information, water governance, and justice for convenings with key partners in the domestic/international water sector. Her insights and work to date have provided important background and landscape assessments for key issues we're addressing in water, particularly through our climate program. We recommend Dr. Hollis for the US EPA's Scientific Advisory Board as an important thought leader and voice, with key expertise in some of the most critical issues facing our nation.

Dr. Mark LeChevallier, Dr. Water Consulting

Dr. LeChevallier has a long tenure of providing valuable research and scientific perspective on water quality that has helped water utilities, private companies, and national water associations deepen their understanding on critical and challenging issues such as legionella. His work continues to inform better approaches for water treatment technologies, disinfection processes, and water management. We recommend Dr. Chevallier for the US EPA's Scientific Advisory Board as a long-standing scientist, researcher, and contributor to advancing the water sector.

Thank you for the opportunity to submit these comments, we look forward to continuing to work with EPA for sound science in the water sector and beyond.

Sincerely,



Renee Willette
Vice President, Programs & Strategy
Co-Interim CEO



Sara Aminzadeh
Vice President, Partnerships
Co-Interim CEO



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June 9, 2021
VIA EMAIL

Dr. Thomas Armitage
Designated Federal Officer
Science Advisory Board
U.S. Environmental Protection Agency
Email: armitage.thomas@epa.gov

Dear Dr. Armitage:

I am writing to enthusiastically support the nomination of Dr. Joseph Odencrantz for appointment to the EPA Science Advisory Board. Of all of the dedicated environmental engineering professionals I have had the pleasure of working with over the years, I can scarcely imagine a more perfect person for this role. Dr. Odencrantz has been at the forefront of investigating and remediating environmental contamination in California and beyond for over 30 years. His work ethic and breadth of understanding in terms of assessing and solving environmental hazard issues is truly second to none – I have joked with him in the past that he must not sleep at night because he somehow does the work of three people all by himself. I have never known anyone that can absorb and synthesize as many documents and as much information in a short period of time as Joe.

While I have no doubt that all of the nominees are qualified professionals capable of understanding the issues and providing noteworthy contributions, Dr. Odencrantz has that rare ability to not just understand what is happening now, but to see forward into the future and understand what the issues of tomorrow will be. For just a few examples, Dr. Odencrantz sounded the alarm bells regarding MTBE and PFAS contamination many years before they respectively became the environmental topics du jour. It is his capacity to see what's coming next that I think will truly make him an asset to the agency.

His career accomplishments speak for themselves. But beyond the awards, honors, speaking engagements, expert testimony and published articles, Dr. Odencrantz has spent years in the field, doing the hard work of solving real environmental contamination problems and producing tangible results. That perspective, in my humble opinion, makes him the right person for this job. Thank you.

Best regards,

A handwritten signature in blue ink, appearing to be 'AB', written over a light blue circular scribble.

Andrew Brady

cc. Dr. Bryan Bloomer (bloomer.bryan@epa.gov)

From: [Stephens, Jennie](#)
To: [Armitage, Thomas](#)
Cc: [Stephens, Jennie](#)
Subject: EPA science advisory board - Shanti Gamper-Robindran
Date: Wednesday, June 23, 2021 5:07:54 AM
Attachments: [image002.png](#)

Dear Dr Thomas Armitage,

I am writing to endorse and recommend with the highest level of support Shanti Gamper-Robindran to the EPA Science Advisory Board. I have known her for several years, and I know she would be an excellent person to have on this board.

Best,

Jennie Stephens

Jennie C. Stephens, PhD (*she/her*)

Director & Professor, [School of Public Policy & Urban Affairs](#)

Director for Strategic Research Collaborations, [Global Resilience Institute](#)

Northeastern University, Boston, MA USA

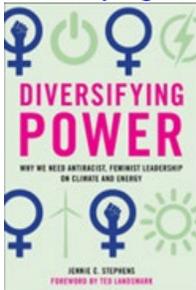
@jenniestephens (twitter) jenniestephens.com

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[The Hidden Injustices of Solar Geoengineering Research](#)

[Diversifying Power: Why We Need Antiracist, Feminist Leadership on Climate and Energy](#)



From: [Todd Sack](#)
To: [Bloomer, Bryan](#); [Armitage, Thomas](#)
Subject: Recommendation for Dr John O'Brien to the Climate Science Advisory Board
Date: Tuesday, June 29, 2021 6:52:26 AM
Attachments: [Climate Science Advisory Board recommendation for Dr. John Obrien 6.2021.docx](#)

Good morning. I am pleased to support the nomination of Dr. John O'Brien for membership in EPA's Advisory Board. My letter of recommendation is attached.

Thank you.
Todd

Todd L Sack MD FACP
WeCare@Borland-Groover (healthcare for the uninsured)
Executive Director, My Green Doctor Foundation
tsack8@gmail.com 904-403-6446 (he/his)

From: [Beverly L Wright](#)
To: [Armitage, Thomas](#)
Subject: Sacoby Wilson Letter of Support
Date: Saturday, July 10, 2021 5:05:00 PM
Attachments: [image.png](#)
[image.png](#)



July, 8th, 2021

Dr. Thomas Armitage
Designated Federal Officer
US Environmental Protection Agency

Dear Dr. Armitage,

It is with great pleasure that I write this letter of support for Dr. Sacoby Wilson who is a candidate for membership on the Environmental Protection Agency's Scientific Advisory Board (SAB). I have known Dr. Wilson for fifteen years, and on first encounter formed an immediate bond with him. I was impressed with his determination and commitment to the advancement of science, evidenced by his brilliance, energy, and great motivation. He has always stayed the course and is constantly pursuing ground-breaking research and advocating for public health policies that better protect those in our society.

Sacoby has made excellent contributions to the field of environmental health and environmental justice. His inquisitive nature and keen intellect is a harmonious reflection of the mindsets of current SAB members. His advocacy, scholarship, teaching, mentorship, technical assistance, and publication record has been something for me and many others to marvel at. Yet, he has not finished. He has more to offer. Having his earned place on your board is an opportunity for us all to increase the likelihood of accomplishing our goals. Because Dr. Sacoby Wilson has increased agency. I wholeheartedly support his candidacy and humbly ask you to give him very positive consideration in your selection process.

Sincerely and Respectfully,

Beverly Wright, Ph.D.
Founder & Executive Director
Deep South Center for Environmental Justice



Beverly L. Wright, Ph.D.
Executive Director - DSCEJ
Co-Chair National Black Environmental Justice Network (NBEJN)
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