

Fifth Annual Conference

SHALE

— AND —

PUBLIC HEALTH

November 13, 2017

University Club

Hosted by the University of Pittsburgh Graduate School of Public Health



A presentation of the
League of Women Voters of Pennsylvania

With funding from the
Colcom Foundation and The Heinz Endowments
to the League of Women Voters of PA Citizen Education Fund

Presentations include a question and answer session.
Please write your questions on the index cards provided and hold them up for someone to collect.

LIST OF EXHIBITORS

- **Air Emissions Associated with Shale Gas Development: A Photographic Journey**
(photography by Bill Hughes, West Virginia)
- **Article 1 Section 27 poster (League of Women Voters)**
- **Air Quality Collaborative**
- **Clean Air Council, featuring the “Groups of Ten”**
- **Physicians for Social Responsibility**
- **Protect Our Children**
- **Re-Imagine! Beaver County**
- **SWPA-Environmental Health Project**

INFORMATION ABOUT SHALE GAS EXTRACTION PROCESSES

- **LWV Straight Scoop Storybox interactive listening devices “Shale from the Ground to the Consumer” and “Pipelines”**

All attendees will receive copies of the League of Women Voters of Pennsylvania's 2017 updated "Shale Gas Extraction and Public Health" Resource Guide

SHALE & PUBLIC HEALTH

Pitt University Club • November 13, 2017 • 8:30 AM – 5:30 PM

- 8:30 a.m. Ballroom B** **Registration/Sign-In** **Exhibits and Photo Gallery**
- 9 a.m.** **Welcome**
Susan Carty President, League of Women Voters of Pennsylvania
Bruce Pitt PhD Dept. Chair, Pitt Graduate School of Public Health
- 9:45** **Panel on Shale Health Registries: Two Approaches**
Jill Kriesky PhD Associate Director, SWPA-Environmental Health Project
Stephanie Hasanali PhD Research Contractor, PA Dept. of Health
- Break – (10 min.)
- 11:00** **Keynote**
Walter Tsou MD MPH Executive Director, Phila. Physicians for Social Responsibility
- Break – (10 min.)
- Noon – 1:00** **LUNCH and Speaker: Health Equity and Energy**
Carl Jones Jr. JD LLM Staff Attorney, Earthjustice (former PA DEP Dir. Envir Justice)
- 1:00 p.m.** **Researching the Public Health Impact of an Ethane Cracker and Petrochemical Development**
Panel moderated by **Samantha Rubright, DrPH**, FracTracker Alliance
Jennifer Baka PhD Assistant Professor, Pennsylvania State University
James (Jim) Fabisiak PhD Associate Professor, Pitt Grad School of Public Health
Albert Presto PhD Associate Research Professor, Carnegie Mellon U.
Brian Schwartz MD Professor, Johns Hopkins; Senior Investigator, Geisinger Center for Health Research
- 2:00** **New Research: Heart Failure, Depressive Symptoms**
Brian Schwartz MD Johns Hopkins Schools of Public Health, & Medicine/Geisinger
Tara McAlexander MPH PhD Candidate, Johns Hopkins
- Break – (10 min)
- 3:00** **Fenceline Monitoring**
Gwen Ottinger PhD Associate Professor, Drexel; Director, Fair Tech Collective
- Break – (10 min)
- Ballroom B** **GENERAL AUDIENCE: Interactive Session - Citizen Science: Air Monitoring**
4:00 p.m. **Three Stations, Rotate every 20 minutes. Albert Presto PhD - Real-Time Affordable Multi-Pollutant sensor (RAMP); Mark Dixon, BSIE – A Citizen's Experience with using, interpreting and reporting air data; Sara Longo BS – SPECK air sensor**
- Gold Room** **CME/CEU Break-out Session for Health Professionals**
4:00 p.m. **Addressing Shale Health Issues in Practice: Health Impacts of Climate Change**
Ned Ketyer MD FAAP Pediatrician, Editor of the *Pediablog*
- 5:00** **EXHIBITS, Turn in Evaluation Forms, Sign Out for CME/CE Credits**
- 5:30** **Adjournment**

SPEAKER BIOGRAPHIES

Jennifer Baka Ph.D. is Assistant Professor in the Department of Geography at Pennsylvania State University, and a John T. Ryan Jr. Faculty Fellow in the College of Earth and Mineral Sciences (2017-2020). She is an energy geographer interested in understanding the interconnected political and biophysical processes shaping and shaped by systems of energy provision. Motivated by growing up in the former coal region of northeast Pennsylvania, her main research objective is to evaluate the distribution of costs and benefits resulting from energy provision and to design strategies for reducing the all too often unequal distribution of these flows. Long an advocate of interdisciplinary research and mixed method approaches, her research draws upon and helps to advance the fields of political ecology, resource geography, environmental governance, energy studies and industrial ecology.

Along with collaborators Dr. Joshua Newell and Joshua Cousins, she is currently working to establish the field of political-industrial ecology, a sub-field of nature-society geography that seeks to better evaluate the social, political and ecological processes sustaining industrial society. This work is empirically motivated by nearly a decade of research examining the social and environmental impacts of biofuel promotion in India.

Dr. Baka is also involved with several research projects related to shale development in the US. One project examines governance decision making at the federal level, particularly regarding the Bureau of Land Management's efforts to regulate hydraulic fracturing on federal and tribal lands. A second project will examine the governance processes and impacts of the proposed ethane cracker plant outside of Pittsburgh, PA.

Susan Carty B.A. M.EQ. was elected President of the League of Women Voters of Pennsylvania in June 2013 and is proud to continue that role today. Previously, she had been the president of the LWV Chester County and also served as LWVCC's education committee chair. She joined the League in 2009.

Susan was a Life Insurance Underwriter for Prudential Insurance Company and National Liberty Insurance Company. Later in life she became a Science Teacher in the West Chester Area School District, teaching there for 20 years. She is the co-author of a science lab instruction manual for Pfizer Corporation.

Susan received a B.A. in Bio-Psych from Immaculata College. She earned a Masters Equivalent, completing course work in the sciences from WCU, Millersville, Widener, Woods Hole Marine Biological Laboratory, and University of Montana. She is also a Certified Master Planner.

Before retiring from her career in science education, Susan was granted the "opportunity of a lifetime" as the Teacher At Sea. She joined a team of NOAA scientists aboard the ship, The Ron Brown, traveling for 40 days across the Pacific from Hawaii to Japan. The expedition continued on land to the Iwacuni, Japan Marine- Air Base and Cheju Island, South Korea, where she had the opportunity to speak to middle and high school students.

Susan was instrumental in the establishment of a pilot program for Teacher Training at the Virginia Institute of Forensic Science and Medicine, resulting in another memorable experience for five science teachers from the West Chester Area School District. She believes that gaining knowledge and experiences in life is truly a never-ending process. What one does with that knowledge is the key.

Susan Carty's public service includes previously serving as Director of the West Chester Area School Board (2006-2009), on the Chester County Regional Planning Commission (2005-2007), and as Member and Chair of the East Goshen Township Planning Commission (2002-2015). She is currently an Advisory Board Member for Pennsylvanians for Modern Courts.

Mark Dixon B.S.I.E. is an award-winning filmmaker, photographer, activist, and public speaker exploring the frontiers of social change on a finite planet. After graduating from Stanford University with a degree in industrial engineering, he worked for start-up companies in Silicon Valley before turning to documentary filmmaking. His productions include "YERT—Your Environmental Road Trip" (a year-long "eco-expedition" through all 50 United States exploring environmental sustainability) and, "The Power of One Voice: A 50-Year Perspective on the Life of Rachel Carson." In December 2015, he crowd-funded a journey to Paris, France, to attend and cover the United Nations Climate Change Conference—Conference of Parties (COP21) as credentialed press (<https://markatcop21.wordpress.com/>).

Mark is currently working on a new documentary entitled "Inversion: The Unfinished Business of Pittsburgh's Air," including an in-depth citizen science exploration of regional air issues. These efforts moved Pittsburgh's Group Against Smog and Pollution (GASP) to name him a "Champion for Healthy Air" in 2017. Mark has given presentations on environmental topics to diverse audiences including at Carnegie Mellon University, Yale University, Stanford University, Sony Pictures, TEDx Pittsburgh, and the U.S. EPA. Mark also serves on the board of the internationally renowned Thomas Merton Center. His activism photography has been featured in the Smithsonian's National Museum of African American History and Culture. You can read more about Mark's work at <http://lens.blue/>.

James (Jim) Fabisiak Ph.D. is an Associate Professor of Environmental & Occupational Health at the University of Pittsburgh Graduate School of Public Health. He primarily considers himself a mechanistic toxicologist studying the cellular and molecular responses of injury, inflammation, repair and pathologic remodeling in the lung following environmental insult. More recently he has "expanded his portfolio" to include more public health community-based activities such as studying public health risks associated with point source air pollution, unconventional natural gas drilling and marine oil spills. He has received funding from the NIH, EPA and other sources and contributed to over 50 peer-reviewed publications. He is an author of several PRETA reports examining community air quality issues in Southwest PA.

Stephanie Hasanali Ph.D. is a contract researcher with the Pennsylvania Department of Health in the Division of Environmental Health Epidemiology. She has been tasked with developing the state's electronic health registry related to unconventional oil and natural gas development (UONGD), and is the primary contact for Pennsylvanians with questions about UONGD health impacts. Prior to starting work at the Department of Health, she received her PhD in Sociology and Demography with a minor in Health from Pennsylvania State University in 2015 and worked as a Research Associate for one year with the Population Research Institute at Pennsylvania State University. Dr. Hasanali's research interests are broad – health policy, immigrant health, health disparities, and environmental health – but she has an enduring goal to work at the nexus of research and policy. Originally from Minneapolis, Minnesota and with brief stints in Boston and Chicago, she has lived in Pennsylvania for the last seven years.

Carl Jones, Jr. J.D. L.L.M. is a Staff Attorney with the Clean Energy Program at Earthjustice based in the Philadelphia Office and focusing on advancing clean energy in Pennsylvania.

Carl is an experienced trial attorney. He has litigated at several law firms in Pennsylvania, including The Tucker Law Group, Kline & Specter, and K&L Gates. Most recently, Carl served as the Director of the Office of Environmental Justice at the PA Department of Environmental Protection. In that role, Carl led efforts to reconstitute DEP's policies and commitment to serve all residents of Pennsylvania, and to establish diverse and inclusive partnerships with Environmental Justice community members and advocates. Carl also serves as an advisor to the advocacy program at the University of Pennsylvania School of Law.

Carl is a graduate of The University of Georgia School of Law and Cornell University. Carl also has an LLM from Temple University's Beasley School of Law. Outside of the office, Carl enjoys cycling and tacos (the former as a way to counteract the latter) and putting random bits of knowledge to use at trivia.

Ned Ketyer M.D., F.A.A.P. is a Pittsburgh pediatrician with special interests in developmental pediatrics, preventative medicine, and environmental health. He earned his bachelor's degree from the University of Vermont and his medical degree from Northwestern University Medical School. He completed his residency at Children's Hospital of Pittsburgh. After practicing for more than 26 years at Pediatric Alliance, Dr. Ketyer retired from office practice at the beginning of 2017, however, he continues to write and edit Pediatric Alliance's popular blog, *The PediaBlog*, which just celebrated its 5th anniversary and 2,000th post! Dr. Ketyer is a member of the American Academy of Pediatrics Council on Environmental Health. He is a consultant for the Southwest Pennsylvania Environmental Health Project and a board member of Physicians for Social Responsibility - Pennsylvania.

Jill Kriesky Ph.D. has served as the Associate Director of the Southwest Pennsylvania Environmental Health Project (EHP) since 2013. She received her PhD in Economics from the University of New Hampshire and spent more than twenty years in university-based community outreach on issues including labor relations, economic development and community health. Prior to coming to EHP, Kriesky worked at the University of Pittsburgh Graduate School of Public Health's Center for Healthy Environments and Communities where her outreach and collaboration efforts focused on the potential health impacts of unconventional natural gas development. She has continued working on this topic at EHP, most recently co-leading, with Beth Weinberger, the development and implementation of the Environmental Health Project Shale Gas and Oil Registry and Resource Network.

Sara Longo B.S. is the Operations Manager of an air quality company (AirViz) which works with the SPECK sensor developed at Carnegie Mellon University. Previously, she worked in research at the University of Pittsburgh's Internal Medicine Department and provided therapeutic support to children with autism at The Watson Institute. She studied Biology and French at Allegheny College.

Sara is an excited outreach member for CMU CREATE Lab's EarthTime climate change visualizations, Regional Director of ACEing Autism, council member of Style412, and founding member of The International Center for Free Expression in Pittsburgh, PA. Sara is passionate about bringing people together, building startups from the ground up, and growing a deep sense of community in her hometown of Pittsburgh. She participated in the 2015 cohort of the Coro Women in Leadership program.

Tara McAlexander M.P.H. is a PhD candidate in the Department of Environmental Health and Engineering at the Johns Hopkins Bloomberg School of Public Health. She also has a Masters of Public Health, specializing in environmental and molecular epidemiology, from the Department of Environmental Health Sciences at Columbia University's Mailman School of Public Health, and a BA in environmental science from Barnard College. Her dissertation research uses electronic health records to study associations between unconventional natural gas development and heart failure in Pennsylvania.

Gwen Ottinger Ph.D. is Associate Professor, Department of Politics, Center for Politics, Technology and Science in the College of Arts & Sciences at Drexel University. Ottinger directs the Fair Tech Collective, a research group committed to using social science theory and methods to inform the development of technologies that foster environmental justice. Her work yields insight relevant to public policy for environmental protection and for technological innovation. Her commentary and analysis have appeared in major print media, blogs, and the National Academies of Science journal *Issues in Science and Technology*. She has been quoted by *Grid Magazine*, *Public Source*, and National Public Radio affiliate *WHYY*, as well as other publications focusing on energy, design, science, and the environment.

Ottinger holds a PhD from University of California, Berkeley, as well as bachelor's degrees in both engineering and the humanities from Georgia Institute of Technology. She is the recipient of a prestigious Early Career Development (CAREER) award from the National Science Foundation, and of the 2015 Rachel Carson prize for her book *Refining Expertise: How Responsible Engineers Subvert Environmental Justice Challenges*.

Bruce R. Pitt Ph.D. is Professor and Chairman of the Department of Environmental and Occupational Health, Graduate School of Public Health at the University of Pittsburgh. In addition, he is Professor of Pharmacology and Chemical Biology (School of Medicine) and Bioengineering. He holds a BA from Brown University and a PhD in Environmental Physiology from The Johns Hopkins University Bloomberg School of Public Health. Dr. Pitt's research focuses on the molecular pharmacology and toxicology of the lung and has been continuously supported by National Institutes of Health for over 30 years including a Method to Extended Research in Time (MERIT) award. He was an Established Investigator of the American Heart Association. He was Chairman of NIH Lung Biology Pathology Study Section and California Tobacco-Related Pulmonary Disease Study Sections and served on NIH Heart Lung Blood Institutes Program Project Review and Mentored Clinician Scientist Review committees. He was a member of Scientific Advisory Board for iNO Therapeutics and Parker Francis Foundation and currently is on Gilead Pharmaceuticals Pulmonary Arterial Hypertension advisory board. Dr. Pitt was Chairman of the Respiratory section of American Physiological Society and Chairman of Pulmonary Circulation and Respiratory Molecular Cell Biology sections of the American Thoracic Society. In addition, he led a recent Heinz Endowments supported study on perinatal outcomes in Southwestern Pennsylvania and Marcellus Shale.

Albert Presto Ph.D. is an Associate Research Professor at Carnegie Mellon University. His research focuses on pollutant emissions from energy extraction and consumption and the subsequent atmospheric transformations that these emissions undergo. Dr. Presto investigates the contributions of primary and secondary pollution with ambient measurements, laboratory experiments, source testing of pollution sources, and atmospheric models. This multi-pronged and multi-disciplinary approach allows for a holistic view of pollutant emissions and transformations in the atmosphere. In addition to having environmental impacts, these pollutants, particularly ozone and particulate matter, adversely impact human health. Dr. Presto collaborates with medical professionals to develop detailed studies of pollutant exposure on a neighborhood-by-neighborhood basis, and to better understand the relationships between pollutant emissions and adverse health effects such as childhood asthma.

Samantha Malone Rubright Dr.P.H., C.P.H is the Manager of Communications and Partnerships for FracTracker Alliance, a non-profit she helped to start that studies, maps, and communicates the risks of oil and gas development. With FracTracker, Dr. Rubright conducts and translates environmental health research for the website; nurtures collaborative relationships; manages FracTracker's student internship program; and serves as the primary contact for media inquiries. Dr. Rubright obtained a Doctor of Public Health (DrPH) degree in 2016 from Pitt Public Health's Environmental and Occupational Health department, focusing on the effects of exposure to cyanide and hydrogen sulfide. Additionally, she has explored and advised on the impacts of extractive industries on communities and public health in Africa and Europe.

Brian S. Schwartz M.D. M.S. is a Professor in the Department of Environmental Health and Engineering in the Johns Hopkins Bloomberg School of Public Health, where he is Associate Chair of the Department. He is jointly appointed in the Department of Epidemiology in the School of Public Health and in the Department of Medicine in the School of Medicine. He is also a Professor in the Department of Epidemiology and Health Services Research in the Geisinger Center for Health Research in Danville, PA. He served as director of the Division of Occupational and Environmental Health from 1996 to 2006 and as director of the Occupational and Environmental Medicine Residency from 1993 to 1998, and then again from 2016 to the present. He is currently co-director of the Program on Global Sustainability and Health and director of the Geisinger Environmental Health Institute.

Dr. Schwartz received a B.S. degree in chemistry from Tufts University; an M.D. degree from Northwestern University Medical School; and an M.S. degree in clinical epidemiology from the University of Pennsylvania School of Medicine. He completed a residency in internal medicine at the Hospital of the University of Pennsylvania, and then was a Mellon Foundation Scholar in Clinical Epidemiology and a fellow in General Medicine at the same institution. He completed a fellowship in occupational and environmental medicine at the Johns Hopkins School of Hygiene and Public Health, then joined the faculty there as an Assistant Professor.

Dr. Schwartz's research uses epidemiologic methods to evaluate the public health impacts of occupational and environmental exposures. He has studied the health effects of a variety of chemical and metal toxicants in several large-scale, longitudinal studies. More recently, he has been evaluating the public health implications of energy use, land use, food systems, the built environment, and related sustainability issues. He helped found the Geisinger Environmental Health Institute in 2007 in the Geisinger Center for Health Research. The Institute is engaged in a number of environmental epidemiology studies using electronic health record data from the health system on over 400,000 primary care and over 1,000,000 specialty care patients. Ongoing studies include those of animal feeding operations and risk of antimicrobial-resistant infections (including methicillin-resistant *Staphylococcus aureus* [MRSA]); the food, physical activity, land use, and social environments and body mass index in children; the built environment and the burden of abandoned coal mine lands and their associations with type 2 diabetes outcomes; and the public health considerations of unconventional natural gas development (Marcellus shale).

Walter Tsou M.D. M.P.H. is the Executive Director of Philadelphia Physicians for Social Responsibility and an Adjunct Professor at the University of Pennsylvania's Center for Public Health Initiatives. He is a past president of the American Public Health Association and former health commissioner of Philadelphia.

Dr. Tsou is an expert on health care issues such as health reform and health care financing. He received his medical degree from the University of Pennsylvania and his master's degree from the Johns Hopkins School of Hygiene and Public Health. He holds an honorary doctorate in medical sciences from Drexel University. He was named Practitioner of the Year by the Philadelphia County Medical Society in 2001.

SHALE and PUBLIC HEALTH COMMITTEE MEMBERS

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