

Fourth Annual Conference

SHALE — AND — PUBLIC HEALTH

November 16, 2016

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

to LWVPA Citizen Education Fund "Straight Scoop on Shale"

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

• MARCELLUS SHALE DOCUMENTARY PROJECT II (a sampling of photographs from their latest exhibition)

- **Article 1 Section 27 poster (League of Women Voters)**
- **Alliance of Nurses for Healthy Environments (ANHE)**
- **Allegheny County Clean Air Now (ACCAN)**
- **Moms Clean Air Force**
- **PennEnvironment**
- **Protect Pennsylvania: Health Professionals for a Livable Future**
- **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 2016 updated "Shale Gas Extraction and Public Health" Resource Guide

SHALE & PUBLIC HEALTH

Pitt University Club • November 16, 2016 • 8:30 AM – 5:30 PM

- 8:30 a.m.** **Registration/Sign-In** **Exhibits: Marcellus Shale Documentary Photos**
Ballroom B
- 9 a.m.** **Welcome**
Susan Carty **President, League of Women Voters of Pennsylvania**
Bruce Pitt PhD **Dept. Chair, Pitt Graduate School of Public Health**
- 9:30 a.m.** **Site Variability, Research, and Individual Family Risk**
Bernard Goldstein MD Emeritus Dean/Professor Pitt Graduate School of Public Health
- 9:50** **Panel on Setback Distances: Two Research Studies**
Marsha Haley MD **Radiation Oncologist Magee-Womens, Asst. Prof. UPMC**
Jill Kriesky PhD **Associate Director, SWPA-Environmental Health Project**
- Break – (10 min.)
- 11:00** **Air Quality, Health Impacts and Citizen Monitoring: Lessons from Houston**
Eduardo (Jay) Olaguer PhD **Program Director, Air Quality Science, HARC**
- Break – (10 min.)
- Noon – 1:00** **LUNCH and Speaker: Norms of Science and of Commerce**
Tim Whitehouse JD **Executive Director, Chesapeake PSR**
- 1:00 p.m.** **New Research on Asthma and Other Public Health Considerations of Shale Gas**
Brian Schwartz MD **Johns Hopkins Schools of Public Health, & Medicine**
Sara Rasmussen MHS **PhD Candidate, Johns Hopkins**
- 2:00** **Assessment of Peer-Reviewed Literature on UNGD & Public Health 2009-2015**
Jake Hays MA **Director Environmental Health, PSE Healthy Energy**
- Break – (10 min)
- 3:00** **Air Pollutant Emissions from UNGD and Infant/Child Respiratory Health**
Ellen Webb MPH **Healthy Energy Sciences Manager, Ctr. Environ Health**
- Break – (10 min)
- Ballroom B** **GENERAL AUDIENCE: Interactive Session - Citizen Health Research Tools**
4:00 p.m. **John Graham PhD** **Senior Scientist Clean Air Task Force**
Brook Lenker MA Executive Director & **Matt Kelso** Data Mgr, FracTracker Alliance
- Gold Room** **CME/CE Break-out Session for Health Professionals**
4:00 p.m. **Addressing Shale Health Issues in Practice**
Ralph Schmeltz MD FACP FACE PRHI, Past President PA Medical Society;
Marsha Haley, MD; Carole Perry PhD MPH SWPA-Environmental Health Project
- 5:00** **EXHIBITS, Turn in Evaluation Forms, Sign Out for CME/CE Credits**
5:30 **Adjournment**

SPEAKER BIOGRAPHIES

Susan Carty was elected President of the League of Women Voters of Pennsylvania in June 2013. She is also the president of the LWV Chester County, previously serving as LWVCC's education committee chair. She joined the League in 2009.

Ms. Carty has been an insurance underwriter for Prudential. She was also a science teacher in the West Chester Area school district, and a NOAA Teacher-at-Sea in the Pacific. She is the co-author of a science lab instruction manual for Pfizer Corporation. Ms. Carty holds a B.A. from Immaculata College.

Susan Carty's public service includes serving on the Chester County Regional Planning Commission (2005-2007), WCASD School Board (2006-2009), and as Member and Chair of the East Goshen Township Planning Commission (2002-2015). She is currently a Member of the Board of Pennsylvanians for Modern Courts (since 2014).

Bernard D. Goldstein M.D. is emeritus Dean and emeritus Professor of Environmental and Occupational Health at the University of Pittsburgh Graduate School of Public Health. He is a physician, board certified in Internal Medicine, Hematology and in Toxicology. He has authored over 150 publications in the peer-reviewed literature, as well as numerous reviews related to environmental health. In 2015, Dr. Goldstein was Visiting Professor at the University of Cologne comparing US and EU shale gas policies.

Dr. Goldstein is an elected member of the National Academies of Science Institute of Medicine (IOM), and has chaired over a dozen IOM or National Research Council Committees. His past experience includes service as Assistant Administrator for Research and Development of the U.S. Environmental Protection Agency, 1983-1985, and President of the Society for Risk Analysis. On shale gas issues he has published on scientific and policy aspects; served on both the US National Research Council and Canadian Council of Academies shale gas committees; and has chaired a working group of the Society of Toxicology.

John Graham Ph.D. works as a senior scientist at Boston-based Clean Air Task Force. His expertise covers the fate and transport of air pollution, including fine particulate matter, ozone, and air toxics. He has authored or contributed to many reports released by CATF over the last seven years, including two 2016 projects that estimated the air quality and health impacts from the oil and gas industry, "Gasping for Breath" and "Fossil Fumes." In 2011, he documented a decade's worth of air quality measurements and emission trends for the Pittsburgh region in the report "Fine Particulate Matter and Ozone Air Quality in Western Pennsylvania in the 2000s."

Prior to joining CATF, John was a project manager at NESCAUM where he co-authored two papers that analyzed the primary fine particle National Ambient Air Quality Standard published in the *Journal of the Air & Waste Management Association* and *Environmental Health Perspectives*. Other notable reports include an "Assessment of Carbonaceous PM_{2.5} for New York State and the Region" and "Modeling Mercury in the Northeast United States." John holds a PhD in Atmospheric Science from the Massachusetts Institute of Technology and an A.B. in Chemistry from Harvard University.

Marsha Haley M.D. is an Assistant Professor of Radiation Oncology at UPMC, and a practicing radiation oncologist at Magee-Womens Hospital of UPMC. She specializes in the treatment of breast and gynecological cancers. Research interests include breast cancer, brachytherapy, and public health effects of industrial pollution.

Dr. Haley received her medical degree from the University of Virginia School of Medicine, and completed a residency in radiation oncology at the University of Pittsburgh School of Medicine. She is a member of the American Brachytherapy Society, the American Society for Radiation Oncology, and the Consortium for Health and Energy Research.

Jake Hays M.A. is the Director of the Environmental Health Program at PSE Healthy Energy, a multidisciplinary research and policy institute comprised of physicians, scientists, and engineers who work to promote a scientific understanding of modern energy development. Hays also maintains a non-faculty academic appointment at Weill Cornell Medicine as a Research Associate in the Department of Healthcare Policy & Research. At PSE and Weill Cornell, Hays has focused his research on the environmental and public health implications of unconventional oil and gas development since 2011.

Hays received his B.A. in Philosophy from Connecticut College and his M.A. in Environmental Ethics from the University of Montana. He is expected to receive his J.D. from Fordham University School of Law in the spring of 2017. As an evening student at Fordham Law, Hays serves as a board member of the Environmental Law Advocates and Senior Articles Editor for the *Fordham Environmental Law Review*. He has also worked with Natural Resources Defense Council and Riverkeeper and, more recently, as a summer associate at Goodwin Procter LLP.

Matt Kelso B.A. is the Manager of Data & Technology, and has been with the FracTracker Alliance since 2010. Kelso maintains numerous oil and gas related maps and performs data analysis for the FracTrack website. He also works extensively with other nonprofit organizations in order to help them with their oil and gas-related data and mapping needs. Kelso has a B.A. in Anthropology from Humboldt State University. He has worked as an archaeologist and casino auditor in the past.

Jill Kriesky Ph.D. is the Associate Director of the Southwest Pennsylvania Environmental Health Project. She received her MS in Economics from the University of Wisconsin-Madison and her PhD in Economics from the University of New Hampshire. Dr. Kriesky has spent more than twenty years in university-based community outreach on issues including labor relations, economic development and community health. As the director of West Virginia Campus Compact, the West Virginia University Office of Service Learning Programs, and Wheeling Jesuit University's Service for Social Action Center and Clifford M. Lewis, SJ, Appalachian Institute, Kriesky developed and managed a series of community/academic partnerships with community-based organizations in West Virginia. In her most recent position at the University of Pittsburgh Graduate School of Public Health's Center for Healthy Environments and Communities, Kriesky's outreach and collaboration efforts focused on the potential health impacts of natural gas extraction.

Brook Lenker M.A. David ‘Brook’ Lenker is the Executive Director of the FracTracker Alliance and is based in Camp Hill, Pennsylvania. He oversees the strategic programmatic, operational and fundraising activities of FracTracker, and works with the board of directors to assure a well-managed, fiscally-sound organization. Previously, Lenker served as Manager of Education and Outreach for the Pennsylvania Department of Conservation and Natural Resources, and as Director of Watershed Stewardship for the Alliance for the Chesapeake Bay. He holds a Master of Arts degree in Geography and Environmental Planning from Towson University.

Eduardo (Jay) Olaguer Ph.D. is a Senior Research Scientist and Program Director for Air Quality Science at Houston Advanced Research Center (HARC). He has a Ph.D. in Meteorology from MIT. Dr. Olaguer has designed and built complex 3-D models of the global atmosphere and urban air quality, including a global, radiative-dynamical-chemical model of the lower and middle atmospheres, and the HARC neighborhood (forward and adjoint) air quality model. He also contributed to the development of EPA’s HAPEM and pNEM models of human exposure.

While at HARC, Dr. Olaguer has overseen the development of the Air Research Information Infrastructure, a Web portal for Houston air quality data based on Google Maps/Earth visual interfaces, secured a preliminary patent for a real-time Emissions Monitoring and Attribution System (EMAS), and invented a new technique for performing Computer Aided Tomography or CAT scans of air quality. He also helped to plan and implement two major air quality field studies in Texas (TexAQS II and SHARP) while serving as a program manager for the Texas Environmental Research Consortium (TERC). Dr. Olaguer has been a major contributor to various industry, state, federal, and international panels evaluating, planning, funding, or overseeing research on atmospheric pollution. This includes the Intergovernmental Panel on Climate Change, the California Air Resources Board's Reactivity Research Advisory Committee, and the NARSTO Reactivity Research Work Group. Dr. Olaguer also served on the editorial board of the peer-reviewed science journal, *Environmental Science and Pollution Research-International* and as a guest editor of *Journal of Geophysical Research-Atmospheres*. He is currently on the Atmospheric Chemistry Committee of the American Meteorological Society. Dr. Olaguer has broad experience working with various stakeholders, including the research and consulting communities, the petrochemical industry, regulatory agencies, local government, and environmental organizations.

Carole Perry Ph.D. M.P.H. is Nurse Educator at SWPA - Environmental Health Project. Dr. Perry received her MPH with a concentration in Health Services Administration and Public Health Nursing from the University of Pittsburgh Graduate School of Public Health. She also has a PhD in Medical Anthropology from the University of Pittsburgh. Dr. Perry has experience in public health nursing, teaching, and facilitating community/academic partnerships for clinical education of health profession students. She has provided consultation to non-profit organizations in the areas of health promotion and disease prevention.

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.

Sara Rasmussen M.H.S. 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 Health Science from the same department at Johns Hopkins. Her thesis research uses electronic health record data to study the associations of unconventional natural gas development with health outcomes. This research has resulted in a published peer-reviewed paper on unconventional natural gas development and asthma exacerbations in *JAMA Internal Medicine*.

Ralph Schmeltz M.D., F.A.C.P., F.A.C.E. is Board certified in Internal Medicine and Endocrinology, and a Fellow of both the American College of Physicians and the American College of Endocrinology. While serving as president of the Pennsylvania Medical Society in 2010-2011, he organized and led their Task Force investigating the Health Effects of Fracking.

Raised in Brooklyn NY, Dr. Schmeltz is a graduate of Columbia College with an A.B. in Zoology, and received his MD from the State University of New York, Downstate Medical Center in 1967. He completed internship and residency in Internal Medicine in 1972 at the University of Pittsburgh, interrupted by service in the United States Air Force where he served as a flight surgeon attaining the rank of Major. Returning to Pittsburgh he completed an NIH fellowship in Endocrinology and Metabolism. He went into private practice and served as associate Chief of Medicine at Magee-Womens Hospital and on the faculty of the University of Pittsburgh, holding the rank of Clinical Professor of Medicine.

Appointed to the Pennsylvania Chronic Care Commission by Governor Rendell, he was a member of the Southwest Collaborative Steering Committee. In 2011, he served on the Business & Operations Committee of the PA e-Health Collaborative and was nominated as a physician member of their Advisory Committee. Governor Corbett appointed him as the physician member of the State Board of Podiatry.

Active in organized medicine, Dr. Schmeltz has served on the Board of Governors of the American College of Physicians, is Treasurer of the PAC for the American Association of

Clinical Endocrinologists, and is a member of the House of Delegates of the American Medical Association. He is Pennsylvania's representative to the United States Pharmacopeial Convention, and serves as the Physician Executive in Residence at the Pittsburgh Regional Health Initiative.

Brian S. Schwartz M.D. M.S. is a Professor in the Department of Environmental Health Sciences 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 Senior Investigator 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. 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).


Ellen Webb M.P.H. is a public health professional with over a decade of experience working at the intersection of health, science, and policy and has experience working in the private, government and non-profit sectors. She is the Healthy Energy Sciences & Advocacy Manager working with the Healthy Energy Program at the Center for Environmental Health. Ellen's work includes researching the link between environmental exposures and health effects, particularly to understand risks for vulnerable populations such as pregnant women and children.

Prior to joining CEH, Ellen was the Research Program Manager for an internationally- based organization focused on health systems strengthening. She was also a Co-Investigator on a study assessing radiation exposure rates and policy recommendations, and was a Research Coordinator for a study of toxic exposures in hospital environments. She has also worked with a variety of hospitals in NYC coordinating planning efforts across private, federal and public hospitals for the purpose of improving disaster preparedness plans. Past work includes assisting with the development of guidance documents for hospitals to meet the needs of children and enhance emergency preparedness. Ellen is the author of journal publications and author and contributor for many reports. She has presented her work for academic, professional, and lay audiences including at the annual meeting of the American Public Health Association (APHA). She is a member of APHA's Environment and Maternal & Child Health Sections. Ellen earned her MPH in Health Policy & Management from Columbia University in 2010 and a BA in Health Sciences from Hampshire College in 2003.

Tim Whitehouse J.D. is Executive Director of Chesapeake Physicians for Social Responsibility. He has more than 20 years of experience working on a wide range of environmental and health issues with governments, businesses, nonprofit organizations and community groups. He has worked as an environmental consultant for a major metal recycling company and a company that produces industrial hygiene products. Previously, he was head of the Law and Policy Program at the Commission for Environmental Cooperation in Montreal, Canada; and a senior attorney at the U.S. Environmental Protection Agency in Washington, D.C. He is interested in the interface of policy and science and on strengthening transparency in government. He has a JD from Emory University and a MA from New York University.

SHALE and PUBLIC HEALTH COMMITTEE MEMBERS

- Vera Bonnet** League of Women Voters of Indiana County, & lead writer of the LWVPA Shale Gas Extraction and Public Health Resource Guide
- Etta Albright RN** League of Women Voters, Cambria County
- Cristina Beuger MPH** League of Women Voters of Greater Pittsburgh
- Suzanne Fox** League of Women Voters of Greater Pittsburgh
- Barbara Harley MD** League of Women Voters of Greater Pittsburgh
- Heather Harr** League of Women Voters of Greater Pittsburgh
- Sherene Hess** League of Women Voters of Indiana County
- Judy Hughes** President of the League of Women Voters of Washington County
- Cecilia Larson** League of Women Voters of Greater Pittsburgh
- Deborah Larson** League of Women Voters of Greater Pittsburgh
- Shirley McIlvried RN MPH** League of Women Voters of Greater Pittsburgh
- Dr. Don Naragon** League of Women Voters of Greater Pittsburgh; LWVPA Board
- Clarice Reber** Professor Emeritus, Audiology; LWV of Indiana County
- Donna Riggle** League of Women Voters of Washington County
- Raina Rippel** SWPA-Environmental Health Project; LWV of Washington County
- Mary Beth Sweeney** League of Women Voters of Gtr Pittsburgh & Indiana County
- Betty Tatham** League of Women Voters of Bucks County; former VP of LWVPA
- Patrice Tomcik** League of Women Voters of Greater Pittsburgh
- Dreama VanCise-Watta RN** League of Women Voters of Indiana County
- Heather Wechter** League of Women Voters of Greater Pittsburgh
- Dr. Roberta Winters** League of Women Voters of Radnor Township



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