

# ISEE 2014

## Conference Program



**26th Annual Conference**

*International Society for Environmental Epidemiology*

August 24-28, 2014



**SCHOOL OF PUBLIC HEALTH**  
UNIVERSITY of WASHINGTON

ISEE 2014

Seattle WA

August 24-28, 2014

# Thank you!

The organizers wish to thank the following sponsors and exhibitors for their participation in this meeting



## Sponsors

## Exhibitors



# Table of Contents



**ISEE 2014**

August 24-28, 2014  
Seattle, Washington USA



Welcome from the Chairs	2
Welcome from the ISEE President	3
Conference Organization	4
Conference Schedule	5-9
Plenary Sessions	10
ISEE Awards	16-17
Ancillary Meetings	18
Conference Venue and Local Information	19
General Information	20-21
Poster Session Overview	22-23
Symposia	24-25
Early Morning Sessions	26-27
Workshops	28
Detailed Program	29
Sunday	31
Monday	33
Tuesday	57
Wednesday	81
Thursday	105
Author Index	109
Social Program	115
Maps	117
Program at a Glance	



Joel Kaufman

Dear Colleagues,

On behalf of the ISEE 2014 Seattle Organizing Committees, it is with great pleasure that we welcome you to the 26<sup>th</sup> annual conference of the International Society for Environmental Epidemiology.

This year's program theme is "From Local to Global: Advancing Science for Policy in Environmental Health." From the wealth of scientific content submitted to this conference, we have endeavored to feature environmental epidemiological research and ideas from scientists located around the world, showcasing many approaches to advancing science toward the goal of improving environmental health policy. There were over 1,250 abstracts and more than 60 symposia proposals submitted to this conference from all over the world. We hope the scientific work presented from this global community generates meaningful discourse and fosters collaborations that will advance the scientific basis for environmental health policies both locally and globally for years to come.



Molly Kile

In our conference planning, we prioritized enabling conference attendance for as many junior scientists and investigators from low-income countries as possible. With support of meeting attendees and sponsors, we were able to offer travel awards to 112 trainees and investigators who submitted papers to present their research at this conference.

We are honored to host this international congress of scientists in the city of Seattle. This region and city has a long history of involvement in environmental and public health research and continues to be a leader in the field of Global Health. Seattle and the Pacific Northwest region of the US is one of the most energy-efficient cities and regions in the United States, a leader in carbon emissions reduction, and home to leading scientific research institutions, public health organizations, innovative and progressive companies, and major global health non-governmental organizations. We believe this spirit of innovation and global consciousness, combined with the scenic splendor of the Pacific Northwest will provide a perfect setting for this year's conference.

The success of this year's conference was made possible by a great number of individuals. We extend our sincere thanks to the members of the Scientific Organizing Committee, Program Track Chairs, Ethics and Policy Committee, Student and New Researcher Network, and the Session Chairs who collectively crafted the scientific program. We are also very grateful to the local organizers and student volunteers who contributed their time and efforts toward making this conference a success. We truly appreciate everyone's efforts and extend them our deepest gratitude.

We hope you enjoy your time here and that you are inspired to explore the scientific program as well as the natural beauty of the Pacific Northwest.

Molly Kile, Assistant Professor  
College of Public Health and Human Sciences  
Oregon State University

Joel Kaufman, Professor  
Environmental & Occupational Health  
Sciences, Medicine, and Epidemiology  
University of Washington



Francine Laden

On behalf of the International Society for Environmental Epidemiology (ISEE), it is my great pleasure to welcome you to the 26<sup>th</sup> Annual Conference in Seattle, Washington. I am looking forward to five days of exciting science and discussions under the conference theme of “From Local to Global: Advancing Science for Policy in Environmental Health.” The program features a wide variety of sessions highlighting results assessing the burden of diseases from an ever-increasing number of environmental exposures. It also includes a number of sessions highlighting key areas related to topics of uncertainty for policy makers.

Advancing knowledge on the health impact of environmental exposures will enable governments or agencies all over the world to improve the health of their citizens.

The meeting offers a wide variety of opportunities for students and young investigators, along with seasoned researchers, to present their work and network with new colleagues. I hope you will all take advantage of this opportunity to actively participate in discussions, meet with colleagues, and forge new and innovative collaborations.

Many thanks to Joel Kaufman and Molly Kile, Conference Co-Chairs, the Local Organizing Committee, and to the University of Washington for serving as host for this year’s conference. Also, a special thanks to the many staff and volunteers who make this meeting possible. It is a great pleasure to visit the Pacific Northwest in the summer, and to be back in the United States. I would also like to thank the numerous Scientific Track Chairs, Scientific Abstract Chair Kate Adams, and the members of the Scientific Program Committee for assembling an excellent and interesting program. Finally, I would like to thank all of you, the attendees. You help us to thrive as a Society by bringing your expertise, your curiosity, your global perspectives, and your shared vision of a healthier environment. Welcome to this year’s ISEE conference.



Francine Laden  
ISEE President



The Local Organizing Committee wishes to thank all of the contributors and reviewers, the ISEE Council and staff.

## Local Organizing Committee

Joel D. Kaufman, University of Washington, *Co-Chair*  
 Molly Kile, Oregon State University, *Co-Chair*  
 Meghann Seiler Cheng, University of Washington, *Conference Manager*  
 Ryan Allen, Simon Fraser University, Health Sciences  
 Parveen Bhatti, Fred Hutchinson Cancer Research Center, Public Health Sciences Division  
 Michael Brauer, University of British Columbia, School of Population and Public Health  
 William Daniell, University of Washington, Environmental and Occupational Health Sciences  
 Elaine Faustman, University of Washington, Environmental and Occupational Health Sciences  
 Howard Frumkin, University of Washington, School of Public Health, Environmental and Occupational Health Sciences  
 Denise LaFlamme, Washington State Department of Health  
 Catherine Karr, University of Washington, Environmental and Occupational Health Sciences, Epidemiology  
 Lianne Sheppard, University of Washington, Environmental and Occupational Health Sciences, Biostatistics  
 Tim Takaro, Simon Fraser University, Health Sciences  
 Sverre Vedal, University of Washington, Environmental and Occupational Health Sciences

## Scientific Committee

**Committee Co-Chairs:** Joel Kaufman and Molly Kile  
**Scientific Abstracts Chair:** Kate Adams, Health Effects Institute

### Scientific Track Chairs:

Track Chairs reviewed symposia proposals, participated in selection of symposia, assigned abstracts for review, and selected topics and session chairs for oral contributed paper sessions. This was a major new responsibility for program development for the ISEE conferences and we are extremely grateful for their hard work.

Ryan Allen	Cynthia Curl	Dick Heederik	Manolis Kogevinas	Sheela Sathyanarayana	Anne Stauffer
Parveen Bhatti	Hugh Davies	Perry Hystad	Karen Levy	Noah Seixas	Tim Takaro
Carl Gustaf-Bornehag	Caroline Dilworth	Catherine Karr	Adetoun Mustapha	Lianne Sheppard	Shilu Tong
Michael Brauer	Ellen Eisen	Molly Kile	Ana Navas-Acien	Torben Sigsgaard	Sverre Vedal
Elisabeth Cardis	Brenda Eskenazi	Howard Kipen	Lucas Neas	Rémy Slama	Martine Vriehd
Gwen Collman					

## Abstract Reviewers

Thank you to the large number of individuals, as part of the larger Scientific Committee, who volunteered their time to review abstracts for the conference.

Sara Adar	Lilian Calderon-Garciduenas	Shirra Freeman	Narges Khanjani	Carmen Marsit	Raanan Raz	Mirelle Toledano
Alhaji Aliyu	Ailu Chen	Wenqi Gan	Sun-Young Kim	Fabian Mendez	Stefan Reis	Clarice Umbelino de Feitas
Hassan Amini	Yu-Cheng Chen	Antonio Gasparrini	Marianthi-Anna	Bettina Menne	David Rich	Blandine Vacquier
Yutaka Aoki	Gueladio Cisse	Rakesh Ghosh	Kioumourtzoglou	Yehoshua Moar	Beate Ritz	Juliet VanEenwyk
Juan P Arrebola	Maggie Clark	Nelson Gouveia	Sari Kovats	Alejandro Molina-Garcia	Luis Rivera-Gonzalez	Mariana Veras
Ann Aschengrau	Lea Cupul-Uicab	Mariana Guimaraes	Om Kurmi	Nosiku Munyinda	Monica Rodrigues	Cristina Villanueva
Claire Austin	Mohamed Aqiel Dalvie	Daikwon Han	Margaret Kurzius-Spencer	Tim Nawrot	Halina Rollin	Ondine von Ehrenstein
Elena Austin	Dagmawai Degefu	Jaime Hart	Francine Laden	Richard Neitzel	Antonia Maria Rosa	Geoffrey Waka
Adrian Barnett	Rhena Delport	Masahiro Hashizume	Denise LaFlamme	Mark Nieuwenhuijsen	Regina Ruckerl	I-Jen Wang
Nil Basu	Tom De Smedt	Joachim Heinrich	Peter Langlois	Youssef Oulhote	Jason Sacks	Meng Wang
Jill Baumgartner	Robert Devlin	David Hondula	Bruce Lanphear	Wen-Chi Pan	Alexandra Schneider	Binnian Wei
Maulik Baxi	David Diaz-Sanchez	Yun-Chul Hong	Hien Le	Xiaochuan Pan	Jan Semenza	Scott Weichenthal
Helene Baysson	Anindita Dutta	Vivien How	Yu-Sheng Lin	Rajendra Parajuli	Wei Jie Seow	Gregory Wellenish
Michelle Bell	Kristie Ebi	Neelakshi Hudda	Jutta Lindert	Annnette Peters	Berrin Serdar	Ellen Wells
Peng Bi	Shelley Ehrlich	Nicole Janssen	Chen-Yu Liu	Elisaveta Petkova	S Sharif	Benedict Wheeler
Victoria Blanes-Vidal	Martin Herbas Ekat	Anna Jeng	Ruiling Liu	Ana Sousa	Torben Sigsgaard	Gayle Windham
Hanna Boogaard	Pam Factor-Litvak	Paula Johnson	Danelle Lobdell	Anna Pinheiro	Ana Sousa	Michael Wright
Joseph Braun	Daniela Fecht	Rena Jones	Matthew Longnecker	Anna Pollack	Jeanette Stingone	Wei-Te Wu
Michael Breen	Paul Fischer	Haidong Kan	Tom Luben	Robin Puett	W Sun	Xiaohui Xu
Susanne Breitner	Francesco Forastiere	Margaret Karagas	Jaime Madrigano	Reginald Quansah	Lindsay Tallon	Michael Young
Carrie Breton	Cara Frankenfeld	Joel Kaufman	Kristen Malecki	Nishadi Rajapakse	Barun Kumar Thakur	Jinliang Zhang
Bert Brunekreef		Naila Khalil		Kristen Rappazzo	Virginia Thompson	
					Guidry	

# Conference Schedule

## Sunday, August 24



**ISEE 2014**

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International Society for Environmental Epidemiology



07:00 - 16:30	<b>Conference Registration</b> Speaker Ready Room	HUB Ballroom Foyer HUB 238
08:30 - 11:50	<b>ANCILLARY MEETING</b>  Latin America Chapter Meeting	  HUB 214
08:30 - 11:50	<b>PRE-CONFERENCE WORKSHOPS—MORNING</b>  DAGs & The Environment: Practical Applications  Research and Evaluation Metrics  Writing and Publishing Environmental Epidemiology	  HUB 250  HUB 145  HUB 332
08:30 - 16:30	<b>PRE-CONFERENCE WORKSHOPS—FULL DAY</b>  Detecting and Countering Falsely Manufactured Alarm or Doubt  Using BenMAP-CE to Estimate Air Pollution Benefits  Up and Running with R: Statistical Software	  HUB 334  HUB 340  HUB 337
13:00 - 16:30	<b>PRE-CONFERENCE WORKSHOPS—AFTERNOON</b>  Measuring the Neighborhood Social and Physical Environment: Lessons from the Social Sciences  Global Burden of Disease Workshop  Navigating the NIH Funding System: Planning, Submitting and Obtaining your First Grant	  HUB 250  HUB 214  HUB 332
13:00 - 16:30	<b>ISEE COUNCIL MEETING</b>	HUB 307
18:30—20:30	<b>Welcome Reception</b>	Meany Hall



07:00 - 17:00	<b>Conference Registration</b> Speaker Ready Room	HUB Ballroom Foyer HUB 238
07:15 - 08:30	<b>ISEE COUNCIL MEETING</b>	HUB 307
07:30 - 08:30	<b>MORNING SESSIONS</b>	
	M.01 Career Trajectories after a PhD ( <i>Sponsored by the Student and New Researcher Network</i> )	HUB 334
	M.02 Detection and Attribution of the Health Impacts of Climate Change	HUB 332
08:30 - 10:00	<b>PLENARY SESSION 1</b>	HUB Ballroom
10:00—10:20	Morning Break	
10:20 - 11:50	<b>PARALLEL SESSIONS</b>	
	S.01 Climate Change and Health in the Western Pacific	HUB 250
	S.02 Long-term Exposure to Air Pollution and the Development of Cardiovascular Disease: The Multi-Ethnic Study of Atherosclerosis and Air Pollution (MESA Air)	HUB North Ballroom
	S.03 Early Life Exposure to Endocrine Disrupting Chemicals on Children's Health - Evidence from Birth Cohort Studies	HUB 160 (Lyceum)
	S.04 Lead Poisoning: Tackling a Global Problem	HUB 332
	S.05 Moving beyond Improved to Measure Progress in Access to Safe Water, Sanitation and Hygiene ( <i>sponsored by the Institute of Health Metrics and Evaluation</i> )	HUB South Ballroom
	O.01 Water Contaminants: Arsenic, DBPs, and Nitrate	HUB 214
	O.02 Modern Indoor Environment	HUB 334
	O.03 Occupation and Cancer	HUB 145
11:50—14:00	P.1 <b>POSTER SESSION 1</b>	Mary Gates Hall
11:50 - 14:00	<b>ANCILLARY MEETINGS</b>	
	ESCAPE Meeting	HUB 214
	Ethics and Philosophy Committee	HUB 337
	Capacity-building Committee	HUB 307
14:00 - 15:30	<b>PARALLEL SESSIONS</b>	
	S.06 Interventions to Reduce Exposures to Environmental Hazards in Pregnant Women and Children	HUB 160 (Lyceum)
	O.04 Emerging Tools for Climate Change Health Impact Assessments	HUB 334
	O.05 Impact of Ambient Air Pollution on Adult Neurodegenerative and Psychiatric Disorders	HUB North Ballroom
	O.06 Biomarkers of Air Pollution Exposure and Effects	HUB 250
	O.07 Methods and Health Effects for Complex Exposure Mixtures	HUB 332
	O.08 The Effects of the Built Environment, Air Pollution, and Urbanicity on Health	HUB South Ballroom
	O.09 Organic Pollutants and Reproductive & Perinatal Health	HUB 145
	O.10 Global Variation in Heat Related Impacts	HUB 214
15:30—16:00	Coffee Break	
16:00 - 17:30	<b>PARALLEL SESSIONS</b>	
	S.07 From Local Weather to Global Climate Change: Advancing Early Warning Systems for Infectious Diseases	HUB North Ballroom
	S.08 Arsenic and Cardiometabolic Risk: Implications at Low-Moderate Exposure	HUB 250
	S.09 CONCEPT: Community Exposures to Pathogens from Intensive Food Animal Production	HUB 160 (Lyceum)
	O.11 Populations more Susceptible to Climate Impacts	HUB 332
	O.12 Early Life Environmental Exposures and Epigenetics	HUB South Ballroom
	O.13 Air Pollution and Cancer	HUB 145
	O.14 Environmental Factors, Birth Outcomes, and Neurodevelopment	HUB 334
	O.15 Advancing Time-Location Exposure Assessment	HUB 214
17:30 - 18:30	<b>ANCILLARY MEETINGS</b>	
	ISCHE Meeting	HUB 334
	EHP Associate Editor's Meeting	HUB 307
17:30-	SNRN Workshop and Social Event (pre-registration required)	UW Waterfront Activities Center

# Conference Schedule

## Tuesday, August 26



**ISEE 2014**

August 24-28, 2014  
Seattle, Washington USA

International Society for Environmental Epidemiology



07:00 - 17:00	<b>Conference Registration</b> Speaker Ready Room	HUB Ballroom Foyer HUB 238
07:15 - 08:30	<b>ISEE COUNCIL MEETING</b>	HUB 307
07:30 - 08:30	<b>MORNING SESSIONS</b>	
	M.03 An Editors Perspective on Becoming a Great Peer Reviewer (Sponsored by the Student and New Researcher Network)	HUB 334
	M.04 Risks and Benefits of Fish Consumption: Considering Policy in Research Design	HUB 332
	M.05 Using Spatial Analysis to Identify Neighborhood Vulnerabilities	HUB 250
	M.06 Engaging Academia to Advance the Science and Practice of Environmental Public Health Tracking	HUB 145
08:30 - 10:00	<b>PLENARY SESSION 2</b>	HUB Ballroom
10:00 - 10:20	Morning Break	
10:20 - 11:50	<b>PARALLEL SESSIONS</b>	
10:20 - 11:50	S.10 Integrating the Microbiome into Environmental Epidemiology	HUB North Ballroom
	S.11 Just How Clean are our Clean Cooking Technologies? Exposure Results from Studies on Household Air Pollution and Child Survival, and Implications for Achieving WHO Indoor Air Quality Guidelines for Household Fuel Combustion	HUB 214
	O.16 Air Pollution and Cardiovascular Diseases: Novel and Refined Outcomes	HUB South Ballroom
	O.17 Climate and Adaptation: Hot Weather, Cold Weather, and their Changing Effects over Time	HUB 145
	O.18 Advanced Regression Techniques	HUB 332
	O.19 Organochlorine Exposure across the Lifecourse and Human Health	HUB 334
	O.20 Environmental Factors and Fetal/Infant Growth Outcomes	HUB 250
	O.21 Developing Countries and Sensitive Populations	HUB 160 (Lyceum)
11:50 - 14:00	P.2 <b>POSTER SESSION 2</b>	Mary Gates Hall
11:50 - 14:00	<b>ANCILLARY MEETINGS</b>	
	Asia Chapter Member Meeting	HUB 334
	EU Chapter Meeting	HUB 332
	Ethics and Philosophy Committee	HUB 337
14:00 - 15:30	<b>PARALLEL SESSIONS</b>	
	S.12 Toward Predicting and Preventing Dengue Fever Transmission	HUB 334
	S.13 Health Effects of Greenspace: Evidence from Epidemiological Studies	HUB South Ballroom
	S.14 New Methods to Assess the Health Effects of Air Quality Actions	HUB 332
	O.22 Outside the Box - An Expanded View of Environmental Factors Compromising Child Lung Health	HUB 160 (Lyceum)
	O.23 Early Life Endocrine Disruptor Exposure and Neurobehavior in School-aged Children	HUB 145
	O.24 Occupation and Disasters/Climate	HUB 214
	O.25 Cadmium, Lead, and Arsenic Exposure in Adults: Studies on Health Effects from Five Continents	HUB 250
	O.26 Air Pollution Impacts on Pregnancy Occurrence and Outcome	HUB North Ballroom
15:30 - 16:00	Coffee Break	
16:00 - 17:30	<b>PARALLEL SESSIONS</b>	
	O.27 Perinatal Environmental Toxins and Neurodevelopment	HUB 334
	O.28 Emerging Connections among Antimicrobials, Microbiota, Toxicants, and Health Outcomes	HUB 145
	O.29 Climate and Health: Advancing Research Methods	HUB South Ballroom
	O.30 Air Pollution from Different Sources and Respiratory Health	HUB 160 (Lyceum)
	O.31 Spatial Analytic Methods	HUB 332
	O.32 Perfluorinated Chemicals and Child Health	HUB 214
	O.33 Exposure Assessment and Health Impacts of Cookstove Use	HUB 250
	S.15 Data-Sharing and Epidemiologists: Panel Discussion	HUB North Ballroom
17:45 - 19:15	<b>ISEE GENERAL MEMBERS MEETING</b>	HUB 214



07:00 - 17:00	<b>Conference Registration</b> Speaker Ready Room	HUB Ballroom Foyer HUB 238
07:15 - 08:30	<b>ISEE COUNCIL MEETING</b>	HUB 307
07:30 - 08:30	<b>MORNING SESSIONS</b>	
M.07	Translating Scientific Findings to the Public <i>(Sponsored by the Student and New Researcher Network)</i>	HUB 334
M.08	Field Testing to Validate Novel Tools for Personal Exposure Monitoring in Exposure Assessment and Epidemiological Studies	HUB 332
M.09	The Role of Environmental Exposures on Changes in Fertility Potential over Recent Decades: A Global Perspective	HUB 250
M.10	Pollution Intersects Life: Acute Health Effects of Exposure to Traffic Pollution	HUB 214
M.11	Exposure Measurement Error in Air Pollution Studies: Consequences and Correction Methods	HUB 145
07:30 - 08:30	<b>ANCILLARY MEETING</b>	
	MESA Environmental Health Working Group	HUB 340
08:30 - 10:00	<b>PLENARY SESSION 3</b>	HUB Ballroom
10:00 - 10:20	Morning Break	
10:20 - 11:50	<b>PARALLEL SESSIONS</b>	
S.15	Causal Inference Methods and Environmental Epidemiology	HUB 334
S.16	International Collaboration on the Exposome	HUB 160 (Lyceum)
O.34	Examining Susceptibility to the Health Effects of Air Pollution	HUB North Ballroom
O.35	Community Noise Exposures and Correlations with Air Pollution	HUB South Ballroom
O.36	Environmental Factors in Relation to Childhood Cancer	HUB 250
O.37	Ionising and Non-ionising Radiation: Exposure Assessment and Recent Results	HUB 214
O.38	Waterborne Disease from Microbial and Chemical Contaminants	HUB 332
O.39	Gene-Environment Interactions: Single Nucleotide Polymorphisms and Beyond	HUB 145
11:50 - 14:00	P.3 <b>POSTER SESSION 3</b>	Mary Gates Hall
11:50 - 14:00	<b>ANCILLARY MEETINGS</b>	
	Policy Committee Meeting	HUB 307
	ISEE Annual Conference Planning Committee	HUB 340
14:00 - 15:30	<b>PARALLEL SESSIONS</b>	
S.17	Environmental Epidemiology: Practicalities for Addressing Climate Change	HUB 334
S.18	The Social Distribution of Environmental Hazards: Perspectives from Europe and the US	HUB 332
O.40	Are Healthy Foods Unhealthy?	HUB 214
O.41	Environmental Factors and Childhood Reproductive Outcomes	HUB 160 (Lyceum)
O.42	The Importance of Time: Advanced Temporal Methods	HUB 250
O.43	Arsenic Exposure and Health Effects	HUB 145
O.44	Air Pollution and Cardio-metabolic Health	HUB North Ballroom
O.45	Long Term Air Pollution Exposure and Cardiovascular Health	HUB South Ballroom
15:30 - 16:00	Coffee Break	
16:00 - 17:30	<b>PARALLEL SESSIONS</b>	
S.19	Reducing Exposure Misclassification in Environmental Epidemiology: Is it Always Desirable and What is the Impact on Inferences?	HUB 332
O.46	Air Pollution	HUB South Ballroom
O.47	Health Impacts of Community and Occupational Noise	HUB 214
O.48	Infectious Disease	HUB 334
O.49	Greenspace and Health	HUB 160 (Lyceum)
O.50	Health Effects of Metal Exposure and Nutritional Related Aspects in Early Life and Childhood	HUB 145
O.51	Maternal Biomarkers of Exposure and Pregnancy Outcomes	HUB 250
DEBATE	Should there be any Restrictions on Universities or Academicians Receiving Payments from Industry or Other Sources?	HUB North Ballroom
19:30 - 23:30	<b>CONFERENCE DINNER</b>	EMP Museum

# Conference Schedule

## Thursday, August 28



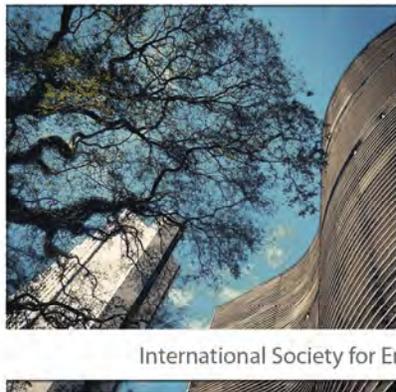
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Seattle, Washington USA

International Society for Environmental Epidemiology



07:15 - 08:30	<b>ISEE COUNCIL MEETING</b>	HUB 307
08:00 - 12:00	<b>Conference Registration</b> Speaker Ready Room	HUB Ballroom Foyer HUB 238
08:30 - 10:00	<b>PLENARY SESSION 4</b>	HUB Ballroom
10:00 - 10:20	Morning Break	
10:20 - 11:50	<b>PARALLEL SESSIONS</b>	
O.52	Climate Change and Population Health	HUB 145
O.53	Environmental Factors and Childhood Metabolic Outcomes	HUB North Ballroom
O.54	Occupation and the Environment	HUB 334
O.55	Health Impact Assessment in Air Pollution	HUB 160 (Lyceum)
O.56	Exposure Modeling in Air Pollution Research	HUB South Ballroom
O.57	Novel Exposure Assessment Approaches in Biomonitoring for Organic Chemicals	HUB 250



## ISEE 2015

“Addressing Environmental Health Inequalities”

August 30<sup>th</sup> to September 2<sup>nd</sup>  
São Paulo – Brazil

[www.isee2015.org](http://www.isee2015.org)



International Society for Environmental Epidemiology / Brazilian Association of Public Health

Monday, August 25



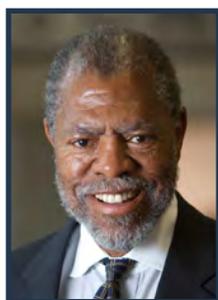
**Howard Frumkin, PhD**

Dean  
School of Public Health  
University of Washington

Howard Frumkin is an internist, environmental and occupational medicine specialist, and epidemiologist. Currently, he is the Dean and Professor of Environmental and Occupational Health Sciences at the University of Washington School of Public Health. He received his B.A from Brown University, M.D. from the University of Pennsylvania, and M.P.H. and Dr.P.H. from Harvard. He is Board-certified in Internal Medicine and in Environmental and Occupational Medicine and is a Fellow of the American College of Physicians, the American College of Occupational and Environmental Medicine, Collegium Ramazzini, and the Royal College of Physicians of Ireland. His research interests include public health aspects of the built environment, climate change, energy policy, toxic effects of chemicals, and environmental health policy. He has held many leadership roles at the U.S. Centers for Disease Control and Prevention, first as the National Center for Environmental Health and Agency for Toxic Substances and Disease Registry (NCEH/ATSDR) and later as Special Assistant to the CDC Director for Climate Change and Health. During his tenure at NCEH/ATSDR, he created programs in Climate Change and in Healthy Community Design, expanded its Biomonitoring and Environmental Public Health Tracking programs, and launched several graduate and postgraduate training programs and its National Conversation on Public Health and Chemical Exposures. He serves on many advisory boards in academia, governmental agencies and private corporations. He is the author or co-author of over 200 scientific journal articles, and six books including *Urban Sprawl and Public Health* which was named a top 10 book of 2005 by the Planetizen, the Planning and Development Network.

**Work that Matters: Toward Consequential Environmental Epidemiology**

“Consequential epidemiology,” a term coined by Dr. William Foege in 1983 and re-introduced 30 years later by Dr. Sandro Galea (as “consequentialist epidemiology”), builds on the fundamental idea that epidemiology should make a difference, yielding improved population health and well-being. In this presentation I propose the concept of “consequential environmental epidemiology” and suggest five features: that it address an environmental condition or trend likely to have widespread health implications; that it address a widespread cause of suffering or premature death; that it extend beyond etiologic studies to test and document solutions; that it answer questions decision-makers need to have answered; and that it utilize the comparative advantage of environmental epidemiologists. Ultimately consequential environmental epidemiology will be marked less by innovative exposure assessment or elegant analytical methods than by conclusions that translate into advancing the public’s health.



**Kenneth Olden, PhD**

Director  
National Center for Environmental Assessment  
U.S. Environmental Protection Agency

Dr. Ken Olden is the director of the U.S. EPA’s National Center for Environmental Assessment. He received his B.S. from Knoxville College, M.S. in genetics from the University of Michigan, Ann Arbor, and PhD in cell biology and biochemistry from Temple University. Trained as a cell biologist and biochemist, Dr. Olden has been active in cancer research for almost three decades and has a strong legacy of promoting scientific excellence in environmental health. From 1991-2005, he served as the Director of the National Institute of Environmental Health Sciences (NIEHS) and the National Toxicology Program (NTP). He was the principal investigator of The Metastasis Group in the Laboratory of Molecular Carcinogenesis at the NIEHS and has held several prestigious academic positions including the Yerby Visiting Professor at the Harvard School of Public Health from 2006-2007 and the Founding Dean of the School of Public Health at the Hunter College, City University of New York. Dr Olden has received many awards including the Presidential Distinguished Executive Rank Award, the Presidential Meritorious Executive Rank Award for sustained extraordinary accomplishments, the Toxicology Forum’s Distinguished Fellow Award, the HHS Secretary’s Distinguished Service Award, the American College of Toxicology’s First Distinguished Service Award, the National Minority Health Leadership Award, the Calver Award, the Sedgwick Medal, and the Julius B. Richmond Award. Most recently, he received the Cato T. Laurencin MD, PhD Lifetime Research Award from the National Medical Association Institute, the largest and oldest national organization representing African American physicians and their patients in the United States. He was elected as a member of the Institute of Medicine at the National Academy of Sciences in 1994. He has published extensively in peer-reviewed literature, chaired or co-chaired numerous national and international meetings, and has been an invited speaker at more than 200 symposia.

## Monday, August 25— (continued)

### Health Disparities in the Age of Epigenomics

Growing evidence suggests that environmental exposures can influence the development of chronic diseases in human populations through the accumulation of epigenetic modifications without changes in DNA sequence. This general hypothesis provides a broad umbrella under which one might examine how the environment “gets under skin” among selected racial, ethnic and/or socioeconomic groups. “Geographical neighborhood-specific” epigenetic markings can potentially be used as a tool to investigate proposed mechanisms to account for well documented racial and ethnic disparities in health. This approach might also be useful to assess the cumulative and/or synergistic effects of social, behavioral, and chemical/physical stressors on the health of populations living in “disadvantaged” or “distressed” neighborhoods. This assessment of neighborhood-specific epigenetic markers could help to identify the most appropriate targets for medical and/or environmental intervention. While we generally assume that some environments are unhealthy, the epigenetic studies may identify others as protective of health. In this presentation, the environment is defined in the broad sense of “non-genetic” factors including social, behavioral, biological, chemical and physical stressors. The hypothesis suggests that understanding the complex interactions between genes, the environment and chronic disease requires the examination of the role of epigenetics in regulating genetic susceptibility to environmental stressors. The slow progress in understanding disparities in disease susceptibility may be in part related to the fact that studies have not considered the cumulative effect of environmental exposure to both chemical and non-chemical stressors on genetic substrates. The failure to take into account local environmental differences between neighborhoods may have undermined the ability to identify the causes of the variance in observed disease risk and may explain why strong candidate susceptibility genes have performed poorly in genotype-phenotype association studies.

## Tuesday, August 26



### **Maria Gloria Dominguez-Bello**

Associate Professor  
New York University

Maria Gloria Dominguez-Bello is an Associate Professor of Medicine at the NYU Langone Medical Center, one of the United States' premier centers for excellence in clinical care, biomedical research and medical education. Dr. Dominguez-Bello received her B.S. in biology from the University Simón Bolívar, Venezuela, M.S. in animal nutrition and PhD in microbiology from the University of Aberdeen, Scotland. Her research integrates data from microbiology, genomics/metagenomics, ecology, physiology, anthropology, environmental quality and biostatistics to address broad questions on the impact of Western lifestyle on the human microbiota interaction with the environment, development, diversity and function. She is a fellow of the American Academy of Microbiology and received the Medal of Merit from the Venezuelan Institute of Scientific Research and the Roi Baudouin Award from the International Foundation for Science in Sweden. She serves in numerous editorial boards and has published over 79 peer-reviewed publications. Dr Dominguez-Bello has a very active research program that is focused on improving our understanding the development of the microbiome in people and the impacts of modern practices on the microbiome.

### Sources of the Human Microbiome

Mammals develop *in utero* in a sterile environment (although some bacterial DNA seems to be present in the placenta). However they are born heavily covered by maternal birth canal microbes, and acquire the priming bacteria that are founder populations colonizing all parts of the body that ought to have a microbiome. This must have adaptive value, since animals have evolved ancestral symbiotic relations with their microbiota. After the primary exposure at birth, a series of environmental exposures occur, with maternal source being probably the most important. Early development occurs under very low microbiota diversity, selected for by maternal milk. In this period of strict lactation there is much brain and immune development. When substantial development has occurred, then mammals start solid diet, which brings a blooming in the intestinal microbiota diversity, likely acquired from wide sources. Westernized urban peoples seem to have reduced microbiota diversity in relation to that in traditional peoples. We perturb the microbiota assembly with C-sections and early antibiotic exposures, replace maternal milk with formula and live in built environments enriched in human, and low in environmental bacteria. The first microbiota members train and educate the immune system, and impacting this process impairs natural microbial exposures under which humans have evolved. Some of these impacts appear to be related with impaired immune responses.



**Manolis Kogevinas, MD, PhD**

Joint Scientific Director and Researcher  
Centre for Research in Environmental Epidemiology (CREAL), Barcelona

Manolis Kogevinas is co-Director of the Centre for Research in Environmental Epidemiology (CREAL) in Barcelona, Spain. He is a medical epidemiologist and received his medical degree from the Medical School of Athens, Greece and PhD in Epidemiology from the University of London. His research focuses on the evaluation of environmental, occupational and genetic factors in relation to cancer, child health, and respiratory diseases. Dr. Kogevinas has several coordinated large multi-centric epidemiological studies on occupational and environmental causes of bladder and determinants of asthma. He worked at the International Agency for Research on Cancer (IARC/WHO) in Lyon, France from 1989-1994. He is also Professor at the National School of Public Health in Athens, Greece. He served in several WHO and other expert committees evaluating the toxicity of chemicals. He has published around 400 scientific papers in peer-reviewed journals. He chairs the European Chapter of the ISEE.

**Water, Genes and Public Health**

Chlorination of drinking water has been one of the most important public health interventions of the 20th century. While provision of clean water has increased considerably worldwide in the last 20 years, around 600 million people will still be without an improved drinking water source in 2015 (as defined by the Millennium Development Goals). The use of chlorine for disinfection comes, however, with a cost: chlorine reacts with organic matter in water and produces hundreds of unwanted chemical by-products. Exposure to these chemicals is ubiquitous in high income countries and rapidly increasing and uncontrolled in low and middle income countries. Some of these chemicals are toxic and carcinogenic in experimental animals and there is epidemiological evidence showing that disinfection by-products in water are human carcinogens. I will first discuss the difficulties of epidemiological research in providing solid evidence on the potential health effects of exposure to disinfection by-products, including the use of non-optimal study designs, delays because of lack of cross-discipline communication, and major difficulties in examining the toxicity of mixtures. I will then discuss biological mechanisms including evidence from genetics and will stress the need for a solid biological base of knowledge through population studies, particularly when relative risks are not high and most importantly, when promoting community interventions. Finally, I will refer to public health interventions on chemical water safety and conclude that a more strict control of contaminant levels in drinking and swimming pool waters should be promoted through water treatments that reduce the formation of chemical by-products without compromising the control of microbial contamination. These interventions are complex and should be adapted to needs of countries at different stages of economic development.

**Wednesday, August 27**



**Christopher Murray, MD, PhD**

Institute Director  
Institute of Health Metrics & Evaluation  
Professor of Global Health  
University of Washington

Christopher J.L. Murray is a Professor of Global Health at the University of Washington and Institute Director of the Institute for Health Metrics and Evaluation (IHME). A physician and health economist, he received his Bachelor of Arts and Science degrees from Harvard University, a DPhil in International Health Economics from Oxford University, and a medical degree from Harvard Medical School. His research has led to the development of a range of new methods and empirical studies to strengthen the basis for population health measurement, measure the performance of public health and medical care systems, and assess the cost effectiveness of health technologies. IHME provides rigorous and comparable measurement of the world's most important health problems and evaluates the strategies used to address them. Dr. Murray is a founder of the Global Burden of Disease (GBD) approach, a systematic effort to quantify the comparative magnitude of health loss due to diseases, injuries, and risk factors by age, sex, and geography over time. To provide policymakers, researchers, donors, and other decision-makers with the most timely and up-to-date picture of population health to inform critical decisions, GBD will produce annual updates to its estimates. The most recent iteration, GBD 2013, reflects the work of over 1,000 researchers in more than 100 countries, with IHME as the coordinating center. Prior to IHME, Dr. Murray was the Executive Director of the Evidence and Information for Policy Cluster at the World Health Organization, Director of the Harvard University Initiative for Global Health and the Harvard Center for Population and Development Studies, and the Richard Saltonstall Professor of Public Policy at the Harvard School of Public Health.

## Wednesday, August 27 (continued)

### The Global Burden of Diseases, Injuries, and Risk Factors 2013 Study (GBD 2013): Preliminary Findings on Environmental Risk Factors

To provide policymakers, researchers, donors, and other decision-makers with the most timely and up-to-date picture of population health to inform critical decisions, the Global Burden of Disease (GBD) will produce annual updates to its estimates. The first update, GBD 2013, uses and expands upon the infrastructure of methodology, datasets, and tools that were presented in GBD 2010, and presents estimates of all-cause mortality, deaths by cause, years of life lost, years lived with disability, and disability-adjusted life years by country, age, and sex. This project has drawn upon the efforts of a multitude of people, including more than 1,000 experts from over 100 countries. The first results from GBD 2013 were published in May 2014, and the remainder will be available in the coming months. This presentation will highlight preliminary results from the study including the analysis of environmental risk factors.



#### John Goldsmith Award Lecture Jordi Sunyer

Joint Scientific Director and Researcher  
Centre for Research in Environmental Epidemiology (CREAL)

Jordi Sunyer is an epidemiologist who works on research on the health effects of environmental exposures in order to inform prevention and abatement initiatives. After beginning as a clinical doctor in Barcelona (Catalonia, Spain), he developed a career as researcher following training in the Pierre-Marie Curie University (Paris) and The Johns Hopkins School of Public Health. He is currently

Joint Scientific Director and coordinator of the Child Health Research Program at CREAL in Barcelona and Professor of Preventive Medicine at Pompeu Fabra University (UPF, Barcelona). His current research focuses on the role of early life exposures on child development, principally on brain development. He led the creation of the general population birth cohort INMA that investigates the role of urban air pollution, persistent pollutants, metals and hormonal disruptors in food and daily life, and their interaction with genetic make-up, in neurodevelopment, respiratory diseases and obesity. His talk will focus on the effects of traffic exposure in the school environment on working memory and attention of pre-adolescents and brain structural and functional correlates.

#### Traffic Related Air Pollution in Primary Schools and Neurodevelopment

The most vulnerable window for brain development occurs during preschool age, though high cognitive executive functions essential for learning develops steadily during primary school. Many schools are located in close proximity to busy roads which increases the level of traffic-related air pollution in schools. Children spend a large proportion of their day at school when traffic pollution peaks resulting in higher exposure at school than at home. Air pollution is classified as a suspected developmental neurotoxicant. The BREATHE (BRain dEvelopment and Air polluTion ultrafine particles in sChool childrEn) project aims to discover the neuro-developmental (cognitive, behavioral, and neurostructural) effects of school air pollution originated from traffic. Children aged 7 to 10 (n=2715) years from 39 schools exposed to high and low traffic related air pollution, paired by socio-economic status, were tested four times via computerized tests to evaluate cognitive function trajectories (working memory and attention). Direct measurements of chronic traffic related air pollution (TRAPs fine and quasi ultrafine particles mass and elements, NO<sub>2</sub>) were directly measured both in the courtyard and inside the classroom simultaneously in each school pair during two campaigns. Complete functional magnetic resonance imaging (fMRI) without motion problems was obtained in a subset of 257 children. TRAPs at schools were highly variable and on average higher than urban background levels. Penetration into the classrooms is very high (for example, the indoor-outdoor ratio in elemental carbon was 95.5% resulting in similar outdoors and indoors levels). PM<sub>2.5</sub> was very elevated in the classroom but poorly related to traffic due to the relevance of specific school sources. Preliminary results showed that children from high air polluted schools had lower growth in cognitive development compared to children from the paired low polluted schools which was consistent with the direct measurements of TRAPs. Among PM<sub>2.5</sub>, PM originated from traffic sources showed the same relationships than the rest of TRAPs. FMRI supports a general brain functional immaturity related to TRAPs. Strengthening of policies to clean urban air could be employed as a way to protect child brain maturation.

## Thursday, August 28



### Wei Huang, ScD

Research Professor  
Dept of Occupational and Environmental Health Sciences  
Peking University School of Public Health

Dr. Wei Huang graduated from the Department of Environmental Health at Harvard School of Public Health in 2003. After graduation, she worked at the Health Effects Institute (Boston) overseeing “Air Pollution Health Effects Studies in Asia (PAPA)” studies in China and Thailand, and now is a faculty member of Peking University School of Public Health.

Since 2007, she has led several panel studies examining air pollution cardio-respiratory effects in cardiovascular elderly, elementary school children, young and healthy subjects, and diabetic subjects, during 2008 Beijing Olympics and 2010 Shanghai Expo. She also conducted time-series analyses of acute mortality effects focusing on photochemical pollution in the Pearl Delta River of southern China, and on fine particulate (PM) and its major constituents in Xi’an of northern China. Her research interests include differential toxicity of major ambient fine particulate constituents and mechanisms of ambient particulate associated with cardio-respiratory effects at population and individual levels. Dr. Huang has published in leading clinical, epidemiology, and environmental science journals, including *JAMA*, *Am J Respir Crit Care Med*, *Am J Epi*, *Env Health Persp*, *Env Sci and Tech*, and *Sci Total Env*. She is leading the curriculum and executive training on Environmental and Occupational Epidemiology in English at PKU. Dr. Huang is the active members of several international professional societies and works closely with state agencies on strategic planning of air pollution criteria research in China, and is currently a working group member of WHO/IARC on the evaluation of carcinogenic risks of ambient air pollution to humans.

### The Current State of Air Pollution Exposures and Health Effects in China

Fine particulate matter (PM<sub>2.5</sub>) air pollution ranks among the leading risk factors for premature morbidity and mortality worldwide, and the International Agency for Research on Cancer (IARC) recently classified outdoor air pollution and particulate matter in outdoor air pollution as carcinogenic to humans. However, along with China’s rapid industrialization, urbanization and transportation developments, the air pollution levels in Chinese cities are among the highest observed in the world today and frequently exceed health-based national and international guidelines. In 2013, the annual mean concentrations of PM<sub>2.5</sub> in 70 out of 73 major Chinese cities, with continuous air monitoring, exceeded the Chinese Ambient Air Quality Standards of 35 µg/m<sup>3</sup> for PM<sub>2.5</sub>. During the air pollution episodes occurred in northeast China since late 2012, the daily levels of PM<sub>2.5</sub> often exceeded 200 to 300 µg/m<sup>3</sup> for days to weeks. High-quality epidemiologic data from China are still limited but nevertheless indicate increased health risk associated with several pollution exposures. Our recent meta-analysis update for 48 Chinese time-series and case-crossover studies (published between 1990 and 2013) reported the increased summary risk of excess total, cardiovascular and respiratory mortality of 0.36% (95% CI: 0.24, 0.48), 0.45% (0.31, 0.58) and 0.44% (0.30, 0.58), per 10 µg/m<sup>3</sup> increases in PM<sub>2.5</sub> exposure. A number of mechanism studies conducted in susceptible and healthy Chinese subjects also demonstrated that cardio-respiratory morbidity and mortality can be provoked by air pollution exposure, though the underlying pathways whereby air pollutants such as PM<sub>2.5</sub> trigger cardiovascular and respiratory events remain incompletely studied. The recent evaluation by IARC for China also strongly indicated the need for further research into the chronic effects associated with exposure to air pollution in China and the urgent need to act to reduce exposures to the population. Future research on the nature of air pollution concentrations and health effect relationships in Chinese population to support setting stringent air quality standards to improve public health is urgently needed.



## Michael Brauer, ScD

Professor  
School of Population and Public Health  
University of British Columbia

Michael Brauer is a Professor in the School of Population and Public Health at The University of British Columbia. He received his B.S. in Biochemistry and Environmental Sciences from the University of California-Berkeley and a ScD in Environmental Health from Harvard University. He has been a visiting scientist at the Institute of Environmental and Occupational Medicine at Aarhus University in Denmark and at the Institute for Risk Assessment Sciences at Utrecht University in The Netherlands. His research focuses on the assessment of exposure and health impacts of air pollution, with specific interest in transportation-related and biomass air pollution. Currently, he directs the Bridge Program – a strategic training program linking public health, engineering and policy. He has participated in monitoring and epidemiological studies throughout the world and served on advisory committees to the World Health Organization, the Climate and Clean Air Coalition, the US National Academy of Sciences, the Royal Society of Canada, the International Joint Commission and governments in North America and Asia. He is an Associate Editor of Environmental Health Perspectives and a member of the Core Analytic Team for the Global Burden of Disease 2013. He has received many awards for his research related to environmental contributions to lung disease including the WH Thurlbeck Prize for Research in Lung Disease and a Career Investigator Award from the American Lung Association, along with, several best publication awards.

### Cities, Mobility and Health: Future Challenges and Prospects

Currently, just over half of the world's population lives in urban areas, with cities absorbing all future population growth. The design of cities and our interactions with this “built environment” can profoundly impact health. Perhaps the most important of these interactions are those related to mobility – the ways in which we move within our environment. In high-income countries, traffic-related air pollution and noise continue to exert substantial health impacts. Auto-centric urban form is linked to physical inactivity, increased urban temperatures and reduced greenness – all associated with adverse health impacts. In the rapidly expanding cities of developing countries, increasing populations strain limited infrastructure and add to existing concerns about environmental quality and climate change. A key challenge faced by cities is the provision of a sustainable transportation system for inhabitants of all ages and abilities.

We now stand on the cusp of a mobility revolution. Increasingly, urban transportation planning is integrated with greenhouse gas reduction efforts and active transportation initiatives. Fueled by mobile communications, the “social media generation,” and vehicle technologies, a new mobility paradigm is beginning to emerge. The “peak car” era has been postulated, with observed reductions in per capita vehicle-km travelled and decreased vehicle ownership. Facilitated by smartphones, public bicycle sharing programs, present in more than 500 cities, are expanding rapidly, while car-sharing programs are promoted by both vehicle manufacturers and municipal governments. Neighborhood “walkability” is used to market real estate, while driverless vehicles will soon join the list of transportation options. In this presentation I provide an overview of linkages between mobility options and health, describe emerging trends, and discuss implications for environmental epidemiology and population health.

## John Goldsmith Award for Outstanding Contributions to Environmental Epidemiology

The John Goldsmith Award is for sustained and outstanding contributions to the knowledge and practice of environmental epidemiology.

ISEE will award Dr. Jordi Sunyer, MD, PhD, of CREAL the 2014 John Goldsmith Award. Dr. Sunyer will deliver the Goldsmith Award Lecture during the Plenary Session on Wednesday, August 27th.

## Research Integrity Award

The Research Integrity Award honors those in environmental epidemiology who have demonstrated exceptional integrity in the face of pressure from outside interests. This award is made periodically at the discretion of the ISEE Executive Council.

ISEE will award Dr. Steve Coughlin the Research Integrity Award during the Plenary Session on Monday, August 25th.

Steve Coughlin, MD, MPH is a Professor of Preventive Medicine at the University of Tennessee Health Science Center in Memphis, Tennessee. He has an extensive background in cancer epidemiology and cancer prevention and control including community-based research focused on low income, African Americans aimed at reducing health disparities. Dr. Coughlin's innovative work in the early 1990's on ethics instruction in epidemiology and public health research helped pave the way for the model curricula on public health ethics developed by the Association of Schools of Public Health. Previously, he was a senior cancer epidemiologist at the Centers for Disease Control and Prevention and received the Secretary's Award for Distinguished Service from the U.S. Department of Health and Human Services in 2006. He has held several senior leadership positions at academic institutions in the United States and has authored or co-authored over 190 articles and several books including *Ethics and Epidemiology*.

## Rebecca James Baker Memorial Prize

In August 2004, environmental epidemiologist Dr. Rebecca James Baker died unexpectedly at the age of 33, of a pregnancy-related heart condition. Rebecca was particularly committed to environmental epidemiology as a tool for improving public health and quality of life and to working with people from different cultures and backgrounds. To honor Rebecca's memory and to encourage students and new researchers to follow her example, the Rebecca James Baker Memorial Prize is awarded each year at the ISEE Annual Conference.

The awardee is selected among graduate students and new investigators within three years of having completed their degree who are first authors on an accepted abstract for the Annual Conference. The awardee for this year will be announced during the Plenary Session on Tuesday, August 26th.



## Best Environmental Epidemiology Paper Award

This ISEE annual award for best environmental epidemiology paper published in a peer-reviewed journal aims to recognize excellence in the field of environmental epidemiology and encourage the publication of outstanding papers. Criteria for the award include but are not limited to quality (data, analyses, presentation, argument), originality, and importance or impact. The winning paper is selected by the ISEE Best Environmental Epidemiology Paper Award Committee and approved by the ISEE Council. The handling editor of the journal in which the paper is published will receive a special certificate.

ISEE has selected the Best Environmental Epidemiology Paper Award for 2013 as:

**Does ambient air pollution trigger stillbirth?**

*Epidemiology* 2013; 24: 538-544.

Faiz, A. S., Rhoads, G. G., Demissie, K., Lin, Y., Kruse, L., & Rich, D.

An honorable mention is awarded to:

**Residential exposure to aircraft noise and hospital admissions for cardiovascular diseases: multi-airport retrospective study.**

*British Medical Journal* 2013; 347:f5561.

Correia AW, Peters JL, Levy JI, Melly S, Dominici F.

## New Researcher Best Abstract Award

ISEE presents two awards to the best abstracts in environmental epidemiology submitted to the annual conference by a new researcher. New researchers are considered those who have fewer than five years of experience from their terminal degree in the field of environmental epidemiology or other related disciplines. The awardees for this year will be announced during the Plenary Session on Wednesday, August 27th.

## Student Poster Award

ISEE presents awards to the best scientific poster presented by a student at the Annual ISEE Conference. The awardees for this year will be announced during the Plenary Session on Thursday, August 28th.

## ISEE Council Meetings

All ISEE Council Meetings will be held in the room HUB 307.

Sunday	August 24	13:00—16:30
Monday	August 25	07:15—08:30
Tuesday	August 26	07:15—08:30
Wednesday	August 27	07:15—08:30
Thursday	August 28	07:15—08:30

## Other Meetings

Latin America Chapter Meeting	Sunday, August 24	08:30 - 11:50	HUB 214
ESCAPE Meeting	Monday, August 25	11:50 - 14:00	HUB 214
Ethics and Philosophy Committee	Monday, August 25	11:50 - 14:00	HUB 337
Capacity-building Committee	Monday, August 25	11:50 - 14:00	HUB 307
ISCHE Meeting	Monday, August 25	17:30 - 18:30	HUB 334
EHP Associate Editor's Meeting	Monday, August 25	17:30 - 18:30	HUB 307
Asia Chapter Member Meeting	Tuesday, August 26	11:50 - 14:00	HUB 334
EU Chapter Meeting	Tuesday, August 26	11:50 - 14:00	HUB 332
Ethics and Philosophy Committee	Tuesday, August 26	11:50 - 14:00	HUB 337
MESA Environmental Health Working Group	Wednesday, August 27	07:30 - 08:30	HUB 340
Policy Committee Meeting	Wednesday, August 27	11:50 - 14:00	HUB 307
ISEE Annual Conference Planning Committee	Wednesday, August 27	11:50 - 14:00	HUB 340

ISEE is an international organization with members from more than 55 countries and regional chapters and local groups in Latin America and the Caribbean, the Mediterranean, Central and Eastern Europe, the Caucasus, South Asia, and East Asia.

Topics addressed by ISEE members include environmental exposures (e.g. air pollution, hazardous waste, metals, pesticides, radiation), health effects (e.g. cancer, cardiovascular disease, neurologic effects, reproductive effects), methodology (e.g. biomarkers, ecologic investigations, experimental design, exposure/dose assessment, meta-analysis, risk assessment, statistics), environment-gene interactions, and ethics and law.

ISEE encourages membership not only from epidemiology but also from such disciplines as exposure assessment and science, toxicology, biochemistry, and biostatistics, among others.





## Welcome to Seattle and the University of Washington

ISEE 2014 is being held on the campus of the University of Washington in Seattle. We hope you will enjoy our park-like campus and the views of Mount Rainier and Lake Washington.

### Near the University

University Way NE, better known as “the Ave” is the commercial heart of the University District and the off-campus extension of the University of Washington. Coffee shops and inexpensive dining options are abundant here, as well as clothing shops, a U.S. Post Office, the University Bookstore, banks and ATMs.

The University Village is an upscale outdoor shopping center within a 10 minute walk east of the HUB. Many dining options can be found here including the famous Din Tai Fung Dumpling House, Blue C Sushi, and Molly Moon’s Homemade Ice Cream. For a full list of shops, services, and restaurants please visit their website at: [www.uvillage.com](http://www.uvillage.com)

### Recreational and Athletic Facilities

ISEE 2014 organizers have arranged to make facilities at the Intramural Activities Building (IMA) available to conference participants for a guest fee of \$8.76 (including tax) per day. Your conference ID is required for access to all facilities. Facilities include tennis courts, swimming pool, racket courts, locker rooms, saunas, indoor track and a fitness center. The IMA is located north of Husky Stadium.

## Getting Around

### **Return Transportation to the Airport**

#### Shuttle Express

You can reserve trips by calling (425) 981-700 or you may also make your reservations online at [www.shuttleexpress.com](http://www.shuttleexpress.com). Advance reservations are required 24 hours in advance of your desired pick up time.

#### Taxi

All Seattle taxi cabs operate at the same rate, set by King County. The meter drop is \$2.50 plus \$2.00 per mile. Extra person charges may apply. A ride from University District to the Airport will be \$45-\$55.

STITA Taxi (206) 246-9999

Yellow Cab (206) 622-6500

Orange Cab (206) 522-8800

### **Seattle Metro Public Bus Transportation**

Metro buses travel to nearly every corner of Seattle. For bus schedules and regional trip planning visit [www.metro.kingcounty.gov](http://www.metro.kingcounty.gov)

Buses to downtown Seattle: Catch a number 70, 71, 72, 73, 74, 75, or 76 bus heading south on any stop along University Way (the Ave) or at Northeast Campus Parkway near the West Campus dormitories.

Bus to Ballard (a popular and lively neighborhood with many bars, restaurants, and shops): Take the 44 heading north on 15th Ave NE or heading west on NE 45th street.

Bus to Capitol Hill (another lively neighborhood with many bars and restaurants): take the #43 heading south on 15th Ave NE or heading east on NE 45th Street. Or take the 49 heading south at 15th Ave & NE Campus Parkway.

#### How to ride the bus:

- Exact fare is required at all times. Off-peak adult fare is \$2.25. Peak hour adult fare within Seattle is \$2.50.
- Board and pay at the front door of the bus.
- Metro has a two-zone fare system. The Seattle city limits are the zone border.
- Generally, peak hours are Monday-Friday 6:00-9:00 and 15:00 - 18:00.
- Nearly all Metro buses are fully accessible.

## Registration Desk

The registration desk will be located in HUB 203. Staff will be available to assist with registration check-in and to answer questions.

### Registration desk hours

Sunday, August 24	07:00 to 18:30
Monday, August 25 through Wednesday, August 27	07:00 to 17:00
Thursday, August 28	08:00 to 12:00

## Name Badges

Please wear your name badge at all times during the conference. Your badge is your entrance ticket to all conference sessions.

## Internet Access

Free wireless internet access is available campus-wide. To access the free Wi-Fi you will be required to provide ISEE conference attendee specific log-in information which will be posted on signs around the HUB.

## Speaker Ready Room – HUB Room 238

All plenary, symposium, and oral session presenters must check in at the Speaker Ready Room preferably the day before your session where technicians will collect your presentation files. If you are checking in on the day of your session, please come by at least 90 minutes prior to the start of your session. There will be technical staff to assist with the upload of your files and provide the opportunity to preview your presentation. If you are unavoidably delayed, you must still go directly to the Speaker Ready Room. Do not plan to use your own laptop for presentations. Apple Mac computers will not be provided in any of the ISEE session rooms.

## Mobile Phones, Pagers & Laptop Sound

As a courtesy to presenters and colleagues, please ensure that all mobile phones, pagers, and sound from your laptop are switched off during the conference sessions and workshops.

## Lunches and Refreshments

Refreshment breaks will take place in two locations, the HUB Lyceum Lounge on the first floor just outside of HUB 160 and the HUB South Prefunction Space just outside of the South Ballroom on the second floor. Coffee, tea, and water will be provided during refreshment breaks and poster sessions.

As part of our effort to make our conference as environmentally sustainable as possible, a hearty vegetarian lunch buffet will be provided Monday, Tuesday, and Wednesday on the ground floor level of the Husky Union Building. Look for signs directing you to the lunch distribution area. Your ISEE name badge is your ticket for lunch. If you indicated a special dietary request during online registration, a special lunch ticket was included with your registration packet and name badge. Please look for the special request table in the lunch distribution area. Compostable “to-go” containers will be provided.

Espresso, pastries, and other snacks will be available for purchase on the ground floor of the Husky Union Building in the ETC. Cafe.

Reusable water bottle filling stations are located throughout the HUB and are noted in maps in the conference program.

## Attire for the Conference

The dress code for attending the Scientific Program Sessions and the Opening Event will be casual. Please feel free to wear comfortable clothes suitable for walking to and from the venue in warm weather.

For the Conference Dinner cocktail attire is encouraged, but not required.



## Electrical Power

The electric current used throughout the United States is 120 volts.

## Sales Tax

In the City of Seattle, there is a 9.5% sales and use tax imposed on most goods and services.

## University of Washington Smoking Free Campus

Smoking on UW Campus is not allowed and violations will be subject to fines. For more information or to find designated smoking areas around campus please visit <http://www.smokefreeuw.washington.edu>.

## Luggage check

Complimentary luggage storage will be provided on Wednesday and Thursday of the conference in HUB room 337.

## Poster sessions

The poster sessions will be held daily in Mary Gates Hall, levels one and two. Poster presenters may mount their posters on their assigned board according to the following schedule. Posters are expected to be mounted on poster boards before 0830 and remain mounted until at least 1700; the room will be available to take down posters until at least 1800. A poster information table will be located near the poster boards and will be staffed from 0700 to 830 and 1100 to 1400 each day. Individual posters are assigned to a specific location and day of presentation; check at the poster desk for directions to your assigned poster board. Push pins and velcro will be provided at the poster desk to attach poster materials to the boards.

Unopposed poster viewing time is between 1150 and 1400.

Presenting authors are expected to be present at their posters at least between 1215 and 1400.

## Sustainability Initiatives

### Venue

The University of Washington is considered a global leader in sustainability policies and practices. The conference venue, the University of Washington Husky Union Building, has recently undergone a complete remodel and expansion which received a Gold level Leadership in Energy & Environmental Design (LEED) certification, thus the conference's environmental impact will be limited by the building's design for water efficiency, energy efficiency, and indoor environmental quality.

### Conference Consumables and Waste Management

In hosting our conference on campus we will be utilizing existing partnerships with catering and composting companies that focus on sustainable, locally sourced food and eco-conscious waste management. All cups, straws, and food containers will be biodegradable and compostable.

Lunches and refreshments will be provided by Bay Laurel Catering, which sources ingredients from local suppliers that follow sustainable practices in growing and production and that are pesticide and hormone free. Delivery vehicles are biodiesel fueled, all detergents, dishwashing liquids, and other cleaning chemicals are eco-friendly.

### Refillable Water Stations

There are multiple water bottle refilling stations on each floor of the conference venue. We are providing BPA-free reusable water bottles as part of our initiative to eliminate disposable water bottle waste product. Please see the conference venue maps in this program to locate these filling stations.

<b>POSTER SESSION 1</b>		<b>Monday, August 25, 11:50—14:00 — Mary Gates Hall</b>
		<b><u>1st Floor Commons</u></b>
P1-001—P1-030	Bisphenol A and Phthalate Exposure	
P-031—P1-070	Metals: Prenatal and Childhood Exposure	
P1-071	POPs - Polybrominated Diphenyl Ethers	
P1-072—P1-077	Exposure Assessment	
P1-078—P1-094	Occupational Health	
		<b><u>2nd Floor Commons</u></b>
P1-095—P1-124	Temperature, Meteorology, and Climate Change	
P1-125—P1-137	Crude Oil and Fracking: Exposure and Health	
P1-138—P1-152	Air Pollution Modeling	
P1-153—P1-168	Air Pollution and Mortality	
P1-169—P1-185	Indoor Air - Heating & Cooking	
P1-186—P1-211	Air Pollution and Health	
P1-212—P1-223	Indoor Air	
P1-224—P1-232	POPs - Neurological Effects	
P1-233—P1-238	POPs - Polychlorinated Biphenyls	
P1-239—P1-241	POPs - Polybrominated Diphenyl Ethers	
P1-242—P1-249	Landfills, Incinerators, and Hazardous Waste	
		<b><u>Room 282</u></b>
P1-250—P1-259	Ionizing Radiation and Radioactive Materials	
		<b><u>Room 286</u></b>
P1-260—P1-266	Electromagnetic Radiation	
		<b><u>Room 248</u></b>
P1-267—P1-280	Noise Exposure	
P1-281—P1-290	Built Environment	
<b>POSTER SESSION 2</b>		<b>Tuesday, August 26, 11:50—14:00 — Mary Gates Hall</b>
		<b><u>1st Floor Commons</u></b>
P2-291—P2-298	Climate Change, Air Pollution & Health Effects	
P2-299—P2-326	Chronic Effects of Childhood Air Pollution Exposure	
P2-327—P2-337	Climate Change & Health Effects	
P2-338—P2-353	Climate Change & Infectious Disease	
P2-354—P2-360	Maternal Air Pollution Exposure & Maternal Effects	
P2-361—P2-364	Maternal Chemical Exposures	
P2-365—P2-376	Biomarkers, Biomonitoring and Prenatal/Childhood Exposures	
P2-377—P2-380	Environmental Contaminants and Breastfeeding	
P2-381—P2-384	Metabolic Syndrome and Obesity	
		<b><u>2nd Floor Commons</u></b>
P2-385—P2-400	Water Quality - Monitoring, Sanitation, Contamination and Treatment	
P2-401—P2-418	Persistent Organic Pollutants in Water and Soil	
P2-419—P2-427	Smoking and Second-Hand Smoke Exposure	
P2-428—P2-443	Statistical Methods for Environmental Epidemiology	

# Poster Sessions Overview



**ISEE 2014**

August 24-28, 2014  
Seattle, Washington USA



International Society for Environmental Epidemiology

<b>POSTER SESSION 2</b>	
<b>Tuesday, August 26, 11:50—14:00 — Mary Gates Hall</b>	
<b>(continued)</b>	<b><u>2nd Floor Commons</u></b>
P2-444—P2-459	Respiratory Effects of Air Pollution
P2-460—P2-461	Climate Change
P2-462—P2-481	Environmental Policy & Modeling
P2-482—P2-514	Cardiovascular Effects of Air Pollution
P2-515—P2-524	Genetic and Epigenetics Processes
P2-525—P2-533	Water Quality - Health Outcomes
P2-534—P2-540	Microbial Processes in Environment and Disease
	<b><u>Room 282</u></b>
P2-541—P2-548	POPs - Perfluorinated Compounds
P2-549	Air Pollution: Non-urban exposure
	<b><u>Room 248</u></b>
P2-550—P2-554	POPs - Monitoring
P2-555—P2-558	POPs - Cardiovascular and Metabolic Effects
<b>POSTER SESSION 3</b>	
<b>Wednesday, August 27, 11:50—14:00 — Mary Gates Hall</b>	
	<b><u>1st Floor Commons</u></b>
P3-559—P3-578	Food Safety
P3-579—P3-593, P3-595	Biomarkers & Biomonitoring: Exposure Assessment and Evaluation
P3-594, P3-596	Air Pollution: Occupational and industrial exposure
P3-597—P3-621	Fetal Effects of Maternal Air Pollution Exposure
P3-622—P3-630	Acute Effects of Childhood Air Pollution Exposure
P3-631—P3-632	Maternal Supplement & Prescription Drug Use
P3-633—P3-654	POPs, Pregnancy & Children's Health
	<b><u>2nd Floor Commons</u></b>
P3-655—P3-667	Ethics & Policy
P3-668—P3-679	Air Pollution: Cancer
P3-680—P3-692	Air Pollution: Oxidative stress & inflammation
P3-693—P3-694	Acute Effects of Childhood Air Pollution Exposure
P3-695—P3-714	Social Determinants of Health
P3-715—P3-721	Environmental Determinants of Cancer
P3-722—P3-724	Air Pollution: Aging
P3-725—P3-730	Air Pollution: Diabetes and the Metabolic Syndrome
P3-731—P3-734	Air Pollution: Non-urban exposure
P3-735—P3-745	Air Pollution: Occupational and industrial exposure
P3-746	Food Safety
P3-747—P3-754	Metals: Occupational and industrial exposure
P3-755—P3-769, P3-771	Metals: Exposure Assessment
P3-770, P3-772—P3-783	Metals: Health Outcomes
P3-784—P3-807	Exposure Assessment: Air Pollution
P3-808—P3-812	Metals: Neurological outcomes
	<b><u>Room 282</u></b>
P3-813—P3-822	Risk Assessment & Communication
	<b><u>Room 248</u></b>
P3-823—P3-832	Risk Assessment & Communication



## Monday, August 25

### **S.01—Climate Change and Health in the Western Pacific**

Asia Pacific is a region with a vast diversity in its geography, climate, ethnicity, and status of economic development. Climate change has extensive impact on this region by sea level rise, heat wave, flooding, tropical storm, extreme drought, and snow storm. High population burden in the less developed part of the region poses a vulnerability to climate change in this region.

### **S.02—Long-term Exposure to Air Pollution and the Development of Cardiovascular Disease: The Multi-Ethnic Study of Atherosclerosis and Air Pollution (MESA Air)**

The US EPA made an unprecedented investment in the Multi-Ethnic Study of Atherosclerosis and Air Pollution (MESA Air). MESA Air represented an extraordinary opportunity to link state-of-the-art cardiovascular epidemiology with advanced exposure assessment methods in a well-characterized prospective cohort. This symposium summarizes the aims, methods and key findings.

### **S.03—Early Life Exposure to Endocrine Disrupting Chemicals on Children's Health - Evidence from Birth Cohort Studies**

The impact of endocrine disrupting chemicals on children's health may not be limited to infancy, but is likely to last until adolescence. Birth cohort studies provide longitudinal observation to clarify the critical window of exposure and long-term health effect.

### **S.04—Lead Poisoning: Tackling a Global Problem**

Despite progress in reducing lead exposure, lead poisoning is one of the most pervasive and preventable environmental threats to health worldwide. This session will explore the science, history and extent of lead toxicity and the measures and policies needed to eliminate it.

### **S.05—Moving beyond "improved" to measure progress in access to safe water, sanitation and hygiene (sponsored by the Institute of Health Metrics and Evaluation)**

The symposium will be a forum to discuss measures and indicators of drinking water, sanitation and hygiene (WSH) to estimate their disease burden and identify points for targeted interventions. The symposium will be an engaging venue to explore ways to incorporate measures of quality in WSH targets in the post-Millennium Development Goals (MDG) era.

### **S.06—Interventions to Reduce Exposures to Environmental Hazards in Pregnant Women and Children**

A growing number of environmental chemicals are being identified as hazardous to children, but there are few existing interventions that test the impact of reducing environmental hazards on health outcomes. The speakers of this symposium will present three novel interventions to reduce chemical exposures for pregnant women and children.

### **S.07—From Local Weather to Global Climate Change: Advancing Early Warning Systems for Infectious Diseases**

Early warning systems, based on environmental conditions, can help improve, accelerate and alert public health response capabilities and provide the evidence-base for strategic public health action. Such systems can significantly enhance preparedness to emerging infectious diseases, thereby helping contain human and economic costs, particularly in resource-strapped regions.

### **S.08—Arsenic and Cardiometabolic Risk: Implications at Low-Moderate Exposure**

Inorganic arsenic exposure at low-to-moderate levels in drinking water (<50 µg/L) and in food (rice, juice, other grains) is a major public health concern. The goal of the symposium is to discuss the available evidence, evaluate consistencies and discrepancies across studies, and contribute to the evaluation of the implications of the epidemiologic findings for risk assessment.

### **S.09—CONCEPT: Community Exposures to Pathogens from Intensive Food Animal Production**

Most meat and poultry consumed globally is produced by Intensive production methods. There are increasing concerns for health impacts associated with these operations among nearby communities and more broadly through the food supply. This symposium focusses on evidence for human exposures to zoonotic pathogens, including viruses and drug resistant bacteria.

## Tuesday, August 26

### **S.10—Integrating the Microbiome into Environmental Epidemiology**

This session will highlight the emerging role of the microbiome in environmental public health, and describe how researchers are integrating analyses of both human and environmental microbiomes into epidemiological studies.

**S.11—Just How Clean are our Clean Cooking Technologies? Exposure Results from Studies on Household Air Pollution and Child Survival, and Implications for Achieving WHO Indoor Air Quality Guidelines for Household Fuel Combustion**

While household air pollution is a known risk factor for health, evidence on the effectiveness of interventions to reduce exposures is limited. This session will share exposure results from studies on clean cooking and child survival, and discuss implications for achieving WHO indoor air quality guidelines for household fuel combustion.

**S.12—Toward Predicting and Preventing Dengue Fever Transmission**

This symposium will focus on the role of integrated physical and social science research in the reduction of dengue fever transmission. Presentations will address local level stakeholder involvement in dengue reduction, and modeling Aedes vector habitat suitability and dengue risk at household to global scales, including the development of early warning systems.

**S.13—Health Effects of Greenspace: Evidence from Epidemiological Studies**

The aim of this symposia is to summarize the current knowledge on health impacts of greenspace and greenness and its' possible utilization in the urban planning. The second aim is to discuss greenness, its metrics and possible interpretation and to discuss enhanced measures of exposure, access and use of greenspace.

**S.14—New Methods to Assess the Health Effects of Air Quality Actions**

Assessing health effects of air quality actions is of increasing interest. The purpose of this symposium is to present and discuss three methods to evaluate health effects of regulatory actions, based on conventional epidemiologic methods, quasi-experimental methods and the use of causal models as well as other promising new techniques.

**S.15—Data-Sharing and Epidemiologists: Panel Discussion**

Data Sharing Issues arise when research creates a valuable resource that others wish to access, and when research forms the basis of contentious policy decisions. Data sharing expectations can be in conflict with typical research practices including participant confidentiality and researcher's understanding of intellectual ownership. These issues are complex and increasingly prominent. Environmental Epidemiology is at the center of this storm. Please join this panel-led discussion, as we explore the challenges and the promise of data sharing. Should ISEE lead an effort to establish "Best Practices for Data Sharing in Environmental Epidemiology"?

## Wednesday, August 27

**S.16—Causal Inference Methods and Environmental Epidemiology**

Causal methods are gaining traction in environmental epidemiology but remain underutilized. This symposium aims to demystify these methods and push the conceptual boundaries with respect to methodological issues including the healthy worker survivor effect and time-varying confounding, effect modification by neighborhood factors, and negative controls for assessing unmeasured confounding.

**S.17—International Collaboration on the Exposome**

The symposium will present the international activities on unraveling the human exposome as a means of elucidating the links between environmental exposure and human health. It will focus on (a) the latest novelties in exposome initiatives; (b) the requirements for joint action; and (c) setting the ground for common infrastructure.

**S.18—Environmental Epidemiology: Practicalities for Addressing Climate Change**

Mitigation and adaptation of climate change require concrete actions, each presenting unique opportunities to improve public health. This symposium reflects on how environmental epidemiology can contribute to both mitigation and adaptation strategies, using specific examples from around the globe.

*This symposium is sponsored by the ISEE Ethics and Philosophy committee.*

**S.19—The Social Distribution of Environmental Hazards: Perspectives from Europe and the US**

This symposium will provide empirical evidence of the association between social and environmental factors in the US and Europe. Presentations will focus on social factors such as socioeconomic status, residential segregation and psychosocial stressors and environmental hazards such as ambient air pollution, land cover and industrial toxic pollution.

**S.20—Reducing Exposure Misclassification in Environmental Epidemiology: Is it Always Desirable and What is the Impact on Inferences?**

Recent advances in exposure sciences allow improved exposure assessment in environmental epidemiology. However, this often comes at significant cost, and there are situations where it might not improve inference. This symposium provides motivating examples, a methodological framework, and a lively discussion of when improved exposure assessment is worth the effort.

Linked to "Exposure Measurement Error in Air Pollution Studies: Consequences and Correction Methods" morning session, Wednesday, 07:30—08:30.

These sessions are open to all participants, and no registration is required. Please check the program for detailed listings.

## **Monday, 07:30 — 08:30**

**Career Trajectories after a PhD** **HUB 334**  
*(Sponsored by the Student and New Researcher Network)*

This panel session will examine different career trajectories that are available after completing a PhD. Panelists include individuals working in academia, private industry, government, and non-government organizations. Panelists will briefly discuss their background, career trajectories and lessons learned before taking questions from the audience.

**Detection and Attribution of the Health Impacts of Climate Change** **HUB 332**  
**Chairs:** Kristie Ebi and Manon Fleury

Detection and attribution (D&A) is a formal process for determining whether observed trends could be attributed to anthropogenic climate change or another factor. Attribution of health impacts is challenging because of the long datasets required and the multiple drivers of health outcomes. The symposium will review D&A, highlighting research results.

## **Tuesday, 07:30 — 08:30**

**An Editors Perspective on Becoming a Great Peer Reviewer** **HUB 334**  
*(Sponsored by the Student and New Researcher Network)*

Jane Schroeder, science editor of Environmental Health Perspectives, will share her extensive knowledge of peer review and scientific research editing. This session will focus on what new researchers need to know as peer reviewers.

**Risks and Benefits of Fish Consumption: Considering Policy in Research Design** **HUB 332**  
**Chair:** Ellen Silbergeld

This session will discuss the role of epidemiological studies in the risk assessment of methylmercury exposure and setting of fish consumption guidelines for at risk populations. The panel will discuss the data needed to better inform the process of risk assessment and its application to fish consumption guidelines.

**Using Spatial Analysis to Identify Neighborhood Vulnerabilities** **HUB 250**  
**Co-chairs:** Felice Le-Sherban & Theresa Hastert

Exposure assessments of neighborhood physical and social environments often rely on definitions of space that may not be most relevant for population health. Speakers will present applications of spatial analytic methods, including the Gedi-Ord local G statistic and spatial regression, to more accurately represent neighborhood vulnerability with respect to health.

**Engaging Academia to Advance the Science and Practice of Environmental Public Health Tracking** **HUB 145**  
**Co-chairs:** Lina Balluz & Ying Zhou

The aim of this session is to present the progress made by the academic partners of the National Environmental Public Health Tracking Program (Tracking) at CDC in the development of environmental exposure assessment, epidemiologic and statistical methods for use on the Tracking network as well as in linking exposure and health.



## Wednesday, 07:30 — 08:30

### **Translating Scientific Findings to the Public** (Sponsored by the Student and New Researcher Network)

HUB 334

Sharing environmental health research with the public - translating discoveries to spread knowledge - is an important part of advancing science. This process is typically done post-hoc and there is a need to enhance communication processes, especially with the emergence of social media and novel communication strategies. In this session the communication approach (and lessons learned) from the ESCAPE study will be summarized and different strategies (e.g. web, social media, multimedia, etc.) for distributing environmental health research discussed.

### **Field Testing to Validate Novel Tools for Personal Exposure Monitoring in Exposure Assessment and Epidemiological Studies**

HUB 332

Chair: David Balshaw

There has been a rapid development of prototype sensors for personal exposure assessment; however, few of these have been adopted for large scale use. This symposium will highlight on-going efforts to test the validity, reliability and usability of such technologies for assessing personal exposures to airborne toxicants and lifestyle factors.

### **The Role of Environmental Exposures on Changes in Fertility Potential over Recent Decades: A Global Perspective**

HUB 250

Chair: Shelley Ehrlich

This educational session is consistent with both the early origins of health and disease and the use of evolving life course methods to understand the implications of fecundity (impairments) for the health and well-being of populations. We will discuss alternative measures of fecundity and their strengths and limitations in relation to environmental influences on fertility potential; demographic and temporal trends in male and female fecundity and their implications for adult health.

### **Pollution Intersects Life: Acute Health Effects of Exposure to Traffic Pollution**

HUB 214

Chair: Robert Laumbach

The health effects of highly-prevalent, on- or near-roadway exposures to traffic-related air pollutants are a growing health concern. We will discuss new approaches to the challenges of characterizing these complex and variable micro-environmental exposures, as well as the biological mechanisms that may underlie acute cardiovascular and respiratory health effects.

### **Exposure Measurement Error in Air Pollution Studies: Consequences and Correction Methods**

HUB 145

Chair: Lisa Baxter

Recent developments in exposure modeling make it possible to develop more refined exposure estimates than central-site measures, but concerns about the impact of exposure measurement error on health effect estimation remain. This symposium will present approaches to determine the bias and uncertainty resulting from measurement error and potential corrections methods. Linked to Symposium S.20, “Reducing Exposure Misclassification in Environmental Epidemiology: Is it Always Desirable and What is the Impact on Inferences?”, Wednesday, August 27, 16:00—17:30.

**Morning Workshops—08:30—11:50, Sunday, August 24****Research Evaluation Metrics**

HUB 145

**Speakers/Presenters:** Christie Drew and Kristi Pettibone

Participants will learn about the PEPH Metrics Manual and how to develop logic models and identify metrics. We will use case studies to demonstrate how to develop metrics for activities, outputs and impacts and we will work in small groups to create strategies to document progress and achievements using metrics.

**Writing and Publishing Environmental Epidemiology Research Papers**

HUB 332

**Speakers/Presenters:** Jane Schroeder

Basic to advanced skills for writing an effective and publishable results paper: standard and required elements, clear language, effective tables and figures, working with coauthors, obtaining feedback; selecting a target journal and communicating with editors and reviewers; and ethical issues, including conflict of interest, plagiarism, and responsible media outreach.

**DAGS & the environment: practical applications of causal inference methodologies in environmental health research**

HUB 250

**Speakers/Presenters:** Sunni L Mumford, Enrique Schisterman, Anna Z Pollack

The purpose of this workshop is to help bridge the gap between methodological advancements and practical applications in research settings by 1) introducing DAG theory focusing on issues particularly common in environmental epidemiology, 2) providing specific real world examples, and 3) presenting tools for implementation.

**Afternoon Workshops—13:00—16:30, Sunday, August 24****Measuring the neighborhood social and physical environment: lessons from the social sciences**

HUB 250

**Speakers/Presenters:** Philip Hurvitz, Anjum Hajat, Amy Schulz

This pre-conference workshop will focus on measuring the neighborhood social environment (NSE). Specifically, we will discuss: 1) defining the NSE 2) defining a neighborhood for health research 3) identifying existing data sources to characterize the NSE and 4) describing methods to directly and systematically characterize the NSE.

**Navigating the NIH funding system: planning, submitting and obtaining your first grant**

HUB 332

**Speakers/Presenters:** Gwen Collman, Caroline Dilworth, Gary Ellison, Kimberly Gray, Alfonso Latoni, Lisa Steel, and Claudia Thompson

This workshop will cover the basics of applying for NIH grant funding. Topics to be covered include identifying available funding opportunities for early career stages and becoming familiar with the NIH review process. This workshop is specifically targeted to students and new researchers with limited experience applying for NIH funding.

**Global Burden of Disease Workshop**

HUB 214

**Speakers/Presenters:** Mohammad Forouzanfar and Theo Vos

Learn from experts in GBD about the systematic and scientific approach used in GBD 2013. This workshop will provide opportunities for exploration of the methods, tools, data, and visualizations of GBD 2013, as well as a forum for discussing the implications of GBD related to environmental and occupational health

**Full-day Workshops—08:30—16:30, Sunday, August 24****Using BenMAP-CE to estimate air pollution benefits**

HUB 340

**Speakers/Presenters:** Neal L Fann and Charlie Fulcher

Learn to estimate the incidence and economic value of air pollution related health impacts using the open source PC-based environmental Benefits Mapping and Analysis Program-Community Edition (BenMAP-CE) tool. Instruction will cover the basics of air pollution benefits analysis and running the tool with Global Burden of Disease data.

**Detecting and Countering Falsely Manufactured Alarm or Doubt**

HUB 334

**Speakers/Presenters:** Raymond Neutra, Irva Hertz-Picciotto, Bruce Lanphear, Erik Lebret, and Lea Ceccarelli

Often arguments about what is the truth is really about what ought to be done. Once the controversy is in the societal domain, the public has different norms for how the argument should progress than the norms used within the scientific domain. This workshop will present approaches to the question of what can practicing epidemiologists do, alone and together, to foster balance and transparency and counter biasing activities.

**Up and Running With R Statistical Software**

HUB 337

**Speakers/Presenters:** Zev Ross

This popular workshop is being offered at the ISEE conference for the fourth year in a row. The goal of the workshop is to get participants up and running with R and to provide users with enough background to begin manipulating data, preparing graphics and conducting simple statistics.



# Detailed Conference Program





07:00-17:30	<b>Exhibits and Conference Registration</b> Speaker Ready Room	HUB Ballroom Foyer HUB 238
08:30 - 11:50	Latin America Chapter Meeting	HUB 214
08:30 - 11:50	<b>AM PRE-CONFERENCE WORKSHOPS</b> (pre-registration required)	
	DAGs & The Environment: Practical Applications	HUB 250
	Research and Evaluation Metrics	HUB 145
	Writing and Publishing Environmental Epidemiology	HUB 332
08:30 - 16:30	<b>ALL-DAY PRE-CONFERENCE WORKSHOPS</b> (pre-registration required)	
	Detecting and Countering Falsely Manufactured Alarm or Doubt	HUB 334
	Using BenMAP-CE to Estimate Air Pollution Benefits	HUB 340
	Up and Running with R: Statistical Software	HUB 337
13:00 - 16:30	ISEE Council Meeting	HUB 307
13:00 - 16:30	<b>PM PRE-CONFERENCE WORKSHOPS</b> (pre-registration required)	
	Measuring the Neighborhood Social and Physical Environment: Lessons from the Social Sciences	HUB 250
	Global Burden of Disease Workshop	HUB 214
	Navigating the NIH Funding System: Planning, Submitting and Obtaining your First Grant	HUB 332
18:30-20:30	<b>WELCOME RECEPTION</b>	Meany Hall





07:00-17:00	<b>Exhibits and Conference Registration</b> Speaker Ready Room	HUB Ballroom Foyer HUB 238
07:15 - 08:30	<b>ISEE COUNCIL MEETING</b>	HUB 307
07:30 - 08:30	<b>Morning Sessions</b>	
	M.01 <b>CAREER TRAJECTORIES AFTER A PHD</b> (Sponsored by the Student and New Researcher Network)	HUB 334
07:30 - 08:30	M.02 <b>DETECTION AND ATTRIBUTION OF THE HEALTH IMPACTS OF CLIMATE CHANGE</b> <b>Session Chair:</b> Kristie L. Ebi and Manon Fleury	HUB 332
	<b>Presenters:</b> Kristie Ebi Jan Semenza	
08:30 - 10:00	<b>PLENARY SESSION 1</b> <b>Session Chair:</b> Joel Kaufman, MD, MPH and Francine Laden, ScD	HUB Ballroom
	Conference Welcome	
PL-01	<b>Work that Matters: Toward Consequential Environmental Epidemiology</b> <i>Howard Frumkin, MD, DrPH</i>	
PL-02	<b>Health Disparities in the Age of Epigenomics</b> (Sponsored by the UW NIEHS Center for Ecogenetics and Environmental Health) <i>Kenneth Olden, PhD</i> <b>Presentation of the ISEE Research Integrity Award</b> Colin L Soskolne, PhD, Presenter Steven Coughlin, PhD, Award Recipient	
10:00 - 10:20	Morning Break	
10:20 - 11:50	<b>Parallel Sessions</b>	
10:20 - 11:50	S.01 <b>CLIMATE CHANGE AND HEALTH IN THE WESTERN PACIFIC</b> <b>Session Chair:</b> Nasir Mohd Hassan and Yasushi Honda	HUB 250
S-001	<b>WHO Programme on Climate Change and Health in Asia Pacific</b> <i>Nasir Mohd Hasaan, Jeongsub Yeom</i>	
S-002	<b>Health Issues of Climate Change in Pacific Island Countries</b> <i>Lachlan MacIver, Jyotishima Naicker, Kristie L Ebi, Rohko Kim</i>	
S-003	<b>Climate Change and Waterborne Diseases in Mongolia</b> <i>Ho Kim, Clara Tammy Kim, Hae-Kwan Cheong, Masahiro Hashizume, Yasushi Honda, Jinseop Kim, Jinhee Eum, Yoonhee Kim, Chisato Imai, Oyungerel Ravjir, Burmaajav Badrah</i>	
S-004	<b>Vector-Borne Diseases in the WHO Western Pacific Region (WPRO)</b> <i>Masahiro Hashizume, Chisato Imai</i>	
S-005	<b>Policy Implications of Scientific Findings on Health Impacts of Climate Change in Western Pacific Region</b> <i>Hae-Kwan Cheong, Hyenmi Chung, Joshua Nealon, Jungsub Yeom, Nasir Mohd Hasaan</i>	

10:20 - 11:50	S.02	<b>LONG-TERM EXPOSURE TO AIR POLLUTION AND THE DEVELOPMENT OF CARDIOVASCULAR DISEASE: THE MULTI-ETHNIC STUDY OF ATHEROSCLEROSIS AND AIR POLLUTION (MESA AIR)</b> Session Chair: Joel Kaufman	HUB North Ballroom
S-006		<b>A Prospective Study of Atherosclerosis, Clinical Cardiovascular Disease, and Long-Term Exposure to Ambient Particulate Matter and Other Air Pollutants in a Multi-Ethnic Cohort (MESA Air)</b> <i>Joel D Kaufman, Sara D Adar, Ryan W Allen, R Graham Barr, Matthew J Budoff, Adrian M Casillas, Martin A Cohen, Cynthia L Curl, Martha L Daviglius, Ana V Diez-Roux, David R Jacobs, Jr., Richard A Kronmal, Timothy V Larson, L-J Sally Liu, Thomas Lumley, Ana Navas-Acien, Daniel H O'Leary, Jerome I Rotter, Paul D Sampson, Lianne Sheppard, David S Siscovick, James H Stein, Adam A Szpiro, Russell P Tracy</i>	
S-007		<b>A Unified Spatiotemporal Modeling Approach for Prediction of Multiple Air Pollutants in MESA Air</b> <i>Joshua Keller, Casey Olives, Sun-Young Kim, Lianne Sheppard, Paul Sampson, Adam Szpiro, Assaf Oron, Sverre Vedal, Joel Kaufman</i>	
S-008		<b>Air Pollution and Progression of Coronary Artery Calcification: MESA Air</b> <i>Joel D Kaufman, Sara Adar, R Graham Barr, Matthew Budoff, Gregory L Burke, Cynthia L Curl, Martha Daviglius, Ana V Diez-Roux, Amanda Gasset, David R Jacobs, Richard Kronmal, Timothy V Larson, Ana Navas-Acien, Paul D Sampson, Lianne Sheppard, David S Siscovick, James H Stein, Adam A Szpiro, Karol E Watson</i>	
S-009		<b>Associations between Clinical Cardiovascular Disease Events and Long-Term Exposure to Air Pollutants in the Multi-Ethnic Study of Atherosclerosis and Air Pollution (MESA Air)</b> <i>Joel D Kaufman, R Graham Barr, Gregory L Burke, Martha Daviglius, Ana Diez-Roux, David Jacobs, Richard Kornmal, Ana Navas-Acien, Casey Olives, Lianne Sheppard, David Siscovick, Karol Watson</i>	
S-010		<b>Long-Term Exposure to Air Pollution and Markers of Inflammation, Coagulation and Endothelial Activation: a Repeat Measures Analysis in the Multi-Ethnic Study of Atherosclerosis (MESA)</b> <i>Anjum Hajat, Matthew Allison, Ana Diez Roux, Nancy Swords Jenny, Neal Jorgensen, Adam Szpiro, Victor Van Hee, Sverre Vedal, Joel Kaufman</i>	
S-011		<b>Long-Term Outdoor Air Pollution and "Global" DNA Methylation in Circulating Monocytes</b> <i>Gloria Chi, Yongmei Liu, James MacDonald, R. Graham Barr, Kathleen Donohue, Mark Hensley, Lifang Hou, Charles McCall, David Siscovick, Joel Kaufman</i>	
10:20 - 11:50	S.03	<b>EARLY LIFE EXPOSURE TO ENDOCRINE DISRUPTING CHEMICALS ON CHILDREN'S HEALTH - EVIDENCE FROM BIRTH COHORT STUDIES</b> Session Chair: Ruth A. Etzel and Eun-Hee Ha	HUB 160 (lyceum)
S-012		<b>Exposure Levels of Perfluoroalkyl Acids and Their Effects on Children's Health - Hokkaido Study.</b> <i>Reiko Kishi</i>	
S-013		<b>Perfluoroalkyl Acids Levels in Cord Blood and Child Growth- Taiwan Birth Panel Study</b> <i>Mei-Huei Chen, Wu-Shiun Hsieh, Guang-Wen Lien, Pau-Chung Chen</i>	
S-014		<b>Prenatal Bisphenol A Exposure and Infant Health - Mothers and Children's Environmental Health Study.</b> <i>Byung Mi Kim, Hye-Sook Park, Yun-Chul Hong, Yangho Kim, Minha Ha, Eun-Hee Ha</i>	
S-015		<b>Prenatal Exposure to Phthalate Acid Esters and Pubertal Development in a Birth Cohort from Central Taiwan: Follow-Up at Eight and Eleven Years Old</b> <i>Shu-Li Wang, Chin-Kuo Chang, Hsiao-Yen Chen, Pen-Hua Su, Po-Chi Liao, Jing-Yi Lin</i>	
S-016		<b>The Relationship between Prenatal Phthalate Exposure and Childhood Adipokine</b> <i>Hui-Ju Wen, Hsiu-Ying Ku, Chien-Wen Sun, Chien-Jen Wang, Hsiao-Yen Chen, Pen-Hua Su, Shu-Li Wang</i>	
S-017		<b>The Association of Prenatal Low-Level Mercury of Cord Blood and Maternal Body Mass Index in Shanghai</b> <i>Lisu Huang, Xiaodan Yu, Jun Zhang</i>	
10:20 - 11:50	S.04	<b>LEAD POISONING: TACKLING A GLOBAL PROBLEM</b> Session Chair: Frank S. Rosenthal and Bruce P. Lanphear	HUB 332
S-018		<b>Introduction: Addressing the Lead Poisoning Pandemic</b> <i>Frank Rosenthal</i>	
S-019		<b>The Science of Low-Level Lead Toxicity</b> <i>Bruce Lanphear</i>	
S-020		<b>Toward a Global Perspective: Lessons from America's "Century of Lead"</b> <i>Christian Warren</i>	
S-021		<b>An International Perspective on Lead Poisoning</b> <i>Chonghuai Yan</i>	

S-022 **A Call for the Global Elimination of Lead Poisoning**  
*Perry Gottesfeld*

10:20 - 11:50 S.05 **MOVING BEYOND "IMPROVED" TO MEASURE PROGRESS IN ACCESS TO SAFE WATER, SANITATION AND HYGIENE** HUB South Ballroom  
(sponsored by the Institute of Health Metrics and Evaluation)  
**Session Chair:** Mohammad Forouzanfar

**Presenters:**

Astha KC  
Doulaye Koné  
Scott Meschke  
Raymond Neutra

10:20 - 11:50 O.01 **WATER CONTAMINANTS: ARSENIC, DBPs, AND NITRATE** HUB 214  
**Session Chairs:** Ann Aschengrau and Lisa Gallagher

O-001 **Association of Arsenic and Adverse Pregnancy Outcomes/Infant Mortality: a Systematic Review and Meta-Analysis**

*Reginald Quansah, Frederick Ato Armah, Isaac Luginaah, Proscovia Bazanya Namujju, Kissinger Marfoh*

O-002 **Disinfection By-Products and Colorectal Cancer in Spain**

*Manolis Kogevas, Esther Gracia-Lavedan, Beatriz Perez-Gomez, Jone M Altzibar, Eva Ardanaz, Adonina Tardon, Antonio Jose Molina, Carmen Navarro, Ines Gomez-Acebo, Rosana Peiro, Gemma Castano-Vinyals, Victor Moreno, Marina Pollan, Cristina M Villanueva*

O-003 **Lung Cancer in Younger Adults Following Childhood Exposure to Low Concentrations of Arsenic in Water**

*Craig Steinmaus, Catterina Ferreccio, Allan Smith*

O-004 **Prospective Analysis of Nitrate and Disinfection Byproducts in Drinking Water and Bladder Cancer Incidence in the Iowa Women's Health Study Cohort**

*Rena Jones, Peter Weyer, Maki Inoue-Choi, Curt Dellavalle, Kristin Anderson, Kenneth Cantor, Stuart Krasner, Kim Robien, Debra Silverman, Mary Ward*

O-005 **Long-Term Exposure to Nitrate in Drinking Water and Colorectal Cancer Risk (MCC-SPAIN STUDY)**

*Nadia Espejo-Herrera, Manolis Kogevas, Esther Gracia-Lavedan, Nuria Aragonés, Elena Boldo, Jone M Altzibar, Eva Ardanaz, Adonina Tardón, Antonio José Molina, Carmen Navarro, Inés Gómez-Acebo, Rosana Peiró, Gemma Castaño-Vinyals, Victor Moreno, Cristina M Villanueva*

O-006 **Recent Findings on Arsenic Exposure and Respiratory Outcomes from the Health Effects of Arsenic Longitudinal Study (HEALS)**

*Faruque Parvez, Yu Chen, Christopher Olopade, Mahbub Yunus, Rabiul Hasan, Alauddin Ahmed, Tariqul Islam, Vesna Slavkovich, Joseph Graziano, Habibul Ahsan*

10:20 - 11:50 O.02 **MODERN INDOOR ENVIRONMENT** HUB 334  
**Session Chairs:** Torben Sigsgaard and Carl-Gustaf Bornehag

O-007 **Exposure to Household Cleaning Products and Respiratory Health Effects in Young School Children**

*Claudia CY Wong, Xiang-qian LAO, Helen HL CHANG, Ignatius TS YU*

O-008 **Trichloramines in an Indoor Swimming Pool: the Impact of Ventilation**

*Benoit Lévesque, Lorraine Vézina, Denis Gauvin, Patrice Leroux*

O-009 **Phthalate Concentrations in House Dust in Relation to Maternal Metabolic Conditions during Pregnancy in the CHARGE Study**

*Paula Krakowiak, Claire Philippat, Melissa Rose, Deborah Bennett, Irva Hertz-Picciotto*

O-010 **Association of Cytokine/Chemokine Profiles and House Dust Phthalate Concentrations among Children with and Without Neurodevelopmental Disorders in the CHARGE Study.**

*Melissa Rose, Marjannie Eloi Akintunde, Paula Krakowiak, Claire Philippat, Rebecca Moran, Deborah Bennett, Judy Van de Water, Irva Hertz-Picciotto*

O-011 **Nationwide Survey of Indoor Air Quality in Japan**

*Naoki Kunugita, Shigehisa Uchiyama, Yohei Inaba*

O-012 **Indoor and Outdoor Concentrations of Ultrafine Particles, PM<sub>2.5</sub>, Black Smoke and NO<sub>2</sub> in Selected Homes of SAPALDIA Subjects in Switzerland**

*Reto Meier, Marloes Eeftens, Harish Phuleria, Alex Ineichen, Mark Davey, Regina Ducret-Stich, Christian Schindler, Robert Gehrig, Thierry Rochat, Jean-Michel Gaspoz, Nicole Probst-Hensch, Ming-Yi Tsai, Nino Künzli*

10:20 - 11:50

O.03

**OCCUPATION AND CANCER**

HUB 145

**Session Chair:** Parveen Bhatti

- O-013 **Carcinogenetic Effects of the Processing of Non- Asbestiform Tremolite Jade: a 33-Year Follow-Up Study**  
*Hsiao-Yu Yang, Ruei-Hao Shie, Pau-Chung Chen*
- O-014 **Shift-Work and Cancer Research: How Can We Quantitatively Assess Circadian or Chronodisruption?**  
*Thomas C. Erren, Valérie Gross, Peter Morfeld*
- O-015 **Occupational Exposure to Diesel and Gasoline Engine Emissions and Bladder Cancer Risk in Men: A Canadian Population-Based Case-Control Study**  
*Lidija Latifovic, Paul J. Villeneuve, Marie-Elise Parent, Ken Johnson, Shelley A. Harris*
- O-016 **Endocrine Disruptors and the Risk of Lymphoma in a Multi- Centric European Study**  
*Laura Costas, Claire Infante-Rivard, Martie Van Tongeren, Jan-Paul Zock, Nikolaus Becker, Paolo Boffetta, Paul Brennan, Lenka Foretova, Marc Maynadie, Anthony Staines, Alexandra Nieters, Pierluigi Cocco, [Silvia de Sanjose](#)*
- ETH-01 **Ethical and Philosophical Considerations of Occupational Cancer Epidemiology**  
*Ellen M Wells*

11:50 - 14:00

P.1

**POSTER SESSION 1**

Mary Gates Hall

First Floor Commons

**BISPHENOL A AND PHTHALATE EXPOSURE**

- P1-001 **Do Human Exposures to Bisphenol A and Three Other Bisphenol Analogs Track Market Changes?**  
*Xiaoyun (Sherry) Ye, Xiaoliu Zhou, Joshua Kramer, Antonia Calafat*
- P1-002 **Metabolic Syndrome and Phthalate Metabolites in Adults Stratified by Sex and Menopausal Status from NHANES (2003-2010)**  
*Cara L. Frankenfeld, Anna Z. Pollack, Taara Bhat*
- P1-003 **Is Bisphenol A Exposure Associated with Overweight in the Elderly?**  
*Mee-Ri Lee, Yoon-Hyeong Choi, Sanghyuk Bae, Jin Hee Kim, Choonghee Park, Yun-Chul Hong*
- P1-004 **HSP70-Hom Gene Polymorphisms Modify the Association of Diethylhexyl Phthalates with Insulin Resistance: a Panel Study**  
*Jin Hee Kim, Yun-Chul Hong*
- P1-005 **Interaction between GSTM1/GSTT1 Polymorphism and Prenatal Bisphenol A Exposure on Infant Neurodevelopment at 6 Months**  
*Eun-Kyo Park, HyeSook Park, Yun-Chul Hong, Mina Ha, Yangho Kim, Byung-Mi Kim, Eunjeong Kim, Eun-Hee Ha*
- P1-006 **Personal Care Product Use and Pubertal Development among a Multiethnic Cohort of Young Girls**  
*Susan L. Teitelbaum, Nancy Mervish, Kathleen McGovern, Susan M. Pinney, Gayle C. Windham, Lawrence H. Kushi, Frank M. Biro, Mary S. Wolff*
- P1-007 **Prenatal and Peripubertal Urinary BPA and Phthalate Metabolites in Relation to Sexual Maturation among Girls Living in Mexico City**  
*Deborah Watkins, Martha Maria Tellez-Rojo, Kelly Ferguson, Joyce Lee, Maritsa Solano-Gonzalez, Clara Blank-Goldenberg, Karen Peterson, John Meeker*
- P1-008 **BPA Exposure and Neuro-Behavior at Age 7-9 Years**  
*Emily Roen, Ya Wang, Antonia Calafat, Amy Margolis, Julie Herbstman, Shuang Wang, Virginia Rauh, [Frederica Perera](#)*
- P1-009 **A Community - Based Case - Control Study on Urinary Bisphenol a (BPA) and Attention-Deficit Hyperactivity Disorder (ADHD) in Children.**  
*Hyunjoon Joo, Myungho Lim, Ki-Chung Paik, Sungja Cho, Hojang Kwon, Seung Jin Yoo, Mina Ha*
- P1-010 **Probabilistic Modeling of Potential Bisphenol-A (BPA) Exposure in School Meals**  
*Jennifer C. Hartle, Mary A. Fox, Robert S. Lawrence*
- P1-011 **Investigation of 7-Day Sweat Collection as a Novel Means of Bisphenol A Exposure Assessment**  
*Christina Porucznik, Kyley Cox, Diana Wilkins, David Anderson, Eric Brozek, Nicole Bailey*
- P1-012 **Seasonal Variation of Urinary Bisphenol a Concentrations Measured on Multiple Consecutive Days in a Prospective, Pre- Conception Cohort**  
*Christina Porucznik, Kyley Cox, Nicole Bailey, Joseph Stanford, James VanDerslice, Diana Wilkins, Eric Brozek, David Anderson*
- P1-013 **Urinary Free Bisphenol a and Bisphenol a Glucuronide Concentrations in a Sample of Neonates in Baltimore, Maryland**  
*Rebecca Nachman, Stephen Fox, W. Christopher Golden, Erica Sibinga, John Groopman, Peter Lees*

- P1-014 **Bisphenol a (BPA) and BPA Metabolites in Paired Maternal and Cord Serum**  
*Jiaying Liu, Jingguang Li, Yongning Wu, Jonathan Martin*
- P1-015 **Prenatal Exposure to Di-Isononyl Phthalate (Dinp) Is Associated with Shorter Anogenital Distance in Swedish Boys**  
*Carl-Gustaf Bornehag, Fredrik Carlstedt, Bo AG Jönsson, Christian H Lindh, Tina K Jensen, Anna Bodin, Carin Jonsson, Staffan Janson, Shanna Swan*
- P1-016 **Prenatal Exposure for Phthalates and the Importance for Reactive Airways in Children during the First Year of Life in the Swedish SELMA Study**  
*Huan Shu, Laura VonKobyletzki, Eewa Nånberg, Sverre Wikström, Bo AG Jönsson, Christian H Lindh, Tim K. Takaro, Åke Svensson, Carl-Gustaf Bornehag*
- P1-017 **Urinary Levels of BPA and Phthalates among Pregnant Women in the Kuwait TRACER Birth Cohort Pilot Study**  
*Mohammad AlSeaidan, Chengsheng Alex Lu, Costas Christophi, Rosalind Wright, Douglas Dockery*
- P1-018 **Variability of Urinary Bisphenol-A Levels during Pregnancy and Risk of Preterm Birth**  
*David Cantonwine, Kelly Ferguson, Bhramar Mukherjee, Thomas McElrath, John Meeker*
- P1-019 **Comparisons of Methods to Adjust for Creatinine in Explaining Demographic Variation in Urinary Bisphenol A Concentration**  
*Yutaka Aoki, Jeff Berko, Deborah Ingram, Jennifer Parker*
- P1-020 **Semen Quality Parameters and Urinary Bisphenol a Concentrations in a Prospective, Pre-Conception Cohort**  
*Kyley Cox, Christina Porucznik, Nicole Bailey, James VanDerslice, Joseph Stanford*
- P1-021 **Effects of Phthalate Exposure on Phenotypic Markers in Human Neuronal Cells Undergoing in Vitro Differentiation**  
*Eewa Nånberg, Filip Rendel, Carl-Gustaf Bornehag, Birgitta Sundström*
- P1-022 **Phthalate Exposure in Relation to Maternal Thyroid and Reproductive Hormone Levels during Pregnancy**  
*Lauren E. Johns, Kelly K. Ferguson, Offie P. Soldin, David E. Cantonwine, Luis O. Rivera-González, Rita Loch-Caruso, Bhramar Mukherjee, Liza V. Anzalota Del Toro, Braulio Jiménez-Vélez, Akram N. Alshawabkeh, José F. Cordero, John D. Meeker*
- P1-023 **Phthalate Exposures of Palestinian Women: Preliminary Findings**  
*Ziad Abdeen, Ronit Calderon-Margalit, Kifaya Azmi, Thomas Goen, Radwan Qasrawi, Tamar Berman, Elihu Richter*
- P1-024 **Exposure Reconstruction for the Complainants of the Plasticizer Food Scandal Who Were Possibly Highly Exposed to Phthalates in Taiwan**  
*Chu-Chih Chen, Yin-Han Wang*
- P1-025 **The Association between Nonylphenol and Sexual Hormone Levels among Pregnant Women: a Cohort Study in Taiwan**  
*Mei-Lien Chen*
- P1-026 **Phthalates in Beverages and Meat Consumed in the State of Mexico**  
*Lilia Patricia Bustmante Montes, Victor Hugo Borja Aburto, Fátima Garcia Espino, Araceli Amaya Chavez, Maria Magdalena Garcia Fabila, Ninfa Ramirez Duran*
- P1-027 **Toxic Metal Exposure and Associations with Thyroid and Reproductive Hormone Levels in Pregnant Women Living in Northern Puerto Rico: the PROTECT Study**  
*Luis O. Rivera-González, Zorimar Rivera-Núñez, David E. Cantonwine, Kelly K. Ferguson, Offie P. Soldin, Braulio Jiménez-Vélez, Liza V. Anzalota Del Toro, Akram N. Alshawabkeh, José F. Cordero, John D. Meeker*
- P1-028 **The Impact of Prenatal Fluoride Exposure on Pubertal Onset of Children in Mexico City**  
*Jamie Yun Liu, Karen Peterson, Zhenzhen Zhang, E. Angeles Martínez-Mier, Brisa Sanchez, Howard Hu, Mara Tellez-Rojo*
- P1-029 **Phthalates and Diet: a Review of the Epidemiology and Food Monitoring Data**  
*Samantha Serrano, Joseph Braun, Leonardo Trasande, Sheela Sathyanarayana*
- P1-030 **Maternal Urinary Bisphenol a during Pregnancy and Maternal and Neonatal Thyroid Hormone Concentrations**  
*Megan E. Romano, Glenys M. Webster, Ann Vuong, Aimin Chen, R. Thomas Zoeller, Andrew Hoofnagle, Antonia M. Calafat, Kimberly Yolton, Bruce P. Lanphear, Joseph M. Braun*
- P1-032 **Reference Values for Bisphenol A and Phthalate Metabolites in School-Aged Children and Adolescents: Korea Environmental Health Survey in Children and Adolescents (Korehs-C) 2012-2013**  
*Eunae Burm, Mina Ha, Mia Son, Sinye Lim, Yu-Mi Kim, Young-Seoub Hong, Hyun Jeong Kim, Kyung Hwa Park, Hae-Kwan Cheong, Inho Park, Hee-Tae Kang, Joon Sakong*

**METALS: PRENATAL AND CHILDHOOD EXPOSURE**

- P1-031 **Maternal Body Burden of Cadmium and Offspring Size at Birth**  
*Megan E. Romano, Daniel A. Enquobahrie, Christopher Simpson, Harvey Checkoway, Michelle A. Williams*
- P1-033 **Reference Values for Blood Lead, Mercury and Urinary Cadmium in School-Aged Children and Adolescents: Korea Environmental Health Survey in Children and Adolescents (Korehs-C) 2012-2013**  
*Eunae Burm, Mina Ha, Gyung-Jae Oh, Soo-Young Kim, Chul-Gab Lee, Su Young Kim, Jong-Han Leem, Seong-Sil Chang, Kee Jae Lee, Joon Sakong, Hwan-Cheol Kim, Hyun Jeong Kim, Kyung Hwa Park*
- P1-034 **Blood Metal Concentrations and Pubertal Development among Females in the CYGNET Prospective Cohort Study — Kaiser Permanente Northern California, 2006–2011**  
*Jason Wilken, Gayle Windham, Louise Greenspan, Robert Voss, Ryzard Gajek, Lawrence Kushi*
- P1-035 **Development of a Reference Dataset for Evaluation of Blood Lead Levels from Children in a Mining Community**  
*Rosalind Schoof, Dina Johnson, Emma McConnell, Alexa Gallagher, Cynthia Van Landingham, Alma Feldpausch, Linda Dell*
- P1-036 **Home Environment and Cord Blood Levels of Lead, Arsenic, and Zinc on Neurodevelopment of 24 Months Children Living in Chitwan Valley, Nepal**  
*Rajendra Parajuli, Takeo Fujiwara, Masahiro Umezaki, Chiho Watanabe*
- P1-037 **Cord Blood Zinc Level and Neurodevelopment by 24 Months of Age: Hamamatsu Birth Cohort (HBC) Study**  
*Kenji J. Tsuchiya, Ryosuke Asano, Taeko Harada, Yumeno Kugizaki, Ryuji Nakahara, Chikako Nakayasu, Akemi Okumura, Yukiko Suzuki, Nori Takei*
- P1-038 **A Current Assessment of the Health Effects of Lead in Children**  
*Ellen Kirrane, Molini Patel, James Brown, Dennis Kotchmar, Lisa Vinikoor-Imler, Elizabeth Owens, Erin Hines, Jennifer Richmond-Bryant, David Svendsgaard, Meredith Lassiter*
- P1-039 **Low Level of Blood Lead and Dental Caries in Children**  
*Young-Suk Kim, Mina Ha, Hojang Kwon, Youn-Hee Choi*
- P1-040 **Blood Lead Levels in 1- to 4-Year-Old Children Attending Day Care Centers in Sao Paulo, Brazil – Preliminary Results**  
*Kelly Polido Kaneshiro Olympio, Fernando Barbosa Júnior, Agnes Soares Silva, Maria Regina Alves Cardoso*
- P1-041 **Prenatal Lead Exposure and Infant Sensory Function**  
*Monica K Silver, Xiaoqing Li, Xiaoqin Mai, Yuhe Liu, Ming Li, Niko Kaciroti, Paul Kileny, Twila Tardif, Betsy Lozoff, John D Meeker*
- P1-042 **Early-Life Lead Exposure and Visual Acuity in Infants**  
*Monica K Silver, Chai Ji, Bingquan Zhu, Jie Shao, Betsy Lozoff, John D Meeker*
- P1-043 **Influence of Prenatal Lead and Stress Exposures on Infant Diurnal Cortisol Rhythms Up to Age 2 Years**  
*Marcela Tamayo y Ortiz, Martha María Téllez-Rojo, Rosalind J. Wright, Brent Coull, Robert O. Wright*
- P1-044 **Using Community-Academic Partnerships to Strengthen Health Impact Assessment to Prevent Lead Exposure in Children**  
*Nicholas Newman, Erin Haynes, Sarah Elam*
- P1-045 **Effects of Prenatal Exposure to Stress plus Lead on Language Development at 2-3 Years of Age**  
*Jian Xu, Chong-huai Yan, Jinsong Zhang, Zhiwei Liu, Jun Zhang, Xiaoming Shen*
- P1-046 **Multiple Mercury Exposure and Neurodevelopment in Children Living in a Polluted Tin-Ore Open-Pit Mining Environment**  
*Rejane Marques, José Bernardi, Luciana Abreu, José Dórea*
- P1-047 **Blood Lead Level and Development of Attention- Deficit/Hyperactivity Disorder Symptoms in School-Age Children: a Longitudinal Study**  
*Won-Jun Choi, Ho-Jang Kwon, Myung Ho Lim, Ji-Ae Lim, Mina Ha*
- P1-049 **Association of Blood and Urine Levels of Lead, Mercury and Cadmium with Children's Growth Indexes in Korea: Environmental Exposure and Health Survey in Children and Adolescents (2012-2013)**  
*Soo Eun Chung, Hae-Kwan Cheong, Mina Ha, Sinye Lim, Mia Son, Yu-Mi Kim, Hee-Tae Kang, Joon Sakong, Gyung-Jae Oh, Soo-Young Kim, Hwan-Cheol Kim, Chul-Gab Lee, Kee Jae Lee, Hyun Jeong Kim, Kyung Hwa Park*
- P1-050 **Methods to Assess Aggregated Exposure of Chemicals – a Focus on Children Exposure to Lead**  
*Sébastien Denys, Guillaume Perouel, Philippe Glorennec, Jean-Luc Volatier, Nawel Bemrah*
- P1-051 **An Update of the Shymkent, Kazakhstan Lead Contamination Story**  
*David F Goldsmith*
- P1-052 **Joint Effect of Prenatal Pesticides and Lead Exposure Mixtures on Attention Control**  
*Siying Huang, John Meeker, Brisa Sánchez, Dana Barr, Parinya Panuwet, David Bellinger, Lourdes Schnaas, Maritsa Solano-Gonzalez, Adrienne Ettinger, Mauricio Hernández-Avila, Howard Hu, Martha Maria Tellez-Rojo*
- P1-053 **Clinical Analyses of Childhood Lead Poisoning Patients**  
*Zhenyan Gao, Chonghuai Yan*

- P1-054 **The National Trend of Blood Lead Levels among China Children Aged 0-18 Years Old, 1990-2012**  
*Minming Li, Chonghuai Yan*
- P1-055 **Blood Lead Levels in Early Childhood Are Associated with Sleep Problems in Preadolescents**  
*Jianghong Liu, Xianchen Liu, Linda McCauley, Yingjie Wang, Chonghuai Yan, Jennifer Pinto-Martin*
- P1-056 **Body Burden of Mercury in Different Bio-Samples of Mothers in Shenyang City, China**  
*Minming Li, Chonghuai Yan*
- P1-057 **Research on the Relationship between Exposure Risk Factors and Mercury Levels of Fetus during the Pregnancy**  
*Jia Cao, Chonghuai Yan*
- P1-058 **Prenatal and Concurrent Mercury Exposure and Measures of Attention in Children from Mexico City**  
*Rebecca Tutino, Niladri Basu, Lourdes Schnaas, Brisa Sanchez, Karen E. Peterson, Mauricio Hernandez-Avila, Howard Hu, Martha Maria Tellez-Rojo*
- P1-059 **Manganese in Levels in Tooth Dentin and Neurodevelopment in a Cohort of Young Mexican- American Children**  
*Robert Gunier, Manish Arora, Michael Jerrett, Asa Bradman, Kim Harley, Nina Holland, Alan Hubbard, Brenda Eskenazi*
- P1-060 **Maternal Blood and Hair Manganese Concentrations, Fetal Growth, and Length of Gestation in the ISA Cohort in Costa Rica**  
*Ana M. Mora, Berna van Wendel de Joode, Donna Mergler, Leonel Córdoba, Camilo Cano, Rosario Quesada, Donald R. Smith, José A. Menezes-Filho, Brenda Eskenazi*
- P1-061 **Prenatal and Postnatal Manganese Exposure and Neurodevelopment at 7, 9, and 10.5 Years in the CHAMACOS Cohort**  
*Ana M. Mora, Manish Arora, Kim G. Harley, Katherine Kogut, Kimberly Parra, Asa Bradman, Donald R. Smith, Brenda Eskenazi*
- P1-062 **Prenatal Exposure to Manganese and Neurodevelopment at 12 Months of Age in the ISA Study**  
*Ana M. Mora, Berna van Wendel de Joode, Donna Mergler, Leonel Córdoba, Camilo Cano, Rosario Quesada, Donald R. Smith, José A. Menezes-Filho, Brenda Eskenazi*
- P1-063 **Cadmium and Kidney Outcomes in Children with Chronic Kidney Disease**  
*Laura Zheng, Ana Navas-Acien, Eliseo Guallar, Susan Furth, Virginia Weaver, Jeffrey Fadrowski*
- P1-064 **Dust-Metal Loadings and the Risk of Childhood Acute Lymphoblastic Leukemia**  
*Todd Whitehead, Mary Ward, Joanne Colt, Marcia Nishioka, Gary Dahl, Jonathan Ducore, Robert Gunier, Stephen Rappaport, Catherine Metayer*
- P1-065 **Arsenic Exposure and Gestational Diabetes in Pregnant Women from Arica, Chile: Preliminary Results**  
*María Pía Muñoz, Verónica Iglesias, Macarena Valdés, María Teresa Muñoz-Quezada, Boris Lucero, Ana Navas-Acien*
- P1-066 **The Biomarkers of Exposure to Arsenic (BEAR) Pregnancy Cohort in Mexico: Maternal Arsenic Methylation Linked to Poorer Birth Outcomes**  
*Jessica Laine, Kathryn Bailey, Marisela Rubio-Andrade, Andrew Olshan, Lisa Smeester, Zuzana Drobná, Amy Herring, Miroslav Stýblo, Gonzalo Garcia-Vargas, Rebecca Fry*
- P1-067 **Pre and Postnatal Exposure to Secondhand Smoke and Arsenic and Its Relationship with Infantile Development: Study Design and Preliminary Results.**  
*Verónica Iglesias, Paulina Pino, Laura Santos, María Pía Muñoz, Renato Oviedo, Soledad Burgos, Ana Navas-Acien*
- P1-068 **Association between Maternal Urinary Arsenic Species and Infant Cord Blood Leptin Levels in a New Hampshire Pregnancy Cohort**  
*Anala Gossai, Corina Lesseur, Shohreh Farzan, Carmen Marsit, Margaret Karagas, Diane Gilbert-Diamond*
- P1-069 **Placental Arsenic Concentrations in Relation to both Maternal and Infant Biomarkers of Exposure in a US Cohort**  
*Tracy Punshon, Matthew Davis, Carmen Marsit, Margaret Karagas*
- P1-070 **Neurobehavioral Function in School-Age Children Exposed to Manganese in Drinking Water**  
*Youssef Oulhote, Donna Mergler, Benoit Barbeau, David Bellinger, Therese Bouffard, Marie-Eve Brodeur, Dave saint-Amour, Melissa Legrand, Sebastien Sauvé, Maryse Bouchard*
- PERSISTENT ORGANIC POLLUTANTS - POLYBROMINATED DIPHENYL ETHERS**
- P1-071 **Association between Polybrominated Diphenyl Ethers and Thyroid Disorders in Canadian Women**  
*Youssef Oulhote, Maryse Bouchard*

**EXPOSURE ASSESSMENT**

- P1-072 **Effects of Residential Exposure to Physical Earthquake Damage Caused by the 2010/2011 Canterbury Earthquakes on Mood and Anxiety Disorders in Christchurch**  
*Daniel Hogg, Simon Kingham, Thomas Wilson, Edward Griffin, Michael Ardagh*
- P1-073 **Geospatial Modeling of Environmental Factors Correlated with Podoconiosis**  
*Yordanos Molla, Nicola Wardrop, Jennifer Le Blond, Peter Baxter, Melanie J. Newport, Peter M. Atkinson, Gail Davey*
- P1-074 **Percutaneous Penetration and Genotoxicity Evaluation of UV Filter Ethylhexyl Methoxycinnamate and Its Cis- and Trans- Isomers**  
*Anezka Necasova, Katarina Banyiova, Jaromir Literak, Pavel Cupr*
- P1-075 **Redevelopment of the Rapid Inquiry Facility Software for Assessment of Environmental Health Risks**  
*Federico Fabbri*
- P1-076 **Amphibole Asbestos Exposure Metrics for a Superfund Community**  
*Curtis Noonan, Kathrene Conway, Erin Landguth, Tracy McNew, Laura Linker, Jean Pfau, Brad Black, Jaime Szeinuk, Raja Flores*
- P1-077 **High Performance Environmental Profiling of House Dust to Support Computational Exposure Science**  
*Shuang Liang, Peter Egeghy, Karen Bradham, Mark Strynar*

**OCCUPATIONAL HEALTH**

- P1-078 **Snake Bites in Segou: an Analysis of Data from a Prospective Study**  
*Sanou Khô Coulibaly, Hinde Hami, Ababacar Maïga, Abdelrhani Mokhtari, Abdelmajid Soulaymani*
- P1-079 **Sleepiness and Sleep Disorders in Shift Workers: Two Cochrane Reviews Examining Possible Prevention and Intervention Strategies**  
*Christine Herbst, Giovanni Costa, Tim Driscoll, Russell Foster, Lin Fritschi, Juha Liira, Mikael Sallinen, J. Valérie Groß, Thomas C. Erren*
- P1-080 **Sleep Deprivation Induces Multiple Organ Injury in Mice: Implication to Work Shift Associated Sleep Deprivation**  
*Srinivasan Periasamy, Dur-Zong Hsu, Yu-Hsuan Fu, Cheng-Yu Lin, Se-Ping Chien, Ming-Yie Liu*
- P1-081 **Biological Prophylaxis as a Tool of Interventional Epidemiology**  
*Boris Katsnelson, Larisa Privalova, Vladimir Gurvich, Sergey Kuzmin, Olga Malykh, Ekaterina Kireyeva, Ilzira Minigaliyeva, Marina Sutunkova, Nadezhda Loginova, Sergey Yarushin, Julia Soloboyeva, Nataliya Kochneva*
- P1-082 **Risk of Congenital Malformations among Children of Construction Painters in Denmark: a Nationwide Cohort Study**  
*Ninna Hahn Tougaard, Jens Peter Bonde, Karin Sørig Hougaard, Kristian Tore Jørgensen*
- P1-083 **Maternal Exposures to Occupational Asthmagens and Risk of Autism Spectrum Disorders in a Danish Population-Based Case-Control Study**  
*Alison B. Singer, Igor Burstyn, M. Daniele Fallin, Diana E. Schendel*
- P1-084 **Occupational Factors Related to Exposure to Organophosphate Pesticides among Floricultural Workers.**  
*Karina Roxana Antonio Martínez, Julia Blanco-Muñoz, Marina Lacasaña, Clemente Aguilar-Garduño, María Consuelo Escamilla-Nuñez, Cuauhtemoc Arturo Juárez-Pérez, Astrid Schilman-Halbinger, Mariano E. Cebrian García*
- P1-085 **Characterization of Risk Factors for DNA Damage among Paddy Farmworker Exposed to Mixture of Organophosphate**  
*Zailina Hashim, Vivien How, Patimah Ismail*
- P1-086 **Relationship between Oxidative Damage and Biomarkers of Antioxidants Capacity among Engineered Nanoparticles Manufacturing Workers**  
*Hsu Yuan Ting, Liou Saou-Hsing, Lai Ching-Huang*
- P1-087 **Volatile Organic Compounds Measured in Blood as a Measure of Personal Exposure to Jet Fuel in Air Force Personnel**  
*Alexis Maule, Susan Proctor, Benjamin Blount, David Chambers, Rey deCastro, Michael McClean*
- P1-088 **Colorectal Cancer Risk, Genetic Susceptibility and Night Shift Work in a Population-Based Case-Control Study in Spain**  
*Manolis Kogevinas, Kyriaki Papantoniou, Vicente Martin-Sanchez, Victor Moreno, Marina Pollan, Jose Juan Jimenez-Monleon, Ines Gomez-Acebo, Eva Ardanaz, Jone M Altzibar, Rosana Peiro, Adonina Tardon, Juan Alguacil, Maria-Dolores Chirlaque, Mariona Bustamante, Ana Espinosa, Gemma Castano-Vinyals*
- P1-089 **The Effects of Occupation Exposure to Toxic Metals on Organ Functions, Expressions of 8-Hydroxy -21-Deoxyguanosine and Cytokeratin – 19 Fragments (CYFRA 21 -1 Protein) and Risk of Lung Cancer in Some Welders**  
*Bosun Banjoko, Olumide Ige, Olufunsho Olorunsogo*

- P1-090 **Pilot Assessment of Hazards and Health Effects in a Small-Scale Artisanal Gold Mining Community in Ghana**  
*Richard Neitzel, Allyson Green, Mozhgon Rajaei, Rachel Long, Stephanie Saylor*
- P1-091 **Determinants of Decision to Adopt Health Avertive Practices among Charcoal Producers in the Philippines**  
*Marya Laya Espaldon, Zenaida Sumalde, Carmelita Rebanco*
- P1-092 **Should We Take Major Macro-Economic and Political Developments into Account When Assessing Long-Term Occupational Exposures for Epidemiological Research?**  
*Hans Kromhout, Susan Peters, Joachim Schüz, Kurt Straif, Sergey Kashansky, Evgeny Kovalevskiy, Sara Schonfeld, Valerie McCormack, Roel Vermeulen, Remko Houba*
- P1-093 **An Assessment of the Impact of Misclassification Error on an Estimate of Effect for Occupational Exposure to TCDD- Contaminated Chemicals and Ischemic Heart Disease**  
*Laura Scott, George Maldonado*
- P1-094 **Biomarkers of Kidney Damage and Hydration among Nicaraguan Sugarcane Workers**  
*Rebecca Laws, Daniel Brooks, Juan José Amador, Daniel Weiner, James Kaufman, Oriana Ramírez-Rubio, Alejandro Riefkohl, Madeleine Scammell, José Marcel Sánchez, Chirag Parikh, Michael McClean*

## POSTER SESSION 1 CONTINUED

Mary Gates Hall  
Second Floor Commons

## TEMPERATURE, METEOROLOGY, AND CLIMATE CHANGE

- P1-095 **Risk Factors of Direct Heat-Related Hospital Admissions during the 2009 Heat Wave in Adelaide, Australia: A Case- Control Study**  
*Ying Zhang, Monika Nitschke, Antoinette Krackowizer, Peng Bi*
- P1-096 **A Comparison of Indoor-To-Outdoor Temperature and Humidity Relationships across the World**  
*Douglas Dockery, Jennifer Nguyen*
- P1-097 **Calls for Help: Using Ambulance Calls as an Indicator of Heat Wave Outcomes.**  
*Gulrez Shah Azhar, Ajit Rajiva, Priya Dutta, Abhiyant Tiwari, Dileep Mavalankar*
- P1-098 **Relation of External Causes with Temperature and Climate**  
*Yasushi Honda, Masahiro Hashizume, Ho Kim, Haidong Kan, Yue-Liang Guo, Kayo Ueda, Michelle Bell*
- P1-099 **Nowadays, Is the Group of Age Over 65 the Most Affected by Heat Waves in Spain?**  
*Cristina Linares, Isidro Juan Mirón, Juan Carlos Montero, Juan José Criado, Julio Díaz*
- P1-100 **A Time Series Analysis of the Relationship between Temperature and Mortality in the National Capital Region of the Philippines Using Distributed Lag Non- Linear Model, 2006-2010**  
*Xerxes Seposo, Yasushi Honda*
- P1-101 **Effects of Daily Temperature on Nebulized Asthmatic Patients and the Influence of Recurring Strikes in Dhaka, Bangladesh**  
*Ayesha Ferdosi Kabir, Chris Fook Sheng Ng, Shinya Yasumoto, Taichi Hayashi, Chiho Watanabe*
- P1-102 **Diurnal Temperature Range and Short-Term Mortality in Large US Communities**  
*Youn-Hee Lim, Colleen Reid, Michael Jerrett, Ho Kim, Jennifer Mann*
- P1-103 **Comparison for the Association between Different Temperature Indicators and Cause-Specific Mortality of Respiratory Disease**  
*Fengchao Liang, Junhan Liu, Meimei Xu, Lin Tian, Xiaochuan Pan*
- P1-104 **The Effect of Temperature on Respiratory and Cardiovascular Mortality in Shiraz, Iran**  
*Narges Khanjani, Manizheh Dadbakhsh, Abbas Bahrampour*
- P1-105 **Effect of Diurnal Temperature Range on Cardiovascular and Respiratory Mortality in East Asia (China, Korea, Japan, Taiwan)**  
*Ji-Hye Shin, Haidong Kan, Yasushi Honda, Yue-Liang L Guo, Ho Kim*
- P1-106 **Vulnerable Window of Maternal Exposure to Meteorological Conditions and the Risk of Severe Preeclampsia**  
*Thi-Chien Tran, Ariane Boumendil, Laurence Bussieres, Elodie Lebreton, Patrick Rozenberg, Philippe Aegerter*
- P1-107 **The Impact of Maternal Factors on the Association between Apparent Temperature and Preterm Delivery**  
*Rupa Basu, Hong Chen, De-Kun Li, Lyndsay Avalos*
- P1-108 **Associations between Meteorological Conditions and Fetal Growth and Gestational Duration in Cohort Studies**  
*Emilie Abraham, Cécile Chevrier, Lise Giorgis-Allemand, Johanna Lepeule, Remy Slama, Annick Auffray, Monique Kaminski, Marie-Aline Charles, Sylvaine Cordier, Fabrice Pierre*

- P1-109 **Meteorological Variables and Micrnas in Elderly Males**  
*Serena Fossati, Andrea Baccarelli, Antonella Zanobetti, Pantel S. Vokonas, Robert O. Wright, Joel D. Schwartz*
- P1-110 **Developing a High-Resolution Physiological Equivalent Temperature Map to Assess the Spatial Variation of Thermal Stress Exposure for an Elderly Cohort of Chinese in Hong Kong**  
*Crystal CY Choi, Thuan-Quoc Thach, Poh-Chin Lai, Man-Sing Wong, Qishi Zheng, Lutz Katzschner, Alexander Krämer, Chit-Ming Wong*
- P1-111 **Effect of Temperature and Rainfall on Years of Life Lost in Vadu HDSS Area, India**  
*Vijendra Ingole, Joacim Rocklöv, Sanjay Juvekar, Barbara Schumann*
- P1-112 **The Impact of Temperature on Years of Life Lost in Two Informal Settlements of Nairobi, Kenya**  
*Thaddaeus Egondi, Catherine Kyobutungi, Joacim Rocklöv*
- P1-113 **Quantification of Temperature-Related Mortality: a Multi- Country Study**  
*Antonio Gasparrini, Michela Leone, Yuming Guo, Eric Lavigne, Antonella Zanobetti, Joel Schwartz, Aurelio Tobias, Shilu Tong, Michelle Bell, Yue-Lang Guo, Chang-fu Wu, Haidong Kan, Seung-Muk Yi, Masahiro Hashizume, Yasushi Honda, Ho Kim, Ben Armstrong*
- P1-114 **Excess Winter Mortality in Japan: Variation across Age Groups among the Population Aged 65 Years Old and Above**  
*Shoko Konishi, Andrew Stickley, Chisa Shinsugi, Shinya Yasumoto, Chiho Watanabe*
- P1-115 **Heat-Related Cardiovascular Mortality Risk in Cyprus**  
*Malgorzata Lubczynska, Jos Lelieveld*
- P1-116 **Long-Term Temperature Variability and Mortality in the NIH-AARP Cohort**  
*Chris Lim, Kevin Cromar, Yongzhao Shao, Jiyoung Ahn, Richard Hayes, George Thurston*
- P1-117 **Current and Projected Heat-Related Morbidity and Mortality in Rhode Island**  
*Samantha Kingsley, Melissa Eliot, Julia Gold, Robert Vanderslice, Gregory Wellenius*
- P1-118 **Excess Non-External Cause Deaths Attributable to Heat Waves in New York City, 1997-2013**  
*Thomas Matte, Kathryn Lane*
- P1-119 **Developing a Universal Threshold Determination System for Use in Framing Climate Preparedness and Adaptation Policy**  
*Ajit Rajiva, Gulrez Azhar, Priya Dutta, Dileep Mavalankar*
- P1-120 **Climate Change and Heat Stress Mortality in the Eastern United States**  
*Vijay Limaye, Jason Vargo, Monica Harkey, Tracey Holloway, Jonathan Patz*
- P1-121 **Evaluation of Different Statistical Models in the Context of Heat Warning Systems Using Temperature Forecasts**  
*Christofer Åström, Kristie Ebi, Bertil Forsberg*
- P1-122 **Heat and Mortality in New York City since the Beginning of the 20th Century**  
*Patrick Kinney, Elisaveta Petkova, Antonio Gasparrini*
- P1-123 **Is Harvest Failure the Link between Climate Variability and Mortality in a Pre-Industrial Society? Results from Northern Sweden**  
*Barbara Schumann, Sören Edvinsson, Joacim Rocklöv*
- P1-124 **Temperature and Risk for Post-Neonatal Mortality in California**  
*Dharshani Pearson, Rupa Basu, Brian Malig, Rachel Broadwin*

#### CRUDE OIL AND FRACKING: EXPOSURE AND HEALTH

- P1-125 **DNA Damage According to Micronucleus Test in Exposed Residents of the Hebei Spirit Oil Spill**  
*Eun Kyoung Yang, Su Ryeon Noh, Jung Ah Kim, Gwi Heum Eom, Young-Hyun Choi, Mina Ha, Hae-Kwan Cheong*
- P1-126 **Mental Health of Children and Adolescents 1.5 Years after the Hebei Spirit Oil Spill**  
*Eun Kyoung Yang, Su Ryeon Noh, Jung Ah Kim, Gwi Heum Eom, Young-Hyun Choi, Mina Ha, Hae-Kwan Cheong*
- P1-127 **Mental Health of Children and Adolescents in Exposed Area 3 Years after the Hebei Spirit Oil Spill**  
*Eun Kyoung Yang, Su Ryeon Noh, Jung Ah Kim, Gwi Heum Eom, Young-Hyun Choi, Mina Ha, Hae-Kwan Cheong*
- P1-128 **Burden of Disease Attributable to the Hebei Spirit Oil Spill in Taean, Korea**  
*Young-Min Kim, Jae-Hyun Park, Kyusik Choi, Su Ryeon Noh, Young-Hyun Choi, Hae-Kwan Cheong*
- P1-129 **Asthma Symptoms in Children 5 Years after the Hebei Spirit Oil Spill**  
*Jung Ah Kim, Su Ryeon Noh, Eun Kyoung Yang, Gwi Heum Eom, Young-Hyun Choi, Mina Ha, Hae-Kwan Cheong*
- P1-130 **Heavy Metals in Blood and Urine on Residents 4 Years after the Hebei Spirit Oil Spill: a Second Follow-Up**  
*Jung Ah Kim, Su Ryeon Noh, Eun Kyoung Yang, Gwi Heum Eom, Young-Hyun Choi, Mina Ha, Hae-Kwan Cheong*
- P1-131 **Mental Health Symptoms among Gulf STUDY Participants Involved in the Deepwater Horizon Oil Spill Clean-Up**  
*Richard Kwok, Lawrence Engel, Julianne Payne, Christine Ekenga, Aubrey Miller, Aaron Blair, Dale Sandler*
- P1-132 **Air Pollution and Biological Exposure near Petrochemical Industrial Complex**  
*Guen-Bae Kim, Jaesung Park, Tackshin Kang, Mira Yoon, Hyejeong Jo, Jeonghui Song, Youngkyung Joo, Kyung-Hee Choi, Seung-Do Yu*

- P1-133 **A Longitudinal Study of Biomarkers of Crude Oil Components and Oxidative Stress among High-Exposed Residents: Until 4 Years after the Hebei Spirit Oil Spill**  
*Su Ryeon Noh, Jung Ah Kim, Eun Kyoung Yang, Gwi Heum Eom, Young-Hyun Choi, Mina Ha, Hae-Kwan Cheong*
- P1-134 **Tracking Fracking: Epidemiological Design Considerations for Monitoring Health Impacts of Shale Fracturing in England**  
*Tony Fletcher, Sari Kovats*
- P1-135 **Associations of Indoor Home Radon Levels with Marcellus Shale Development**  
*Joan A. Casey, Joseph DeWalle, Paul A. Locke, Brian S. Schwartz*
- P1-136 **Hydraulic Fracturing Industry Response to the Publication of Study Regarding Excessive Occupational Exposure to Respirable Crystalline Silica**  
*Dana Drecksell, David F. Goldsmith*

**AIR POLLUTION MODELING**

- P1-138 **Long Term Trends in Ambient Benzene: Segmented Linear Regression**  
*Claire Austin*
- P1-139 **Mobile Monitoring of PM<sub>2.5</sub> Spatial Variation in Ulaanbaatar, Mongolia**  
*Enkhjargal Gombojav, Enkhmaa Sarangerel, Munkherdene Mendbayar, Jargalsaikhan Ganbold, Bilegerdene Ankhzul, Altangerel Amar, Naransukh Damiran, Ryan Allen*
- P1-140 **Modeling versus Stationary Air Monitoring for Assessing Ambient Manganese Exposure**  
*Florence Fulk, Erin Haynes*
- P1-141 **Development of Land Use Regression Models Using Regulatory Air Quality Data in Korea**  
*Hwan-Cheol Kim, Dal-Young Jung, Jong-Han Leem, Sung-Jin Kim*
- P1-142 **Land Use Regression Model and Spatial Variation of Oxidative Potential in the Netherlands**  
*Aileen Yang, Meng Wang, Daan Leseman, Bert Brunekreeft, Flemming R Cassee, Nicole AH Janssen, Gerard Hoek*
- P1-143 **Application of Land-Use Regression Model to Estimate Ambient Nitrogen Dioxide in Seoul, Korea**  
*Giehae Choi, Honghyok Kim, Hyo-Mi Kim, Jina Heo, Shinwoo Kim, Ga-ram Byun, Jong-Tae Lee*
- P1-144 **Impact of Land Use and Traffic Patterns on Air Pollution in a Swedish Medium-Sized City**  
*Mateus Habermann, Monica Billger, Marie Haeger-Eugensson*
- P1-145 **Impact of Exposure Modeling Approaches on Associations between Air Pollution and Lung Function in Children**  
*Meng Wang, Ulrike Gehring, Gerard Hoek, Menno Keuken, Sander Jonkers, Rob Beelen, Marloes Eeftens, Bert Brunekreef*
- P1-146 **Estimation of PM<sub>10</sub> Concentrations Using Spatio- Temporal Models for Health Effects Study**  
*Thuan Quoc Thach, Qishi Zheng, Poh Chin Lai, Hak Kan Lai, Chit-Ming Wong*
- P1-147 **Spatio-Temporal Exposure to Fine Particles and Polycyclic Aromatic Hydrocarbons, Short Term Effects on Mortality in Rome, 2011-2012 - the EXPAH Project**  
*Massimo Stafoggia, Francesco Forastiere, Angelo Cecinato, Giulia Cesaroni, Annunziata Faustini, Sandro Finardi, Maria Pia Gatto, Monica Gherardi, Cinzia Perrino, Paola Romagnoli, Camillo Silibello, Claudio Gariazzo, EXPAH Group*
- P1-148 **Historical Prediction Modeling Approach for Estimating Long-Term Concentrations of PM<sub>2.5</sub> in Cohort Studies Before 1999 Implementation of Widespread Monitoring**  
*Sun-Young Kim, Casey Olives, Sheppard Lianne, Paul Sampson, Timothy Larson, Joel Kaufman*
- P1-149 **Contribution of Hierarchical Bayesian and Aerosol Optical Depth PM 2.5 Sources to Respiratory-Cardiovascular Chronic Diseases**  
*John Braggio, Stephanie Weber, Elizabeth Young, Eric Hall*
- P1-150 **Using New High Resolution Satellite Based Aerosol Optical Depth Data for a Hybrid Model of Spatio-Temporal PM<sub>2.5</sub> Exposures across North Eastern USA**  
*Itai Kloog, Alexandra Chudnovsky, Allan Just, Francesco Nordio, Petros Koutrakis, Brent Coull, Alexei Lyapustin, Yujie Wang, Joel Schwartz*
- P1-151 **Exposure Assessment of Ambient NO<sub>2</sub> Using Satellite Ozone Monitoring Instrument (OMI) NO<sub>2</sub> and Land Use Regression**  
*Hyung Joo Lee, Petros Koutrakis*
- P1-152 **PM<sub>2.5</sub> and Hospital Admissions, Effects by Urbanicity and Short-Term Cumulative Exposures: Analysis Using Ambient Monitoring Data and Regional Air Quality Modeling**  
*Mercedes Bravo, Keita Ebisu, Yun Wang, Francesca Dominici, Roger Peng, Michelle Bell*

**AIR POLLUTION AND MORTALITY**

- P1-153 **Health Effects of Ultrafine Particles in Central Europe - Preliminary Results from the UFIREG Project**  
*Alexandra Schneider, Stefanie Lanzinger, Susanne Breitner, Ivan Erzen, Mirsolav Dostal, Anna Pastorkova, Susanne Bastian, Josef Cyrus, Anja Zscheppang, Tetiana Kolodnitska, Annette Peters*
- P1-154 **Changing Air Pollution Levels and Their Short-Term Associations with Mortality in New York City**  
*Kazuhiko Ito, Zev Ross, Yeh-Hsin Chen, Iyad Kheirbek, Sarah Johnson, Thomas Matte*
- P1-155 **Who Is More Vulnerable to Die from Air Pollution? A Case-Only Study in Hong Kong**  
*Hong Qiu, Lin Wei Tian, Vivian C. Pun, Ignatius T.S. Yu*
- P1-156 **Assessing Association between Particulate Matter and Mortality Using Case-Crossover Design in Seoul, Korea**  
*Shinwoo Kim, Jina Heo, Hyo-Mi Kim, Giehae Choi, Ga-ram Byun, Hongkyok Kim, Jong-Tae Lee*
- P1-157 **Forest-Fire Fine Particulate Matter and Daily Mortality in Greater Boston**  
*Ke Zu, Christopher Long, Julie Goodman, Peter Valberg*
- P1-158 **Climate Variability and Cardiovascular Disease Mortality in Elderly in Metropolitan Area of Mato Grosso**  
*Poliany Rodrigues, Eliane Ignotti, Sandra Hacon*
- P1-159 **Interactive Effects between Ozone and Temperature on Total Mortality According to Regional Socioeconomic Status**  
*Hunn Joo-Bae, Young Seoung Shin*
- P1-160 **Humidity Dependence of the Seasonal Effects of Air Pollution on Mortality in Seoul, Korea, 1999-2010**  
*Soo Hyun Lee, Seok Hyuk-Oh, Ho Kim*
- P1-161 **Assessing the Lag and Cumulative Effects of Air Pollutants on Mortality in Hong Kong, China**  
*Lina Madaniyazi, Yuming Guo, Weiwei Yu, Linwei Tian, Dane Westerdahl, Shilu Tong*
- P1-162 **Air Pollution as a Risk Factor of Emergency Visit for Asthma Attack in Asthmatics**  
*Hyunsoo Kim, Jaelim Cho, Jungwoo Sohn, Changsoo Kim, Dong Chun Shin*
- P1-163 **Association between Long-Term Exposure to Air Pollution and Mortality: 20-Year Follow-Up of the French GAZEL Cohort**  
*Malek Bentayeb, Vèrène Wagner, Morgane Stempfelet, Marie Zins, Marcel Goldberg, Pascal Beaudeau, Sylvie Cassadou, Daniel Eilstein, Laurent Filleul, Sophie Larrieu, Alain Le Tertre, Sylvia Medina, Laurence Pascal, Mathilde Pascal, Hélène Prouvost, Karim, Zeghnoun, Agnès Lefranc*
- P1-164 **Temporal Variation of Association between Particulate Matters and Daily Deaths in Seoul, Korea**  
*Jina Heo, Hyo-Mi Kim, Honghyok Kim, Giehae Choi, Shinwoo Kim, Ga-ram Byun, Jong-Tae Lee*
- P1-165 **Marine Pollution and Monthly Mortality in Hong Kong: a Time-Series Study**  
*Yunxin He, Hak-ken Lai, King-Pan Chan, Chit-Ming Wong*
- P1-166 **Air Pollution and Mortality in the Netherlands; Stratified by Gender, Age and Social Status. The DUELS Study**  
*Paul Fischer, Marten Marra, Nicole Janssen, Caroline Ameling, Gerard Hoek, Rob Beelen, Kees de Hoogh, Hanneke Kruize, Danny Houthuijs*
- P1-167 **The Effects of Fine Particles on Cardiovascular and Ischemic Stroke Mortality in Seoul, Korea.**  
*Honghyok Kim, Shinwoo Kim, Jina Heo, Hyo-Mi Kim, Giehae Choi, Ga-ram Byun, Jong-Tae Lee*
- P1-168 **Ambient Air Pollution Exposure and Respiratory, Cardiovascular and Cerebrovascular Mortality in Cape Town, South Africa: 2001-2006**  
*Janine Wichmann, Kuku Voyi*

**INDOOR AIR - HEATING & COOKING**

- P1-169 **Biomass Fuel Use for Household Cooking in Swaziland: Is There an Association with Anaemia and Stunting in Children Aged 6-36 Months?**  
*Mercilene Machisa, Janine Wichmann, Peter S. Nyasulu*
- P1-170 **The Influence of Cooking Fuels on Lung Cancer Risk in Nepal**  
*Greg Raspanti, Amir Sapkota*
- P1-171 **The Cancer Risk Assessment of the Elderly Population Exposure to Pahs in PM10 Indoor Air-Case Study of One Community in Tianjin, China**  
*Zhao Ruojie*
- P1-172 **Polycyclic Aromatic Hydrocarbon Exposure and Household Solid Fuel Combustion in Xuanwei and Fuyuan Counties, China**  
*George Downward, Wei Hu, Nat Rothman, Boris Reiss, Guoping Wu, Fusheng Wei, Robert Chapman, Lutzen Portengen, Qing Lan, Roel Vermeulen*
- P1-173 **A Closer Look at a Burning Problem: Impact of Improved Stove Use on Fuelwood Consumption and Polycyclic Aromatic Hydrocarbon Emissions in Odisha, India**  
*Jessica J. Lewis, Subhrendu Pattanayak, John Hollingsworth, Joel Meyer, Bijay Padhi, Ashok Singha, Heather Stapleton, Jon Thornburg*

- P1-174 **Indoor Air Quality in Rural, Wood Stove Heated Homes**  
*Erin Semmens, Tony Ward, Emily Weiler, Curtis Noonan*
- P1-175 **Intervention Efficacy in Wood Stove Homes with Asthmatic Children**  
*Tony Ward, Erin Semmens, Curtis Noonan*
- P1-176 **Objective Assessment of Stove Use with Temperature Sensors in a Multi-Stove Study — Kenya, 2012–2013**  
*Matthew J Lozier, Kanta Sircar, Bryan Christensen, Fuyuen Yip, David Pennise, Ajay Pillarisetti*
- P1-177 **Improved Cook Stove Use by Pregnant Women in Kintampo, Ghana**  
*Ellen Abrafi Boamah, Kwaku Poku Asante, Kenneth Ae-Ngibise, Patrick Kinney, Ashlinn Quinn, Madhavi Parekh, Robin Whyatt, Blair Wylie, Seth Owusu-Agyei, Darby Jack*
- P1-178 **Comparison of Household Air Pollution (HAP) Levels between Open Fire and Improved Stoves, Rural Western Kenya**  
*Bryan Christensen, Kanta Sircar, Tamara Pilishvili, Jennifer Loo, David Pennise, Luke Naeher, Mike Sage, Nigel Bruce, Fuyuen Yip*
- P1-179 **Real-Time PM Exposures from Cookstoves and Related Health Effects in Sri Lankan Women**  
*Michael Phillips, Paul Mosquin, Ryan Chartier, Linda Brown, Vanessa Thornburg, Jonathan Thornburg, Sumal Nandasena, Myles Elledge, Charles Rodes, Katherine Bronstein*
- P1-180 **Validation Assessment of the RTI Micropem V3.2 as Part of Preliminary Research for the Ghana Randomised Air Pollution and Health Study (GRAPHS)**  
*Autumn Bordner, Kwaku Poku Asante, Madhavi Parekh, Ellen Abrafi Boamah, Ashlinn Quinn, Grace Manu, Darby Jack, Patrick Kinney, Kenneth Asayah, Steven Chillrud, Seth Owusu-Agyei*
- P1-181 **Characterizing the Spatial Distribution of Ambient Black Carbon during Cooking and Noncooking Periods in Rural, Southern Nepal**  
*Sutyajeet Soneja, James Tielsch, Subarna Khatry, Benjamin Zaitchik, Steven Chillrud, Frank Curriero, Patrick Breyse*
- P1-182 **Using Objective Measures of Stove Use and Indoor Air Quality to Evaluate a Cookstove Intervention in Rural Uganda**  
*Steve Hankey, Kelly Sullivan, Amanda Kinnick, Amber Koskey, Katarina Grande, Jane Davidson, Julian Marshall*
- P1-183 **Personal and Micro-Environmental Monitoring of Cookstove Emissions in Rural Northern Ghana**  
*Ricardo Piedrahita, Evan Coffey, Ernest Kanyomse, James Adoctor, Abraham Oduro, Christine Wiedinmyer, Katherine Dickinson, Michael Hannigan, Vanja Dukic*
- P1-184 **The Field as a Lab: Design and Development of Household Energy Interventions**  
*Ellison Carter, Ming Shan, Jill Baumgartner*
- P1-185 **Exposure to PM<sub>2.5</sub> through Cookstoves in Central Sri-Lanka**  
*Paul Mosquin, Michael Phillips, Ryan Chartier, Katherine Bronstein, Myles Elledge, Vanessa Thornburg, Jonathan Thornburg, Sumal Nandasena, Charles Rodes*
- AIR POLLUTION AND HEALTH**
- P1-186 **Short-Term Effects of Fine Particulate Air Pollution on Ischemic Stroke Occurrence: a Case-Crossover Study**  
*Chun-Yuh Yang, Shang-Shyue Tsai, Hui-Fen Chiu, Chih-Ching Chang*
- P1-187 **Traffic-Related Air Pollution Exposure and Incidence of Stroke in Four Cohorts from Stockholm**  
*Michal Korek, Tom Bellander, Matteo Bottai, Tomas Lind, Claes-Göran Östensson, Agneta Hilding, Ulf de Faire, Karin Leander, Laura Fratiglioni, Barbara Caracciolo, Nancy L Pedersen, Patrik Magnusson, Göran Pershagen, Johanna Penell*
- P1-188 **Residential Outdoor Air Pollution and Brain Morphology in the Adult Health and Behavior (AHAB II) Cohort in Pittsburgh**  
*Sheila Tripathy, Brett Tunno, Jessie Shmool, Drew Michanowicz, Stephen Manuck, Peter Gianaros, Jane Clougherty*
- P1-189 **Long-Term PM<sub>2.5</sub> Exposure and Neurological Hospital Admissions in the Northeastern United States**  
*Marianthi-Anna Kioumourtzoglou, Yun Wang, Francesca Dominici, Joel Schwartz, Antonella Zanobetti*
- P1-190 **Long-Term PM<sub>2.5</sub> Exposure and Incident Depression in Women**  
*Marianthi-Anna Kioumourtzoglou, Melinda C. Power, Jamie E. Hart, Olivia I. Okereke, Francine Laden, Marc G. Weisskopf*
- P1-191 **Air Pollution and Suicide in Northeast Asia**  
*Na Kyung Kim, Yoon-Hee Kim, Ho Kim*
- P1-192 **Ambient Air Pollution, Weather and Daily Emergency Department Visits for Headache in Southern Israel**  
*Alina Vodonos, Gal Ifergane, Victor Novack*

- P1-193 **Hospital Outpatient and Emergency Room Visits Associated with 2013 Haze Episode in Shijiazhuang, China**  
*Yanping Zhang, Huiqing Liu, Lijie Li, Jeremiah Liu, Jinliang Zhang*
- P1-194 **Particulate Matter Exposure and Global DNA Methylation in Alaskan Sled Dogs: Sentinels for Human Health**  
*Luke Montrose, Curtis Noonan, Yoon Hee Cho, John Harley, Catherine Cahill, Tony Ward*
- P1-195 **Genotoxic Risk of Susceptibility Exposure to Air Pollution in São Paulo, Brazil.**  
*Daniel S Vilas-Boas, Monique Matsuda, Maria Lúcia G Garcia, Odaly Toffoletto, Carmen DS André, Paulo Hilário N Saldiva, Mônica V Marquezini*
- P1-196 **Altered DNA Hydroxymethylation and Methylation and High Particulate Matter Exposure in Beijing, China**  
*Marco Sanchez-Guerra, Yinan Zheng, Zhou Zhang, Sheng Wang, Chang Dou, John McCracken, Anaité Díaz, Pier Alberto Bertazzi, Joel Schwartz, Xiao Zhang, Lifang Hou, Andrea A. Baccarelli*
- P1-197 **BMI, Proximity to Highways and Ultrafine Particles: Little Evidence for an Association**  
*Victoria Fruh, Arpita Husain, Allison Patton, Doug Brugge, Kevin Lane*
- P1-198 **Metabolic Syndrome and Air Pollution Exposures in the Old Order Amish**  
*Robin Puett, Jeff Yanosky, Mary Pavlovich, Robert Reed, James Hibbert, Jared Fisher, Braxton Mitchell*
- P1-199 **Health Benefits of a Reduction in Ambient Benzene Levels in Mexico City**  
*Karla Cervantes Martínez, José Luis Texcalac Sangrador, Horacio Riojas Rodríguez, Urinda Álamo Hernández, Astrid Schilman Halbinger*
- P1-200 **European Hot Spot of Air Pollution by PM<sub>2.5</sub> and B[A]P: Ostrava, Czech Republic – New Knowledge, New Difficulties**  
*Radim J Sram*
- P1-201 **Particulate Pollution and Cause Specific Mortality in London and Hong Kong Using Changes in Pollutant Level between Successive Days as Exposure Metric**  
*Nuredin Mohammed, Kin Bong Hubert Lam, Richard Atkinson, H Ross Anderson, Chit Ming Wong, Jon Ayres*
- P1-202 **Air Pollution and Sperm Quality - a Study in Donors**  
*Benedicte Jacquemin, Rafael Lafuente, Marta Cirach Pradas, David Martinez Murciano, Mireia Gonzalez Comadran, Karinna Lattes, Gerard Hoek, Mark Nieuwenhuijsen, Miguel Angel Checa Vizcaino*
- P1-203 **Evaluation of a Spatially Resolved Forest Fire Smoke Model for Population-Based Epidemiologic Research**  
*Jiayun Yao, Jeff Eyamie, Sarah Henderson*
- P1-204 **Nutrition and Co-Morbidities Influence The Response to Ambient Levels of Air Pollution: a Pannel Study in Outdoor Workers in São Paulo, Brazil**  
*Silvia RDM Saldiva, Carmen DS de André, Maria Lucia Garcia, Alfesio LF Braga, Ubiratan Santos, Julio M Singer, Paulo HN Saldiva*
- P1-205 **Effect of PM<sub>2.5</sub> and PM<sub>10-2.5</sub> on Daily Mortality in 6 Asian Cities**  
*Hyewon Lee, Ho Kim, Yasushi Honda, Masahiro Hashizume*
- P1-206 **Emissions and Health Testing of New Technology Diesel Engines**  
*Annemoon M. van Erp, Jacob D. McDonald, Chris Tennant, Maria G. Costantini, Rashid Shaikh*
- P1-207 **Association between Chronic Exposure to Airborne Ultrafine Particles and Systemic Inflammation in Three Near-Highway Neighborhoods**  
*Kevin Lane, Johnathan Levy, Madeleine Scammell, Junenette Peters, Allison Patton, John Durant, Wig Zamore, Mkaya Mwamburi, Doug Brugge*
- P1-208 **Vitamin C Supplementation Alleviates the Effect of Ambient Particulate Matter Exposure on Insulin Resistance**  
*Hye Yin Park, Min-Seon Park, Yun-Chul Hong, Jin Hee Kim*
- P1-209 **Health Burden of Particulate Air Pollution and Low Carbon Strategies at Iskandar Malaysia**  
*Chris Fook Sheng Ng, Nor Aini Abdullah, Wan Rozita Wan Mahiyuddin, Kayo Ueda, Mazrura Sahani, Mohd Talib Latif, Juneng Liew, Badrul Hisham Abd Samad*
- P1-210 **Exposure to Fine Particulate Matter and Liver Cancer: a Prospective Taiwanese Cohort Study (REVEAL-HBV)**  
*Wen-Chi Pan, Hwai-I Yang, Chih-Da Wu, Mu-Jean Chen, Huey-Jen Su, Chien-Jen Chen*
- P1-211 **Personal Exposure to Fine Particulate Matter and C- Reactive Protein among Patients with Periodontitis**  
*Kai-Jen Chuang, Tsung-Han Yang, Shin-ichi Masumi*
- INDOOR AIR**
- P1-212 **Long-Term Exposure to Indoor Particulate Matter and Blood Pressure among Elder Population**  
*Kai-Jen Chuang, Hsiao-Chi Chuang, Lian-Yu Lin*
- P1-213 **Characteristics Associated with Worry of Harm from Indoor Air Pollution in the United States**  
*Hayley Aja, Armen Ghazarian, Britt C. Reid, Gary L. Ellison*

- P1-214 **House Dust Mite Allergen Exposure in Adults Is Associated with Strong Specific Sensitization But Not with Clinical and Functional Respiratory Health Outcomes**  
*Ioannis Bakolis, Joachim Heinrich, Jan-Paul Zock, Dan Norbäck, Cecilia Svanes, CM Chen, Simone Accordini, Verlatto Giuseppe, Mario Olivieri, Deborah Jarvis*
- P1-215 **Subjective Symptoms among Medical Students Associated with Low-Level Formaldehyde Exposure during Gross Anatomy Dissection Courses**  
*Mihoko Mori, Tsuyoshi Saga, Koh-ichi Yamaki, Tatsuya Ishitake*
- P1-216 **Heating Ventilation and Air Conditioning Systems Are Possible Sources of Indoor Air Fungi in Healthcare Environments**  
*Ntsoaki Malebo*
- P1-217 **Analysis of Hospital Admissions Due to Carbon Monoxide Poisoning in England, between 2001 and 2010**  
*Rebecca Ghosh, Rebecca Close, Lucy McCann, Helen Crabbe, Anna Hansell, Giovanni Leonardi*
- P1-218 **Personal Exposure to Naphthalene in the General Population**  
*Gerd Sallsten, Magnus Akerstrom, Sandra Johannesson, Kerstin Bergemalm- Rynell*
- P1-219 **Indoor Air Pollution from Coal Use and Lung Cancer in Xuanwei, China**  
*Wei Jie Seow, Wei Hu, Roel Vermeulen, George Downward, Dean Hosgood, Robert Chapman, Xingzhou He, Bryan Bassig, Christopher Kim, Cuiju Wen, Nathaniel Rothman, Qing Lan*
- P1-220 **Mold Odor and Lung Function in Adults with Asthma**  
*Jouni J.K. Jaakkola, Samu Hernberg, Penpatra Sripaiboonkij, Reginald Quansah, Maritta S. Jaakkola*
- P1-221 **Analysis of the Association between Indoor PM and Environmental Factors during Dust Storms**  
*Helena Krasnov, Itzhak Katra, Victor Novack, Alina Vodonos*
- P1-222 **Air Total Bacterial Count in School Environment Is Associated with Pulmonary Function in Chinese Children in Hong Kong**  
*Xiang Qian Lao, Arthur P.S. LAU, Adrien Kam-cheuk CHAN, Claudie Chiu-yi WONG, Ignatius Tak-sun YU*
- P1-223 **Risk Factors for Self-Reported Chemical Intolerance: a Two-Year Follow-Up Study**  
*Kenichi Azuma, Iwao Uchiyama, Takahiko Katoh, Hiromitsu Ogata, Keiichi Arashidani, Naoki Kunugita*

**PERSISTENT ORGANIC POLLUTANTS - NEUROLOGICAL EFFECTS**

- P1-224 **Characteristics of Olfactory Threshold and Cerebral Blood Flow during Olfactory Stimulation in Patients with Multiple Chemical Sensitivity**  
*Kenichi Azuma, Iwao Uchiyama, Mari Tanigawa, Ikuko Bamba, Michiyo Azuma, Hirohisa Takano, Kou Sakabe*
- P1-225 **What Can Be Learned on the Effects on the Peripheral Nervous System of Lifetime Exposure to Organophosphates? A Four-Decade Follow-Up**  
*Isabella Karakis, Amit Ophir, Eliyaho Richter, Jerry Abarbanel, Wormser Uri, Yoram Finkelstein*
- P1-226 **Protective Glove Use and Workplace Hygiene Practices Modify Associations between Pesticides and Parkinson's Disease**  
*Melissa Furlong, Caroline Tanner, Samuel Goldman, Grace Bhudhikanok, Aaron Blair, Anabel Chade, Kathleen Comyns, Monica Korell, Jane Hoppin, Meike Kasten, J William Langston, Connie Marras, Cheryl Meng, Marie Richards, G Webster Ross, David Umbach, Dale Sandler, Freya Kamel*
- P1-227 **Exposure to Organophosphate Pesticides and Neuropsychological Functioning in Farm Workers: a Review**  
*María Teresa Muñoz-Quezada, Boris Lucero, Verónica Iglesias, Carlos Concha, Claudia Cornejo, Marcos Villalobos, Eduardo Achú, Ana María Brito, María Pía Muñoz*
- P1-228 **Organophosphate Exposure and Cognitive Decline in Parkinson's Disease Patients**  
*Beate Ritz, Kim Paul, Jeff Bronstein, Yvette Bordelon, Janet Sinsheimer, Myles Cockburn*
- P1-229 **Environmental Exposure to Pesticides and Risk of Parkinson Disease**  
*Maartje Brouwer, Marianne van der Mark, Anke Huss, Roel Vermeulen, Peter Nijssen, Wim Mulleners, Antonetta Sas, Teus van Laar, Hans Kromhout*
- P1-230 **Spatial Variation and Influence of Marginalization in Cumulative Incidence of Multiple Chemical Sensitivity**  
*Daniel Rainham, Patrick Brown, Tara Sampalli*
- P1-231 **Relationship between Pesticide Residue Levels and Neurotoxicity among Women on Farms in the Western Cape**  
*Mohamed Aqiel Dalvie*
- P1-232 **Association between Serum Levels of Thyroid Measures and the Acrylamide Metabolite N-Acetyl-S-(Propionamide)-Cysteine in Adolescents and Young Adults**  
*Chien-Yu Lin*

**PERSISTENT ORGANIC POLLUTANTS - POLYCHLORINATED BIPHENYLS**

- P1-233 **Opposite Directions of the Associations of DDE and PCB153 with Prostate Cancer Risk**  
*Elise Emerville, Arnaud Giusti, Xavier Coumoul, Jean Pierre Thome, Pascal Blanchet, Luc Multigner*

- P1-234 **Does Mortality Risk of Cigarette Smoking Depend on Serum Concentrations of Persistent Organic Pollutants?**  
*Duk-Hee Lee, Lars Lind, David Jacobs, Bert Bavel, Samira Salihovic, Monica Lind*
- P1-235 **Dioxin-Like Chemicals Exposure Leads to an IL-22-Related Autoimmune Trait in Human**  
*Nian-wei Lee, Yue-liang Guo*
- P1-236 **Linear Predictors of Serum Concentrations of Polychlorinated Biphenyls (PCBs) in the Anniston Community Health Survey**  
*Marian Pavuk, Wendy Wattigney, Nina Dutton, Andreas Sjodin*
- P1-237 **Polychlorinated Biphenyls and Indicators of Thyroid Function in the Anniston Community Health Survey**  
*Nina Dutton, Marian Pavuk*
- P1-238 **Polychlorinated Biphenyls: Comparing Retrospective Occupational Exposure Assessment to Serum Levels**  
*Curt DellaValle, Melissa Friesen, Mary Ward, Sarah Locke, Patricia Stewart, Anneclaire De Roos, Patricia Hartge, Nataniel Rothman, Mark Purdue*

**PERSISTENT ORGANIC POLLUTANTS - POLYBROMINATED DIPHENYL ETHERS**

- P1-239 **Biomonitoring of Phosphate Flame Retardants in California Adults**  
*Julia Brody, Robin Dodson, Nele Van den Eede, Adrian Covaci, Laura Perovich, Ruthann Rudel*
- P1-240 **Prevalence of Historical and Replacement Brominated Flame Retardant (BFR) Chemicals in NYC Homes**  
*Julie Herbstman, Andreas Sjodin, Darrell Holmes, Lehyla Calero, Catherine Tobon, Matthew Perzanowski, Heather Stapleton*
- P1-241 **Polybrominated Diphenyl Ether Flame Retardants and Thyroid Cancer Risk in the Prostate, Lung, Colorectal and Ovarian (PLCO) Cancer Screening Trial**  
*Mary H. Ward, Briseis Aschebrook-Kilfoy, Curt DellaValle, Christopher Kim, Mark Purdue, Nathaniel Rothman, Yawei Zhang, Andreas Sjodin*

**LANDFILLS, INCINERATORS, AND HAZARDOUS WASTE**

- P1-242 **Respiratory, Sensory and General Health Symptoms in Populations Exposed to Air Pollution from Biodegradable Wastes**  
*Victoria Blanes-Vidal, Jesper Baelum, Joel Schwartz, Esmael S. Nadimi, Per Løfstrøm, Lars P. Christensen*
- P1-243 **Association between Serum PBDE Levels and Residential Proximity to Solid Waste Facilities/Landfills or Toxics Release Facilities**  
*Ruiling Liu, David Nelson, Susan Hurley, Myrto Petreas, Yunzhu Wang, Tan Guo, June-Soo Park, Pamela Horn-Ross, Leslie Bernstein, Hoda Anton-Culver, Andrew Hertz, Peggy Reynolds*
- P1-244 **Hypertension among Inhabitants of Contaminated Areas by Industrial Waste**  
*Alfésio L. F. Braga, Tatyana Sampaio Ribeiro, Daniele Pena Carvalho, Mariana T. Guimarães, Nilva Nunes Campina, Mônica Lupião Lobarinhas, Ana L. J. Silva Lopes, Luiz A. A. Pereira*
- P1-245 **Proximity to Industrial Facilities Linked to Increased Levels of Polychlorinated Dibenzo-P-Dioxins and Polychlorinated Dibenzofurans in Carpet Dust Samples from Four Areas of the United States**  
*Nicole C Deziel, John R Nuckols, Barry Graubard, Joanne S Colt, Anneclaire J De Roos, Mary H Ward*
- P1-246 **Living Near a Hazardous Industrial Site and Admissions for Respiratory and Cardiovascular Diseases among the Elderly: a Case-Control Study**  
*Ronit Nirel, Nimrod Maimon, Elizabeth Fireman, Arnona Eyal, Alon Peretz*
- P1-247 **Retrospective Cohort Study on Health Effects in the Population Residing Around a Waste Incinerator and Other Sources of Pollution**  
*Michele Santoro, Fabrizio Minichilli, Nunzia Linzalone, Maria Teresa Maurello, Domenico Sallese, Fabrizio Bianchi*
- P1-248 **Health Care Waste Management in Kolkata Hospitals, India: a Systematic Review of Epidemiologic Evidence**  
*Sushma Sahai*
- P1-249 **Atmospheric Exposure Assessment around Municipal Solid Waste Incinerators**  
*Maria Leal-Sanchez, Danielle C. Ashworth, Paul Elliott, Mireille B. Toledano, Anna L. Hansell, Kees de Hoogh*

**POSTER SESSION 1 CONTINUED**Mary Gates Hall  
Room 282**IONIZING RADIATION AND RADIOACTIVE MATERIALS**

- P1-250 **Epidemiological Cohort Study of Cancer Incidence on Residents of <sup>60</sup>Co-Contaminated Buildings in Taiwan**  
*Saou-Hsing Liou, Shu-O Chiang, Yi-Hau Chen, Wei-Jin Li*

- P1-251 **Longitudinal Study of Hematological Effects and Thyroid Function Induced by Low Dose-Rate Radiation on Residents of Radio-Contaminated Buildings**  
*Saou-Hsing Liou, Shu-O Chiang, Wei-Jin Li*
- P1-252 **U-238 Content in Urine of Uranium Miners and Its Modelled Values**  
*Lukáš Kotík, Irena Malátová, Vera Beckova, Ladislav Tomášek*
- P1-253 **A Study of Environmental Impacts Due to Uranium Exploration and Development in Labrador, Canada**  
*Atanu Sarkar, Derek Wilton*
- P1-254 **LINE-1 Hypomethylation and Radiation-Induced Genomic Instability in Industrial Radiographers**  
*Yoon Hee Cho, Yoonhee Jang, Virginia Porter, Sonja Christensen, Hae Dong Woo, Soo Yong Choi, Hai Won Chung*
- P1-255 **Thyroid Cancer under 19 in Fukushima: the Second Report**  
*Toshihide Tsuda, Etsuji Suzuki, Eiji Yamamoto*
- P1-256 **Study on the Assessment of Soil Radon Release Rate in the Areas Geological Distribution in Korea**  
*Minjun Kim, Dohyun Kim, Seonhong Kim, Seungchan Choi, Hojun Jeon, Dongwook Cha, Gyeongmin Kang, Seungyeon Cho*
- P1-257 **Cancer Risk in French Populations near Nuclear Facilities: Pilot Study**  
*Blandine Vacquier, Candice Roudier, Sarah Gorla, Morgane Stempfelet, Cécile Kairo, Marie-Laure Bidondo, Cécile Quintin, Agnès Lefranc*
- P1-258 **Exposure to Natural Background Radiation and Association with Childhood Leukemia Incidence in France 1990-2009**  
*Claire Demoury, Denis Hémon, Géraldine Ielsch, Christophe Debayle, Olivier Laurent, Jérôme Guillevic, Dominique Laurier, Jacqueline Clavel*
- P1-259 **The Effect of Radionuclide Pollution on Thyroid Hormones Levels and Iodine Concentration in the Hair of Children**  
*Rakhmanbek Toichuev, Timur Payzildaev, Gulnara Toichueva*

## POSTER SESSION 1 CONTINUED

Mary Gates Hall  
Room 286

## ELECTROMAGNETIC RADIATION

- P1-260 **Environmental RF-EMF Exposure at Home and Sleep Quality in 7 Year Old Children**  
*Anke Huss, Manon van Eijdsen, Monica Guxens, Johan Beekhuizen, Rob van Strien, Hans Kromhout, Tania Vrijkotte*
- P1-261 **Development of an RF-EMF Exposure Surrogate for Epidemiologic Research from Modelling, Personal Measurements and Operator Data**  
*Katharina Roser, Anna Schöni, Martin Rössli*
- P1-262 **Characterization of Radio- and Extremely Low-Frequency Electromagnetic Fields in Everyday Environments in Three European Cities**  
*Damiano Urbinello, Benjamin Struchen, Martin Rössli*
- P1-263 **Case: Control Matching Strategies on Associations between Cellular Telephone Use and Glioma Risk in the INTERPHONE Study**  
*Michelle Turner, Siegal Sadetzki, Chelsea Langer, Jordi Figuerola, Bruce Armstrong, Angela Chetrit, Graham Giles, Daniel Krewski, Martine Hours, Mary McBride, Marie-Elise Parent, Lesley Richardson, Jack Siemiatycki, Alistair Woodward, Elisabeth Cardis*
- P1-264 **Exposure to Electromagnetic Fields of Mobile Phone Stations and Symptoms in Individuals with Electromagnetic Hypersensitivity**  
*Po-Chang Huang, Jui-chin Chiang, Ya-Yun Cheng, Tain-Junn Cheng, Chien-Yuan Huang, Ya-Ting Chuang, How-Ran Guo*
- P1-265 **The Relationship between Magnetic Resonance Imaging and Electromagnetic Sensitivity**  
*Chang-Chih Tsai, Ching-Wen Chen, Ya-Yun Cheng, How-Ran Guo*

## POSTER SESSION 1 CONTINUED

Mary Gates Hall  
Room 248

## NOISE EXPOSURE

- P1-267 **Occupational Noise Induced Hearing Loss and Selected Noise Abatement Techniques in a Steel Making Plant**  
*Vusumuzi Nkosi, Nico Claassen, Kuku Voyi*
- P1-268 **Occupational Noise Frequency and Incident Hypertension: an Industry-Based Cohort Study**  
*Ta-Yuan Chang, Tzu-Yi Yu, Chiu-Shong Liu, Li-Hao Young, Bo-Ying Bao*

- P1-269 **Sleep Quality in Adult Population Exposed to Aircraft Noise in Fontibon Bogota in 2012**  
*Lina Maria Calleja, Rodrigo Sarmiento, Katalina Medina, Henry Sepulveda, Dayana Deluque, Franklin Escobar*
- P1-270 **Aircraft Noise Exposure and Blood Pressure Levels in the Populations Living Near Six Airports in Italy: Results of the SERA National Study**  
*Carla Ancona, Martina Nicole Golini, Francesca Mataloni, Donatella Camerino, Gaetano Licitra, Marina Ottino, Salvatore Pisani, Lorenzo Simonato*
- P1-271 **Aircraft Noise and Cardiovascular Disease near Heathrow Airport in London**  
*Anna Hansell, Marta Blangiardo, Lea Fortunato, Sarah Floud, Kees de Hoogh, Daniela Fecht, Rebecca Ghosh, Helga Laszlo, Clare Pearson, Linda Beale, Sean Beevers, John Gulliver, Nicky Best, Sylvia Richardson, Paul Elliott*
- P1-272 **Railway Noise and Blood Pressure Levels in Pisa Population, Italy**  
*Maria Angela Vigotti, Davide Petri, Luca Fredianelli, Gaetano Licitra, Carla Ancona*
- P1-273 **Onset of Coronary Heart Disease and Urban Residential Noise**  
*Audrey Smargiassi, Claudia Blais, Philippe Gamache, Sophie Goudreau, Larisa-Ines Yankoty*
- P1-274 **Impact of Traffic-Related Air Pollution on Acute Changes in Heart Rate Variability and Effect Modification by Noise, Gender, and Physical Activity**  
*Tom Cole-Hunter, Scott Weichenthal, Maria Foraster, Nadine Kubesch, David Martínez, Audrey de Nazelle, Mark Nieuwenhuijsen*
- P1-275 **Exposure to Road Traffic Noise, Cardiometabolic Risk and Mental Health: a Prospective Cohort Study**  
*Martin Röösli, Harris Héritier, Patrizia Frei, Danielle Vienneau*
- P1-276 **Long Term Effects of Traffic Noise on Mortality in the Barcelona Metropolitan Region, 2004-2007**  
*Maria Barceló, Diego Varga, Aurelio Tobias, Julio Díaz, Marc Saez*
- P1-277 **Exposure to Road Traffic and Railway Noise and Prostate Cancer Risk: a Danish Prospective Cohort Study**  
*Kirsten T. Eriksen, Matthias Ketzler, Anne Tjønneland, Kim Overvad, Ole Raaschou-Nielsen, Mette Sørensen*
- P1-278 **Neuro Psychological Effects of Immission Noise Levels in Population of Bogotá in 2013**  
*Rodrigo Sarmiento-Suarez, Henry sepulveda, Edna Katalina Medina, Jhon Jairo Abella, Ximena Alonso, Carlos Alberto Galán*
- P1-279 **Exposure-Response Relationship for Annoyance Caused by Environmental Noise in Montreal, Canada**  
*Stéphane Perron, Martina S. Ragetti, Sophie Goudreau, Céline Plante, Audrey Smargiassi*
- P1-280 **Estimation of Spatial Variations in Noise Levels with a Land Use Regression Model**  
*Sophie Goudreau, Céline Plante, Michel Fournier, Audrey Smargiassi*

**BUILT ENVIRONMENT**

- P1-281 **Health Co-Benefits of Climate Change Mitigation through Mass Public Transportation in an Urban Environment**  
*Kwan Soo Chen, Jamal Hisham Hashim*
- P1-282 **Health Impact Assessment of Public Bicycle Schemes in Ireland**  
*David Rojas-Rueda, Audrey de Nazelle, Mark Nieuwenhuijsen*
- P1-283 **Transit Walkers in the United States**  
*Shailendra Banerjee*
- P1-284 **Which Measuring Stick? Analysis of Park Access Measures and Their Associations with Self-Reported Physical Activity**  
*Judy Ou, Jonathan Levy, Junenette Peters, Roseann Bongiovanni, Jovanna Garcia-Soto, Rafael Medina, Madeleine Scammell*
- P1-285 **The Influence of Exposure and Proximity to Blue Spaces on Health, Social and Environmental Attitudes**  
*John McCarthy, Christopher Bowie, Simon Kingham, Rosie Cooper, Christopher Sibley*
- P1-286 **Beyond Greenspace: Natural Environments for Health and Wellbeing**  
*Benedict Wheeler, Sahran Higgins, Rebecca Lovell, Mathew White, Ian Alcock, Kerry Husk, Nicholas Osborne, Clive Sabel, Michael Depledge*
- P1-287 **Unmasking the Human Health and Well-Being Benefits of Urban Green Infrastructure, Including Economic Values**  
*Kathleen Wolf, Marc Measells, Stephen Grado*
- P1-288 **Living in an Urban Environment Is Associated with Increased Blood Pressure and Arterial Stiffness**  
*Laura Corlin, Kevin J Lane, Mark Woodin, Doug Brugge, Hari Vanzan, Jahnavi Sunderarajan, Sadagopan Thanikachalam, Mohan Thanikachalam*
- P1-289 **Impact of Outdoor Environment upon Physical Activity across Ages and Seasons in Swedish Pupils at Compulsory School**  
*Peter Pagels, Anders Raustorp, Andreas Fröberg, Fredrika Mårtensson, Cecilia Boldemann*
- P1-290 **Accidental Deaths Related to Mobility in (Adults/Elders) of 70 and Older in Guadalajara, Jalisco, Mexico, 2008-2012**  
*Isabel Magallan, Guadalupe Garibay*

11:50 - 14:00

**Ancillary Meetings**

ESCAPE Meeting	HUB 214
Ethics and Philosophy Committee Chair: Wael Al-Delaimy	HUB 337
Capacity-building Committee Chair: Kris Ebi	HUB 307

**14:00 - 15:30****Parallel Sessions**

14:00 - 15:30	S.06	<b>INTERVENTIONS TO REDUCE EXPOSURES TO ENVIRONMENTAL HAZARDS IN PREGNANT WOMEN AND CHILDREN</b> Session Chairs: Sheela Sathyanarayana and Bruce Lanphear	HUB 160 (Lyceum)
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- S-023 **Interventions to Reduce Exposures to Environmental Hazards in Pregnant Women and Children**  
*Bruce Lanphear*
- S-024 **Interventions to Reduce Phthalate and BPA Exposures**  
*Sheela Sathyanarayana, Garry Alcedo, Brian E Sealens, Chuan Zhou, Russell L Dills, Jianbo Yu, Bruce Lanphear*
- S-025 **Intervention to Reduce Endocrine Disruptor Exposure from Beauty Products in Latina Adolescents: the HERMOSA Study**  
*Kim G Harley, Daniel Madrigal, Crystal Casillas, Irene Vera, Jose Camacho, Katherine Kogut, Jianwen She, Rana Zahedi, Qi Gavin, Asa Bradman, Brenda Eskenazi, Kimberly L Parra*
- S-026 **Randomized Controlled Trials of Community Based Arsenic Interventions to Reduce Arsenic Exposure in Bangladesh**  
*Christine Marie George*

14:00 - 15:30	O.04	<b>EMERGING TOOLS FOR CLIMATE CHANGE HEALTH IMPACT ASSESSMENTS</b> Session Chair: Pat Kinney	HUB 334
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- O-017 **A Statistical Modeling Framework for Projecting Future Ambient Ozone and Its Health Impact Due to Climate Change**  
*Howard H Chang, Hua Hao, Stefanie Ebel Sarnat*
- O-018 **Reducing Lung Cancer Risk from Transport-Related Greenhouse Gases Reduction Policies: Case Study in Europe and China**  
*Laura Perez, Menno Keuken, Stephan Trueb, Sander Jonkers, Clive Sabel*
- O-019 **Towards More Comprehensive Projections of Urban Temperature-Related Mortality**  
*Patrick Kinney, Elisaveta Petkova, Jan Vink, Joe Francis, Radley Horton, Daniel Bader*
- O-020 **Spatial Variation in Allergenic Pollen across New York City**  
*Kate Weinberger, Guy Robinson, Iyad Kheirbek, Thomas Matte, Patrick Kinney*
- O-021 **Challenges Associated with Projecting Urbanization- Induced Heat-Related Mortality**  
*David M. Hondula, Matei Georgescu, Robert C. Balling Jr.*
- O-022 **Estimating Fine-Scale Heat-Related Vulnerability Using Principal Components Analysis: Are We Answering the Wrong Question?**  
*Kathryn Conlon, Evan Mallen, Carina Gronlund, Veronica Berrocal, Larissa Larsen, Marie O'Neill*

14:00 - 15:30	O.05	<b>IMPACT OF AMBIENT AIR POLLUTION ON ADULT NEURODEGENERATIVE AND PSYCHIATRIC DISORDERS</b> Session Chairs: Beate Ritz and Melinda Power	HUB North Ballroom
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- O-023 **Air Pollution Is a Risk Factor for Parkinson's Disease in Denmark**  
*Beate Ritz, Pei Chen lee, Johnni Hansen, Mette Sørensen, Matthias Ketzler, Ole Raaschou-Nielsen*
- O-024 **Long-Term Exposure to Fine Particulate Matter and Residential Proximity to Major Roads and Measures of Brain Structure**  
*Elissa Wilker, Sarah Preis, Alexa Beiser, Philip Wolf, Joel Schwartz, Petros Koutrakis, Rhoda Au, Sudha Seshadri, Murray Mittleman*
- O-025 **Exposure to Fine Particulate Air Pollution Is Associated with Anxiety**  
*Melinda C. Power, Marianthi-Anna Kioumourtzoglou, Jaime E. Hart, Olivia I. Okereke, Francine Laden, Marc G. Weisskopf*

- O-026 **Ambient Ozone Concentrations and Emergency Department Visits for Panic Disorder**  
*Jaelim Cho, Jungwoo Sohn, Hyunsoo Kim, Changsoo Kim, Dong Chun Shin*
- O-027 **Structural Equation Modeling of Mental Well-Being and Depression Response to Traffic Air Pollution in a Repeated Measures Study**  
*Emmanuel S. Baja, Helen H. Suh, Brent A. Coull, Joel D. Schwartz*
- O-028 **The Association of Air Pollution and Depression in the Lifelines Cohort Study**  
*Wilma Zijlema, Kees de Hoogh, Marloes Eeftens, Bert Brunekreef, Ronald Stolk, Judith Rosmalen*

14:00 - 15:30

O.06

**BIOMARKERS OF AIR POLLUTION EXPOSURE AND EFFECTS**  
**Session Chairs:** Howard Kipen and David Diaz-Sanchez

HUB 250

- O-029 **Malondialdehyde in Exhaled Breath Condensate and in Plasma Following Highway Commutes**  
*Rachel Golan, Roby Greenwald, Brent Early-Jones, Andrea Winqvist, Priya Kewada, Amit U Raysoni, W. Dana Flanders, Stefanie Sarnat, Fuyuen Yip, Jeremy A Sarnat*
- O-030 **Ambient and Controlled Particle Exposures as Triggers for Acute ECG-Changes over the Next Few Hours**  
*David Q. Rich, Annette Peters, Wojciech Zareba, Susanne Breitner, Jelani Wiltshire, Mark Frampton, Cathleen Kane, David Oakes, Mark Utell, Alexandra Schneider*
- O-031 **Increased Particulate Air Pollution and Markers of Platelet Aggregation**  
*Adan Becerra, David Rich, Philip Hopke, Steve Georas, Thomas Brenna, Cathleen Kane, David Chalupa, Robert Block*
- O-032 **Repeated Measures of Pulse Pressure Associated with Personal Traffic Exposures in a Behavior Intervention Study of Healthy Adults**  
*Jaime Mirowsky, Richard Peltier, Morton Lippmann, George Thurston, Lucas Neas, Terry Gordon*
- O-033 **Residential Exposure to Traffic-Related Air Pollution and Atherosclerosis in Four Major Vascular Beds in African Americans Free of Cardiovascular Disease: Results from the Jackson Heart Study (JHS)**  
*Yi Wang, DeMarc Hickson, Annie Gjelsvik, Charles Eaton, Sharon Wyatt*
- O-034 **Long Term Chronic Exposure to Ozone Air Pollution and Biomarkers of Cardiovascular Diseases in Adult National Health and Nutrition Examination Survey Participants**  
*Arvind Dabass, Evelyn Talbott, LuAnn Brink, Judy Rager, Fernando Holguin*

14:00 - 15:30

O.07

**METHODS AND HEALTH EFFECTS FOR COMPLEX EXPOSURE MIXTURES**  
**Session Chairs:** Michelle Bell and Gregory Wellenius

HUB 332

- O-035 **Combined Exposure to Perchlorate, Nitrate and Thiocyanate Adversely Affects Maternal Thyroid Function: a Weighted Quartile Sum Approach**  
*Megan Horton, Benjamin Blount, Liza Valentin-Blasini, Ronald Wapner, Xinhua Liu, Robin Whyatt, Chris Gennings, Pam Factor-Litvak*
- O-036 **Comparing Approaches for Summarizing Exposure to Multiple, Correlated Pollutants and Resulting Risk Estimates**  
*Erika Garcia, David Nelson, Susan Hurley, Peggy Reynolds*
- O-037 **Investigating the Combined Effects of Ozone and Temperature within a Heatwave Early Warning System**  
*Christofer Åström, Kristie Ebi, Bertil Forsberg*
- O-038 **The NIEHS Superfund Research Program: Epidemiological Research to Address the Complexity of Environmental Exposures and Improve Public Health**  
*Danielle J Carlin, Sara E Mishamandani, Heather F Henry, Caroline H Dilworth, Michelle L Heacock, Beth Anderson, William A Suk*
- O-039 **Chemical Mixtures in Carpet Dust and Risk of Non-Hodgkin Lymphoma Risk in the NCI-SEER NHL Study**  
*Jenna Czarnota, Chris Gennings, Joanne Colt, Anneclaire De Roos, James Cerhan, Richard Severson, Wendy Cozen, Patricia Hartge, Mary Ward, David Wheeler*
- ETH-02 **Dangerous Mixtures: Policy and Ethical Implications of Risks from Mixtures**  
*Raymond Richard Neutra*

14:00 - 15:30 O.08

**THE EFFECTS OF THE BUILT ENVIRONMENT, AIR POLLUTION, AND URBANICITY ON HEALTH**

HUB South Ballroom

**Session Chairs:** Jaime Hart and Peter James

- O-040 **Characterizing the Impact of Traffic and the Built Environment on Near-Road Ultrafine Particle and Black Carbon Concentrations**  
*Scott Weichenthal, William Farrell, Mark Goldberg, Lawrence Joseph, Marianne Hatzopoulou*
- O-041 **Walkability and Air Pollution in Sydney, Australia**  
*Geoff Morgan, Christine Cowie, Ding Ding, Margaret Rolfe, Darren Mayne, Bin Jalaludin*
- O-042 **Associations between Built Environment, Air Quality, and Quality of Life in Xi'an, China**  
*Meiling Gao, Junji Cao, Edmund Seto, Catherine Koshland*
- O-043 **Urbanization Is an Independent Predictor of Endothelial Dysfunction in a Large Southeast Asia Population Sample**  
*Kevin Lane, Jahnavi Sunderarajan, Hari Vanzan, Sadagopan Thanikachalam, Doug Brugge, Laura Corlin, Mohan Thanikachalam*
- O-044 **Social and Environmental Context in Predicting Serious Cardiovascular Events among Patients with Diabetes**  
*Rebecca Anthopoulos, Pamela Maxson, Marie Lynn Miranda*
- O-045 **Modeling Spatial Patterns of Bicycle and Pedestrian Traffic to Estimate Exposure to Hazards**  
*Steve Hankey, Julian Marshall, Greg Lindsey*

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14:00 - 15:30

O.09

**ORGANIC POLLUTANTS AND REPRODUCTIVE & PERINATAL HEALTH**

HUB 145

**Session Chairs:** Germaine Buck Louis and Shelley Ehrlich

- O-046 **Urinary Concentrations of Benzophenone-Type UV Filters and Couple Fecundity**  
*Germaine Buck Louis, Rajeshwari Sundaram, Katherine Sapra, Jose Maisog, Kurunthachalam Kannan*
- O-047 **Prenatal Polychlorinated Biphenyls Exposure and Semen Quality in Adult Male Offspring: Results from the Child Health and Development Studies**  
*Chengchen Zhang, Xinhua Liu, Piera Cirillo, Sabrina Crispo Smith, Myrto Petreas, Jun-Soo Park, Barbara Cohn, Pam Factor-Litvak*
- O-048 **Prenatal Exposure to Persistent Organic Pollutants and Sex Hormone Levels in Cord Blood**  
*Charline Warembourg, Anne Debost-Legrand, Catherine Massart, Ronan Garlantézec, Christine Monfort, Eric Gaudreau, Cécile Chevrier, Sylvaine Cordier*
- O-049 **Effect of PFOS and PFOA Exposure in Utero on Reproductive Hormones Levels at Birth**  
*Sachiko Itoh, Atsuko Araki, Chihiro Miyashita, Hiroyuki Nakazawa, Takahiko Mitsui, Kazutoshi Cho, Seiko Sasaki, Tamiko Ikeno, Katsuya Nonomura, Reiko Kishi*
- O-050 **Variability in Urinary Phthalate Metabolite Levels across Pregnancy and Sensitive Windows of Exposure for the Risk of Preterm Birth**  
*Kelly Ferguson, Thomas McElrath, Yi-An Ko, Bhramar Mukherjee, John Meeker*
- O-051 **An Ecologic Study of Atrazine Contamination in Community Water and Adverse Birth Outcomes in Six Midwestern States**  
*Leslie Stayner, Kirsten Almberg, Rachael Jones, Judith Graber, Robert Anderson, Elizabeth Banda, Mary Turyk*

14:00 - 15:30

O.10

**GLOBAL VARIATION IN HEAT RELATED IMPACTS**

HUB 214

**Session Chair:** Kristie Ebi

- O-052 **Heat Wave Mortality June 10-13, 2005, in Jalisco, Mexico**  
*Arturo Curiel*
- O-053 **Risk Factors of Deaths during the 2009 Heat Wave in Adelaide, Australia: a Case-Control Study**  
*Ying Zhang, Monika Nitschke, Antoinette Krackowizer, Peng Bi*
- O-054 **Effects of Heat and Cold Temperature on Cause-Specific Mortality between 1996 and 2010 in Ontario, Canada**  
*Hong Chen, Abderrahmane Yagouti, Richard Foty, Eric Lavigne, Richard Burnett, Mark Goldberg, Paul Villeneuve, Sabit Cakmak, John Wang, Ray Copes*
- O-055 **An Annual Comparison of the Effects of Summer Temperatures on Mortality for 9 European Cities**  
*Matteo Scortichini, Francesca de'Donato, Daniel Oudin Åström, Xavier Basagaña, Antonio Gasparrini, Carmen Iñiguez, Klea Katsouyanni, Timo Lanki, Anna Paldy, Mathilde Pascal, Paola Michelozzi, Antonis Analitis*
- O-056 **Temporal Variation of the Impact of Summer Temperature on Daily Deaths in Seoul, Korea**  
*Jina Heo, Hyo-Mi Kim, Honghyok Kim, Giehae Choi, Shinwoo Kim, Ga-ram Byun, Jong-Tae Lee*

O-057 **Comparing Outcomes and Hospital Resource Use of Heat- Related Illness Hospitalizations and Common Co- Morbidities in the United States, 2001-2010.**

Michael Schmeltz

15:30 - 16:00

Coffee Break

16:00 - 17:30

**Parallel Sessions**

16:00 - 17:30

S.07

**FROM LOCAL WEATHER TO GLOBAL CLIMATE CHANGE: ADVANCING EARLY WARNING SYSTEMS FOR INFECTIOUS DISEASES**  
**Session Chair:** Jan C. Semenza and Kris Ebi

HUB North Ballroom

S-027

**Prototype Early Warning Systems for Infectious Diseases in Europe**

Jan C. Semenza

S-028

**Adapting Early Warning Systems to Global Climate Change**

Kristie L Ebi

S-029

**The Influence of Weather on Dengue Epidemics – Implications for Early Warning Systems in Southeast Asia**

Yien-Ling Hii, Joacim Rocklöv

S-030

**The Impacts of Climate Change on Mosquito-Borne Diseases and the Development of an Early Warning System**

Qiyong Liu

S-031

**Early Warning System and Other Tools for Infectious Diseases in Canada**

Manon Fleury

16:00 - 17:30

S.08

**ARSENIC AND CARDIOMETABOLIC RISK: IMPLICATIONS AT LOW-MODERATE EXPOSURE**

**Session Chair:** Ana Navas-Acien and Miroslav Styblo

HUB 250

S-032

**Arsenic Exposure, Arsenic Metabolism, and Incident Diabetes in the Strong Heart Study**

Barbara V Howard, Jason G. Umans, Matthew O Gribble, Lyle Best, Kevin A Francesconi, Walter Goessler, Elisa Lee, Eliseo Guallar, Ana Navas-Acien, Chin-Chi Kuo

S-033

**Chronic Exposure to Arsenic and Cardiometabolic Risk – a Cross-Sectional Study in Chihuahua, Mexico**

Michelle Mendez, Carmen González-Horta, Blanca Sánchez-Ramírez, Lourdes Ballinas-Casarrubias, Damian Viniegra Morales, Roberto Hernández Cerón, Zuzana Drobná, John Buse, Dana Loomis, Gonzalo García-Vargas, Luz Maria Del Razo, Miroslav Styblo

S-034

**Elevated Cardiometabolic Risk by Chronic Inorganic Arsenic Exposure in Chihuahua, Mexico**

Michelle A Mendez, Carmen González-Horta, María Cecilia Ishida, Blanca Sanchez-Ramírez, Maria Lourdes Ballinas-Casarrubias, Daniela Sarai Gutiérrez-Torres, Zuzana Drobná, Gonzalo García-Vargas, Rebecca Fry, John B Buse, Dana Loomis, Miroslav Styblo, Luz Maria Del Razo

S-035

**Inorganic Arsenic Exposure in a Rural Community of Colorado and the Related Health Outcomes**

Katherine A James, Tim Byers, Jaymie R Meliker, John E Hokanson, Gary O Zerbe, Julie A Marshall

S-036

**Interaction between Arsenic Exposure from Drinking Water and Genetic Susceptibility in Cardiovascular Disease Risk and Carotid Artery Intima-Media Thickness in Bangladesh**

Fen Wu, Farzana Jasmine, Muhammad G Kibriya, Mengling Liu, Xin Cheng, Faruque Parvez, Tariqul Islam, Alauddin Ahmed, Muhammad Rakibuz-Zaman, Jiaying Jiang, Shantanu Roy, Rachele Paul-Brutus, Vesna Slavkovich, Tariqul Islam, Diane Levy, Joseph H. Graziano, Habibul Ahsan, Yu Chen

16:00 - 17:30

S.09

**CONCEPT: COMMUNITY EXPOSURES TO PATHOGENS FROM INTENSIVE FOOD ANIMAL PRODUCTION**

**Session Chair:** Ellen Silbergeld

HUB 160 (Lyceum)

S-037

**Introduction - Community Exposures to Pathogens from Intensive Food Animal Production**

Ellen Silbergeld

S-038

**Impact of Antimicrobial Use in the Veterinary Sector on Prevalence of Resistance in Human Healthcare**

Ilse Overdevert

S-039

**An Overview of Livestock-Associated Staphylococcus Aureus in the United States**

Tara Smith

S-040

**Foodborne Urinary Tract Infections (Futis): a New Paradigm for Food-Associated Disease**

Lance Price

S-041		<b>The Industrial Food Animal “Exposome”: Evaluating Aggregate Pathogen Exposures on the Community Level</b> <i>Jessica Leibler</i>	
16:00 - 17:30	O.11	<b>POPULATIONS MORE SUSCEPTIBLE TO CLIMATE IMPACTS</b> Session Chairs: Tim Takaro and Bimal Chhetri	HUB 332
O-058		<b>Vulnerability to Heat-Associated Hospital Admissions among the Elderly in the United States by Individual and Area-Level Characteristics, 1992-2006</b> <i>Carina Gronlund, Gregory Wellenius, Joel Schwartz, Antonella Zanobetti, Marie O'Neill</i>	
O-059		<b>A Study of the Short-Term Association between Hospital Admissions for Heart Failure and Meteorological and Pollutant Variables in Hong Kong</b> <i>William Goggins, Emily Chan</i>	
O-060		<b>Temperature Effects on Outpatient Visits of Respiratory Diseases, Asthma and Chronic Airway Obstruction in Taiwan</b> <i>Yu-Chun Wang</i>	
O-061		<b>Heat, Air Pollution and Preterm Birth: Which Weeks of Gestation Are Susceptible? The Rome and Barcelona Birth Cohorts</b> <i>Patrizia Schifano, Xavier Basagana Flores, Federica Asta, Paola Michelozzi</i>	
O-062		<b>A Proposed Resampling Method to Separate Excess Deaths from Expected Deaths during Extreme Hot Weather Events</b> <i>Sarah Henderson, Stephen Rauch, David Hondula, Tom Kosatsky</i>	
ETH-03		<b>Ethical and Philosophical Dimensions of Climate Impacts</b> <i>Jutta Lindert</i>	
16:00 - 17:30	O.12	<b>EARLY LIFE ENVIRONMENTAL EXPOSURES AND EPIGENETICS</b> Session Chairs: Carmen Marsit and Carrie Van Breton	HUB South Ballroom
O-063		<b>Epigenome-Wide Meta-Analysis of Methylation in Offspring Related to Maternal Smoking in Pregnancy (MOMS) Consortium</b> <i>Bonnie Joubert, on behalf of the MOMS Consortium</i>	
O-064		<b>Trimester-Specific Prenatal Air Pollution Effects on the Newborn Epigenome</b> <i>Carrie Breton, Yu-Chen Su, Jie Ren, Kim Siegmund, Frank Gilliland</i>	
O-065		<b>Influence of Prenatal Metal and Pesticide Exposures on Global DNA Methylation Patterns in Cord Blood Leukocytes</b> <i>Yi-Peng Liao, Pau-Chung Chen, Chen-Yu Liu</i>	
O-066		<b>Early Life Lead Exposure and DNA Methylation: Birth through Adolescence</b> <i>Jaclyn M. Goodrich, Dana C. Dolinoy, Brisa Sanchez, Zhenzhen Zhang, Tamara R. Jones, Howard Hu, Karen E. Peterson, Martha M. Tellez-Rojo</i>	
O-067		<b>Associations between Maternal Circulating DNA Methylation during Pregnancy and Exposures to Environmental Metals in the National Children's Study</b> <i>Kelly Bakulski, Jason Feinberg, Shannon Brown, Laura Caulfield, Lynn Goldman, Andrew Feinberg, Dani Fallin</i>	
O-068		<b>Mirna Expression in the Cervix Is Associated with Lead and Mercury Exposure during Pregnancy</b> <i>Alison Sanders, Heather Burris, Allan Just, Katherine Svensson, Chitra Amarasiriwardena, Valeria Motta, Adriana Mercado-Garcia, Joel Schwartz, Martha Tellez-Rojo, Robert Wright, Andrea Baccarelli</i>	
16:00 - 17:30	O.13	<b>AIR POLLUTION AND CANCER</b> Session Chairs: Parveen Bhatti and Arden Pope	HUB 145
O-069		<b>Cancer Mortality Risks from Long-Term Exposure to Ambient Particulates in a Cohort of Older Population in Hong Kong</b> <i>Chit-Ming Wong, Thuan-Quoc Thach, Hilda Tsang, G. Neil Thomas, Kin-Bong Hubert Lam, King-Pan Chan, Jon G. Ayres, Wai-Man Chan, Siu-Yin Lee, Tai-Hing Lam, Hak-Kan Lai</i>	
O-070		<b>Long-Term Ambient Residential Traffic Related Exposures and the Measurement Error Adjusted Risk of Incident Lung Cancer</b> <i>Jaime Hart, Donna Spiegelman, Rob Beelen, Gerard Hoek, Bert Brunekreef, Leo Schouten, Piet van den Brandt</i>	

- O-071 **Long-Term Exposure to Polycyclic Aromatic Hydrocarbons (PAH), Mortality and Incidence of Lung Cancer in the Rome Longitudinal Study, 2008-2012 - the EXPAH (Population Exposure to PAHs) Project**  
*Giulia Cesaroni, Francesco Forastiere, Chiara Badaloni, Angelo Cecinato, Sandro Finardi, Maria Pia Gatto, Monica Gherardi, Cinzia Perrino, Paola Romagnoli, Camillo Silibello, Massimo Stafoggia, Claudio Gariazzo, EXPAH Study Group*
- O-072 **Long-Term Ambient Air Pollution Exposures and the Risk of Incident Breast Cancer**  
*Jaime Hart, Kimberly Bertrand, Veronica Vieira, Rulla Tamimi, Francine Laden*
- O-073 **Residential Exposure to Ambient Hazardous Air Pollutants with Estrogen Disrupting Effects and Breast Cancer Risk in the California Teachers Study**  
*Ruiling Liu, David O Nelson, Susan Hurley, Andrew Hertz, Peggy Reynolds*
- ETH-04 **The Ethics of Air Pollution and Cancer**  
*Frank Rosenthal*

16:00 - 17:30

O.14

**ENVIRONMENTAL FACTORS, BIRTH OUTCOMES, AND NEURODEVELOPMENT**

HUB 334

**Session Chair:** Ellen Wells

- O-074 **Prenatal Exposure to Phthalates and Infant Birth Weight**  
*Jessica Shoaff, Bruce Lanphear, Kimberly Yolton*
- O-075 **In Utero Mancozeb and Chlorpyrifos Exposure Is Associated with Decreased Fetal Growth in the Infants' Environmental Health Study (ISA), Costa Rica**  
*Berna van Wendel de Joode, Ana Maria Mora, Leonel Cordoba, Rosario Quesada, Juan Camilo Cano, Moosa Faniband, Jane Hoppin, Brenda Eskenazi, Christian Lindh*
- O-076 **Early Pregnancy Polyfluoroalkyl Chemicals (Pfc) and Birth Outcomes in Project Viva**  
*Sharon Sagiv, Sheryl Rifas-Shiman, Antonia Calafat, Xiaoyun Ye, Tom Webster, Matthew Gillman, Emily Oken*
- O-077 **Prenatal Phenolic Compounds Exposure and Neurodevelopment at 2 Years of Age**  
*Chun-Ju Chien, Hua-Fang Liao, Wu-Shiun Hsieh, Pau-Chung Chen*
- O-078 **Effects of Phthalates on Neurodevelopment in Children Exposed to High-DEHP Contamination Nutrition Supplements**  
*Po-Chin Huang, Shu-Li Wang, Hung-Che Chiang, Sin Mei Lo, Ming-Tsang Wu, Chao Hsiung*
- ETH-05 **Ethical Dimensions of Reporting Research Findings**  
*Ellen M Wells*

16:00 - 17:30

O.15

**ADVANCING TIME-LOCATION EXPOSURE ASSESSMENT**

HUB 214

**Session Chairs:** Perry Hystad and Julian Marshall

- O-079 **Taking into Account Space-Time Activity and Indoor Air Levels in the Estimation of Exposure to Atmospheric Pollutants during Pregnancy: Does It Make a Difference?**  
*Marion Ouidir, Lise Giorgis-Allemand, Sarah Lyon-Caen, Xavier Morelli, Johanna Lepeule, Valérie Siroux, Rémy Slama*
- O-080 **Developing a Hybrid Exposure Model by Considering People's Mobility in a Large Urban Area – London Study**  
*Christina Mitsakou, James Smith, Sean Beevers, Nutthida Kitwiroon*
- O-081 **Heat Exposure Assessment Based on Individual's Daily Mobility Data in Dhaka, Bangladesh**  
*Shinya Yasumoto, Chiho Watanabe, Andrew Jones, Kei Oyoshi, Toru Fukuda, Hiroshi Kanasugi, Yoshihide Sekimoto, Ryosuke Shibasaki*
- O-082 **Integrating Data from Multiple Time-Location Measurement Methods for Use in Exposure Assessment: the Multi-Ethnic Study of Atherosclerosis and Air Pollution (MESA Air)**  
*Marnie Hazlehurst, Elizabeth Spalt, Cynthia Curl, Mark Davey, Sverre Vedal, Gregory Burke, Joel Kaufman*
- O-083 **Mobile Phone Tracking and Traffic Map: in Support of Modelling Traffic-Related Air Pollution, Exposure and Health Effects**  
*Hai-Ying Liu, Erik Skjetne*
- O-084 **Modelling the Modifying Effect of Homes on Population Exposure to Outdoor Pollution**  
*Jonathon Taylor, Paul Wilkinson, Michael Davies, Anna Mavrogianni, James Milner, Zaid Chalabi, Payel Das, Clive Shrubsole*

17:30 - 18:30

**Ancillary Meetings**

ISCHE Meeting

HUB 334

EHP Associate Editor's Meeting

HUB 307

17:30

**SNRN Workshop and Social Event (pre-registration required)**UW Waterfront  
Activities Center



07:00 - 17:00		<b>Conference Registration Speaker Ready Room</b>	HUB Ballroom Foyer HUB 238
07:15 - 08:30		<b>ISEE COUNCIL MEETING</b>	HUB 307
07:30 - 08:30		<b>Morning Sessions</b>	
07:30 - 08:30	M.03	<b>AN EDITORS PERSPECTIVE ON BECOMING A GREAT PEER REVIEWER</b> (Sponsored by the Student and New Researcher Network) <b>Session Chair:</b> Jane Schroeder	HUB 334
07:30 - 08:30	M.04	<b>RISKS AND BENEFITS OF FISH CONSUMPTION: CONSIDERING POLICY IN RESEARCH DESIGN</b> <b>Session Chair:</b> Ellen Silbergeld	HUB 332
	M-01	<b>A Pilot Epidemiological Study of Avid Fish Consumers</b> <i>Jaymie Meliker, PhD</i> <b>Who Is at Risk?</b> <i>Edward Groth, III, Ph.D.</i>	
	M-02	<b>Ecogenetics of Methylmercury: Implications for Evaluating the Risks and Benefits of Fish Consumption</b> <i>Niladri Basu</i>	
07:30 - 08:30	M.05	<b>USING SPATIAL ANALYSIS TO IDENTIFY NEIGHBORHOOD VULNERABILITIES</b> <b>Session Chairs:</b> Felice Le-Scherban and Theresa Hastert	HUB 250
-		<b>Comparing Spatial Regression Methods to More Traditional Approaches: The Importance of Spatial Auto Correlation in the Association between Neighborhood SES and Air Pollution</b> <i>Anjum Hajat</i> <b>Spatial Patterning of Survey-based Measures of Neighborhood Physical and Social Environments in the Multi-Ethnic Study of Atherosclerosis</b> <i>Pauline Kaiser</i> <b>Application of the Gedis-Ord local G Statistic as a Spatial Measure of Racial/ethnic Residential Segregation</b> <i>Kiarri Kershaw</i>	
07:30 - 08:30	M.06	<b>ENGAGING ACADEMIA TO ADVANCE THE SCIENCE AND PRACTICE OF ENVIRONMENTAL PUBLIC HEALTH TRACKING</b> <b>Session Chairs:</b> Lina Balluz and Ying Zhou	HUB 145
	M-03	<b>Engaging Academia to Advance the Science and Practice of Environmental Public Health Tracking</b> <i>Ying Zhou</i>	
	M-04	<b>A Linkage Study of the Effects of Low Levels of Arsenic on Adverse Birth Outcomes</b> <i>Janice Panichello, Jim VanDerslice, Christy Porucznik</i>	
	M-05	<b>Predictors of Biomarkers of Exposure: a Polycyclic Aromatic Hydrocarbon Case Study for the Environmental Public Health Tracking Network</b> <i>Kathleen Navarro, Jennifer Mann, John Balmes, Thomas McKone</i>	
	M-06	<b>The Association of PM<sub>2.5</sub> with Full Term Low Birth Weight at Different Spatial Scales</b> <i>Gerald Harris, W Douglas Thompson, Edward Fitzgerald, Daniel Wartenberg</i>	
08:30 - 10:00		<b>PLENARY SESSION 2</b> <b>Session Chairs:</b> Molly Kile, ScD and Nelson Gouveia, PhD	HUB Ballroom
		<b>Sources of the Human Microbiome</b> Maria Gloria Dominguez-Bello, PhD (Talk sponsored by UW NIEHS Center for Ecogenetics and Environmental Health) <b>Water, Genes and Public Health</b> Manolis Kogevinas, MD, PhD	

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**Presentation of the Best Environmental Epidemiology Paper Award***Michael Brauer, ScD, Presenter***Presentation of the Rebecca James Baker Memorial Award***Marie O'Neill, PhD, Presenter*

10:00 - 10:20

Morning Break

10:20 - 11:50

**Parallel Sessions**

10:20 - 11:50

S.10

**INTEGRATING THE MICROBIOME INTO ENVIRONMENTAL EPIDEMIOLOGY**

HUB North Ballroom

**Session Chairs:** Lisa Helbling Chadwick and Caroline Dilworth

S-042

**The Human Microbiome, Environmental Arsenic Exposure, and Human Health***David Relman*

S-043

**Triclosan, Triclocarban, the Human Microbiome and Growth***Julie Parsonnet*

S-044

**Arsenic, the Gut Microbiome, and Atherosclerosis***Yu Chen, Zhiheng Pei, Fen Wu, Habibul Ahsan*

S-045

**Characterization of Microbial Communities on CAPS in Controlled Human Exposures***Diane R Gold, Bruce Urch, Erica Sodergren, George Weinstock, Mary Speck, Yanjiao Zhou, Brent Coull, Petros Koutrakis, Tania Kotlov, Ling Liu, James Scott, Robert Brook, Frances Silverman, Joanne Sordillo*

10:20 - 11:50

S.11

**JUST HOW CLEAN ARE OUR CLEAN COOKING TECHNOLOGIES? EXPOSURE RESULTS FROM STUDIES ON HOUSEHOLD AIR POLLUTION AND CHILD SURVIVAL, AND IMPLICATIONS FOR ACHIEVING WHO INDOOR AIR QUALITY GUIDELINES FOR HOUSEHOLD FUEL COMBUSTION**

HUB 214

**Session Chairs:** Sumi Mehta and Nigel Bruce

S-046

**Exposure Results from Ghana Clean Cooking Intervention Trial***Kwaku Poku Asante, Darby Jack, Kenneth Asayah, Ellen Abrefi Boamah, Patrick Kinney, Steven Chillrud, Seth Owusu-Agyei*

S-047

**Concentration of Indoor Particulate Matter and Carbon Monoxide among Households Using Biomass Fuels in Sarlahi, Nepal: the Effect of Cooking, Fuel Type, and Season***Patrick N Breyse, James M Tielsch, Chen Chen, Joanne Katz, Scott L Zeger, Frank C Curriero, Subarna K Khatri, Laxman Shrestha, Steven C LeClerq*

S-048

**High Adoption Rates of an Ethanol Cookstove Associated with Reductions in Exposure to Particulate Matter in a Randomized Controlled Trial in Ibadan, Nigeria***Donee Alexander, Amanda Northcross, Matt Shupler, John Oluseye, Tope Ibigbami, Godson Ana, Morhasson Bello, Oladosu Ojengbede, Christopher O Olopade*

S-049

**Linking Household Energy Use with Indoor Air Quality***Michael A Johnson, Kirk R Smith, Rufus Edwards, Mark Nicas, Lidia Morawska, Ranyee Chiang*

10:20 - 11:50

O.16

**AIR POLLUTION AND CARDIOVASCULAR DISEASES: NOVEL AND REFINED OUTCOMES**

Hub South Ballroom

**Session Chairs:** Annette Peters and Sara Adar

O-085

**Exposure to Traffic-Related Air Pollution during Physical Activity and Heart Rate Variability, Endothelial Function, and Blood Pressure in Women: a Cross-Over Study***Scott Weichenthal, Marianne Hatzopoulou, Mark Goldberg*

O-086

**Cohort Analysis of Congenital Heart Defects and Air Pollution in Lanzhou, China***Lan Jin, Michelle Bell, Qing Liu, Yaqu Zhang, Jie Qiu, Nan Zhao, Huang Huang, Xiaochun He, Min Zhou, Hongmei Cui, Ling Lv, Weitao Qiu, Yawei Zhang*

O-087

**Residential Outdoor Nox and Left Ventricular Mass in MESA Air: Cardiac Structure and Traffic Related Air Pollution (TRAP)***Michelle Ross, Victor Van Hee, Amanda Gassett, Adam Szpiro, Assaf Oron, David Bluemke, John Eng, Joao Lima, Ana Diez-Roux, Joel Kaufman*

O-088

**Associations between Short-Term Exposure to Particulate Matter and Ultrafine Particles and Myocardial Infarction in Augsburg, Germany***Kathrin Wolf, Alexandra Schneider, Susanne Breitner, Christa Meisinger, Margit Heier, Josef Cyrys, H.-Erich Wichmann, Annette Peters*

- O-089 **Short-Term Exposure to Air Pollution and Arterial Stiffness**  
*Petter Ljungman, Elissa Wilker, Mary Rice, Joel Schwartz, Diane Gold, Petros Koutrakis, Joseph Vita, Emelia Benjamin, Ramachandran Vasan, Daniel Levy, Gary Mitchell, Murray Mittelman, Naomi Hamburg*
- O-090 **Long-Term Air Pollution Exposure and Heart Failure in the Rome Longitudinal Study**  
*Giulia Cesaroni, Chiara Badaloni, Joel Schwartz, Claudio Gariazzo, Andrea Bolignano, Marina Davoli, Francesco Forastiere*

10:20 - 11:50

O.17

**CLIMATE AND ADAPTATION: HOT WEATHER, COLD WEATHER, AND THEIR CHANGING EFFECTS OVER TIME**

HUB 145

**Session Chairs:** Sarah Henderson and David Hondula

- O-091 **Trends in the Heat Waves: Heat Stress Illness Emergency Department Visits in National Environmental Public Health Tracking States, 2005–2010**  
*Ethan Fechter-Leggett, Ambarish Vaidyanathan, Ekta Choudhary*
- O-092 **The Impact of Heat, Cold, and Heat Waves on Hospital Admissions in 8 Cities in Korea**  
*Jiyoung Son, Michelle Bell, Jong-Tae Lee*
- O-093 **Extremely Cold and Hot Temperatures Increase the Risk of Diabetes Mortality in Temperate and Subtropic Cities, China**  
*Yonghong Li, Guoquan Cui, Chao Yang, Li Lan, Wenge Tang, Shuquan Luo*
- O-094 **Temporal Variations in the Effect Heat and Cold, by Age Group and Cause of Death in 9 European Cities**  
*Francesca de' Donato, Michela Leone, Antonis Analitis, Anna Paldy, Timo Lanki, Antonio Gasparri, Mathilde Pascal, Christofer Astrom, Ferran Ballester, Xavier Basagana, Paola Michelozzi*
- O-095 **Development of Minimum Mortality Temperature in Sweden 1901-2009**  
*Daniel Oudin Åström, Andreas Tornevi, Kristie Ebi, Joacim Rocklöv, Bertil Forsberg*
- O-096 **The Impact of Extreme Temperature in Seoul, Korea through 1995 to 2011; Susceptible Populations and Temporal Variation of the Impact**  
*Honghyok Kim, Shinwoo Kim, Jina Heo, Hyo-Mi Kim, Giehae Choi, Ga-ram Byun, Jong-Tae Lee*

10:20 - 11:50

O.18

**ADVANCED REGRESSION TECHNIQUES**

HUB 332

**Session Chair:** Antonio Gasparri

- O-097 **Classification and Regression Trees for Epidemiologic Research**  
*Katherine Gass, Matthew Strickland, Mitch Klein, Dana Flanders, Howard Chang*
- O-098 **Analysis of Multiply Missing-Not-At-Random Survey Data for Child Lead Surveillance Using NHANES**  
*Eric Roberts, Paul English, Galatea King*
- O-099 **Overadjustment: a Misunderstood Phenomenon**  
*Ben Armstrong*
- O-100 **Diagnostic Tools for Linear Mixed Models: an Application to Environmental Study Data**  
*Julio Singer, Carmen André, Francisco Rocha*
- O-101 **Application of Regression Trees to Assess Heat-Health Impacts among Different Age Groups**  
*Sam Toloo, Wenbiao Hu, Shilu Tong*
- O-102 **Climate Change, Air Quality and Health: Bayesian Hierarchical Models for Predicting the Change in Mortality Associated with Future Ozone Exposures**  
*Stacey Alexeeff, Gabi Pfister, Doug Nychka*

10:20 - 11:50

O.19

**ORGANOCHLORINE EXPOSURE ACROSS THE LIFECOURSE AND HUMAN HEALTH**

HUB 334

**Session Chairs:** Jane Burns and Brenda Eskenazi

- O-103 **Prenatal DDT/E Exposure and Child IQ in the CHAMACOS Cohort**  
*Fraser Gaspar, Jonathan Chevrier, Asa Bradman, Brenda Eskenazi*
- O-104 **DDTs in Maternal Early Postpartum Serum Predicts Testosterone, FSH, and Semen Quality in Adult Sons: Evidence from the Child Health and Development Studies**  
*Barbara Cohn, Piera Cirillo, Myrto Petreas, June-Soo Park, Sabrina Crispo Smith, Nickilou Krigbaum, Pam Factor-Litvak*
- O-105 **Association between Endocrine Profile and Exposure to DDT and Metabolites**  
*Riana Bornman, Rhena Delpont, Paulina Farias, Natalie Aneck-Hahn*
- O-106 **Metabolic Syndrome Affected by Previous Exposure to Polychlorinated Biphenyls and Dibenzofurans: Yucheng Cohort in Taiwan**  
*Chiu-Yueh Yang, Pei-Hsun Pan, Yue-Liang Guo*
- O-107 **Serum Dioxin Concentrations and Cardiovascular Disease in The Seveso Women's Health Study**  
*Marcella Warner, Amelia Wesselink, Paolo Mocarelli, Paolo Brambilla, Brenda Eskenazi*

ETH-06 **Organochlorine Exposure Reporting: Ethical Discussion**  
*Wael K Al-Delaimy*

10:20 - 11:50 O.20 **ENVIRONMENTAL FACTORS AND FETAL/INFANT GROWTH OUTCOMES** HUB 250  
**Session Chairs:** Mary Wolff and Carl-Gustaf Bornehag

O-108 **Prenatal Exposure to Persistent Organic Pollutants and Risk of Obesity in the Offspring: RHEA Mother-Child Cohort in Crete, Greece**

*Marina Vafeiadi, Vaggelis Georgiou, Eleni Fthenou, Georgia Chalkiadaki, Panu Rantakokko, Hannu Kiviranta, Stella Koinaki, Marianna Karachaliou, Katerina Sarri, Maria Vassilaki, Soterios A. Kyrtopoulos, Manolis Kogevinas, Leda Chatzi*

O-109 **Prenatal Exposure to Organophosphate Pesticides and Infant Growth: the Mother-Child Cohort PELAGIE (France)**

*Fabienne Pelé, Cécile Chevrier, Emmanuelle Comets, Nathalie Costet, Christine Monfort, Jean-François Viel, Sylvaine Cordier*

O-110 **Fine Particulate Matter Chemical Components, Emission Source Indicators, and Term Birth Weight in New York City**

*Kazuhiko Ito, Jennifer Bobb, Sarah Johnson, Jane Clougherty, Jessie Shmool, Francesca Dominici, Beth Elston, Zev Ross, Tara McAlexander, David Savitz, Thomas Matte*

O-111 **Longitudinal Patterns of Early Gut Microbiota That Affect Infant Growth**

*Merete Eggesbø, Richard White*

O-112 **Exposure to Traffic-Related Air Pollution and Term Birth Weight in Texas**

*Perry Hystad, Julian Marshall, Susan Carozza*

O-113 **Early Pregnancy Phthalate Exposure and Infant Birth Weight within the TIDES Study**

*Sheela Sathyanarayana, Emily Barrett, Sarah Janssen, Ruby Nguyen, Bruce Redmon, Shanna Swan*

10:20 - 11:50 O.21 **DEVELOPING COUNTRIES AND SENSITIVE POPULATIONS** HUB 160 (Lyceum)  
**Session Chair:** Kate Adams

O-114 **Prenatal Exposure to Organic Solvents and Contrast Sensitivity Performance in 6-Year-Old Children**

*Jessica Trowbridge, Charline Warembourg, Christine Monfort, Marylene Jourdin, Florent Le Gleau, Ronan Garlantezec, Sylvaine Cordier, Cecile Chevrier*

O-115 **Heavy Metal Exposure Determinants in School-Aged Children from a Mining Zone of Southern Ecuadorian Amazon**

*José A. Menezes-Filho, Max V.G. Merizalde, Claudia T. C. Erazo, Santos A. B. Flores, María O. S. Castillo*

O-116 **Pasture, Poos and People: a Space-Time Analysis of Livestock Density and Cryptosporidium Infections in Humans**

*Aparna Lal, Jonathan Marshall, Nigel French, Michael Baker, Simon Hales*

O-117 **Primary School Educational Attainment among Children Living Near Toxic Sites in Low- and Middle-Income Countries**

*Anne Riederer, Darby Jack, Jack Caravanos*

O-118 **Using High Resolution Aerosol Optical Depth (AOD) Data to Estimate Daily PM<sub>2.5</sub> Geographical Distribution for Epidemiologic Analyses in Mexico City**

*Allan Just, Robert Wright, Joel Schwartz, Andrea Baccarelli, Martha María Tellez-Rojo, Emily Moody, Yujie Wang, Alexei Lyapustin, Itai Kloog*

ETH-07 **Allocating Fair Research Benefits to Participating Populations in Developing Countries**

*Adetoun Mustapha*

11:50 - 14:00 P.2 **POSTER SESSION 2** Mary Gates Hall  
First Floor Commons

**CLIMATE CHANGE, AIR POLLUTION & HEALTH EFFECTS**

P2-291 **Does Particulate Matter Modify the Association between Temperature and Mortality?**

*Li Li, Chun-Quan Ou, Jun Qian, Jun Yang*

P2-292 **Short Term Effect of High Temperature and Air Pollutants on Work Injuries in Rome, 2001-2010**

*Patrizia Schifano, Federica Asta, Alessandro Marinaccio, Michela Bonafede, Giuseppe Campo, Paola Michelozzi*

P2-293 **The Association between Dust Storms and Mortality in the United States, 1995-2005**

*James Crooks*

- P2-294 **Mortality Related to Interactions between Heat Wave and Wildfire Air Pollution during the summer of 2010 in Moscow**  
*Dmitry Shaposhnikov, Boris Revich, Tom Bellander, Getahun Bero Bedada, Matteo Bottai, Tatyana Kharkova, Ekaterina Kvasha, Elena Lezina, Tomas Lind, Eugenia Semutnikova, Göran Pershagen*
- P2-295 **Association of Spatial Dispersion of Respiratory and Ischemic-Heart Morbidity with Environmental and Demographic Factors in Semi-Arid Area of Southern Israel, 2003-2007**  
*Alisa Drory, Dan, G Blumberg, Shachar Livnat, Michael Friger*
- P2-296 **Assessing the Effect of Temperature on Outpatient Visits by Allergic Rhinitis in Pollen Seasons in Seoul, Korea: Adjusting for Allergenicity**  
*Hyo-Mi Kim, Jina Heo, Shinwoo Kim, Honghyok Kim, Giehae Choi, Ga-ram Byun, Yoon-Hyung Prak, Jong-Tae Lee*
- P2-297 **The Investigation of Forecasting Emergency Department Visits of Acute Renal Failure Using Air Pollution Parameters and Meteorological Variables**  
*Tzu-Ching Sung, Hsiang-Chin Hsu, How-Ran Guo*
- P2-298 **Characteristics of Ambient Fungal Spores and Their Relation with Climate Factors**  
*Yi-Chen Chen, Bing-Yu Chen, Chi-Hsin Chen, H. Jasmine Chao, Wei-Chiang Shen, Yue-Leon Guo*
- CHRONIC EFFECTS OF CHILDHOOD AIR POLLUTION EXPOSURE**
- P2-299 **Ambient Fungal Spores Are Related to Asthma Attack in Children in Taipei, Taiwan**  
*Yi-Chen Chen, Bing-Yu Chen, Chi-Hsin Chen, H. Jasmine Chao, Wei-Chiang Shen, Yue-Leon Guo*
- P2-300 **Tumor Necrosis Factors, Molds and Asthma in Children: a Haplotype-Based Analysis**  
*Yu-Sih Huang, Yu-Fen Li, Ting-Yu Tai, Yu-Ting Lin, Bing-Fang Hwang*
- P2-301 **Association of Urinary 1-OHP Concentration with Childhood Asthma**  
*I-Jen Wang, Chia-Yang Chen*
- P2-302 **The Effect of Air Pollution and Allergen Exposures on Atopic Disorders**  
*I-Jen Wang, Tzu-Hao Chao, Tao-Hsin Tung, Chin-Sheng Tang*
- P2-303 **Prevalence of Asthma and Level of Fenox among School Children in Terengganu, Malaysia**  
*Aminnuddin Ma'pol, Jamal Hisham Hashim, Dan Norbäck*
- P2-304 **The Environmentally Attributable Fraction of Childhood Asthma in California**  
*Lauren Nelson, Daniel Smith, Galatea King, Eric Roberts, Paul English*
- P2-305 **Distribution of Ambient Air Pollution and Asthma Incidence by Race and Socioeconomic Status in a Birth Cohort**  
*Audrey Flak, Lyndsey Darrow, John Pearce, Craig Hansen, Matthew Strickland*
- P2-306 **Association of Highway Traffic Exposure and Lung Function among Children with Asthma in Detroit**  
*Toby Lewis, Thomas Robins, Stuart Batterman, Bhramar Mukherjee, Graciela Mentz, Xiaodan Ren, Edith Parker, Erminia Ramirez, Community Action Against Asthma Steering Committee*
- P2-307 **Levels of Acrolein in Ambient Air and Childhood Asthma in New York City**  
*Jeanette A Stingone, Luz Claudio*
- P2-308 **Effects of Obesity on Asthma and Atopic Dermatitis in Children and Adolescents in Korea**  
*Ga-ram Byun, Jina Heo, Hyo-Mi Kim, Honghyok Kim, Giehae Choi, Shinwoo Kim, Jong-Tae Lee*
- P2-309 **Clinical and Immunological Effects of Forest Trip in Children with Allergic Diseases**  
*Young Yoo, Sung Chul Seo, Su Jin Park, Chan Woo Park, Won Suck Yoon, Yong Min Cho, Ji Tae Choung*
- P2-310 **Synergistic Effect of Traffic-Related Air Pollution and Allergic Sensitization on Rhinitis Development**  
*Hui Zhou, Xia Li, Jeong Hee Kim, Muhammad Salam, Frank Gilliland*
- P2-311 **Hayfever among Bavarian Preschool Children**  
*Caroline Herr, Alisa Weber, Lana Hendrowasito, Nicole Meyer, Stefanie Kolb, GME study group*
- P2-312 **Exposure to Grass- But Not Birch Pollen Affects Lung Function in Eight Year Old Children from the Swedish Birth Cohort BAMSE**  
*Mare Löhmus, Olena Gruzieva, Göran Pershagen, Magnus Wickman, Erik Melén, Jenny Hallberg, Tom Bellander*
- P2-313 **Environmental Exposures and Wheeze at Three and Twelve Months of Age in the Canadian Healthy Infant Longitudinal Development Study (CHILD)**  
*Tim K. Takaro, Kathleen McLean, Jeffery Brook, Ryan Allen, James Scott, Stuart Turvey, Allan Becker, Pius Mandhane, Padmaja Subbarao, Malcolm Sears*
- P2-314 **Association between Exposure to Particulate Material from Mine Tailings and Lung Function in Schoolchildren, Chile**  
*Karla Yohannessen, Dante Caceres, Sergio Alvarado, Stephanie Mesias*
- P2-315 **Exposure to Air Pollution from Traffic and Airway Disease Up to Adolescence in the Swedish Birth Cohort BAMSE**  
*Olena Gruzieva, Tom Bellander, Matteo Bottai, Anna Gref, Erik Melén, Göran Pershagen*

- P2-316 **Non-Asthmatic Schoolchildren's Lung Function Was Reduced by Exposure to Ozone and PM<sub>10</sub> at Different Ages**  
*Hung-Chang Tsui, Chi-Hsien Chen, Bing-Yu Chen, Sherry Wu, Yue Leon Guo*
- P2-317 **Volatile Organic Compounds Exposure and Pulmonary Function by Forced Oscillation Test in a Cohort of Mexican Preschoolers**  
*Albino Barraza-Villarreal, Consuelo Escamilla-Nuñez, Leticia Hernandez\_cadena, Peter Sly, Isabelle Romieu*
- P2-318 **Environmental Exposure Nox and Respiratory Symptoms in Children**  
*Consuelo Escamilla, Albino Barraza, Leticia Hernández-Cadena*
- P2-319 **Exposure to House Dust Phthalates in Relation to Asthma and Allergies in Both Children and Adults**  
*Yu Ait Bamai, Eiji Shibata, Ikue Saito, Atsuko Araki, Ayako Kanazawa, Kanehisa Morimoto, Kunio Nakayama, Masatoshi Tanaka, Tomoko Takigawa, Kaneshumi Yoshimura, Hisao Chikara, Yasuaki Saijo, Reiko Kishi*
- P2-320 **Estimation of the Effect Size of Environmental Risk Factors on Atopic Dermatitis: a Meta-Analysis**  
*Byoung-Hak Jeon, Eun-Hye Kim, Soo Eun Chung, Jihyun Kim, Kangmo Ahn, Hae-Kwan Hae-Kwan*
- P2-321 **Associations between Ambient Air Pollution and Bone Turnover Markers in Children: Results from the Giniplus and Lisaplus Studies**  
*Chuang Liu, Elaine Fuertes, Claudia Flexeder, Lorenz Hofbauer, Dietrich Berdel, Barbara Hoffmann, Juergen Kratzsch, Andrea von Berg, Joachim Heinrich*
- P2-322 **Effects of Traffic-Related Air Pollution in Schools on Working Memory Development**  
*Jordi Sunyer, Mikel Esnaola Esnaola, Mar Alvarez-Pedrerol, Joan Forn, Mar Alvarez-Pedrerol, Ioar Rivas, Mònica López-Vicente, Xavier Querol*
- P2-323 **Neurobehavioral and Neuroimaging Effects of Traffic Exposure in Children: CCAAPS Study Design and Methods**  
*Patrick Ryan, Kim Cecil, Grace LeMasters, Rachel Severs, Chris Wolfe, Kim Yolton*
- P2-324 **Intellectual Coefficient and Environmental Exposure to Air Pollutants in Mexican Children from Urban Area**  
*Leticia Hernández Cadena, David Hernández Bonilla, Ma. Consuelo Escamilla Nuñez, Ana Larissa Barbosa Sanchez, Isabel Alvarado Cruz, Marco A. Sanchez Guerra, Betzabeth Quintanilla Vega*
- P2-325 **The Effect of Roadway Proximity and Seasonality on Indoor and Outdoor Air Pollution in a Peri-Urban Community in Lima, Peru**  
*Lindsay Underhill, William Checkley, Karina Romero, Gary Malpartida, Patrick Breysse, D'Ann Williams, Elizabeth Klasen, Juan Combe, Nadia Hansel*
- P2-326 **Prevalence of Asthma Related-Illness in Children Living Near Industrial Livestock Facilities**  
*Christine L. Gray, Virginia T. Guidry, Alan Kinlaw, Devon Hall, Steve Wing*

**CLIMATE CHANGE & HEALTH EFFECTS**

- P2-327 **Methods of Quantifying Hurricane Exposure Methods and Associations with County Fetal Death Rates, Adjusting for Environmental Quality**  
*Shannon Grabich, Christine Gray, Kristen Rappazzo, Jyotsna Jagai, Lynne Messer, Danelle Lobdell*
- P2-328 **Air Pollution Effects on Mortality - Sinergyc and Isolated Effects Using Time-Series and Case-Crossover Analysis**  
*Samya Pinheiro, Paulo Saldiva, Joel Schwartz, Antonella Zanobetti*
- P2-329 **Effects of Meteorology in Cardiovascular and Respiratory Mortality in the Climate Change Scenario in Brazilian Amazon Region - Prospective Analysis**  
*Samya Pinheiro, Sandra Hacon*
- P2-330 **Association between Geomagnetic Storms, Solar Proton Events and Hospitalization for Myocardial Infarction**  
*Jolanta Antanaitiene, Jone Vencloviene*
- P2-331 **Atmospheric Pressure and Relative Humidity: Two Overlooked Meteorological Factors Associated with Mortality**  
*Yun-Feng Song, Chun-Quan Ou, Jun Yang, Li Li, Yuming Guo*
- P2-332 **Associations between Malnutrition and Climate Variability in Papua New Guinea**  
*Jin-Hee Eum, Hae-Kwan Cheong, Mina Ha, Ho Kim, Yasushi Honda, Masahiro Hashizume, Jinseob Kim, Clara Tammy Kim, Yoonhee Kim, Chisato Imai, Kasis Inape, Hyenmi Chung, Joshua Nealon, Mohd Nasir Hasaan*
- P2-333 **The Short-Term Effect of Barometric Pressure on Spontaneous Births in New York City**  
*Tara McAlexander, Kazuhiko Ito, Sarah Johnson, Zev Ross, Kathryn Lane, Beth Elston, David Savitz, Thomas Matte*
- P2-334 **Social Vulnerability to Climate Change in 108 Cities in Jalisco, Mexico: as a Basis for Community Adaptation and Resilience Measures**  
*Guadalupe Garibay-Chavez*

- P2-335 **Developing a Comprehensive Climate Change and Health Literature Search**  
*Pamela Schwingl, John Balbus, Anna Jones, Fikri Yucel, Michele Justice*
- P2-336 **Instruments for Health Adaptation in Latin America: a Tale of Two Methods**  
*Carlos Corvalan, HORACIO RIOJAS, Marilyn Aparicio-Effen, Antonieta Rojas, Harish Padmanabha, Ulisses Confalonieri*
- P2-337 **Perception, Attitude and Behavior in Relation to Climate Change: a Survey among CDC Health Professionals in Shanxi Province, China**  
*Junni Wei, Peng Bi, Alana Hansen*

**CLIMATE CHANGE & INFECTIOUS DISEASE**

- P2-338 **The Impact of Climate Change on Communicable Disease Transmission: a Survey of Perception, Attitude and Adaptation Measurements among CDC Health Professionals in Shanxi Province, China**  
*Peng Bi, Junni Wei, Alana Hansen*
- P2-339 **European Monitoring Systems and Data for Assessing Environmental and Climate Impacts on Human Infectious Diseases**  
*Gordon Nichols, Yvonne Andersson, Elisabet Lindgren, Isabelle Devaux, Jan C. Semenza*
- P2-340 **Indicators for Tracking European Vulnerabilities to the Risks of Infectious Disease Transmission Due to Climate Change**  
*Jonathan Suk, Kristie Ebi, David Vose, Willy Wint, Alexander Neil, Koen Mintiens, Jan C. Semenza*
- P2-341 **International Dispersal of Dengue through Air Travel: Importation Risk for Europe**  
*Jan Semenza, Bertrand Sudre, Jennifer Sears, Massimiliano Rossi, Wei Hu, David Kossowsky, Jonathan Suk, Wim Van Bortel, Kamran Khan*
- P2-342 **Dengue Hemorrhagic Fever Vulnerability to Climate in Indonesia: Assessment, Projection and Mapping**  
*Budi Haryanto*
- P2-343 **Spatio-Temporal Variation of Dengue Clusters in Queensland, Australia, 1993-2012**  
*Suchithra Naish, Pat Dale, Kerrie Mengersen, Shilu Tong*
- P2-344 **Tropical Climatic Variability and Dengue Hemorrhagic Fever Incidence in the City of Padang, West Sumatra, Indonesia: an Ecological Study of 16-Years Data (1998-2013)**  
*Defriman Djafri*
- P2-345 **Strengthened Capacity for Climate Change Adaptation in Health: Integrated Response to Climate Sensitive Vectorborne Diseases in Cambodia**  
*Vibol Chan, Steven Iddings, Tang Choon, Josh Nealon, Chantha Ngan, Rekol Huy*
- P2-346 **Development of Research and Innovative Policies Specific to the Water-Related Impacts of Climate Change on Health in Cambodia (Cambodia's DRIP-SWICCH Project)**  
*Vibol Chan, Lachlan McIver, Steven Iddings, Piseth Raingsey, Kol Hero*
- P2-347 **Hemorrhagic Fever with Renal Syndrome: an Ongoing Public Health Concern in China**  
*Peng Bi, Alana Hansen, Scott Cameron*
- P2-348 **The Effect of Weather on Under Five Malaria Mortality in KEMRI/CDC HDSS in Western Kenya 2003 to 2008: a Time Series Analysis**  
*Maquins Sewe*
- P2-349 **Impact of Daily Average Temperature on Annual Incidence of Scrub Typhus for Predicting**  
*Jong-hun Kim, Hae-Kwan Cheong*
- P2-350 **El Niño Southern Oscillation (ENSO) and Acute Upper Respiratory Infection in Republic of the Marshall Islands**  
*Clara Tammy Kim, Yasushi Honda, Masahiro Hashizume, Mohd Nasir Hassan, Ho Kim*
- P2-351 **Coastal Waters Ph and Enterococcus Monitoring in Michoacan, Mexico Related with Oceanic Acidification by Climate Change in 2006-2013.**  
*Alejandro Molina-Garcia*
- P2-352 **Impact Assessment of Climate Factors on the Population of Chilo Infuscatellus (Pyralidae, Lepidoptera) in Southern Areas of Pakistan**  
*Shahbaz Ahmad*
- P2-353 **The Potential Impact of Climate Change and Ultraviolet Radiation on Vaccine Preventable Infectious Diseases**  
*Biao Guo, Suchithra Naish, Wenbiao Hu*

**MATERNAL AIR POLLUTION EXPOSURE & MATERNAL EFFECTS**

- P2-354 **Air Pollution and Preeclampsia Risk in a Large U.S. Obstetric Cohort, the Consortium on Safe Labor (2002-2008)**  
*Pauline Mendola, Candace Robledo, Danping Liu, Maeve Wallace, Tuija Mannisto, Katherine Grantz*

- P2-355 **Ozone Exposure during Early Pregnancy Is Associated with Pregnancy Induced Hypertension in Japan**  
*Takehiro Michikawa, Seiichi Morokuma, Kayo Ueda, Ayano Takeuchi, Kotaro Fukushima, Kiyoko Kato, Hiroshi Nitta*
- P2-356 **Ambient Fine Particulate Matter, Nitrogen Dioxide, and Hypertensive Diseases of Pregnancy in New York City**  
*David Savitz, Beth Elston, Jennifer Bobb, Jesse Shmool, Jane Clougherty, Francesca Dominici, Kazuhiko Ito, Zev Ross, Sarah Johnson, Tara McAlexander, Thomas Matte, Gregory Wellenius*
- P2-357 **Preliminary Results from the Ulaanbaatar Gestation and Air Pollution Research (UGAAR) Study**  
*Prabjit Barn, Enkhjargal Gombojav, Buyantushig Boldbaatar, Jargalsaikhan Galsuren, Tsogtbaatar Byambaa, Craig Janes, Patricia A. Janssen, Bruce P. Lanphear, Young Man Roh, Tim Takaro, Scott A. Venners, Glenys M. Webster, Ryan W. Allen*
- P2-358 **Ambient Air Pollution and Pregnancy-Induced Hypertensive Disorders: a Systematic Review and Meta-Analysis**  
*Marie Pedersen, Leslie Stayner, Rémy Slama, Mette Sørensen, Francesc Figueras, Mark J. Nieuwenhuijsen, Ole Raaschou-Nielsen, Payam Dadvand*
- P2-359 **Impact of Air Pollution Reductions during the 2008 Beijing Olympics on Pregnancy Complications**  
*Vanessa Assibey-Mensah, Kaibo Liu, Timothy Stevens, Jinliang Zhang, Sally W. Thurston, Ying Pan, Junfeng Zhang, Cathleen Kane, Yongjie Wei, David Q. Rich*
- P2-360 **Residential Proximity to Major Roads and Obstetrical Complications**  
*Takashi Yorifuji, Hiroo Naruse, Saori Kashima, Takeshi Murakoshi, Hiroyuki Doi*

#### MATERNAL CHEMICAL EXPOSURES

- P2-361 **Cumulative Prenatal-Exposure to Exogenous Chemicals and Psychosocial Stress: Systematic Review of the Human and Non-Human Mammalian Evidence**  
*Hanna Vesterinen, Rachel Morello-Frosch, Saunak Sen, Lauren Zeise, Hira Safdir, Tracey Woodruff*
- P2-362 **Environmental Chemical Exposure in the Neonatal Intensive Care Unit**  
*Annemarie Stroustrup, Hsiao-Hsien Hsu, Jennifer Bragg, Katherine Svensson, Ying Guo, Kurunthachalam Kannan, Robert Wright*
- P2-363 **Rapid Change of Some Congenital Anomalies in Korea**  
*Dirga K. Lamichhane, Myungsook Park, Ji-Young Lee, Hwan Cheol Kim, Yun-Chul Hong, Jin Hee Kim, Jong Han Leem*
- P2-364 **Transitions in Intention to Become Pregnant in Women Enrolled in the National Children's Study Initial Vanguard Study**  
*Dean Baker, Joseph Stanford, Tiandong Li, Richard Hamman, Jennifer Kwan, Ulrike Luderer*

#### BIOMARKERS, BIOMONITORING AND PRENATAL/CHILDHOOD EXPOSURES

- P2-365 **Effect of Environmental Exposures and Diet on Genotoxicity in Newborns and Pregnant Mothers in Crete (RHEA Mother-Child Cohort)**  
*Cristina O'Callaghan-Gordo, Eleni Fthenou, Marie Pedersen, Leda Chatzi, Ana Espinosa, Marina Vafeiadi, Euripides Stephanou, Hannu Kiviranta, Marie Vahter, Rob Beelen, Mark Nieuwenhuijsen, Jos Kleinjans, Micheline Kirsch-Volders, Manolis Kogevinas*
- P2-366 **Associations between Fetal Genetic Polymorphisms and Cord Blood Sex Hormone and Protein Levels**  
*Fumihiko Sata, Akiko Eto, Atsuko Araki, Takahiko Mitsui, Yasuhiro Kanatani, Reiko Kishi, Katsuya Nonomura*
- P2-367 **Effects of Genotype on Metabolic Activities of CYP1A2, CYP2A6, XO, and NAT in Adults and Children as Determined by Caffeine Urinary Metabolite Ratios**  
*Ju Young Park, Yvonne S. Lin, Brian Phillips, Eric M. Vigoren, Beti Thompson, Elaine M. Faustman*
- P2-368 **Integration of Cortisol Biomarkers and Stress Questionnaire Responses for Assessing Acute and Chronic Prenatal Environmental Stress Exposure**  
*Marissa N. Smith, Carly E. Strecker, William C. Griffith, Tomomi Workman, Beti Thompson, Shirley AA. Beresford, Melinda Vredevoogd, Eric M. Vigoren, Elaine M. Faustman*
- P2-369 **Maternal Metabolic Profile and Foetal Growth: Large-Scale Omics Study of the INMA Mother-Child Cohort**  
*Lea Maitre, Cristina M Villanueva, Matthew R Lewis, Jesús Ibarluzea, Loreto Santa Marina, Jordi Sunyer, Muireann Coen, Mireille B Toledano*
- P2-370 **Spatial Analysis of ADHD-Related Behaviors and Exposures near the New Bedford Harbor Superfund Site**  
*Veronica Vieira, Thomas Webster, Susan Korrick*
- P2-371 **PVC Flooring at Home and Uptake of Phthalates in Pregnant Women in the Swedish SELMA Study**  
*Huan Shu, Bo AG Jönsson, Carl-Gustaf Bornehag*
- P2-372 **Biomonitoring of Perfluorinated Compounds for Korean Students**  
*Younglim Kho, Jung Hoan Kim, Pangyi Kim, Na-Yeon Park, Jung-Dae Jun, Chulmin Kim, Jae Ho Shin*

- P2-373 **Aerial Application of Mancozeb Is Associated with Elevated Urinary Ethylene Thiourea (ETU) Concentrations in Pregnant Women: the Infants' Environmental Health Study (ISA)**  
*Berna van Wendel de Joode, Ana María Mora, Leonel Córdoba, Camilo Cano, Rosario Quesada, Moosa Faniband, Catharina Wesseling, Clemens Ruepert, Mattias Öberg, Brenda Eskenazi, Donna Mergler, Christian Lindh*
- P2-374 **Environmental Exposure of Children to HCH and HCB Pesticides and Deficits in Cochlear Status**  
*Tomas Trnovec, Arturo Moleti, Renata Sisto, Lubica Palkovicova, Sona Wimmerova, Kinga Lancz, Juraj Tihanyi, Anna Fabisikova*
- P2-375 **Arsenic Exposure during the First Year of Life: Measurements and Estimates from the New Hampshire Birth Cohort Study, USA**  
*Courtney Carignan, Kathryn Cottingham, Brian Jackson, A. Jay Gandolfi, Tracy Punshon, Shohreh Farzan, Carol Folt, Margaret Karagas*
- P2-376 **Urinary Fluoride in Pregnant Women and Prenatal Fluoride Exposure and Mental Development Index (MDI) in 1-3 Year Old Infants from Mexico City, Mexico**  
*Deena Thomas, Howard Hu, Niladri Basu, E. Angeles Martinez-Mier, Brisa Sanchez, David Bellinger, Lourdes Schnaas, Adriana Mercado-Garcia, Mauricio Hernandez-Avila, M. Mara Tellez-Rojo*

**ENVIRONMENTAL CONTAMINANTS AND BREASTFEEDING**

- P2-377 **Perfluorooctanoate and Duration of Any Breastfeeding in the Health Outcomes and Measures of the Environment Study, Cincinnati, Ohio**  
*Megan E. Romano, Antonia Calafat, Kimberly Yolton, Yingying Xu, Aimin Chen, Glenys M. Webster, Bruce P. Lanphear, Joseph M. Braun*
- P2-378 **Effect of Prenatal Bisphenol A Exposure on Breastfeeding and Milk Supply in Postpartum Mexican Women**  
*Nicole Kasper, Karen E Peterson, Brisa Sanchez, Kelly K Ferguson, Zhenzhen Zhang, Alejandra Cantoral, Adrienne S Ettinger, John D Meeker, Maria M Tellez-Rojo*
- P2-379 **Breastfeeding Increases the Risk of Atopic Dermatitis Symptoms in Children**  
*Soyoung Hong, Ho-Jang Kwon, Won-Jun Choi*
- P2-380 **Fetal and Newborn Exposure and Information Requests at the British Columbia Drug and Poison Information Centre in 2012/13**  
*Linda Dix-Cooper, Tom Kosatsky*

**METABOLIC SYNDROME AND OBESITY**

- P2-381 **The Impact of Obstructive Sleep Apnea on High-Sensitivity C- Reactive Protein in Subjects with or Without Metabolic Syndrome- a Two-Year Follow-Up Study**  
*Wei-Te Wu, Su-Shan Tsai, Tung-Sheng Shih, Ming-Hsiu Lin, Tzu-Chieh Chou, Hua Ting, Trong-Neng Wu, Saou-Hsing Liou*
- P2-382 **Body Mass Index in Breast & Prostate Cancer Patients Attending the National Cancer Institute**  
*Fatima Hamad*
- P2-383 **Comparison of PPAR $\gamma$  DNA Methylation in Cord Blood and Human Mesenchymal Stem Cells to Assess Efficacy of Blood as Proxy Tissue for Obesity Studies**  
*Rosie M. Martinez, Jeffrey D. Knotts, Lori Hoepner, Deliang Tang, Robin Whyatt, Julie Herbstman, Greg A. Freyer*
- P2-384 **Ozone Exposure and Metabolic Syndrome Indicators in a Cohort of Obese Adolescents.**  
*Jorge Octavio Acosta Montes, Leticia Hernández Cadena, Ma. Consuelo Escamilla Nuñez, Aida Jiménez Corona, Blanca Estela Del Río Navarro, Feng Hung, Albino Barraza Villarreal*

**POSTER SESSION 2 - CONTINUED-**Mary Gates Hall  
Second Floor Commons**WATER QUALITY - MONITORING, SANITATION, CONTAMINATION AND TREATMENT**

- P2-385 **Studies for Intervention and Effect Assessment on Arsenism**  
*Yajuan Xia*
- P2-386 **Effect on Dental Fluorosis Epidemic Strength of Water Improvement Projects in Drinking-Water Type Fluorosis Areas in Inner Mongolia, China**  
*Yanhong Li*
- P2-387 **Spatial and Temporal Variability of Fluoride Concentrations in Groundwater Resources of Larestan and Gerash Regions in Iran from 2003 to 2010**  
*Hassan Amini, Gholam Ali Haghighat, Masud Yunesian, Ramin Nabizadeh, Naser Hassanzadeh, Amir Hossein Mahvi, Mohammad Hadi Dehghani, Rahim Davani*

- P2-388 **Occurrence of Elements in Sediments and Groundwater Supplies from Guinea Bissau (Western Africa): a Pilot Study**  
*Chiara Copat, Letizia Ferlito, Alfina Grasso, Giovanni Arena, Angela Dimartino, Cristina Mauceri, Roberto Fallico, Margherita Ferrante*
- P2-389 **Chromium Removal from Wastewater Using Moringa Stenopetala Seed Powder as an Adsorbent**  
*Dagmawi Degefu, Mekibib Dawit*
- P2-390 **Environmental Prioritization for Drugs Based on Emissions Levels in Waste Water from Hospitals and Waste Water Treatment Plants and Known Environmental Data**  
*Katja Hagström, Catharina Krumlinde, Johan Sundqvist*
- P2-391 **Recreational Exposure to Endotoxins and Acute Health Effects**  
*Benoit Lévesque, Marie-Christine Gervais, Pierre Chevalier, Denis Gauvin, Anassour Laouan Sidi Elhadji, Suzanne Gingras, Nathalie Fortin, Geneviève Brisson, Charles Greer, David Bird*
- P2-392 **Freshwater Harmful Algal Bloom Exposure – an Emerging Health Risk for Recreational Water Users**  
*Elizabeth D. Hilborn, Virginia A. Roberts, Lorraine C. Backer, Jonathan S. Yoder, Timothy J. Wade, Michele C. Hlavsa*
- P2-393 **Fabricated Immunochromatographic Strips Complemented with a New Microbial Concentrator: a Model for in Situ Detection of Bacterial Pathogens in Water Resources**  
*Neri Camitan, Maria Victoria Espaldon, Lorele Trinidad, Bernadette Mendoza*
- P2-394 **Microbial Quality of Natural Water Resources in Rural South Africa and Their Potential Influence on the Small-Scale Organic Farming Sector**  
*Fezile Mdluli, Joyce Chitja, Stefan Schmidt*
- P2-395 **Looking Back on a 5-Year Recreational Water Illness Surveillance Effort: Results and Next Steps for Sustainability**  
*Emelia Wollenburg, Mark Werner, Gina LaLiberte, Dawn Perkins*
- P2-396 **Flooding and Health Care Visits for Clostridium Difficile Infection: a Case-Crossover Analysis**  
*Cynthia Lin, Timothy Wade, Elizabeth Hilborn*
- P2-397 **A Study of Sanitation Environment and Prevalence of Diarrhea in Slums of India**  
*Bornali Dutta, Chandrashekar Chandrashekar*
- P2-398 **Predicting Nitrate Levels in Private Wells in Iowa for the Agricultural Health Study**  
*David Wheeler, Tom Nolan, Abigail Flory, Curt Dellavalle, Mary Ward*
- P2-399 **Evolution of Wisconsin's Fish Consumption Advisory Program**  
*Brooke Thompson, Emelia Wollenburg, Henry Nehls-Lowe, Mark Werner, Henry Anderson*
- P2-400 **Waste Water- an Asset or Liability? A Study on the Use of Waste Water for Irrigation in Lusaka's Kaunda Square Compound**  
*Nosiku Munyinda, Chilekwa Mibenge*

**PERSISTENT ORGANIC POLLUTANTS IN WATER AND SOIL**

- P2-401 **Ecologic Study of Recent Exposure to DDT in a Peri-Urban Community of Lusaka- Zambia**  
*Nosiku Munyinda*
- P2-402 **Plasma Liver Enzymes in Relation to p,p'-DDE and p,p'-DDT Exposure among South African Women**  
*Lea Cupul-Uicab, Riana Bornman, Kristina Whitworth, Janet Archer, Mwenda Kudumu, Gregory Travlos, Ralph Wilson, Matthew Longnecker*
- P2-403 **Pops Pesticides: Residues in Samples of Water from Sevan Lake and Rivers of Armenia**  
*Anahit Aleksandryan, Artak Khachatryan*
- P2-404 **POPS Pesticides: Residues in Bottom Sediment and Zoobenthos of Sevan Lake and Rivers of Armenia**  
*Anahit Aleksandryan, Artak Khachatryan*
- P2-405 **Human Exposure to PCDD/F in Contaminated Soil at a Former Sawmill Site in Sweden - Now a Residential Area**  
*Martin Tondel, Lena Elfman*
- P2-406 **Pesticide Exposures in Kintampo, Ghana**  
*Kenneth Ae-Ngibise, Kwaku Poku Asante, Ellen Abrifa Boamah, Darby Jack, Patrick Kinney, Robin Whyatt, Seth Owusu-Agyei, Blair Wylie*
- P2-407 **DDT Exposure and Its Associations with Pregnancy Complications in the Child Health and Development Studies Cohort**  
*Nickilou Krigbaum, Piera Cirillo, Barbara Cohn*
- P2-408 **The Perfluorochemicals (Pfc) in Homes and Gardens Study (PIHGS): Implications for Human Exposure Assessment**  
*Deanna Scher, James Kelly, Emily Hansen*
- P2-409 **The Effect of Organochlorine Pollution on the Incidence of Male Infertility under Conditions of Osh Province of Kyrgyzstan**  
*Rakhmanbek Toichuev, Dilshod Mirzakulov*

- P2-410 **Ethnic Peculiarities of Male Infertility among the Population Living in Tobacco- and Cotton-Growing Areas**  
*Rakhmanbek Toichuev, Dilshod Mirzakulov*
- P2-411 **The Correlation of Organochlorine Pesticides (Ocps) Concentration in Semen and the Development of Male Infertility under Conditions of Osh Province of Kyrgyzstan**  
*Rakhmanbek Toichuev, Dilshod Mirzakulov*
- P2-412 **Trends in Exposure to Chlorpyrifos and Pyrethroid Insecticides in the US Population**  
*Liza Valentín-Blasini, Mark D. Davis, William Roman-Esteve, Erin L. Wade*
- P2-413 **A Novel Measurement Method of Alkyl Phosphate Metabolites May Avoid Exposure Misclassification**  
*Yoram Finkelstein, Robert O. Wright, Elihu D. Richter, Uri Wormser, Amnon Sintov*
- P2-414 **Biomarker Based Validation of GIS-Modeled Ambient Pesticide Exposures**  
*Beate Ritz, Jeff Bronstein, Kim Paul, Myles Cockburn*
- P2-415 **Comparison of Self-Reported Pest Treatments and Insecticide Concentrations in Carpet Dust in the Northern California Childhood Leukemia Study**  
*Nicole Deziel, Erin Kent, Robert Gunier, Peggy Reynolds, Mary Ward, Catherine Metayer*
- P2-416 **Pesticide Exposure and Suicidal Ideation in Rural Communities of Wardha District of Central India**  
*Prakash Behere, anweshak das, aniruddh behere*
- P2-417 **Pesticide Poisoning in Sikasso: a Retrospective Review**  
*Hinde Hami, Tidiane Diallo, Ababacar Maïga, Abdelrhani Mokhtari, Rachida Soulaymani-Bencheikh, Abdelmajid Soulaymani*
- P2-418 **A Pilot Study for Evaluate the Efficacy of Some Citrus Fruits Oil Essential as Eco-Friendly Fungicides**  
*Gea Oliveri Conti, Cristina Restuccia, Lucia Parasati, Laura Venezia, Antonio Cristaldi, Stefania Morina, Margherita Ferrante*

#### SMOKING AND SECOND-HAND SMOKE EXPOSURE

- P2-419 **E-Cigarette Usage Patterns: a Survey of Smokers and E- Cigarette Users.**  
*Margherita Ferrante, Giovanni Battista Modonutti, Gea Oliveri Conti, Rossella Fazio, Fulvio Costantidines, Luca Leon, Roberto Fallico, Maria Fiore*
- P2-420 **Maternal Passive Smoking and Risk of Small for Gestational Age among Non-Smoking Chinese Women**  
*Huang Huang, Jie Qiu, Xiaochun He, Min Zhou, Xiaoying Xu, Hongmei Cui, Ling Lv, Xiaojuan Lin, Chong Zhang, HongHong Zhang, Ruifeng Xu, Daling Zhu, Ru Lin, Tingting Yao, Jie Su, Yun Dang, Xudong Han, Hanru Zhang, Haiya Bai, Ya Chen, Zhongfeng Tang, Wendi Wang, Yueyuan Wang, Xiaohui Liu, Bin Ma, Sufen Liu, Weitao Qiu, Nan Zhao, Qing Liu, Yawei Zhang*
- P2-421 **Urban Air and Passive Tobacco Smoke. Risky Conditions for Youth in the Onset of Oxidative Stress**  
*Roberto Bono, Roberta Tassinari, Valeria Bellisario, Massimiliano Bugiani, Marco Pazzi, Pavilio Piccioni*
- P2-422 **Maternal Smoking in Pregnancy and Timing of Pubertal Onset in Girls: 2004-2011**  
*Gayle C. Windham, Robert W. Voss, Mary S. Wolff, Susan M. Pinney, Frank Biro, Susan L. Teitelbaum, Larry Kushi*
- P2-423 **Exposure to Tobacco-Specific Carcinogen NNK in US Population (NHANES 2011–12): It's Urinary Metabolite NNAL Concentration and Estimated Dose**  
*Binnian Wei, Benjamin Blount, Baoyun Xia, Lanqing Wang*
- P2-424 **Measuring Tobacco Exposure in the Multi-Ethnic Study of Atherosclerosis (MESA)**  
*Karen Hinckley Stukovsky, Christine A. Toennis, Deborah L. Sammons, Lanqing Wang, Elizabeth Spalt, Cynthia L. Curl, Ana Navas-Acien, Ana Diez-Roux, R Graham Barr, Joel D. Kaufman*
- P2-425 **Secondhand Smoke Exposure in Water Pipe Venues in Turkey, Russia, and Egypt**  
*Katherine Moon, Christine Torrey, Hoda Magid, Jolie Susan, Vladimir Levshin, Asli Carkoglu, Ghada Nasr Radwan, Paul Strickland, Salahaddin Abubaker, Joanna Cohen, Ana Navas-Acien, Patrick Breyse*
- P2-426 **Compliance with Smoke-Free Tobacco Legislation in Indoor Public Places in 12 Cities in Turkey**  
*Hoda Magid, Katherine Moon, Asli Carkoglu, Gul Ergor, Mutlu Hayran, Toker Erguder, Bekir Kaplan, Jonathan Pollak, Jolie Susan, Joanna Cohen, Ana Navas-Acien*
- P2-427 **Smoke-Free Legislation and Adverse Pregnancy Outcomes in England**  
*Ioannis Bakolis, Ruth Kelly, Daniela Fecht, Nicky Best, Anna Hansell, Christopher Millett, Kevin Garwood, Paul Elliot, Susan Hodgson*

#### STATISTICAL METHODS FOR ENVIRONMENTAL EPIDEMIOLOGY

- P2-428 **Regression Discontinuity Design and Policy Evaluation: an Evaluation of Smoke Free Legislation on Adverse Pregnancy Outcomes**  
*Ioannis Bakolis, Nicky Best, Daniela Fecht, Anna Hansell, Christopher Millett, Paul Elliot, Kevin Garwood, Ruth Kelly, Susan Hodgson*

- P2-429 **Modelling the Prevalence of Respiratory Symptoms in Relation to Two Point Sources in a Northern Chilean Community**  
*Ronald F. Herrera C, Katja Radon, Ursula Berger, Daniel Moraga, Stella Cifuentes Belmar*
- P2-430 **The Association of Long-Term Exposure to PM<sub>2.5</sub> on All-Cause Mortality in the Nurses' Health Study and the Impact of Measurement-Error Correction**  
*Jaime Hart, Xiaomei Liao, Biling Hong, Robin Puett, Jeff Yanosky, Helen Suh, Marianthi-Anna Kioumourtzoglou, Donna Spiegelman, Francine Laden*
- P2-431 **Comparison of Meta-Analysis to Pooled Analysis of Studies Examining the Effects of Ambient Air Pollution on Human Mortality**  
*Rebecca Klemm, Ron Wyzga, Eddie Thomas*
- P2-432 **Multi-Pollutant Spatial Measurement Error in Air Pollution Epidemiology Arising from Predicting Exposures with Penalized Regression Splines**  
*Silas Bergen, Adam Szpiro, Lianne Sheppard, Dale Sandler, Stephanie Chan, Joel Kaufman*
- P2-433 **Model Selection and Sensitivity Analysis for Multi-Day Time-Series Analyses of the Relationship between Daily Pollutant Concentrations and Daily Cardiovascular Deaths, Considering Variations in Techniques for Control for Temperature and Relative Humidity and for Selection of Which Lag Days to Include in the Model**  
*William Wilson*
- P2-434 **Identifying and Adjusting for Length-Of-Pregnancy Bias in Estimating the Effects of Air Pollution in Birth Outcome Studies**  
*Gerald Harris, W. Douglas Thompson, Edward Fitzgerald, Daniel Wartenberg*
- P2-435 **An Exploratory Spatial Analysis of Amyotrophic Lateral Sclerosis Incidence in Ireland Over 17.5 Years (1995 – July 2013)**  
*James Rooney, Mark Heverin, Alice Vajda, Arlene Crampsie, Katy Tobin, Susan Byrne, Anthony Staines, Orla Hardiman*
- P2-436 **Understanding the Contribution of Environmental Exposures to Scholastic Achievement**  
*Sheryl Magzamen, Michael Amato, Colleen Moore, Pamela Imm, Jeff Havlena, Henry Anderson*
- P2-437 **Assessing Risk of Bias in Observational Studies for Systematic Reviews: Applying the OHAT Method in Two Case Studies**  
*Abee L. Boyles, Kristina A. Thayer, Andrew A. Rooney*
- P2-438 **Valid Gene-Environment Interactions When Improper Controls Induce Selection Bias**  
*Ryan Seals, Marc Weisskopf*
- P2-439 **A User-Friendly SAS Macro for Measurement Error Correction of Estimates of the Effect of Exposure Variables That Are Functions of a Mis-Measured Exposure History: Application to the Study of Chronic Exposure to PM<sub>2.5</sub> in Relation to All-Cause Mortality in the Nurses' Health Study**  
*Xiaomei Liao, Samuela Pollack, Donna Spiegelman*
- P2-440 **Improving Ecological Studies by Incorporating Splines**  
*Tom De Smedt, Koen Simons, Christel Faes, An Van Nieuwenhuysse, Geert Molenberghs*
- P2-441 **Hierarchical Models for Multiple Outcomes**  
*David Richardson*
- P2-442 **Application of Probabilistic Uncertainty Analysis to Estimate and Correct for Disease Misclassification Due to Loss to Follow Up in a Historical Cohort of Trichlorophenol Workers**  
*Laura Scott, George Maldonado*
- P2-443 **Model Selection in Time Series of Portuguese Hospital Admissions for Chronic Obstructive Pulmonary Disease**  
*Mónica Rodrigues*
- RESPIRATORY EFFECTS OF AIR POLLUTION**
- P2-444 **Air Pollution and Hospital Admissions for Respiratory Diseases in Portugal, 2003-2010**  
*Mónica Rodrigues*
- P2-445 **IL-4 and IL-5 Secretions Predominate in the Airways of Wistar Rats Exposed to toluene Diisocyanate Vapor**  
*Kouame Kouadio, Kui-Cheng Zeng, Abdoulaye Abba Touré*
- P2-446 **Increased Respiratory Symptoms and Medication Use in COPD Patients Living in the Vicinity of Livestock Farms**  
*Dick Heederik, Floor Borlee, Joris Yzermans*
- P2-447 **Respiratory Outcomes and Relationships to Airborne Contaminants in Two Saskatchewan Communities**  
*Shelley Kirychuk, Joshua Lawson, Donna Rennie, Donald Cockcroft, Akwasi Owusu-Kyem, George Katselis, Johanne Asselin, John Gordon*
- P2-448 **Health Impacts of the Pre-Harvest Burning of Sugarcane Straw in the State of São Paulo, Brazil**  
*Nelson Gouveia, Maria Leticia Souza Paraiso*

- P2-449 **Coarse Particulate Matter Associated with Increased Risk of Emergency Hospital Admissions for Pneumonia in Hong Kong**  
*Hong Qiu, Lin Wei Tian, Vivian C. Pun, Kin-fai Ho, Tze Wai Wong, Ignatius T.S. Yu*
- P2-450 **The Bruxair Study: Associations between Ambient Air Pollution and Acute Health Effects in Brussels**  
*Koen Simons, Ronald Buyl, Tim Nawrot, Ben Nemery, Danny Coomans, An Van Nieuwenhuysse*
- P2-451 **Association between Daily Air Pollution Levels and Asthma Emergency Department Visits in Al Jubail Industrial City, Saudi Arabia**  
*Salem AlBalawi, Anil Namdeo, Susan Hodgson, Richard McNally*
- P2-452 **Short-Term Effect of Ambient Pollen Type on Emergency Department Visits for Asthma and Other Allergic Diseases in Wake County, North Carolina, 2006-2012**  
*Xuezheng Sun, Anna Waller, Chris Fuhrmann, Lauren Thie*
- P2-453 **Hourly Difference in Air Pollution, Demographic Characteristics, and Emergency Department Visits for Asthma in Seoul, Korea**  
*Jayeun Kim, Ho Kim*
- P2-454 **Asthma Symptoms and Successful Wood-Smoke Reduction Strategies Implemented in Urban Tacoma-Pierce County, Washington**  
*Anar Shah, Erik Saganic*
- P2-455 **Outdoor Fine Particles Exposure Can Trigger Restrictive Lung Function?**  
*Alfésio L. F. Braga, Maria Lúcia Bueno Garcia, Ubiratan de Paula Santos, Paulo Afonso de André, Carmen D. S. de André, Júlio M. Singer, Paulo H. N. Saldiva*
- P2-456 **Respiratory Effects of Exposure to Car Commuting in Young Adults— a Randomized Crossover Study**  
*Rachel Golan, Roby Greenwald, Amit U Raysoni, Priya Kewada, Chandresh N Ladva, Brent Early-Jones, Andrea Winqvist, W. Dana Flanders, Jeremy A Sarnat*
- P2-457 **A Framework for Exploring the Temporal Associations between Air Quality Day Types and Pediatric Asthma: a Case Study of Atlanta, Georgia**  
*John L Pearce, Lance A Waller, Stefanie E Sarnat, Matthew J Strickland, Mitch Klein, Howard H Chang, James Mulholland, Paige E Tolbert*
- P2-458 **Respiratory and Pediatric Outpatient Visits Associated with 2013 Smog Episode in China**  
*Jinliang Zhang, Jeremiah Liu, Fahe Chai, Zhaoxing Tian, Huiqing Liu, Shulan Wang, Fenfen Wang, Tian Sang, Libo Pan, Manxiang Wang, Xiujie Fang, Yanping Zhang*
- P2-459 **Outdoor Air Pollution and Emergency Department Visits for Respiratory Illness in Greater Tunis District, between 2007 and 2010**  
*Hedia Bellali, Chahida Harizi, Aicha Hechaichi, Refka Zaghouani, Nissaf Ben Alaya*

**CLIMATE CHANGE & INFECTIOUS DISEASE**

- P2-460 **Relationship between ZCL and Climatic and Environmental Conditions in Central Tunisia**  
*Hedia Bellali, Chahida Harizi, Aicha Hechaichi, Refka Zaghouani*

**CLIMATE CHANGE & HEALTH EFFECTS**

- P2-461 **Epidemiology of Deaths by Lightning in the State of São Paulo-Brazil and Impacts of Development and Environmental Factors**  
*Telma Nery, Farida Pereira, Rogerio Christensen*

**ENVIRONMENTAL POLICY & MODELING**

- P2-462 **Health Surveillance Considering Environmental Chemicals-Reporting Practices of Local, Regional and State Governments in the State of Sp / Brazil**  
*Telma Nery, Rogerio Christensen, Farida Pereira, Roseane Souza*
- P2-463 **Environmental Considerations and Chemical in Preparation of Health Service On Event of Mass (Many People) – Cup of World Football 2014 – Brazil**  
*Telma Nery, Roseane Souza, Andre Pereira Leite*
- P2-464 **Sectoral Structure of Health Plans for Adaptation and Climate Change Mitigation across the State of São Paulo - Brazil**  
*Telma Nery, Eduardo Jorge Sobrinho, Rogerio Araujo Christensen, Roseane Maria Souza*
- P2-465 **Combined Evaluation of International Estimations of Environmentally Attributable Disability-Adjusted Life Years and Health Care Costs to Support National Decision-Making**  
*Myriam Tobollik, Nadine Steckling, Hanna Mertes, Thomas Claßen, Gunnar Paetzelt, Johann Popp, Joana Roos-Bugiel, Zita Schillmöller, André Conrad, Dirk Wintermeyer, Claudia Hornberg*
- P2-466 **Health Impact Assessment of Two Transport Policies in Rotterdam, Netherlands: Decrease of Traffic and Increase of Electric Car Use**  
*Myriam Tobollik, Menno Keuken, Pierpaolo Mudu*

- P2-467 **What's worse; Risk of 6 Month Reduction of Life Expectancy Due to Traffic-Related Air Pollution or 10 % Increase in Severe Traffic Noise Annoyance? Results from the Multi-Country INTARESE Project**  
*Tiffany Istamto, Danny Houthuijs, Erik Lebret*
- P2-468 **Older Adults Reduce Their Exposure to Ambient Air Pollution: Results of the National-Scale Activity Survey (N-SAS)**  
*Susan Lyon Stone, Stephen Graham, Carol Mansfield, Zachary Pekar, Brooks Depro, Kristin Isaacs*
- P2-469 **Nox Control for Reducing Ozone Health Effects in a Changing World**  
*Amanda Pappin, Michelle Bell, Amir Hakami*
- P2-470 **Selective Nox Control for Exposure and Attainment- Based Policy Metrics**  
*Amir Hakami, Amanda Pappin*
- P2-471 **Status of the Legislation and Regulatory Control of Air Quality in Latin America and the Caribbean**  
*Agnes Soares da Silva, Horacio Riojas Rodriguez, Maria Lourdes Ponz*
- P2-472 **Addressing Global Mortality from PM<sub>2.5</sub>**  
*Joshua Apte, Julian Marshall*
- P2-473 **Does the Pollutant Standards Index (PSI) Reflect Health Implications for Susceptibility?**  
*Mu-Jean Chen, Jin-Yuh Hsu, Tzu-Yu Lin, Yu-Cheng Chen*
- P2-474 **Assessment of Health Impact Functions Used in Estimating Economic Damages of Climate Change**  
*Kevin Cromar, Peter Howard, David Anthoff*
- P2-475 **Korea's Climate Change and Health Forum: the Role of Scientific Experts in Climate Change Adaptation Policy for Public Health**  
*Jae-Yeon Jang, Hyun-Jin Han, Hyung-Nam Myung, Soo-Nam Jo, Kyung-Eun Lee*
- P2-476 **Trends in Mortality for Non-Communicable Diseases in Mexican Border Municipalities**  
*Gabriel Anaya, Wael Al-Delaimy, Melissa Floca*
- P2-477 **Towards Integration of Ecosystem and Human Health: a Novel Conceptual Framework for the Operationalisation of Ecological Public Health**  
*Stefan Reis, Lora Fleming, Sheila Beck, George Morris, Michael Depledge, Timothy Taylor, Mathew White, Rognvald Smith, Jan Dick, Melanie Austen*
- P2-478 **Opportunities and Challenges in Public Health Data Collection in Southern Asia: Examples from Western India and Kathmandu Valley, Nepal**  
*Amruta Nori-Sarma, Anobha Gurung, Michelle L. Bell*
- P2-479 **Monetizing the Societal Costs of Lead Health Outcomes**  
*Ronnie Levin*
- P2-480 **Environmental Health Tracking in Ontario, Canada: Progress toward Evidence-Based Environmental Health Policies**  
*Elaina MacIntyre, Emily Peterson, Hong Chen, Ray Copes*
- P2-481 **Application of the Navigation Guide Systematic Review Methodology to Assessing the Potential Developmental and Reproductive Hazards of Triclosan**  
*Paula Johnson, Hanna Vesterinen, Patrice Sutton, Dylan Atchley, Saunak Sen, Lisa Bero, Tracey Woodruff*

#### CARDIOVASCULAR EFFECTS OF AIR POLLUTION

- P2-482 **Evaluating the Short-Term Associations between PM<sub>2.5</sub>, Black Carbon, and Cardiovascular Diseases in a Large Developing Megacity**  
*Daniel Malashock, Haider Khwaja, Zafar Fatmi, David Carpenter, Azhar Siddique*
- P2-483 **Obesity and the Cardiovascular Health Effects of Fine Particulate Air Pollution: a Review**  
*Scott Weichenthal, Jane A Hoppin, Francois Reeves*
- P2-484 **Traffic-Related Air Pollution and the Onset of Myocardial Infarction: Disclosing Benzene as a Trigger? A Small-Area Case-Crossover Study.**  
*Denis Bard, Wahida Kihal, Charles Schillinger, Christophe Fermanian, Claire Ségala, Sophie Glorion, Dominique Arveiler*
- P2-485 **The Effect of Secondary Inorganic Aerosols, Soot and the Origin of Air Mass on Acute Myocardial Infarction Hospitalisations in Gothenburg, Sweden: a Case-Crossover Study**  
*Janine Wichmann, Karin Sjöberg, Lin Tang, Marie Haeger-Eugensson, Annika Rosengren, Eva M Andersson, Lars Barregard, Gerd Sallsten*
- P2-486 **Risk of Myocardial Infarction Associated with Increased Particulate Matter Concentration: Effect Modification by Air Mass Back Trajectory**  
*David Q. Rich, Mark Utell, Frederick Ling, Mark Frampton, Wojciech Zareba, Cathleen Kane, Nichole Baldwin, Philip K. Hopke*
- P2-487 **A Systematic Review of the Cardiovascular Health Effects Associated with Ambient Black Carbon**  
*Tom Luben, Jennifer Nichols, Elizabeth Oesterling Owens, Steven Dutton, Jason Sacks, Ellen Kirrane, Meagan Madden, Laura Datko-Williams*

- P2-488 **Association between Air Pollutants and Hospital Admissions Due to Cardiovascular Disease in Tainan, Taiwan**  
*Shao-Wei Yang, Ya-Yun Cheng, [How-Ran Guo](#)*
- P2-489 **Particulate Air Pollution, Ambulatory Heart Rate Variability, and Cardiac Arrhythmia in Retirement Community Residents with Coronary Artery Disease**  
*Scott Bartell, John Longhurst, Thomas Tjoa, Constantinos Soutias, Ralph Delfino*
- P2-490 **Association of Particle Number Concentration Adjusted for Time-Activity with Blood Pressure and Ankle Brachial Index**  
*Laura Corlin, Mark Woodin, Kevin J Lane, Allison P Patton, Mohan Thanikachalam, Doug Brugge*
- P2-491 **Association of Chronic Exposure to Ultrafine Particles with Cardiovascular Disease, Diabetes and Hypertension**  
*Yu Li, Kevin Lane, Allison P. Patton, Mark Woodin*
- P2-492 **Personal Monitoring of Traffic-Generated Fine Particles Exposure Better Estimates Its Effects on Blood Pressure**  
*Maria Lucia Bueno Garcia, Ubiratan Paula Santos, Alfesio L F Braga, Paulo Afonso Andre, Carmen D. S. Andre, Julio M Singer, Paulo H N Saldiva*
- P2-493 **Endotoxin in Concentrated Ambient Particles Induces Rapid Blood Pressure Elevation in Controlled Human Exposures**  
*Jia Zhong, Bruce Urch, Mary Spec, Brent Coull, Andrea Baccarelli, Petros Koutrakis, Peter Thorne, James Scott, Ling Liu, Rob Brook, Behrooz Behbod, Tania Kotlov, Frances Silverman, Diane Gold*
- P2-494 **Long-Term Residential Coarse Particulate Matter Concentrations and the Progression of Atherosclerosis: the Multi-Ethnic Study of Atherosclerosis and Coarse Particles (MESA Coarse)**  
*Sara Adar, Jennifer D'Souza, Amanda Gasset, Lianne Sheppard, David Jacobs, Gregory Burke, Martha Daviglus, Joseph Polak, Matthew Budoff, Ana Diez Roux, Joel Kaufman, Timothy Larson*
- P2-495 **PM<sub>2.5</sub> and Erectile Dysfunction in the Multi-Ethnic Study of Atherosclerosis (MESA)**  
*Griffith Bell, Kanchan Chitale, Joshua Keller*
- P2-496 **Ambient Air Pollution and Emergency Department Visits for Stroke**  
*Jungwoo Sohn*
- P2-497 **Fine Particulate Matter and Deaths from Heart Diseases in U.S. Counties**  
*Lina Balluz, Yongping Hao*
- P2-498 **Ischemic Heart Disease Mortality and Exposure to Ozone among 198 U.S. Counties in 2007 and 2008**  
*Xiao Jun (John) Wen, Chaoyang Li, Yongping Hao, Jing Fang, Lina Balluz*
- P2-499 **Long-Term Exposure to Air Pollution and Mortality or Readmission among Acute Coronary Syndrome Survivors in the Greater London Area**  
*Cathryn Tonne, Jaana I Halonen, H Ross Anderson, Sean D Beevers, David Dajnak, Frank J Kelly, Paul Wilkinson*
- P2-500 **Cardio-Respiratory Mortality and Short-Term Exposure to Air Pollution in Stockholm: Effect Modification by Age, Gender and Previous Hospital Care**  
*Auriba Raza, Tom Bellander, Tomas Lind, Petter L.S. Ljungman, Göran Pershagen, Getahun Bero-Bedada*
- P2-501 **Low Air Pollution and Cardiovascular Mortality: a Population Based Case-Crossover Study.**  
*Ragnhildur G. Finnbjornsdottir, Vilhjalmur Rafnsson, Bjarki Thor Elvarsson, Anna Oudin, Thorarinn Gislason*
- P2-502 **Air Pollution and Cardiovascular Mortality in Kerman, Iran; from 2006 to 2011**  
*Narges Khanjani, Seyed Yaser Hashemi*
- P2-503 **The Impact of Fine Particle Pollution on Circulatory System Diseases Mortalities in Guangzhou City, China**  
*Guoxing Li*
- P2-504 **Spatiotemporal Analysis of Particulate Air Pollution and Ischemic Heart Disease Mortality in Beijing, China**  
*Meimei Xu, Yuming Guo, Fengchao Liang, Yunzheng Mo, Xiaochuan Pan*
- P2-505 **Assessing the Health Benefits of Reducing Particulate Matter Air Pollution during the Beijing Olympics: an Accountability Study**  
*Chang Su, Regina Hampel, Susanne Breitner, Alexandra Schneider, Xiao chuan Pan, Annette Peters*
- P2-506 **The Spatial-Temporal Relationship between Ambient Particulate Matter and Daily Cardiovascular Mortality in Beijing, China**  
*Yajuan Zhang, Yuming Guo, Guoxing Li, Jian Zhou, Ji Li, Xiaobin Jin, Wuyi Wang, Xiaochuan Pan*
- P2-507 **The Health Impact of Particulate Matter Characteristic after the Intervention in Ulaanbaatar, Mongolia**  
*Delgerzul Lodoisamba, Lodoysamba Sereeter, Christa Hasenkopf*
- P2-508 **Development of an Exposition Device to Evaluate the Effects on Heart Failure of a Controlled Air Pollution Exposition**  
*Paulo André, Jefferson Vieira, Edimar Bocchi*

- P2-509 **Long Term Exposure to Fine Particulate Matter and Mortality among Women Enrolled in the Canadian National Breast Screening Study**  
*Paul Villeneuve, Teresa To, Scott Weichenthal, Dan Crouse, Aaron van Donkelaar, Randall Martin, Claus Wall, Rick Burnett, Anthony Miller*
- P2-510 **The Effects of Seasonal Temperature Changes on Heart Rate Variability for Healthy Elder People in a Subtropical City**  
*Li-Te Chang, Chin-Sheng Tang, Po-Chun Huang, Shih-Chun Candice Lung*
- P2-511 **The Seasonality and Interaction between Fine Particulate Air Pollution and Temperature in Cardiovascular Hospitalization in NYS**  
*Wan-Hsiang Hsu, Patrick Kinney, A. Gregory DiRienzo, Syni-An Hwang, Shao Lin*
- P2-512 **Cardiovascular Responses and Retrotransposons DNA Methylation Changes after Short-Term Occupational Metal Fume Exposure**  
*Tianteng Fan, Shona Fang, Jennifer Cavallari, Ian Barnett, Zhaoxi Wang, Li Su, Hyang-Min Byun, Xihong Lin, Andrea Baccarelli, David Christiani*
- P2-513 **Vascular Endothelial Dysfunction: the Putative Interface of Cardiovascular Risk Factors Affecting Populations Living with and Without HIV in Sub-Saharan Africa**  
*Patrick De Boever, Nandu Goswami, Chantal Akoua-Koffi, Benson Estembale, Evelyn Stelzl, Harald Kessler, Tim Nawrot, Hans Strijdom*
- P2-514 **Retinal Microcirculation Changes Are Not Mediating the Association between Blood Pressure and Subchronic Black Carbon Exposure**  
*Tijs Louwies, Patrick De Boever, Luc Int Panis, Tim Nawrot*

**GENETIC AND EPIGENETIC PROCESSES**

- P2-515 **Pilot Study to Compare DNA Methylation Patterns in Blood and Saliva in Respiratory Allergy Cases and Healthy Controls**  
*Patrick De Boever, Sophie Traen, Katarzyna Szarc vel Szic, Ken Declerck, Gudrun Koppen, Anne Schepers, Guy Van Camp, Greet Schoeters, Wim Vanden Berghe, Sabine Langie*
- P2-516 **Fine Particles Exposure in the Relation to DNA Methylation**  
*Hsi-Yaun Chiu, Yu-Ting Lin, Bing-Fang Hwang*
- P2-517 **Mercury Exposure, DNA Methylation, and Cardiometabolic Risk**  
*Jaclyn M. Goodrich, Niladri Basu, Alfred Franzblau, Joseph Kochmanski, Anna Sadovnikova, Hwai-Nan Chou, Dana C. Dolinoy*
- P2-518 **Association between Polymorphisms of Antioxidant Gene (Mnsod, CAT and Gpx1) and Risk of Coronary Artery Disease**  
*Chih-Ching Yeh, Hseng-Long Yeh, Li-Tang Kuo, Fung-Chang Sung*
- P2-519 **Modifying Effect of Single-Nucleotide Polymorphism on Blood Hg Level and Association between Blood Hg Level and Dietary Exposure to Hg Level**  
*Ji Ae Lim, Ho-Jang Kwon, Jung-Duck Park, Heon Kim, Yong-Dae Kim, Sang-Yong Eom, Hyungryul Lim*
- P2-520 **Characterization of DNA Methylation in Short Tandem Repeats in Human Genome**  
*Lifang Hou, Zhou Zhang, Yinan Zheng, Wei Zhang, Xu Zhang, Xiao Zhang, Andrea Baccarelli, Tao Gao, Jane Hoppin*
- P2-521 **Blood Methylomics in Response to Arsenic Exposure in a Low-Exposed US Population**  
*Lifang Hou, Xin Liu, Yinan Zheng, Wei Zhang, Xiao Zhang, Donald Lloyd-Jones, Andrea Baccarelli, Hongyan Ning, Myriam Fornage, Ka He, Kiang Liu*
- P2-522 **Short-Term Airborne Particulate Matter Exposure Alters the Methylomic Landscape of MAP Kinase Pathway Genes in the Normative Aging Study**  
*Juan Carmona, Tamar Sofer, Laura Cantone, John Hutchinson, Brent Coull, Arnab Maity, Xihong Lin, Joel Schwartz, Andrea Baccarelli*
- P2-523 **Mitochondrial DNA Methylation in Boilermaker Construction Workers Exposed to Metal Particulates**  
*Hyang-Min Byun, Elena Colicino, Tianteng Fan, David C. Christiani, Andrea A. Baccarelli*
- P2-524 **Trends in Cadmium Exposure and Related Gene-Specific Methylation among a Thai Cohort, 2007-2012**  
*Katie Rentschler, Shama Virani, Werawan Ruangyuttikarn, Muneko Nishijo, Witaya Swaddiwudhipong, Niladri Basu, Laura S. Rozek*

**WATER QUALITY - HEALTH OUTCOMES**

- P2-526 **An Ecologic Study of Nitrate Contamination of Community Water Systems and Adverse Birth Outcomes in Six Midwestern States**  
*Mary Turyk, Kirsten AlMBERG, Rachael Jones, Judith Graber, Robert Anderson, Elizabeth Banda, Leslie Stayner*

- P2-527 **Ingestion of Nitrate and Nitrite from Drinking Water and Diet: a Prospective Analysis of Epithelial Ovarian Cancer Risk among Postmenopausal Women in Iowa**  
*Maki Inoue-Choi, Rena Jones, Kristin Anderson, Kenneth Cantor, James Cerhan, Stuart Krasner, Kim Robien, Peter Weyer, Mary Ward*
- P2-528 **Seasonal Variation of Urinary Trichloroacetic Acid (TCAA) Concentrations Measured on Multiple Consecutive Days in a Prospective, Pre-Conception Cohort**  
*Kyley Cox, Christina Porucznik, James VanDerslice, Joseph Stanford, Diana Wilkins, Eric Brozek, David Anderson, Nicole Bailey*
- P2-529 **Birth Defects and Disinfection By-Product Exposures and Source Water**  
*J. Michael Wright, Zorimar Rivera-Núñez, Amanda Evans*
- P2-530 **The Genotoxicity Monitoring and Risk Assessment of Water Environment in a River Basin Region**  
*Libo Pan, Tiansen Zou, Jinliang Zhang*
- P2-531 **The Impact of Sodium Fluoride on Reproductive Function of Female Mice and Behavior of the Offspring**  
*Jian Zhou, Honghui Li, Lingqin Zhu, Huifang Yang, Yanhong Cui, Zhimei Li*
- P2-532 **Influence of Granular Activated Carbon Water Filtration on Metal and Persistent Organic Pesticide Biomarker Concentrations in Girls the Greater Cincinnati OH Area**  
*Susan M. Pinney, Robert L Herrick, Robert Bornschein, Kathleen Caldwell, Andreas Sjodin, Gayle C. Windham, Frank M. Biro*
- P2-533 **A Case Control Study of Cardiovascular Disease and Arsenic Exposure in Inner Mongolia, China**  
*Tim Wade, Yajuan Xia, Kegong Wu, Judy Mumford, X. Chris Le, Elizabeth Sams*

**MICROBIAL PROCESSES IN ENVIRONMENT AND DISEASE**

- P2-534 **Environmental Exposures Are Important Risk Factors for Toxoplasma Gondii and Helicobacter Pylori Infection**  
*Reagan Converse, Tim Wade*
- P2-535 **Targeted 16s PCR, Sequencing and Phylotyping of Human Oral Microbiome in a Pesticide-Exposed Agricultural Community in the Yakima Valley of Eastern Washington State**  
*Ian Stanaway, Foad Green, Carly Strecker, Sungwoo Hong, James Wallace, Beti Thompson, Elaine Faustman*
- P2-536 **The Influence of Obesity on Methylmercury Exposure: Analysis of NHANES (2009-2010)**  
*Sarah Rothenberg, Susan Korrick*
- P2-537 **The Epidemiology and Public Health Importance of Cystic Echinococcosis in the Pastoralist Production System of Karamoja Region, Uganda**  
*Inangolet Francis Olaki*
- P2-538 **Association between Classroom Relative Humidity Levels and Incidence of Influenza-Like Illness among Teachers**  
*Kim Angelon-Gaetz, Sarah Radke*
- P2-539 **Increased Liver Cancer Risk among Patients with Pulmonary Tuberculosis**  
*Tsui-Ming Chang, Fang-Yang Wu, Fung-Chang Sung*
- P2-540 **Population Mixing and the Risk of Childhood Leukemia: a Nationwide Cohort Study**  
*Judith E Lupatsch, Claudia E Kuehni, Felix Niggli, Roland A Ammann, Matthias Egger, Ben D Spycher*

**POSTER SESSION 2 - CONTINUED-**Mary Gates Hall  
Room 282**PERSISTENT ORGANIC POLLUTANTS - PERFLUORINATED COMPOUNDS**

- P2-541 **Perfluorinated Compounds, Thyroid Function, and Neuropsychological Status in Older Adults**  
*Srishti Shrestha, Edward Fitzgerald, Michael Bloom, Recai Yucel, Richard Seegal*
- P2-542 **Intra-Individual Differences in Serum Concentrations of PFOS and PFOA in Swedish Men between 1990/91 and 2002/03**  
*Lars Rylander, Anna Rignell-Hydbom, Sara Holmberg, Bo AG Jönsson, Christian H Lindh, Anders Thelin*
- P2-543 **Does Perfluorooctanoic Acid (PFOA) or Perfluorooctane Sulfonate (PFOS) Suppress Immunoprotection in Adults?**  
*Tony Fletcher, Clare Looker, Mike Luster*
- P2-544 **Association between Perfluoroalkyl Substances and Reproductive Hormones in Adolescents and Young Adults**  
*Meng-Shan Tsai, Chien-Yu Lin, Ching-Chun Lin, Ta-Chen Su, Pau-Chung Chen*
- P2-545 **Levels of Pfhxs and PFOS in Serum from Drinking Water Exposed Mothers, at Delivery and 12 Years Later**  
*Irina Gyllenhammar, Urs Berger, Maria Sundström, Michael Radke, Sanna Lignell, Marie Aune, Per Ola Darnerud, Natalia Kotova, Anders Glynn*

- P2-546 **Prenatal Exposure for Perfluorinated Compounds Related to Lower Birth Weight in Swedish Children**  
*Carl-Gustaf Bornehag, Sverre Wikström, Cecilia Boman, Christian H Lindh, Bo AG Jönsson*
- P2-547 **Prenatal Exposure of Perfluorinated Compounds in Relation to Birth Weight**  
*Eun Jin Kwon, Byung-Mi Kim, Hye Sook Park, Young Ju Kim, Young Jim Kho, Na-youn Park, Eun-Kyo Park, Eun-Hee Ha*
- P2-548 **Risk Assessment and Management of Perfluorinated Alkyl Acid-Contaminated Drinking Water**  
*Anders Glynn, Emma Halldin Ankarberg, Lindberg Torbjörn, Salomon Sand, Sanna Lignell*

**AIR POLLUTION: NON-URBAN EXPOSURE**

- P2-549 **Effects of Asian Dust Storm Events on Enterovirus Infection with Severe Complications in Taiwan**  
*Nai-Tzu Chen, Mu-Jean Chen, Huey-Jen Su*

**POSTER SESSION 2 - CONTINUED-**Mary Gates Hall  
Room 248**PERSISTENT ORGANIC POLLUTANTS - MONITORING**

- P2-550 **Identifying Cumulative Exposures to Chemicals in Pregnant Women – a Non-Targeted Exposome Approach**  
*Janet Pan, Roy R. Gerona, Matthew W. Friesen, Carrie A. Dickenson, Tracey J. Woodruff*
- P2-551 **Comparison of Persistent Organic Pollutants (Pops) and Metals in Primiparous Women from Canada and Mexico**  
*Bryan Adlard, Karelyn Davis, Chun Lei Liang, Meredith Curren, Sandra Rodríguez-Dozal, Horacio Riojas-Rodríguez, Warren Foster, Lee-Yang Wong, Jean-Philippe Weber, Leonora Marro, Jay Van Oostdam*
- P2-552 **Taiwan Environmental Survey for Toxicants (Tests): Human Bio-Monitoring Study of Phthalates Exposure**  
*Po-Chin Huang, Wen-Han Pan, Wei-Yen Liang, Sin Mei Lo, Sih-Syuan Li, Hsin-Pin Chiu, Hung-Che Chiang*
- P2-553 **Human Exposure to Original and Replacement Chemicals in Consumer and Personal-Care Products Follows Market Trends**  
*Antonia Calafat, Xiaoyun Ye, Liza Valentín-Blasini, Andreas Sjodin*
- P2-554 **Epidemiology of Deaths and Problem of Health by Agrottoxics in The State of São Paulo-Brazil, 2004 to 2014**  
*Telma Nery, Mirta Silva, Freitas Clarice, Roseane Souza, Rogerio Christensen, Graziela Silva, Zaira Mancilho*

**PERSISTENT ORGANIC POLLUTANTS - CARDIOVASCULAR AND METABOLIC EFFECTS**

- P2-555 **Urine Phthalates Metabolites, Coronary Heart Disease, and Atherothrombotic Markers in a Case-Control Study of Middle-Aged Adults**  
*Ta-Chen Su, Shu-Li Wang, Juey-Jen Hwang*
- P2-556 **Do Organochlorine Substances Mediate the Association between Age and Type II Diabetes?**  
*Aaron Sobkowicz, Azadeh Alimidad, Lawrence C. McCandless, Gordon L. Grenon, Scott A. Venners*
- P2-557 **Sex-Specific Associations between Environmental Polycyclic Aromatic Hydrocarbons and Insulin Resistance in Elderly Adults**  
*Yoon-Hyeong Choi, Jin Hee Kim, Yun-Chul Hong*

11:50 - 14:00

**Ancillary Meetings**

- Asia Chapter Member Meeting HUB 334
- EU Chapter Meeting HUB 332  
**Session Chair:** Manolis Kogevinas
- Ethics and Philosophy Committee HUB 337  
**Session Chair:** Wael Al-Delaimy

14:00 - 15:30		Parallel Sessions	
14:00 - 15:30	S.12	<b>TOWARD PREDICTING AND PREVENTING DENGUE FEVER TRANSMISSION</b> Session Chairs: Mary Hayden and Joacim Rocklöv	HUB 334
S-050		<b>Disease Vector Mapping Via Environmental, Climatological and Sociological Factors</b> <i>Andrew J Monaghan, Mary H Hayden, Daniel F Steinhoff, Carols Welsh Rodriguez, Kacey C Ernst, Lars Eisen, Saul Lozano Fuentes, Paul Bieringer</i>	
S-051		<b>The Role of Climate on Dengue Dynamics and Establishment in Uninfected Regions</b> <i>Yien-Ling Hii, Jing Helmersson, Joacim Rocklöv</i>	
S-052		<b>Mapping Risk Areas for Dengue Fever in Europe</b> <i>Jan Semenza</i>	
S-053		<b>Differential Emergence of Dengue in the Arizona-Sonora Desert Region: Understanding the Role of Social and Environmental Factors</b> <i>Kacey C Ernst, Mary H Hayden, Kathleen Walker, Lucia Castro, Rolando Caravantes, Pablo Castro-Reyes, Andrew Monaghan, Steven Haenchen, Michael Riehle</i>	
14:00 - 15:30	S.13	<b>HEALTH EFFECTS OF GREENSPACE: EVIDENCE FROM EPIDEMIOLOGICAL STUDIES</b> Session Chair: Dr. Joachim Heinrich	HUB South Ballroom
S-054		<b>Greenness and Health: Using Linked Data to Disentangle Effects from Spatially Correlated Built Environment Factors</b> <i>Michael Brauer, Perry Hystad</i>	
S-055		<b>Trees and Cardiovascular Health: Evidence from the Women's Health Initiative</b> <i>Geoffrey Donovan</i>	
S-056		<b>Residential Greenness Reduces Depression Risk in a Cohort of Adult Women</b> <i>Peter James, Rachel Banay, Jaime Hart, Olivia Okerere, Francine Laden</i>	
S-057		<b>Access to Urban Green Spaces and Behavioural Problems in Children: Results from the Giniplus and Lisplus Studies</b> <i>Iana Markevych, Carla M.T. Tiesler, Elaine Fuertes, Marcel Romanos, Payam Dadvand, Mark J. Nieuwenhuijsen, Dietrich Berdel, Sibylle Koletzko, Joachim Heinrich</i>	
S-058		<b>Is Residential Green Space Associated with Increased Physical Activity, and Reduced Obesity among Women? Findings from the Sister Study</b> <i>Paul Villeneuve, Dale Sandler, Sandra L Deming-Halverson, Michael Jerrett, Scott Weichenthal, Jason Su</i>	
S-059		<b>Risks and Benefits of Green Spaces for Children; Associations with Inactivity, Obesity, Asthma, and Allergy</b> <i>Payam Dadvand, Cristina M. Villanueva, Laia Font-Ribera, David Martinez, Xavier Basagaña, Jordina Belmonte, Martine Vrijheid, Regina Gražulevičienė, Manolis Kogevinas, Mark J Nieuwenhuijsen</i>	
14:00 - 15:30	S.14	<b>NEW METHODS TO ASSESS THE HEALTH EFFECTS OF AIR QUALITY ACTIONS</b> Session Chairs: Francesca Dominici and Annemoon van Erp	HUB 332
S-060		<b>Flexible Multi-Level Models for Health Effects of Air Quality Actions: Results from the Children's Health Study</b> <i>Kiros Berhane, Jim Gauderman, Chih-Chieh Chang, Robert Urmann, Frank Gilliland</i>	
S-061		<b>Quasi-Experimental Methods to Assess Health Effects of Air Quality Actions</b> <i>Arden Pope</i>	
S-062		<b>Causal Effects of Regulatory Interventions: Beyond Exposure-Response Functions in Air Pollution Epidemiology</b> <i>Corwin Zigler, Francesca Dominici</i>	
14:00 - 15:30	O.22	<b>OUTSIDE THE BOX - AN EXPANDED VIEW OF ENVIRONMENTAL FACTORS COMPROMISING CHILD LUNG HEALTH</b> Session Chairs: Catherine Karr and Randi J Bertelsen	HUB 160 (Lyceum)
O-119		<b>Early-Life Organophosphate Exposure Associated with Lung Function in Children in the Chamacos Cohort</b> <i>Rachel Raanan, John Balmes, Kim Harley, Asa Bradman, Sheryl Sheryl.Magzamen@colostate.edu, Michelle Vedar, Robert Gunier, Brenda Eskenazi</i>	
O-120		<b>Chlorpyrifos Exposure and Respiratory Health among Egyptian Adolescent Agricultural Workers</b> <i>Catherine Callahan, Manal Al-Batanony, Ahmed A. Ismail, Gaafar Abdel Rasoul, Olfat Hendy, James R. Olson, Diane S. Rohlman, Matthew R. Bonner</i>	

- O-121 **Childhood Asthma Severity Indicators in Relation to Rural Dwelling**  
*Joshua Lawson, Donna Rennie, Roland Dyck, Don Cockcroft, Oluwafemi Oluwole, Anna Afanasieva*
- O-122 **Particulate Matter Composition and Respiratory Health at Age 11 Years – the PIAMA Birth Cohort Study**  
*Ulrike Gehring, Rob Beelen, Marloes Eeftens, Gerard Hoek, Kees de Hoogh, Johan C. de Jongste, Menno Keuken, Gerard H. Koppelman, Kees Meliefste, Marieke Oldenwening, Dirkje S. Postma, Lenie van Rossem, Meng Wang, Henriette A. Smit, Bert Brunekreef*
- O-123 **A Longitudinal Study of Children's and Adolescents's Asthma, Atopy, and Lung Function Exposure to Hebei Spirit Oil Spill: Until 5 to 6 Years after the Accident**  
*Su Ryeon Noh, Jung Ah Kim, Eun Kyoung Yang, Gwi Heum Eom, Young-Hyun Choi, Mina Ha, Hae-Kwan Cheong*
- ETH-08 **Outside the Box – An Expanded View of Environmental Factors**  
*Jutta Lindert*

14:00 - 15:30

O.23

**EARLY LIFE ENDOCRINE DISRUPTOR EXPOSURE AND NEUROBEHAVIOR IN SCHOOL-AGED CHILDREN**

HUB 145

Session Chairs: Kim Harley and Ana Maria Mora

- O-124 **Persistent Effects of Maternal Prenatal Exposure to Phthalates on Child IQ at Age 7 Years**  
*Robin Whyatt, Beverly Insel, Antonia Calafat, Xinhua Liu, Rauh Virginia, Pam Factor-Litvak*
- O-125 **Phthalate Concentrations in House Dust in Relation to Autism Spectrum Disorder in the CHARGE (Childhood Autism Risk from Genes and Environment) Study.**  
*Claire Philippat, Paula Krakowiak, Melissa Rose, Deborah Bennett, Irva Hertz-Picciotto*
- O-126 **Prenatal Exposure to Pbdes and Measures of Social Cognition at 9 Years of Age in the CHAMACOS Study**  
*Sharon Sagiv, Kim Harley, Katherine Kogut, Andreas Sjödin, Kimberley Parra, Asa Bradman, Nina Holland, Brenda Eskenazi*
- O-127 **Brominated Flame Retardants and Cognitive Performance among 6-Year-Old Children of the Mother-Child PELAGIE Cohort**  
*Emilie Tremblay, Charline Warembourg, Agnes Lacroix, Christine Monfort, Florence Rouget, Gina Muckle, Gaid Le Maner-Idrissi, Barbara Le Bot, Cecile Chevrier*
- O-128 **Prenatal Exposure to Perfluorinated Chemicals, Attention-Deficit/Hyperactivity Disorder and Autism**  
*Zeyan Liew, Beate Ritz, Ondine von Ehrenstein, Bodil Bech, Ellen Nohr, Chunyuan Fei, Rossana Bossi, Tine Henriksen, Eva Bonefeld-Jørgensen, Jørn Olsen*
- ETH-09 **Endocrine Disruptors and Neurobehavior in Children: An Ethical Discussion**  
*Wael K Al-Delaimy*

14:00 - 15:30

O.24

**OCCUPATION AND DISASTERS/CLIMATE**

HUB 214

Session Chair: Sally Picciotto

- O-129 **Leptospira Infection and Biomarkers of Kidney Injury among Nicaraguan Workers**  
*Rebecca Laws, Alejandro Riefkohl, Oriana Ramirez-Rubio, Michael McClean, Renee Galloway, Daniel Weiner, James Kaufman, Juan José Amador, José Marcel Sánchez, Chirag Parikh, Daniel Brooks*
- O-130 **Heat Stress and Associated Biophysical Responses in Informal Sector Occupations: an Increasing Challenge for Tropical Developing Countries**  
*Priya Dutta, Varsha Chorsiya, Pranab Kumar Nag, Anjali Nag*
- O-131 **Respiratory Symptoms in Oil Spill Clean-Up Workers Participating in the Gulf STUDY**  
*Dale Sandler, Lawrence Engel, John McGrath, Julianne Payne, Kathryn Rose, Christine Ekenga, Matthew Curry, Aubrey Miller, Aaron Blair, Linda Birnbaum, Richard Kwok*
- O-132 **Acrylonitrile Exposure Assessment Following a Major Train Accident in Belgium: a Human Biomonitoring Study in the Emergency Responders**  
*An Van Nieuwenhuysse, Tom De Smedt, Koen De Cremer, Sebastien Fierens, Christiane Vleminckx, Ilse Van Overmeire, Geert Gijs, Joris Van Loco, Herman Van Oyen*
- O-133 **Decline in Lung Functions after Exposure to Chlorine: a Pre and Post Exposure Analysis**  
*Pallavi Balte, Bo Cai, Kathleen Clark, Lawrence Mohr, Wilfried Karmaus, Dennis Ownby, John Vena, James Gibson, Louisiana Wright Sanders, Tina Bevington, Erik Svendsen*
- O-134 **Enhancing a Job Exposure Matrix for Sun Exposure in Outdoor Workers Using Satellite Data**  
*Cheryl Peters, Paul Demers, Perry Hystad*

14:00 - 15:30	O.25	<b>CADMIUM, LEAD, AND ARSENIC EXPOSURE IN ADULTS: STUDIES ON HEALTH EFFECTS FROM FIVE CONTINENTS</b> Session Chairs: Lars Barregard and Adrienne Ettinger	HUB 250
O-135		<b>Association between Urine Cadmium and Breast Cancer Risk According to Estrogen Receptor and Human Epidermal Growth Factor Receptor 2</b> <i>Loreta Strumylaite, Rima Kregzdyte, Algirdas Bogusevicius, Lina Poskiene, Dale Baranauskiene, Darius Pranys</i>	
O-136		<b>Environmental and Dietary Cadmium Exposure and the Risk of Endometrial Cancer</b> <i>Rudolph Rull, Alison Canchola, Debbie Goldberg, Robert Gunier, Christine Duffy, Peggy Reynolds, Pamela Horn-Ross</i>	
O-137		<b>Sex-Specific Associations of DNA Methylation Markers with Environmental Cadmium Exposure</b> <i>Shama Virani, Werawan Ruangyuttikarn, Muneko Nishijo, Witiya Swaddiwudhipong, Niladri Basu, Laura Rozek</i>	
O-138		<b>Cardiometabolic Effects of Metals Exposure in the Modeling the Epidemiologic Transition Study</b> <i>Adrienne Ettinger, Pascal Bovet, Jacob Plange-Rhule, Terrence Forrester, Estelle Lambert, Nicoli Lupoli, James Shine, Lara Dugas, David Shoham, Ramon Durazo-Arvizu, Richard Cooper, Amy Luke</i>	
O-139		<b>Clinical Features Associated to Increased Blood Lead Levels in Population of Bogotá in 2012</b> <i>Rodrigo Sarmiento-Suarez, Samuel Osorio, Luis Jorge Hernandez, Leonardo Quiroz, Zaidée Barbosa, Yady Cristina Gonzalez, Diana Perez, Alejandra Diaz</i>	
O-140		<b>Arsenic Exposure and Seroprevalence of the Varicella-Zoster Virus Igg Antibody in the US Population</b> <i>Andres Cardenas, Ellen Smit, E. Andres Houseman, Nancy Kerkvliet, Molly L. Kile</i>	

14:00 - 15:30	O.26	<b>AIR POLLUTION IMPACTS ON PREGNANCY OCCURRENCE AND OUTCOME</b> Session Chair: Remy Slama	HUB North Ballroom
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O-141		<b>Effect of Ozone and Pregnancy Complications on the Risk of Preterm Birth: a Population-Based Case-Control Study in Taiwan</b> <i>Yu-Ting Lin, Bing-Fang Hwang</i>	
O-142		<b>Health Effects of Air Pollution on Gestational Complications</b> <i>Xiaohui Xu, Hui Hu, Sandie Ha</i>	
O-143		<b>Air Pollution and Use of Assisted Reproductive Technology</b> <i>Benedicte Jacquemin, Payam Dadvand, Rob Beelen, Marta Cirach Pradas, Miguel Angel Checa Vizcaino, Francesc Figueras, Mark Nieuwenhuijsen</i>	
O-144		<b>Do Air Pollutants Have a Short-Term Influence on Couples' Fecundity? An Analysis Relying on Two Novel Study Designs in Parallel</b> <i>Lise Giorgis-Allemand, Florence Pittion, Sébastien Bottagisi, Ditte Norbo Sorensen, Aline Bohet, Béatrice Ducot, Niels Keiding, Jean Bouyer, Rémy Slama</i>	
O-145		<b>Seven Years Later: Credible Supporting Toxicological Data to Understand the Effects of Air Pollution on Gestation, Fetal and Postnatal Development</b> <i>Mariana Veras, Natalia Costa, Gabriel Ribeiro-Junior, Karina Valle-Marques, Karla Castro, Ana Julia Lichtenfels, Adair Alemany, Nilsa Rodrigues, Marco Martins, Paulo Afonso Andre, Sonia Soto, Joel Heimann, Elia Caldini, Thais Mauad, Marisa Dolhnikoff, Paulo Saldiva</i>	
ETH-10		<b>Air Pollution Impacts on Pregnancy Occurrence and Outcome</b> <i>Jutta Lindert</i>	

15:30 - 16:00 Coffee Break

## 16:00 - 17:30 Parallel Sessions

16:00 - 17:30	O.27	<b>PERINATAL ENVIRONMENTAL TOXINS AND NEURODEVELOPMENT</b> Session Chairs: Bruce Lanphear and Rosalind Wright	HUB 334
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O-146		<b>Association of Autism Spectrum Disorders with Secondhand Smoke Exposure</b> <i>Bhupinder Kaur, James Ebert, Aimin Chen, Miryoung Lee, Ann Biedenharn, Nicole Craker, Naila Khalil</i>	
O-147		<b>Effects of Maternal Prenatal Exposure to Phthalates on Childhood Behavior Age 7 Years</b> <i>Beverly Insel, Pam Factor-Litvak, Antonia Calafat, Xinhua Liu, Virginia Rauh, Robin Whyatt</i>	
O-148		<b>Placental DNA Methylation Related to Both Infant Toenail Mercury and Adverse Neurobehavioral Outcomes</b> <i>Carmen Marsit, Jennifer Maccani, Devin Koestler, Barry Lester, E. Andres Houseman, Karl Kelsey</i>	

O-149	<b>Prenatal and Childhood Exposure to Traffic-Related Pollution and Childhood Executive Function and Behavior</b> <i>Maria H Harris, Diane R Gold, Sheryl L Rifas-Shiman, Steven J Melly, Joel Schwartz, Brent Coull, Antonella Zanobetti, Petros Koutrakis, Sharon K Sagiv, Roberta F White, Emily Oken</i>	
O-150	<b>Prenatal Exposure to Particulate Air Pollution and Attention in Urban Children: Sensitive Windows and Modification by Gender</b> <i>Yueh-Hsiu Mathilda Chiu, David Bellingier, Brent Coull, Hsiao-Hsien Leon Hsu, Itai Kloog, Joel Schwartz, Robert Wright, Rosalind Wright</i>	
O-151	<b>Prenatal Mercury Exposure and Child Language Development</b> <i>Margaretha Haugen, Kristine Vejrur, Helen E Kvalem, Anne-Lise Brantsaeter, Helle K Knutsen, Helle Margrete Meltzer, Synnve Schjølberg, Per Magnus</i>	
16:00 - 17:30	O.28 <b>EMERGING CONNECTIONS AMONG ANTIMICROBIALS, MICROBIOTA, TOXICANTS, AND HEALTH OUTCOMES</b> Session Chairs: Karen Levy and Brian Schwartz	HUB 145
O-152	<b>Chronic Antibiotic Usage and Obesity in the Sister Study</b> <i>Melissa Furlong, Sandra Halverson-Deming, Dale Sandler</i>	
O-153	<b>Antibiotic Use and Childhood Body Mass Index Trajectories</b> <i>Brian Schwartz, Jonathan Pollak, Lisa Bailey-Davis, Claudia Nau, Annemarie Hirsch, Tjthomas Glass, Karen Bandeen-Roche</i>	
O-154	<b>The Influence of Gut Microbiota on the Speciation and Toxicity of Mercury during Pregnancy: Results from a Feasibility Pilot</b> <i>Sarah Rothenberg, Sharon Keiser, Susan Korrick</i>	
O-155	<b>Urinary Triclosan and Enterolactone: a Cross Sectional Study of Environmental Influence on Gut Microbiome Function</b> <i>Margaret Adgent, Walter Rogan</i>	
O-156	<b>Gut Microbe Metagenomes Differ across Individuals Who Have and Have Not Resided Outside of the United States</b> <i>Cara L. Frankenfeld, Jill K. Poudrier, Masoumeh Sikaroodi, Patrick M. Gillevet</i>	
O-157	<b>Relationship of Microbiome, Inflammatory Markers and LINE-1 Expression in the Cervix during Pregnancy</b> <i>Heather Burris, Alison Sanders, Andrea Baccarelli, Valeria Motta, Hyang-Min Byun, Adriana Mercado-Garcia, Joel Schwartz, Katherine Svensson, Martha Téllez-Rojo, Robert Wright</i>	
16:00 - 17:30	O.29 <b>CLIMATE AND HEALTH: ADVANCING RESEARCH METHODS</b> Session Chairs: Shilu Tong and Antonio Gasparrini	HUB South Ballroom
O-158	<b>Forecast-Based Interventions Can Reduce the Health and Economic Burden of Wildfires</b> <i>Ana G. Rappold, Neal L. Fann, James Crooks, Jin Huang, Wayne E. Cascio, Robert Devlin, David Diaz-Sanchez</i>	
O-159	<b>Evaluation of Heat-Related Deaths: Impact of the Short- and Long-Term Mortality Displacement</b> <i>Zhen Qiao, Vivian Yu, Yuming Guo, Shilu Tong</i>	
O-160	<b>Assessing the Impact of Heatwaves on Mortality: Comparison of Different Study Periods</b> <i>Xiaoyu Wang, Dong Chen, Xiaoming Wang, Shilu Tong</i>	
O-161	<b>Urban Climate, Air Pollution and Mortality in the City of Rotterdam: an URGENCHE Project</b> <i>Saskia M Willers, Marcel Jonker, Lisette Klok, Menno Keuken, Jennie Odink, Willem-Jan Okkerse, Sef van den Elshout, Johan P Mackenbach, Alex Burdorf</i>	
O-162	<b>Difficulties in Elucidating Heat Island Effects on Mortality Using Rigorous Methods</b> <i>Ai Milojevic, Ben Armstrong, Antonio Gasparrini, Sylvia Bohnenstengel, Paul Wilkinson</i>	
O-163	<b>Modeling Future Heat-Related Vulnerability for Houston, Texas</b> <i>Kathryn Conlon, Andrew Monaghan, Mary Hayden, Olga Wilhelmi</i>	
16:00 - 17:30	O.30 <b>AIR POLLUTION FROM DIFFERENT SOURCES AND RESPIRATORY HEALTH</b> Session Chairs: Ulrike Gehring and Jordi Sunyer	HUB 160 (Lyceum)
O-164	<b>Residential Exposures to Air Pollution and Lung Function in the Framingham Heart Study</b> <i>Mary B Rice, Petter L Ljungman, Elissa H Wilker, Diane R Gold, Joel Schwartz, Petros Koutrakis, George R Washko, George T O'Connor, Murray A Mittleman</i>	

- O-165 **Longitudinal Associations between Coarse Particulate Matter (PM<sub>10-2.5</sub>) and Percent Emphysema on CT: the Multi-Ethnic Study of Atherosclerosis and Airborne Coarse Particulate Matter (MESA Coarse)**  
*Sara Adar, R. Graham Barr, Jennifer D'Souza, Jaime Madrigano, Lianne Sheppard, Kai Zhang, Eric Hoffman, Joel Kaufman, Timothy Larson*
- O-166 **Emergency Department Visits for Asthma and Exposure to Fine Particulate Matter (PM<sub>2.5</sub>) during 2006-07 Bushfires in Victoria, Australia**  
*Malcolm Sim, Anjali Haikerwal, Michael Abramson, Mick Meyer, Martine Dennekamp*
- O-167 **Severe Air Pollution Events from Bushfires and Emergency Department Presentations in Sydney, Australia, 1996- 2007**  
*Stuart Purdie, Geoff Morgan, Bin Jalaudin, Kara Martin, Ivan Hanigan, Sarah Henderson, Fay Johnston*
- O-168 **Short-Term Associations of Ambient Source-Specific Particulate Matter with Emergency Respiratory Hospitalizations in Hong Kong**  
*Vivian Pun, Ignatius T.S. Yu, Marianthi-Anna Kioumourtzoglou, Hong Qiu, Linwei Tian*
- O-169 **A Three-City Analysis of Multipollutant Joint Effects: a Comparison of Classification and Regression Trees with Conventional Multipollutant Models**  
*Katherine Gass, Mitch Klein, Stefanie Sarnat, William Dana Flanders, Howard Chang, Matthew Strickland*

16:00 - 17:30

O.31

**SPATIAL ANALYTIC METHODS**

HUB 332

**Session Chair:** Veronica Vieira

- O-170 **A Novel Principal Component Analysis for Spatially- Misaligned Multivariate Air Pollution Data**  
*Roman Jandarov, Adam Szpiro*
- O-171 **Environmental Health and Cartographic Representation: Dasyetric Mapping to Improve Analysis of Health Outcomes in the City of Sao Paulo, Brazil**  
*Ligia Barrozo, Reinaldo Pérez-Machado, Christopher Small, William Cabral-Miranda*
- O-172 **Neighbourhood and Individual-Level Socially-Patterned Risk Factors Interact with Particulate Air Pollution to Modify Birth Weight: a Multilevel Analysis in British Columbia, Canada**  
*Anders Erickson, Laura Arbour*
- O-173 **Evaluating the Usefulness of Commercially Available Credit Reporting Data for Constructing Residential Histories for Epidemiologic Studies of Environmental Exposures**  
*Susan Hurley, Julie Von Behren, David O. Nelson, Michael Layefsky, Andrew Hertz, Peggy Reynolds*
- O-174 **Acute Lymphoblastic Leukemia among Children in Rome: a Spatial Clustering and Clusters Analysis between 2000-2010**  
*Patrizia Schifano, Clarissa Ferrari, Federica Asta, Paola Michelozzi*
- O-175 **Combining Observed PM<sub>2.5</sub> with Regionalized Bias- Corrected Chemical Transport Models**  
*Jeanette Reyes, Marc Serre*

16:00 - 17:30

O.32

**PERFLUORINATED CHEMICALS AND CHILD HEALTH**

HUB 214

**Session Chairs:** Tony Fletcher and Cheryl Stein

- O-176 **Maternal and Paternal Serum Concentrations of Perfluorinated Compounds and the Secondary Sex Ratio: the LIFE Study**  
*Jisuk Bae, Sungduk Kim, Enrique F. Schisterman, Dana Boyd Barr, Germaine M. Buck Louis*
- O-177 **The Effects of Perfluoroalkyl Acids (Pfaas) Exposure in Utero on IGF2/H19 DNA Methylation in Cord Blood**  
*Sachiko Kobayashi, Kaoru Azumi, Seiko Sasaki, Mayumi Ishizuka, Hiroyuki Nakazawa, Emiko Okada, Sumitaka Kobayashi, Houman Goudarzi, Sachiko Itoh, Chihiro Miyashita, Tamiko Ikeno, Atsuko Araki, Reiko Kishi*
- O-178 **Prenatal Exposure to Perfluorinated Chemicals and Risk of Congenital Cerebral Palsy in Children**  
*Zeyan Liew, Beate Ritz, Eva Bonefeld-Jørgensen, Tine Henriksen, Ellen Nohr, Bodil Bech, Chunyuan Fei, Rossana Bossi, Ondine von Ehrenstein, Elani Streja, Peter Uldall, Jørn Olsen*
- O-179 **Prenatal Perfluoroalkyl Substances and Thyroid Hormones in Children: Taiwan Maternal and Infant Cohort Study**  
*Yan Wang, Walter Rogan, Shu-Li Wang, Pen-Hua Su, Po-Chung Chen, Hsiao-Yen Chen*
- O-180 **Fetal Exposure to Perfluorinated Compounds and Attention Deficit Hyperactivity Disorder in Childhood**  
*Anna Rignell-Hydbom, Amanda Ode, Karin Källén, Peik Gustafsson, Lars Rylander, Bo Jönsson, Per Olofsson, Sten Ivarsson, Christian Lindh*
- O-181 **Prenatal Exposure to Polyfluoroalkyl Chemicals (Pfc) and Childhood Body Mass Index in Project Viva**  
*Sharon Sagiv, Sheryl Rifas-Shiman, Antonia Calafat, Xiaoyun Ye, Tom Webster, Matthew Gillman, Emily Oken*

16:00 - 17:30	O.33	<b>EXPOSURE ASSESSMENT AND HEALTH IMPACTS OF COOKSTOVE USE</b> <b>Session Chairs:</b> Claudia L Thompson and Maggie Clark	HUB 250
	O-182	<b>Household Biomass Fuel Use and Lung Cancer: a Systematic Review and Evaluation of the Evidence</b> <i>Mukesh Dherani, Nigel Bruce, Pope Daniel, Imran Choudhury, Kurt Straif, Qing Lan, Kirk Smith</i>	
	O-183	<b>Optimal Sampling Duration for Household Air Pollution: Evidence from GRAPHS</b> <i>Richard V Remigio, Kwaku Poku Asante, Madhavi Parekh, Ellen Abrafi Boamah, Ashlinn Quinn, Grace Manu, Darby Jack, Patrick L. Kinney, Kenneth Ae-Ngibise, Steven N Chillrud, Seth Owusu-Agye</i>	
	O-184	<b>Evaluation of Exposure Reduction in a Cook Stove Intervention Study in Kenya by Urinary Biomonitoring</b> <i>Zheng Li, Andreas Sjodin, Erin Pittman, Alisha Etheredge, Jonathan Parker, Hasan Carmichael, Antonia Calafat, Bryan Christensen, Fuyuen Yip</i>	
	O-185	<b>Highway Proximity and Black Carbon from Cookstoves as a Risk Factor for Higher Blood Pressure in Rural China</b> <i>Jill Baumgartner, YuanXun Zhang, James Schauer, Yuqin Wang, Wei Huang, Majid Ezzati</i>	
	O-186	<b>Do Biomass Fuel Use and Consumption of Unsafe Water Mediate Socioeconomic Differences in Stillbirth Risk? An Analysis of the 2007 Ghana Maternal Health Survey</b> <i>Adeladza Kofi Amegah, Jouni Jaakkola</i>	
	ETH-11	<b>Health Impacts of Cookstove Use: An Ethical Discussion</b> <i>Wael K Al-Delaimy</i>	
16:00 - 17:30	S.15	<b>DATA-SHARING AND EPIDEMIOLOGISTS: PANEL DISCUSSION</b> <b>Session Chair:</b> Dan Greenbaum	HUB North Ballroom
		<b>Panelists:</b> Ellen Silbergeld Francesca Dominici Doug Dockery Joel Kaufman Jennifer Parker	
17:45 - 19:15		<b>ISEE GENERAL MEMBERS MEETING</b>	HUB 214



07:00 - 17:00		<b>Conference Registration Speaker Ready Room</b>	HUB Ballroom Foyer HUB 238
07:15 - 08:30		<b>ISEE COUNCIL MEETING</b>	HUB 307
07:30 - 08:30		<b>Morning Sessions</b>	
07:30 - 08:30	M.07	<b>TRANSLATING SCIENTIFIC FINDINGS TO THE PUBLIC</b> (Sponsored by the Student and New Researcher Network) <b>Session Chairs:</b> Bert Brunekreef and Joe Balintfy	HUB 334
07:30 - 08:30	M.08	<b>FIELD TESTING TO VALIDATE NOVEL TOOLS FOR PERSONAL EXPOSURE MONITORING IN EXPOSURE ASSESSMENT AND EPIDEMIOLOGICAL STUDIES</b> <b>Session Chair:</b> David M. Balshaw	HUB 332
M-07		<b>Personal Exposure to Ultrafine Particles: a Field Test of a Novel Sensor in Children with Asthma</b> <i>Patrick Ryan</i>	
M-08		<b>Microfluidic Devices for Aerosol Speciation and Personal Exposure Assessment in Panel-Based Epidemiology</b> <i>John Volckens, David Cate, Dan Miller-Lionberg, Chuck Henry</i>	
M-09		<b>Using Novel Pollution Sensors to Improve Exposure Estimates in Epidemiological Analyses</b> <i>Michael Jerrett, David Donarie, Olalekan Popoola, Roderic Jones, Estela Almanza, Glòria Carrasco-Turigas, Tom Cole-Hunter, Ron Cohen, Audrey de Nazelle, Margarita Triguero, Edmund Seto, Mark Nieuwenhuijsen</i>	
M-10		<b>Laboratory Evaluation of Low-Cost, Lightweight PM<sub>2.5</sub> Exposure Monitors</b> <i>Elena Austin, Igor Novosselov, Edmund Seto, Michael Yost</i>	
07:30 - 08:30	M.09	<b>THE ROLE OF ENVIRONMENTAL EXPOSURES ON CHANGES IN FERTILITY POTENTIAL OVER RECENT DECADES: A GLOBAL PERSPECTIVE</b> <b>Session Chair:</b> Shelley Ehrlich	HUB 250
M-11		<b>The Role of Metals on Declining Fertility among Different Ethnic Groups and Its Impact on Adult Health</b> <i>Michael Bloom, Patrick Parsons, Victor Fujimoto</i>	
M-12		<b>Fertility Trends in Israel and the Association between Air Pollution and Adverse Reproductive Health Outcomes</b> <i>Adel Farhi, Liat Lerner-Geva</i>	
M-13		<b>Environmental Determinants, Temporal Trends in Impaired Fertility, and the Use of Assisted Reproductive Technologies (ART) as a Model to Study the Impact of Environmental Factors on Fertility</b> <i>Shelley Ehrlich</i>	
07:30 - 08:30	M.10	<b>POLLUTION INTERSECTS LIFE: ACUTE HEALTH EFFECTS OF EXPOSURE TO TRAFFIC POLLUTION</b> <b>Session Chair:</b> Robert Laumbach	HUB 214
M-14		<b>Acute Cardiorespiratory Response in a Panel of Asthmatic and Non-asthmatic Car Commuters: The Atlanta Commuters Exposure Studies</b> <i>Rachel Golan</i> <b>Health Effects of Acute Exposures to Traffic in Models for Transportation Policy</b> <i>Thomas Cole-Hunter</i> <b>Experimental Models for Studying Acute Cardiovascular and Respiratory Effects of Traffic-Related Air Pollutants</b> <i>Robert Laumbach, Howard Kipen</i> <b>Natural Experiments, Controlled Exposures, and Vascular Endpoints for Studies of Acute Effects of TRAPs</b> <i>Howard Kipen</i>	

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07:30 - 08:30	M.11	<b>EXPOSURE MEASUREMENT ERROR IN AIR POLLUTION STUDIES: CONSEQUENCES AND CORRECTION METHODS</b> Session Chair: Lisa Baxter	HUB 145
	M-15	<b>Using Personal Exposure Data to Assess Exposure Measurement Error in PM<sub>2.5</sub> Health Effect Studies</b> <i>Marianthi-Anna Kioumourtzoglou, Donna Spiegelman, Adam A. Szpiro, Lianne Sheppard, Joel D. Kaufman, Jeff D. Yanosky, Ronald Williams, Francine Laden, Biling Hong, Helen H. Suh</i>	
	M-16	<b>Effects of Ambient Air Pollution Measurement Error on Health Effect Estimates in Single-Pollutant Time-Series Models: a Simulation-Based Analysis</b> <i>Matthew Strickland, Katherine Gass, Gretchen Goldman, James Mulholland</i>	
	M-17	<b>Correcting for Spatial Measurement Error in Air Pollution Cohort Studies</b> <i>Casey Olives, Silas Bergen, Christopher Paciorek, Adam Szpiro</i>	
07:30 - 08:30		<b>Ancillary Meeting</b>  MESA Environmental Health Working Group	HUB 340
08:30 - 10:00		<b>PLENARY SESSION 3</b> Session Chairs: Annette Peters, PhD and Kate Adams, ScD	HUB Ballroom
	PL-05	<b>The Global Burden of Diseases, Injuries, and Risk Factors 2013 Study (GBD 2013): Preliminary Findings on Environmental Risk Factors</b> <i>Christopher Murray, MD, PhD</i>	
	PL-06	<b>JOHN GOLDSMITH AWARD AND LECTURE: Traffic Related Air Pollution in Primary Schools and Neurodevelopment</b> <i>Jordi Sunyer Deu, MD, PhD</i>	
	PL-07	<b>Sputum Analysis Is an Indicator of Deteriorating Pulmonary Health: Study on Rural Indian Women Chronically Exposed to Biomass Smoke during Cooking</b> <i>Anindita Dutta, Manas Ranjan Ray</i>	
		<b>Presentation of Awards for Best New Research Contributed Scientific Paper Abstract</b>	
10:00 - 10:20		Morning Break	
10:20 - 11:50		<b>Parallel Sessions</b>	
10:20 - 11:50	S.16	<b>CAUSAL INFERENCE METHODS AND ENVIRONMENTAL EPIDEMIOLOGY</b> Session Chairs: Sally Picciotto and Jonathan Chevrier	HUB 334
	S-063	<b>Causal Diagrams and Their Uses</b> <i>Sally Picciotto</i>	
	S-064	<b>The Healthy Worker Survivor Effect Dissected</b> <i>Jonathan Chevrier, Daniel Brown, Sally Picciotto, Sadie Costello, Andreas Neophytou, Ellen Eisen</i>	
	S-065	<b>Correcting for Healthy-Worker Survivor Bias of the Radon-lung Cancer Dose-response in a Cohort of Uranium Miners using Structural Nested Accelerated Failure Time Models</b> <i>Alexander Keil, David Richardson</i>	
	S-066	<b>An Example of Semi-Parametric Methods in Environmental Epidemiology: Air Pollution, Neighborhood Factors and Preterm Birth</b> <i>Amy Padula, Sara Gale, Ellen Eisen, Alan Hubbard, Fred Lurmann, Katharine Hammond, Ira Tager</i>	
	S-067	<b>On the Use of Negative Controls: Applications to Air Pollution and Autism, and Trauma and Amyotrophic Lateral Sclerosis</b> <i>Marc Weisskopf</i>	
10:20 - 11:50	S.17	<b>INTERNATIONAL COLLABORATION ON THE EXPOSOME</b> Session Chairs: Dimosthenis Sarigiannis and Michael Jerrett	HUB 160 (Lyceum)
		<b>Promoting International Collaboration on the Exposome - The NIEHS/NIH Program</b> <i>David Balshaw</i>	

- S-068 **Determinants of the Accumulation of Polybromodiphenyl Ethers in General Adult Population from Catalonia and Other European Countries**  
*Joan Grimalt, Merce Gari, Merce Gari*
- ETH-12 **Exposome Ethics: An Important Dimension in Individual, Lifelong Exposure Characterization**  
*Denis A Sarigiannis*

**Panel Discussion****The Exposomics Approach***Paolo Vineis***The HELIX Project***Mark Nieuwenhuijsen***HEALS: Health and Environment-wide Associations via Large Population Surveys***Dimosthenis Sarigiannis***The UC Berkeley Exposome Center***Steven Rappaport and Michael Jerrett*

10:20 - 11:50 O.34 **EXAMINING SUSCEPTIBILITY TO THE HEALTH EFFECTS OF AIR POLLUTION** HUB North Ballroom  
Session Chairs: Sverre Vedal and Anjum Hajat

- O-187 **Modification of the Effect of Ambient Air Pollution on Pediatric Asthma Emergency Visits: Susceptible Subpopulations**  
*Matthew Strickland, Mitchel Klein, W. Dana Flanders, Howard Chang, James Mulholland, Paige Tolbert, Lyndsey Darrow*
- O-188 **Ambient Air Pollution and Emergency Department Visits for Asthma: a Multi-City Assessment of Effect Modification by Age**  
*Brooke Hixson, Andrea A Winquist, Howard H Chang, James A Mulholland, Stefanie Ebelt Sarnat*
- O-189 **Fine Particulate Matter Air Pollution and Blood Pressure: the Modifying Role of Psychosocial Stress**  
*Margaret Hicken, J. Timothy Dvorchak, Amy J. Schulz, Graciela Mentz, Paul Max*
- O-190 **PM<sub>2.5</sub> Exposure, Physical Activity Level, and Metabolic Syndrome among US Adults**  
*Tegan Boehmer, Suzanne Beavers, Maria Mirabelli, Ambarish Vaidyanathan*
- O-191 **Exposure to Ambient Air Pollution as a Potential Explanation for Ethnic Differences in Carotid Intima Media Thickness in the Multi-Ethnic Study of Atherosclerosis (MESA)**  
*Miranda R. Jones, Ana Navas- Acien, Ana V. Diez- Roux, Marie S. O'Neill, Eliseo Guallar, A. Richey Sharrett, Wendy Post, Joel D. Kaufman*
- O-192 **Gender Differences in the Relationship of Prenatal Exposure to Black Carbon and Maternal Psychosocial Stress with Memory Domains in Early School-Aged Urban Children**  
*Whitney J. Cowell, David C. Bellinger, Brent A. Coull, Robert O. Wright, Rosalind J. Wright*

10:20 - 11:50 O.35 **COMMUNITY NOISE EXPOSURES AND CORRELATIONS WITH AIR POLLUTION** HUB South Ballroom  
Session Chairs: Ryan Allen and Sara Adar

- O-193 **Application of Land Use Regression Modelling to Assess the Spatial Distribution of Road Traffic Noise in Three European Cities**  
*Inmaculada Aguilera, Maria Foraster, Xavier Basagaña, Elisabetta Corradi, Alexandre Deltell, Xavier Morelli, Harish C Phuleria, Martina S Ragetti, Marcela Rivera, Alexandre Thomasson, Rémy Slama, Nino Künzli*
- O-194 **Characterization of Population-Wide Exposure to Traffic Noise – an Example from Stockholm County**  
*Charlotta Eriksson, Andreas Novak, Dag Stenkvist, Tom Bellander*
- O-195 **Spatial Relationships of Air and Noise Pollution from Road Traffic in London: the TRAFFIC Study**  
*Daniela Fecht, David Morley, Danielle Vienneau, David Dajnak, Sean Beevers, Frank Kelly, Ross Anderson, John Gulliver*
- O-196 **Correlation between Noise and Nox in Gothenburg 1975- 2010**  
*Mikael Ögren, Peter Molnar*
- O-197 **Interrelations between Environmental Exposures: Air Pollution, Noise and RF-EMF – Potential for Confounding?**  
*Anke Huss, Manon van Eijsden, Monica Guxens, Johan Beekhuizen, Rob van Strien, Marieke Dijkema, Hans Kromhout, Tania Vrijkotte, Roel Vermeulen*
- O-198 **Noise Exposure and Hypertension – Results of a Cross-Sectional Study Using Dosimeters for Individual Exposure Assessment**  
*Tobias Weinmann, Vera Ehrenstein, Rüdiger von Kries, Dennis Nowak, Katja Radon*

10:20 - 11:50	O.36	<b>ENVIRONMENTAL FACTORS IN RELATION TO CHILDHOOD CANCER</b> Session Chair: Mark Miller	HUB 250
O-199		<b>Incidence of Childhood Cancer in National Priority Contaminated Sites - Italy</b> <i>Ivano Iavarone, Carlotta Buzzoni, Pietro Comba, Susanna Conti, Emanuele Crocetti, Milena Maule, Roberta Pirastu</i>	
O-200		<b>Prenatal and Infant Exposure to Ambient Air Toxics Related to Childhood Brain Tumors</b> <i>Ondine von Ehrenstein, Julia Heck, Andrew Park, Myles Cockburn, Beate Ritz</i>	
O-201		<b>Parental Occupational Exposure to Benzene and Risk of Childhood Cancer: a Census-Based Cohort Study</b> <i>Ben D. Spycher, Judith Lupatsch, Anke Huss, Roel Vermeulen, Johannes Rischewski, Christina Schindera, Adrian Spoerri, Claudia E. Kuehni</i>	
O-202		<b>A Task-Based Assessment of Parental Occupational Exposure to Organic Solvents and Other Compounds and Risk of Acute Lymphoblastic Leukemia in the Offspring</b> <i>Catherine Metayer, Ghislaine Scélo, Alice Y. Kang, Robert B. Gunier, Kyndaron Reinier, C. Suzanne Lea, Jeffrey S. Chang, Steve Selvin, Janice Kirsch, Monique Does, Patricia Quinlan, S. Katharine Hammond</i>	
O-203		<b>Parental Occupational Pesticide Exposure and Childhood Acute Lymphoblastic Leukemia</b> <i>Robert Gunier, Alice Kang, Katharine Hammond, Suzanne Lea, Patricia Quinlan, Kyndaron Reinier, Monique Does, Catherine Metayer</i>	
O-204		<b>Polymorphisms of CYP1B1, CYP3A4, CYP3A5, GSTM1, GSTTT1 and SULT1A1 Associated with Early Age Acute Leukemia</b> <i>Bruno de Almeida Lopes, Mariana Emerenciano, Ana Rossini, Tállita Meciany Farias Vieira, Maria S. Pombo-de-Oliveira</i>	

10:20 - 11:50	O.37	<b>IONISING AND NON-IONISING RADIATION: EXPOSURE ASSESSMENT AND RECENT RESULTS</b> Session Chairs: Michelle Turner and Ladislav Tomasek	HUB 214
O-205		<b>Catastrophic Radiological Events and Compensation: Constructs and Conflicts of Science and Policy</b> <i>Martin D. Barrie, Gregory P. Nichols</i>	
O-206		<b>Childhood Exposure to Low-Moderate Doses of Ionizing Radiation and the Risk of Vascular, Endocrine &amp; Neurologic Morbidity</b> <i>Siegal Sadetzki, Angela Chetrit, Ben Boursi, Fabienne Sikron</i>	
O-207		<b>Risk of Leukemia in Uranium Miners</b> <i>Ladislav Tomasek</i>	
O-208		<b>Validity and Uncertainty in RF-EMF Modelling of Base Station Exposure</b> <i>Roel Vermeulen, Johan Beekhuizen, Gerard Heuvelink, Alfred Buergi, Hans Kromhout, Anke Huss</i>	
O-209		<b>Residential Radon Levels and Birth Defects</b> <i>Peter Langlois, MinJae Lee, Mohammad Rahbar</i>	
O-210		<b>Association between Magnetic Fields Exposure and Childhood Acute Leukemia: a Population Study. Report from the Mexican Inter-Institutional Group for the Identification of the Causes of Childhood Leukemia (MIGICCL)</b> <i>Juan Manuel Mejía-Aranguré, Janet Flores-Lujano, Arturo Fajardo-Gutiérrez, Juan Carlos Núñez-Enríquez, Roberto Bernáldez-Ríos, Leeka Kheifets, Gabor Mezei, María del Carmen Rodríguez-Zepeda, Angélica Rangel-Lopez, Aurora Medina-Sanson, Nancy Núñez-Villegas, Elva Jiménez-Hernández, Nancy Carolina Reyes-Zepeda, Vilma Carolina Bekker-Méndez</i>	

10:20 - 11:50	O.38	<b>WATERBORNE DISEASE FROM MICROBIAL AND CHEMICAL CONTAMINANTS</b> Session Chairs: Michael Wright and Tim Wade	HUB 332
O-211		<b>Applying Time-Series Analysis to Drinking Water Studies: Key Differences from Air Pollution</b> <i>Ronnie Levin</i>	
O-212		<b>Association between Extreme Precipitation, Drinking Water and Acute Gastro Intestinal Illness in the Fraser Health Authority, British Columbia, Canada, 2000-2012</b> <i>Bimal Chhetri, Eleni Galanis, Sunny Mak, Marc Zobel, Michael Otterstatter, Robert Balshaw, Jordan Brubacher, Manon Fleury, Marcus Lem, Sylvia Struck, Joanne Edwards, Timothy Takaro</i>	
O-213		<b>Modeling the Severity of Gastrointestinal Illness among Limited Contact Water Recreators</b> <i>Stephanie DeFlorio-Barker</i>	
O-214		<b>Drinking Water Source Associated with Toxoplasma Gondii and Helicobacter Pylori Infections in the United States: a Cross-Sectional Analysis of NHANES Data</b> <i>Whitney Krueger, Elizabeth Hilborn, Reagan Converse, Timothy Wade</i>	

- O-215 **Exposure to Highly Contaminated Water in a Rural Nigerian Village**  
*Kalé Kponee, Andrea Chiger, Donna Vorhees, Wendy Heiger-Bernays*
- ETH-13 **Ethical Implications of Research on Water Quality and Health**  
*Raymond Richard Neutra*

10:20 - 11:50 O.39 **GENE-ENVIRONMENT INTERACTIONS: SINGLE NUCLEOTIDE POLYMORPHISMS AND BEYOND** HUB 145  
**Session Chairs:** Parveen Bhatti and Gwen Collman

- O-216 **Cumulative Genetic Oxidative Stress Score May Modify Associations between Systemic Inflammation and Air Pollution Exposures in a Cohort Panel of Elderly Subjects with Coronary Artery Disease**  
*Sharine Wittkopp, Norbert Staimer, Thomas Tjoa, Daniel Gillen, Nancy Daher, Martin Shafer, James J. Schauer, Constantinos Sioutas, Ralph J. Delfino*
- O-217 **Gene-Environment Interactions in the Association between Air Pollution and Autism**  
*Irva Hertz-Picciotto, Marylyn Ritchie, Heather Volk, Santhosh Girirajan, Scott Selleck, Dokyoon Kim, Sarah Pendergrass*
- O-218 **Blood Telomere Length as Modifier of the Association between Long Term Exposure to Traffic Particles and Cognition in Aging Men**  
*Elena Colicino, Maria Chiara Frisardi, Melinda Power, Mirjam Hoxha, Laura Dioni, Pantel Vokonas, Avron Spiro, Marc Weisskopf, Joel Schwartz, Andrea Baccarelli*
- O-219 **Arsenic Exposure, Telomere Length, and Expression of Telomere-Related Genes among Bangladeshi Individuals**  
*Brandon Pierce, Jianjun Gao, Chenan Zhang, Farzana Jasmine, Shantanu Roy, Muhammad Kibriya, Ahsan Habibul*
- O-220 **Analysis of Longitudinal Mediation in the Normative Aging Study: Application to Air Pollution, Gene-Specific Methylation, and Cardiovascular-Related Inflammation Markers**  
*Marie-Abele Bind, Brent Coull, Andrea Baccarelli, Letizia Tarantini, Pantel Vokonas, Petros Koutrakis, Joel Schwartz*
- ETH-14 **Responsibilities beyond the Quest: Gene-Environment Research SNP by SNP**  
*Helene G Margolis*

11:50 - 14:00 P.3 **POSTER SESSION 3** Mary Gates Hall  
First Floor Commons

#### FOOD SAFETY

- P3-559 **Identification of Urine Metabolomic Profiling for the Effect of Areca Nut and Green Tea Exposure to the Development of Esophageal Tumors in F344 Male Rats**  
*Yu-Kuei Chen*
- P3-560 **Nutritional and toxicological Analyses of Leaves and Fruits of Solanum Macrocarpon Linn (Solanaceae) in Cotonou (Benin)**  
*Victorien Dougnon*
- P3-561 **Fish Nutrients, Mercury and Redox State in Blood of a Cohort of Avid Seafood Eaters**  
*Caterina Vacchi-Suzzi, Roxanne Karimi, Susan Silbernagel, Bruce Demple, Jaymie Meliker*
- P3-562 **Does Mercury Contamination Offset the Beneficial Cardiac Effects of Increased Omega-3 Fatty Acid Intake in Avid Seafood Consumers?**  
*Charles Miller, Roxanne Karimi, Susan Silbernagel, Frederick Schiavone, Jie Yang, Qiao Zhang, Keith Levine, Eric Rashba, Jaymie Meliker*
- P3-563 **Potential 'Co-Benefits' for Health and Greenhouse Gas Emissions of Adopting Acceptable Healthy Diets in the UK**  
*James Milner, Rosemary Green, Alan Dangour, Andy Haines, Zaid Chalabi, Anil Markandya, Joseph Spadaro, Paul Wilkinson*
- P3-564 **A Comparison of Non-Infectious Foodborne Exposures Reported to Two National Reporting Systems, United States, 2000–2010**  
*Ethel Taylor, Royal Law, Amie Nisler, Lorraine Backer*
- P3-565 **Adult Drug and Food Allergy in the UK Biobank Cohort Study**  
*Nicholas Osborne, Ben Amos, Jessica Tyrrell*
- P3-566 **An Assessment of Food Preparation Surface Cleanliness and Food Handler Hygiene in Hospices around Central South Africa**  
*Jane Nkhebenyane*

- P3-567 **Evaluation of the Effect of Interventions upon Hygiene Compliance of Food Establishments in Jimma town Implications for Food Safety Regulatory and Enforcement Strategies**  
*Firdu Zawide, Wondwossen Birke*
- P3-568 **Comparison of the Intervention Effects on Brick Tea Type Fluoriosis between Two Kinds of Health Education Methods**  
*Jun Liu*
- P3-569 **The Role of Food Sources in Low-Level Arsenic Exposure among First-Graders from Montevideo, Uruguay**  
*Katarzyna Kordas, Peregalli Fabiana, Elena Queirolo, Nelly Manay, Marie Vahter*
- P3-570 **Lifestyle Factors and Risk of Gastroesophageal Reflux Disease in Taiwan**  
*Yun-Shiuan Chuang, Ming-Tsang Wu*
- P3-571 **The Development of Allergic Diseases after a Phthalate Contaminated Food Event**  
*I-Jen Wang, Chia-Yang Chen, Ling-Na Shih*
- P3-572 **Dietary Uptake of Pesticides in a Sample of Israeli Children**  
*Shirra Freeman, Manor Orly, Rina Varsano, Berman Tamar, Vered Kaufman-Shriqui*
- P3-573 **Phytoestrogens and Semen Quality: the LIFE Study**  
*Sunni Mumford, Sung Duk Kim, Zhen Chen, Dana Boyd Barr, Enrique Schisterman, Germaine Buck Louis*
- P3-574 **Maternal Methylmercury Exposure through Rice Ingestion and Offspring Development: Preliminary Results**  
*Chuan Hong, Xiaodan Yu, Jihong Liu, Sarah E. Rothenberg*
- P3-575 **Diet, Genetic and Epigenetic Signatures in Women of Childbearing Age from a Mediterranean Population: Perspectives for Public Health**  
*Antonella Agodi, Martina Barchitta, Annalisa Quattrocchi, Veronica Adornetto, Carolina Canto, Anna Elisa Marchese*
- P3-576 **Young and Smoking Women with Folate Deficiency Are at Higher Risk of Cervical Intraepithelial Neoplasia**  
*Antonella Agodi, Martina Barchitta, Annalisa Quattrocchi, Nadia La Rosa, Aurora Scalisi*
- P3-577 **Risk Assessment of PFOS-Contaminated Fish – a Swedish Example**  
*Anders Glynn, Salomon Sand, Sanna Lignell, Irina Gyllenhammar*
- P3-578 **Urine Phthalate Levels Before and after 2011 Diethylhexyl Phthalate Incident in Taiwan**  
*I-Jen Wang, Pau-Chung Chen, Chia-Yang Chen*

#### BIOMARKERS & BIOMONITORING: EXPOSURE ASSESSMENT AND EVALUATION

- P3-579 **Great Lakes Basin Fish Consumption, Vitamin D, Selenium, Fatty Acids, Contaminant Distributions and Associations in 154 Wisconsin Anglers**  
*Emelia Wollenburg, Henry Anderson, Pamela Imm, Brooke Thompson, Mark Werner*
- P3-580 **Total, Methyl, and Ethyl Mercury in the U.S. Population, NHANES 2011-2012**  
*Mary Mortensen, Sam Caudill, Kathleen Caldwell, Cynthia Ward, Robert Jones*
- P3-581 **The Utility of Urinary Mirna Profiles as Biomarkers of Pesticide Exposure**  
*Sara E. Pacheco, Brittany Weldon, Tomomi Workman, Alex Artemenko, Beti Thompson, Elaine M. Faustman*
- P3-582 **Socioeconomic Disparities in Secondhand Smoke Exposure among U.S. Never-Smoking Adults: the National Health and Nutrition Examination Survey 1988-2010**  
*Wenqi Gan, Ahmedin Jemal, David Mannino*
- P3-583 **Describing Exposures to Environmental Contaminants in the French General Population: the Esteban Study 2014-2015**  
*Clémence Fillol, Corinne Delamaire, Amivi Oleko, Emmanuelle Szego, Juliette Contrerès, Christelle Lemoisson, Agnès Lefranc*
- P3-584 **Determination of Urinary Heterocyclic Aromatic Amines in Smokers and Non-Smokers by Using Sensitive and High Throughput Liquid Chromatography-Tandem Mass Spectrometry**  
*Li Zhang, Yang Xia, Baoyun Xia, James McGuffey, Keegan Nicodemus, Lanqing Wang, Benjamin Blount*
- P3-585 **Relationship between Smoking Topography and Biomarkers in Japanese Smokers**  
*Yohei Inaba, Rika Utsugi, Tadamichi Ohkubo, Shigehisa Uchiyama, Gen Suzuki, Naoki Kunugita*
- P3-586 **Determination of Urinary Excretion of 17 Phenolic Polycyclic Aromatic Hydrocarbons (OH-Pahs) by LC-MS/MS**  
*Eun-Hee Lee, Younglim Kho, Jung Hoan Kim, Na-Yeon Park, Jung-Dae Jun, Chulmin Kim*
- P3-587 **Perchlorate Exposure and Association with Iron Homeostasis and Other Biological Functions among NHANES 2005-2008 Subjects**  
*Dina Schreinemachers, Andrew Ghio, Wayne Cascio, Jon Sobus*
- P3-588 **Sex- and Age-Differences in Blood Manganese Levels in the U.S. General Population: NHANES 2011-2012**  
*Maryse Bouchard, Donna Mergler, Youssef Oulhote*

- P3-589 **Acrylonitrile Exposure Assessment Following a Major Train Accident in Belgium: a Human Biomonitoring Study in the General Population**  
*An Van Nieuwenhuysse, Tom De Smedt, Koen De Cremer, Sebastien Fierens, Christiane Vleminckx, Ilse Van Overmeire, Geert Gijs, Joris Van Loco, Herman Van Oyen*
- P3-590 **Biomonitoring as a Response to Community Concerns About Uranium Exposure from Former Weapons Manufacture in Colonie, New York**  
*June Moore, Karen Wilson*
- P3-591 **Associations between Biomarkers of Phthalate Exposure and Acute Bronchiolitis and Eczema in Norwegian Infants**  
*Randi Bertelsen, Haavard Ove Skjerven, Amrit Kaur Sakhi, Cathrine Thomsen, Azemira Sabaredzovic, Kai-Haakon Carlsen, Karin C Lødrup Carlsen*
- P3-592 **Ambient Air Pollution Exposure, Biomonitoring and Birth Weight: an Approach Combining Bioaccumulation of Trace Elements in Leaves and Tradescantia Micronucleus (Trad- MCN) Assay**  
*Camila M. Villegas-Cintra, Ligia V. Barrozo, Alfésio L. F. Braga, Regiani Carvalho-Oliveira, Armando R. Tavares, Jorge L. M. Young, Shoey Kanashiro, Luiz A. A. Pereira, Paulo H. N. Saldiva*
- P3-593 **Clara Cell Protein in Serum or Urine as Biomarker for Environmental Effects on Airways or Kidney - Aspects on Variability**  
*Lars Barregard, Ghofran Jasem*
- P3-595 **Variability of Urinary Cadmium Excretion in Spot Urine Samples, First Morning Voids, and 24 H Urine in a Healthy Non-Smoking Population: Implications for Study Design**  
*Magnus Akerstrom, Lars Barregard, Thomas Lundh, Gerd Sallsten*
- AIR POLLUTION: OCCUPATIONAL AND INDUSTRIAL EXPOSURE**
- P3-594 **Cancer Incidence among Oil Refinery Workers in Sweden**  
*Ralph Nilsson, Gerd Sallsten, Magnus Akerstrom, Eva M Andersson, Lars Barregard, Bengt Järnholm*
- P3-596 **Personal Exposure to Benzene and 1,3-Butadiene from Petroleum Products during Loading Activities in the Oil Harbor**  
*Magnus Akerstrom, Pernilla Almerud, Lisa Svedbom, Bo Strandberg, Gerd Sallsten*
- FETAL EFFECTS OF MATERNAL AIR POLLUTION EXPOSURE**
- P3-597 **Maternal Exposure to Nitrogen Dioxide during Pregnancy and Birth Weight: a Study in São Paulo, Brazil**  
*Camila M. Villegas-Cintra, Alfésio L. F. Braga, Lourdes C. Martins, Luciana D. M. Pastro, Paulo H. N. Saldiva, Luiz A. A. Pereira*
- P3-598 **An Independent Effect of Sulphur Dioxide Exposure on Birth Weight**  
*Maayan Yitshak Sade, Lena Novack, Daniella Landau, Itai Kloog, Batia Sarov, Reli Hershkovitz, Galil Aharon, Isabella Karakis*
- P3-599 **Case-Crossover Study on Ambient Air Pollution and the Adverse Pregnancy Outcomes of Women in Beijing, China**  
*Xiaochuan Pan, Yakufu Aimaier*
- P3-600 **Effects of Air Pollution and Gestational Nutritional Status in Fetal Weight in the Third Trimester of Pregnancy**  
*Silvia Saldiva, Lisandra S Bernardes, Ana L S Castro, Mariana A Carvalho, Luciana Pastro, Sandra E Vieira, Rossana PV Francisco, Paulo HN Saldiva*
- P3-601 **The Association between Ambient Fine Particulate Matter, Nitrogen Dioxide, and Preterm Birth**  
*Sarah Johnson, Jennifer Bobb, Kaz Ito, Beth Elston, Thomas Matte, Jessie Carr Shmool, Francesca Dominici, Zev Ross, Tara McAlexander, Jane Clougherty, David Savitz*
- P3-602 **Effects of Airborne Lead Exposure on Adverse Birth Outcomes**  
*Sandie Ha, Hui Hu, Xiaohui Xu*
- P3-603 **Ambient Air Pollutant PM<sub>10</sub> and Risk of Preterm Birth in Lanzhou, China**  
*Nan Zhao, Jie Qiu, Yaqun Zhang, Xiaochun He, Min Zhou, Min Li, Xiaoying Xu, Hongmei Cui, Ling Lv, Xiaojuan Lin, Chong Zhang, Honghong Zhang, Ruifeng Xu, Daling Zhu, Ru Lin, Tingting Yao, Yun Dang, Xudong Han, Hanru Zhang, Haiya Bai, Ya Chen, Zhongfeng Tang, Wendi Wang, Yueyuan Wang, Xiaohui Liu, Bin Ma, Sufen Liu, Weitao Qiu, Huang Huang, Jiabin Liang, Qiong Chen, Min Jiang, Lan Jin, Theodore Holford, Brian Leaderer, Michelle Bell, Qing Liu, Yawei Zhang*
- P3-604 **A Distributed Lag Model for Assessing Critical Exposure and Outcome Windows in a Study of Air Pollution and Preterm Birth**  
*Howard H Chang, Joshua L Warren, Lyndsey A Darrow, Brian J Reich, Lance A Waller*
- P3-605 **Ambient Air Pollution and Fetal Development: Spatial Temporal Analysis of PM<sub>2.5</sub> and Preterm Birth in New Jersey and Utah (2001-2008)**  
*Kaila McDonald, Simon Brewer, Kevin Henry, Jessica Sanders, Kathryn Grace*

- P3-606 **Effect of Air Pollution on Birth Weight and Infant Respiratory Health**  
*Sandra Vieira, Alexandre Ferraro, Silvia Saldiva, Ana Castro, Isabela Scharff, Julia Miquelin, Rossana Francisco, Paulo Saldiva*
- P3-607 **Domino Project: Data Mining and Newborn Outcomes Exploring Environmental Variables**  
*Alvaro Osornio-Vargas, Osmar Zaiane, DoMiNO Team, Osnat Wine*
- P3-608 **Effects of PM10 Concentrations on Birth Outcomes -Do Seasonality Act as Effect Modifier?**  
*Giehae Choi, Hyo-Mi Kim, Jina Heo, Honghyok Kim, Shinwoo Kim, Ga-ram Byun, Jong-Tae Lee*
- P3-609 **Effect of PM10 and NO2 on Children's Weight at 6, 12, 24 and 36 Months of Age: Mothers and Children's Environmental Health (MOCEH) Study**  
*Eunjeong Kim, Hyesook Park, Yun-Chul Hong, Mina Ha, Yangho Kim, Byung-Mi Kim, Eun-Kyo Park, Eun-Hee Ha*
- P3-610 **Lingering Effect of Exposure to Air Pollution during Pregnancy on Weight of Children**  
*Sanghyuk Bae, Young Ah Lee, Jin Hee Kim, Choong Ho Shin, Yun-Chul Hong*
- P3-611 **Association between Ambient Air Pollution and Stillbirth in São Paulo City, Brazil**  
*Mariana Guimarães, Luiz Pereira, Alfésio Braga, Gerard Hoek, Bert Brunekreef*
- P3-612 **The Possible Association between Exposure to Air Pollution and the Risk for Congenital Malformations**  
*Adel Farhi, Valentina Boyko, Yoni Almagor, Itzhak Benenson, Enrico Serge, Yinon Rudich, Eli Stern*
- P3-613 **An Effect of Household Environment and Nitrogen Dioxide Pollution on Congenital Malformations**  
*Daniella Landau, Lena Novack, Maayan Yitshak-Sade, Batia Sarov, Itai Kloog, Reli Hershkovitz, Itamar Grotto, Isabella Karakis*
- P3-614 **Association of Stillbirth with Ambient Air Pollution in a California Cohort Study**  
*Varada Sarovar, Brian Malig, Rupa Basu, Rachel Broadwin, Shelley Green*
- P3-615 **Association between Traffic-Related Air Pollution and Cognitive Development in a Prospective Italian Birth Cohort**  
*Daniela Porta, Silvia Narduzzi, Giulia Cesaroni, Chiara Badaloni, Valentina Colelli, Joel Schwartz, Francesco Forastiere*
- P3-616 **Maternal Indoor Pesticide Use and Risk of Childhood Autism Spectrum Disorders and Other Developmental Concerns in the MARBLES Longitudinal Birth Cohort**  
*Jacqueline Barkoski, Deborah Bennett, Jennifer Thomas, Irva Hetz-Piccioletto*
- P3-617 **Early-Life Exposure to Polycyclic Aromatic Hydrocarbons and ADHD Behavior Problems**  
*Frederica Perera, Hsin-wen Chang, Deliang Tang, Emily Roen, Julie Herbstman, David Camaan, Rachel Miller, Amy Margolis, Shuang Wang, Virginia Rauh*
- P3-618 **Spatial Analysis of Birth Defects in Massachusetts to Investigate Social and Environmental Risk Factors**  
*Mariam Girguis, Scott Bartell, Verónica Vieira*
- P3-619 **Effects of Air Pollution in Amniotic Fluid Index in the Third Trimester of Pregnancy**  
*Mariana Azevedo Carvalho, Lisandra Stein Bernardes, karen Hettfleisch, Luciana D M Pastro, Silvia R.D.M Saldiva, Rossana P. V. Francisco, Paulo Hilário Nascimento Saldiva*
- P3-620 **Prenatal Air Pollutant Exposure and Occurrence of Atopic Dermatitis**  
*Hintchun Huang, Ching-Chun Huang, Yue-liang Leon Guo, Hui-Ju Wen*
- P3-621 **Ambient Air Pollution and Preterm Birth: A Time-To-Event Analysis in Georgia, 2002-2006**  
*Hua Hao, Howard Chang, Lyndsey Darrow, Heather Holmes, James Mulholland, Matthew Strickland*

**ACUTE EFFECTS OF CHILDHOOD AIR POLLUTION EXPOSURE**

- P3-622 **Satellite-Derived Estimates of Ambient Fine Particulate Matter and Pediatric Emergency Department Visits in Georgia, 2002-2010: a Case-Crossover Study**  
*Hua Hao, Yang Liu, Xuefei Hu, Howard Chang, Lyndsey Darrow, Matthew Strickland*
- P3-623 **The Shape of Concentration-Response Function for Air Pollution Related Pediatric Respiratory Admissions in a High Concentration Range: Datong Study, China**  
*Tian Sang, Jeremiah Liu, Zhao Yang, Yanping Zhang, Jinliang Zhang*
- P3-624 **Nonlinear Concentration-Response Function between Ambient Air Pollution and Children's Hospital Admissions at High Concentration Range: Evidence from Linfen, China**  
*Zhao Yang, Jeremiah Liu, Tian Sang, Yanping Zhang, Jinliang Zhang*
- P3-625 **Nonlinear Concentration-Response Function between Air Pollution and Children's Hospital Admissions at High Concentration Levels: Evidence from Yangquan, China**  
*Jeremiah Liu, Zhao Yang, Tian Sang, Yanping Zhang, Baoxin Zhao, Jinliang Zhang*
- P3-626 **Ambient Ozone and Children's Acute Asthma in New York City: a Comparison of Time-Series and Case-Crossover Analyses with Spatially-Resolved Air Pollution Metrics**  
*Jiang Zhou, Jessie Shmool, Jane Clougherty*
- P3-627 **Relationship between Ambient Air Quality and Exacerbation Asthma Symptoms in Children: a Panel Study**  
*Eun-Hye Kim, Byoung-Hak Jeon, Hae-Kwan Cheong, Jihyun Kim, Youngshin Han, Kangmo Ahn*

- P3-628 **Respiratory Effects of Ambient Air Pollution on School Children from Turkey**  
*Hicran Altug, Eftade O Gaga, Ozan D. Yay, Özlem Özden, Akif Ari, Sermin Örnektekin, Tuncay Dögeroglu, Bert Brunekreef, Gerard Hoek, Wim Van Doorn*
- P3-629 **Living Environment in Slums and Prevalence of Acute Respiratory Infection among Children in Eight Selected Cities of India**  
*Chandrashekhar Chandrashekhar, Bornali Dutta*
- P3-630 **Using Community-Based Participatory Research (CBPR) to Identify Areas of Concern Regarding Neighborhood Children's Exposures to Air Pollution Using Tree Leaves as Biomonitors**  
*Sara Gillooly, Sheila Tripathy, Tyler Rubright, Jane Clougherty, Anita Zuberi, Anna Kasunic, Shannah Tharp Gilliam, John Wallace, Jr., Michael Yonas*

**MATERNAL SUPPLEMENT & PRESCRIPTION DRUG USE**

- P3-631 **Integrating Family Planning and Vitamin A Supplementation into an Integrated Six-Month Contact Point in Sierra Leone**  
*Habib Issa Kamara*
- P3-632 **Early Prenatal Antibiotic Exposure and Body Size in Mid- Life: Prospective Evidence from the Child Health and Development Studies**  
*Lauren Zimmermann, Piera Cirillo, Barbara Cohn*

**PERSISTENT ORGANIC POLLUTANTS, PREGNANCY & CHILDREN'S HEALTH**

- P3-633 **Association of Prenatal Perchlorate, Thiocyanate, Nitrate and Iodide Exposure with Birth Weight, Length, and Head Circumference**  
*Kristin Evans, David Rich, Barry Weinberger, Anna Vetrano, Liza Valentin-Blasini, Pamela Ohman-Strickland, Ben Blount*
- P3-634 **Prenatal Exposure to Phthalates, Perfluoroalkyl Substances and Organochlorines and Birth Weight**  
*Virissa Lenters, Lützen Portengen, Anna Rignell-Hydbom, Bo AG Jönsson, Christian H Lindh, Aldert H Piersma, Gunnar Toft, Jens Peter Bonde, Dick Heederik, Lars Rylander, Roel Vermeulen*
- P3-635 **Prenatal Phthalate Exposures and Childhood Body Mass Index in Three Children's Environmental Health Center Cohorts**  
*Jessie Buckley, Stephanie Engel, Amy Herring, Joseph Braun, Robin Whyatt, Julie Daniels, Michelle Mendez, David Richardson, Bruce Lanphear, Mary Wolff, Andrew Rundle*
- P3-636 **Prenatal Exposure to Perfluoroalkyl Acids and Serum Testosterone Concentrations in 15-Year Old Females**  
*Maisonet Mildred, Calafat Antonia, Michele Marcus, Jouni Jaakkola, Hany Lashen*
- P3-637 **Cross Sectional and Longitudinal Data Relating Exposures to Phthalates and Thyroid Function in a Birth Cohort**  
*Rachelle Morgenstern, Robin Whyatt, Beverly Insel, Antonia Calafat, Xinhua Liu, Virginia Rauh, Pam Factor-Litvak*
- P3-638 **Effects of Phthalate Exposure on Thyroid Hormones in Early Pregnancy**  
*Po-Chin Huang, Pao-Lin Kuo, Wei-Yen Liang, Sin Mei Lo, Sih-Syuan Li, Hung-Che Chiang*
- P3-639 **Di-(2-Ethylhexyl) Phthalate Is Associated with Autism Spectrum Disorder and Attention-Deficit/Hyperactivity Disorder in Children**  
*Hyemi Lee, Ho-Jang Kwon, Mina Ha, Yun-Chul Hong*
- P3-640 **The Effect of Organochlorine Pollution on the Incidence of Endemic Goiter (EG) among School Children**  
*Gulnara Toichueva*
- P3-641 **Prenatal Exposure to Polybrominated Diphenyl Ethers and Polyfluoroalkyl Chemicals and Neurobehavioral Outcomes in Early Infancy**  
*Stephanie Donauer, Aimin Chen, Yingying Xu, Antonia Calafat, Andreas Sjodin, Kimberly Yolton*
- P3-642 **Prenatal and Postnatal Exposure to Phthalate and Neurocognitive Development in Children: a 12-Year Follow-Up of Taiwan Maternal and Infant Cohort Study**  
*Han-Bin Huang, Hsin-Yi Chen, Pen-Hua Su, Chien-Wen Sun, Chien-Jen Wang, Hsiao-Yen Chen, Shu-Li Wang*
- P3-643 **Maternal Occupation in Agriculture and Congenital Malformation of the Nervous System in Offspring: a Population-Based Case-Control Study in Southeast, Brazil**  
*Adalberto Miranda Filho, Rosalina Koifman, Sergio Koifman, Gina Rego Monteiro*
- P3-644 **Exposure to Perfluoroalkyl Chemicals and Neurodevelopment at 6 Months of Age**  
*Houman Goudarzi, Tamiko Ikeno, Sachiko Kobayashi, Atsuko Araki, Chihiro Miyashita, Seiko Sasaki, Sonomi Nakajima, Hiroyuki Nakazawa, Reiko Kishi*
- P3-645 **Childhood Neurodevelopment Improves Over Time after a Period of Heightened Pesticide Usage in Agricultural Communities**  
*Jose Ricardo Suarez, Harvey Checkoway, Wael Al-Delaimy, Sheila Gahagan*

- P3-646 **Gestational Exposure to Polychlorinated Biphenyls and Dibenzofurans Induced Asymmetric Hearing Loss: Yucheng Children Study**  
*Ming-Chieh Li, Hung-Pin Wu, Chiu-Yueh Yang, Pau-Chung Chen, George H. Lambert, Yue-Liang Leon Guo*
- P3-647 **Prenatal Urinary Phthalate Metabolites Levels and Behavior at School Age in Mexican Children**  
*Martha-María Téllez-Rojo, Alejandra Cantoral, Lourdes Schnaas, Deborah Watkins, Mariana Torres-Calapiz, Howard Hu, Karen Peterson, John Meeker*
- P3-648 **Older Maternal Age, Chlorinated Solvent Emissions, and Selected Birth Defects in Offspring**  
*Jean Brender, Mayura Shinde, F. Benjamin Zhan, Xi Gong, Peter Langlois*
- P3-649 **Residential Proximity to Agricultural Pesticides and Risk of Non-Cardiac Birth Defects**  
*Kristen M Rappazzo, Joshua L Warren, Robert E Meyer, Amy H Herring, Alison P Sanders, Naomi C Brownstein, Thomas J Luben*
- P3-650 **Prenatal Exposure to p,p'-DDE and Incidence of Diarrhea among Young Boys from a Highly Exposed Area of Mexico**  
*Lea Cupul-Uicab, Efrain Terrazas-Medina, Mauricio Hernández-Ávila, Matthew Longnecker*
- P3-651 **Characterization of Pesticide Exposure in a Sample of Pregnant Women in Ecuador: Results of a Pilot Longitudinal Cohort Study**  
*Alexis J. Handal, Lauren Hund, Maritza Paez, Dana Barr*
- P3-652 **Exploring Cancer Development in Adulthood: Cholinesterase Depression and Genotoxic Effect from Chronic Exposure to Organophosphate Pesticides among Rural Farm Children**  
*Vivien How, Zailina Hashim, Patimah Ismail*
- P3-653 **The Exposure of Pregnant Women and Their Offspring to Environmental Contaminants – a Description of a Study from Jerusalem and Preliminary Results**  
*Ela Ein Mor, Zivanit Ergaz-Shaltiel, Ronit Haimov-Kochman, Smadar Even-Tov, Noa Ofek, Ronit Calderon-Margalit*
- P3-654 **Associations between Levels of Perfluorinated Chemicals in Cord Blood and Lung Function, Allergic Diseases at 8 Years of Age**  
*Yu-Chen Dong, Mei-Huei Chen, Wu-Shiun Hsieh, Pau-Chung Chen*

## POSTER SESSION 3 - CONTINUED

Mary Gates Hall  
Second Floor Commons

## ETHICS &amp; POLICY

- P3-655 **First Steps towards Public Participation in the Pesticide Regulatory Process in Israel**  
*Sari Rosen, Maya Negev, Sarit Caspi-Oron, Daphna Shalev-Korenblit*
- P3-656 **Air Pollution, Health, and Environmental Justice Implications of Shifting Transportation Fuels in the United States**  
*Christopher Tessum, Jason Hill, Julian Marshall*
- P3-657 **Preventing Bias through Understanding Its Psychosocial Roots**  
*Raymond Richard Neutra*
- P3-658 **Roles of Scientists as Policy Advisers on Complex Issues: a Literature Review**  
*Pita Spruijt, Erik Lebret, Arthur C. Petersen, Anne B. Knol, Eleftheria Vasileiadou*
- P3-659 **Different Roles and Viewpoints of Scientists as Policy Advisers; the Cases of Electromagnetic Fields, Particulate Matter and Antimicrobial Resistance**  
*Pita Spruijt, Erik Lebret, Sander S.C. Clahsen, Anne B. Knol, Arthur C. Petersen*
- P3-660 **Community-Academic Partnership in an Environmental Justice Community: Lessons Learned**  
*Sheryl Magzamen, Julie Richman Fox, Nancy Beaudet, Jill Schulte, Joel Kaufman*
- P3-661 **Public Perceptions of Environmental Health Risks in the United States**  
*Mikyong Shin, Lisa B Hines, Heather Strosnider, Lina Balluz*
- P3-662 **Motivating Mitigation: Does Health Matter More Than Climate Change?**  
*Nada Petrovic, Jaime Madrigano, Lisa Zaval*
- P3-663 **Executive Summary of Urban Environmental Profile for Ulaanbaatar**  
*Christopher Riddselius, Odtsetseg Dorjderem*
- P3-664 **Exposure Biomarker Communication to Study Participants**  
*Susan M. Pinney, Robert L. Herrick, Jeanette M. Buckholz, Gail Greenburg, Margaret Monroe, Christine Mosbaugh, Anita Southwick, Veronica Ratliff, Alex Daniels, Frank M. Biro*
- P3-665 **Post-Belmont Ethics and the Challenge of Results Communication in Biomonitoring Studies: Lessons from Genetics and Imaging Research**  
*Rachel Morello-Frosch, Julia Varshavsky, Max Liboiron, Phil Brown*
- P3-666 **The EPA/NIEHS Children's Environmental Health and Disease Prevention Research Centers: More Than 15 Years of Innovative Research on Important Challenges in Children's Environmental Health**  
*Kimberly Gray, Nica Louie*

- P3-667 **When Doctors Carry Out Mass Poisoning to Promote the Greater Good: the Case for Moral Capital**  
*Elihu Richter, Tamar Pileggi*

**AIR POLLUTION: CANCER**

- P3-668 **PAH and Breast Cancer: a Review of the Literature**  
*Jessica Korsh, Kristen Aliano, Thomas Davenport*
- P3-669 **Mapping the Risk of Breast Cancer to Exposure from Traffic- Related Air Pollution Using Land-Use Regression in Vancouver, B.C**  
*Nicollette Kwon, Kristan Aronson, John Spinelli, Dongmei Chen, Michael Mclsaac, Harriet Richardson*
- P3-670 **Air Pollution and Mortality Patterns in University's Professors at Guadalajara's Metropolitan Area**  
*Leticia Naveli Soltero Rodriguez*
- P3-671 **Characterization of Exposure to Air toxics with Carcinogenic Effects and Their Health Impacts in U.S. Populations**  
*Ying Zhou, Chaoyang Li, Moiz Mumtaz*
- P3-672 **Incidence of Neoplastic Diseases and the Impact of Industrial Emissions in an Italian Contaminated Site**  
*Lucia Fazzo, Mario Carere, Francesco Tisano, Caterina Bruno, Achille Cernigliaro, Maria Rita Cicero, Pietro Comba, Maria Lia Contrino, Marco De Santis, Fabrizio Falleni, Vincenzo Ingallinella, Anselmo Madeddu, Ida Marcello, Corrado Regalbuto, Gina Enzo Sciacca, Maria Eleonora Soggiu, Amerigo Zona*
- P3-673 **The Effects of Long-Term Air Pollution Exposure on Lung Cancer Hospital Admission in Beijing**  
*Liqun Liu, Nan Wang, Xiaochuan Pan*
- P3-674 **Interactions between Cigarette Smoking and Ambient PM<sub>2.5</sub> for Lung Cancer Mortality in the Cancer Prevention Study-II**  
*Michelle Turner, Aaron Cohen, Michael Jerrett, Susan Gapstur, Ryan Diver, Arden Pope, Daniel Krewski, Bernardo Beckerman, Jonathan Samet*
- P3-675 **Peritoneal Mesothelioma in Italy, a Former Asbestos Producing Country: a Population-Based Study Regarding Mortality and Incidence**  
*Susanna Conti, Giada Minelli, Valeria Ascoli, Alessandro Marinaccio, Michela Bonafede, Valerio Manno, Roberta Crialesi*
- P3-676 **Environmental Asbestos Exposure and Pleural Malignant Mesothelioma in Italy**  
*Alessandro Marinaccio, Alessandra Binazzi, Michela Bonafede, Marisa Corfiati, Davide Di Marzio, Alberto Scarselli, Sergio Iavicoli*
- P3-677 **Cancer and Adverse Birth Outcomes in an Area (Tonawanda, NY) with Elevated Air toxics Concentrations**  
*Kamal Nain Siag, Elizabeth Lewis-Michl, June Moore, Ming Liu, James Bowers*
- P3-678 **Association between Children Leukemia and Road Length in the Vicinity of Children Home. Report from GEOCAP, a French Nationwide Record-Based Study 2002-2007 Comparing 2,760 Cases and 30,000 Controls**  
*Jennifer Houot, Fabienne Marquant, Denis Hemon, Jacqueline Clavel*
- P3-679 **Infant Leukaemia and Maternal Exposures during Pregnancy**  
*Ludwine Castelyn, Karel van Damme*

**AIR POLLUTION: OXIDATIVE STRESS & INFLAMMATION**

- P3-680 **Systemic Inflammation, Hemodynamics, and Air Pollution in Non-Smoking Adults**  
*Szu-Ying Chen, Chang-Chuan Chan, Ta-Chen Su*
- P3-681 **Using Structural Equation Modeling to Assess the Association between Traffic-Related Air Pollution and Systemic Inflammation**  
*Kevin Lane, Johnathan Levy, Madeleine Scammell, Christina Fuller, Junenette Peters, Allison Patton, John Durant, Wig Zamore, Mkaya Mwamburi, Doug Brugge*
- P3-682 **Associations between Novel Air Pollution Markers and Blood Biomarkers of Inflammation and Coagulation/Fibrinolysis in Three Susceptible Populations**  
*Regina Ruckerl, Regina Hampel, Susanne Breitner, Josef Cyrys, Ute Kraus, Jackie Carter, Lisa Dailey, Robert B Devlin, Richard Phipps, David Diaz-Sanchez, Joleen Soukup, Robert Silbajoris, Jens Soentgen, Wolfgang Koenig, Annette Peters, Alexandra Schneider*
- P3-683 **Air Pollution and Biomarkers of Systemic Inflammation and Tissue Repair in COPD Patients**  
*Payam Dadvand, Mark J Nieuwenhuijsen, Àlvar Agustí, Jordi de Batlle, Marta Benet, Rob Beelen, Marta Cirach, David Martinez, Gerard Hoek, Xavier Basagaña, Antoni Ferrer, Jaume Ferrer, Robert Rodriguez-Roisin, Jaume Sauleda, Stefano Guerra, Josep M Antó, Judith Garcia-Aymerich*
- P3-684 **Associations between Long-Term Exposure to Air Pollution and Inflammatory Markers in the General Population**  
*Jelle Vlaanderen, Nahid Mostafavi, Ingvar Bergdahl, Domenico Palli, Rob Beelen, Soterios Kyrtopoulos, Paolo Vineis, Gerard Hoek, Roel Vermeulen*

- P3-685 **Inflammatory Response of Monocytes to Ambient Particles Varies by Highway Proximity**  
*Rob McConnell*
- P3-686 **Urban Traffic Air Pollution Induces Modest but Significant Alterations in Markers of Inflammation and Blood Coagulability: a Panel Study with Outdoor Workers in São Paulo, Brazil**  
*Carmen Saldiva de André, Maria Lucia Bueno Garcia, Alfésio Luís Ferreira Braga, Ubiratan P. Santos, Julio da Motta Singer, Silvia Regina Medici Saldiva, Paulo Saldiva*
- P3-687 **Protein Oxidation by Fine Haze Particulate Matter**  
*Hsiao-Chi Chuang, Kang-Yun Lee, Kai-Jen Chuang, Jun-Ji Cao, Linwei Tian, Kin-Fai Ho*
- P3-688 **Effects of Antioxidant Treatment in a Randomized Control Study of Diesel Exhaust Inhalation**  
*Kristen Cosselman, Jason Allen, Karen Jansen, Joel Kaufman*
- P3-689 **Association of Particulate Matter at a Central Monitor with Cortisol Levels in a Cohort of Puerto Rican Adults**  
*Yating Yeh, Mohan Thanikachalam, Darrel Gachette, Choong-Min Kang, Katherine Tucker, Doug Brugge*
- P3-690 **Associations between Three Specific A-Cellular Measures of the Oxidative Potential of Particulate Matter and Markers of Acute Airway and Nasal Inflammation**  
*Nicole Janssen, Maciej Strak, Aileen Yang, Bryan Hellack, Frank Kelly, Thomas Kuhlbusch, Roy Harrison, Bert Brunekreef, Flemming Cassee, Maaike Steenhof, Gerard Hoek*
- P3-691 **Association between Environmental and Meteorological Factors with Schizophrenia Exacerbation**  
*Nurit Shlafman, Alina Vodonos, Doron Toder, Nimrod Grisaru, Victor Novack*
- P3-692 **Isoprostane and Glutathione as Biomarkers of Oxidative Stress in a Population of Healthy and Pathological Subjects, According to Smoking Habits**  
*Roberto Bono, Giulia Trucco, Valeria Bellisario, Roberta Tassinari, Simone Accordini, Pavilio Piccioni, Massimiliano Bugiani*

#### ACUTE EFFECTS OF CHILDHOOD AIR POLLUTION EXPOSURE

- P3-693 **Air Pollution and Daily Admissions to Pediatric Emergency Room for Acute Respiratory Diagnoses in Turin, ITALY**  
*Roberto Bono, Pierpaolo Marchetti, Valeria Romanazzi, Valeria Bellisario, Alessandro Marcon, Roberta Tassinari, Antonio Urbino, Giorgio Arduino, Giorgio Gilli*
- P3-694 **Control Measures to Reduce Exposure to Environmental Tobacco Smoke and Its Relationship with the Presence of Respiratory Diseases among Schoolchildren in Santiago, Chile**  
*Soledad Burgos, Verónica Iglesias, Stephanie Mesías, Sergio Alvarado, Marcia Erazo, María Pía Muñoz, Helia Silva, María Teresa Valenzuela, Andrea Droppelmann, Ana Navas-Acien*

#### SOCIAL DETERMINANTS OF HEALTH

- P3-695 **Differences in the Indoor Air Quality: from the Slum to the Public Housing**  
*Soledad Burgos, Verónica Iglesias, Pablo Ruiz, Rosalina Koifman*
- P3-696 **Female Caregiver Attributes as Mediators of Environmental Health in Selected Low Income Settings in Africa – Insights from Cape Town, South Africa**  
*Yakubu Almu-Min Yakubu*
- P3-697 **Poverty and the Challenge of Urban Health and Well-Being in Nigeria**  
*Geoffrey Nwaka*
- P3-698 **Parental Income Is More Important Than Parental Education to Children's Health and Wellbeing in Adulthood: Evidence from the Tromsø Study**  
*Mashhood Ahmed Sheikh*
- P3-699 **Validating Administrative Social Stressor Indicators Using Survey Data on Perceived Stress across New York City**  
*Jessie Carr Shmool, Laura Kubzansky, Ogonnaya Dotson Newman, John Spengler, Peggy Shepard, Jane Clougherty*
- P3-700 **Depression and Anxiety in Adults Living in Slums Are Associated with Water Access**  
*Jutta Lindert*
- P3-701 **Mental Health Status of Bavarian Preschool Children**  
*Angelika Zach, Nicole Meyer, Lana Hendrowasito, Stefanie Kolb, Dorothee Twardella, Gabriele Bolte, Uta Nennstiel-Ratzel, Caroline Herr, GME study group*
- P3-702 **Illness Related Absenteeism among Primary School Pupils in the Niger-Delta**  
*Adetoun Mustapha, David Briggs, Anna Hansell*
- P3-703 **Geographic and Gender Differences in the Prevalence of Childhood Speech and Language Impairment in Taiwan**  
*Yen-Cheng Tseng, Der-Chung Lai, How-Ran Guo*

- P3-704 **Land Use, Household Vulnerability and Dual Disease Burden among Children Living in the Peruvian Amazon**  
*Beth Feingold, William Pan, Gabriela Salmon Mulanovich, Abel Estela Manrique*
- P3-705 **City Specific Spatio-Temporal Trend of Infant and Neonatal Mortality Clusters. Links with Socioeconomic and Air Pollution Spatial Patterns in France**  
*Cindy Padilla, Wahida Kihal-Talantikit, Veronica.M Vieira, Denis Zmirou Navier, Severine Deguen*
- P3-706 **An Evaluation of Neighborhood-Level Socioeconomic Influences on Air Pollution-Asthma Associations in Atlanta**  
*Cassandra O'Lenick, Andrea Winquist, James Mulholland, Mariel Friberg, Howard Chang, Michael Kramer, Stefanie Sarnat*
- P3-707 **Air Pollution, Cardiovascular Health, and the Modifying Role of Social Disadvantage: the Multi-Ethnic Study of Atherosclerosis**  
*Margaret Hicken, Sara D. Adar, Anjum Hajat, Kiarri Kershaw, R. Graham Barr, Joel Kaufman, Ana Diez Roux*
- P3-708 **The Influence of Socioeconomic Status on the Association between Particulate Matter (PM<sub>10</sub>) and Non-Accidental Mortality in Seoul Korea**  
*E Jin Kim, Ho Kim*
- P3-709 **Path Models Investigate the Association between Regional Socio-Economic Factors and Annual Average Air Pollution Exposures**  
*Tommaso Panni, Anu W. Turunen, Josef Cyrus, Kathrin Wolf, Alexandra Schneider, Timo Lanki, Annette Peters*
- P3-711 **Epidemiological Status in Selected States of India: Causes of Death Analysis**  
*Rahul Koli*
- P3-712 **Environmental, Social, and Cultural Factors Associated with Self-Rated Health**  
*Judy Ou, Junenette Peters, Jonathan Levy, Roseann Bongiovanni, Madeleine Scammell*
- P3-713 **Household Socioeconomic Status and Traffic Pollution Exposure in Urban Los Angeles**  
*Francis Soyeze-Murrell, Shu Yang Hu*
- P3-714 **How Within-City Socioeconomic Disparities Affect Life Expectancy? Results of Urban HEART in Tehran, Iran**  
*Yaser Mokhayeri, Mahmood Mahmoudi, Ali Akbar Haghdoost, Hassan Amini, Mohsen Asadi-Lari, Kourosh Holakouie Naieni*

**ENVIRONMENTAL DETERMINANTS OF CANCER**

- P3-715 **Spatial Epidemiology and Pattern Analysis of Childhood Cancers in Tehran, Iran**  
*Hassan Amini, Morteza Seifi, Sadegh Niazi Esfyani, Masud Yunesian*
- P3-716 **Early Mortality from Malignant Neoplasms of Pleura, a Proxy for Environmental Exposure to Asbestos in Childhood**  
*Ivano Iavarone, Susanna Conti, Marco De Santis, Roberta Pirastu, Pietro Comba*
- P3-717 **Benzene Exposure and Risk of Lymphohematopoietic Cancers in 25,000 Offshore Oil Industry Workers**  
*Tom K Grimsrud, Jo S Stenehjem, Kristina Kjørheim, Magne Bråtveit, Sven Ove Samuelsen, Francesco Barone-Adesi, Nathaniel Rothman, Qing Lan*
- P3-718 **Risk Factors for Prostate Cancer**  
*Fatima Hamad*
- P3-719 **Antihypertensive Use and Breast Cancer Risk in the Sister Study**  
*Lauren Wilson, Aimee D'Aloisio, Dale P. Sandler, Jack Taylor*
- P3-720 **Environmental Exposure to Dioxins and Risk of Breast Cancer: the GEO3N Pilot Study in the Rhône-Alpes Region, France**  
*Aurélie Danjou, Laure Dossus, Elodie Faure, Lucie Anzivino-Viricel, Nicolas Dalleau, Pietro Salizzoni, Françoise Clavel-Chapelon, Béatrice Fervers*
- P3-721 **Exposure Biomarkers as Tools for Breast Cancer Epidemiology, Biomonitoring, and Prevention**  
*Ruthann Rudel, Janet Ackerman, Kathleen Attfield, Robin Dodson, Julia Brody*

**AIR POLLUTION: AGING**

- P3-722 **Cognitive Impacts of Air Pollution**  
*Lindsay Tallon, Justin Manjourides*
- P3-723 **Long-Term Exposure to Traffic-Related Air Pollution in Relation to Physical Disability and Its Progression in Older Age**  
*Jennifer Weuve, Joel Kaufman, Adam Szpiro, Cynthia Curl, Robin Puett, Todd Beck, Denis Evans, Carlos Mendes de Leon*

- P3-724 **Long-Term PM<sub>2.5</sub> Exposure and Mortality in 209 US Cities and Effect Modification by Temperature**  
*Marianthi-Anna Kioumourtzoglou, Yun Wang, Francesca Dominici, Joel Schwartz, Antonella Zanobetti*
- AIR POLLUTION: DIABETES AND THE METABOLIC SYNDROME**
- P3-725 **Chronic Effects of Traffic-Related Air Pollution on Incidents of Cardiovascular Disease among Taiwanese Adults**  
*Yu-Kai Huang, Jui-Huan Lee, Chang-Chuan Chan*
- P3-726 **Long-Term Air Pollution Exposure and Diabetes in a Population-Based Swiss Cohort**  
*Ikenna Eze, Emmanuel Schaffner, Evelyn Fischer, Tamara Schikowski, Martin Adam, Medea Imboden, Ming Tsai, David Carballo, Arnold von Eckardstein, Nino Künzli, Christian Schindler, Nicole Probst-Hensch*
- P3-727 **Association between Ambient Air Pollution and Diabetes Mellitus: Systematic Review and Meta-Analysis.**  
*Ikenna Eze, Lars Hemkens, Heiner Bucher, Barbara Hoffmann, Christian Schindler, Nino Künzli, Tamara Schikowski, Nicole Probst-Hensch*
- P3-728 **Association between Outdoor Air Pollution and Diabetes: Review of Literature**  
*Mónica Rodrigues*
- P3-729 **Association between Long-Term Exposures of Fine Particulate Matter and Type 2 Diabetes in Taiwan**  
*Po-Hsiu Lin, Mu-Jean Chen, Wen-Chi Pan, Chih-Da Wu, Huey-Jen Su*
- P3-730 **Long-Term Exposure to Air Pollution Associated with Glycemic Levels in Type 2 Diabetic Patients: Result from Wellcome Trust Genetic (WellGen) Study**  
*Morteza Abdullatif Khafaie, Sundeep S Salvi, Behzad Khafaie, Ajay Ojha, Chittaranjan S. Yajnik*
- AIR POLLUTION: NON-URBAN EXPOSURE**
- P3-731 **Health Effects of Asian Dust: a Systematic Review**  
*Masahiro Hashizume, Yuji Nishiwaki, Ho Kim, Haidong Kan, Yue-Liang L Guo, Chang-fu Wu, Kayo Ueda, Yasushi Honda, Michelle Bell*
- P3-732 **Modeled Global Effects of Airborne Desert Dust on Air Quality and Premature Mortality**  
*Despina Giannadaki, Andrea Pozzer, Jos Lelieveld*
- P3-733 **Effect of Interaction between Dust Exposure, Seasonality and Individual Health Characteristics on Cardiovascular Morbidity**  
*Alina Vodonos, Victor Novack, Joel Schwartz, Michael Friger*
- P3-734 **Asian Dust and Risk of Emergency Transport among Elderly People in Japan: a Case-Crossover Study**  
*Saori Kashima, Takashi Yorifuji, Etsuji Suzuki, Akira Eboshida*
- AIR POLLUTION: OCCUPATIONAL AND INDUSTRIAL EXPOSURE**
- P3-735 **Occupational Exposures and Risk of Stomach and Esophageal Cancer among a Cohort of Female Textile Workers in Shanghai, China**  
*Lisa Gallagher, Wenjin Li, Roberta Ray, Megan Romano, Karen Wernli, Dao Gao, David Thomas, Harvey Checkoway*
- P3-736 **Cancer Incidence Attributable to Asbestos Exposure in Former Shipbreaking Workers: a Matched Cohort Study**  
*Yu-Jen Lin, Wei-Te Wu, Wei-Han Wu, Chung-Yi Li, Perng-Jy Tsai, Chun-Yuh Yang, Saou-Hsing Liou, Trong-Neng Wu*
- P3-737 **Asbestos-Related Burden of Disease in Latin American Countries**  
*Roberto Pasetto, Pietro Comba, Daniela Marsili, Benedetto Terracini*
- P3-738 **Occupational Exposure to Diesel and Gasoline Emissions and the Risk of Colorectal Cancer in Canadian Men**  
*Linda Kachuri, Shelley A Harris, Marie-Élise Parent, Kenneth C Johnson*
- P3-739 **Personal Exposure to Benzene and 1,3-Butadiene during Shutdown at a Swedish Refinery**  
*Pernilla Almerud, Magnus Åkerström, Eva M Andersson, Bo Strandberg, Gerd Sällsten*
- P3-740 **Cement Dust Pollution- a Potential Health Hazard**  
*Ratna Katiyar, Vimlesh Rawat*
- P3-741 **Occupational Exposures through Inhalation and Dermal Contact among Hot Asphalt Roofers in Denver**  
*Berrin Serdar, Greg Dooley, John Volckens*
- P3-742 **Chronic Bronchitis and Chronic Obstructive Pulmonary Disease (COPD) among Textile Workers in Pakistan: Findings from a Cross-Sectional Survey**  
*Asaad Ahmed Nafees, Zafar Fatmi, Muhammad Masood Kadir, Nalini Sathiakumar*
- P3-743 **Deficits in Neurological and Neuropsychological Function vs. Cumulative Exposure to Manganese in Production Welders**  
*Frank S. Rosenthal, Eric Ward, S. Elizabeth Zauber, Shalmali Dharmadhikari, Sandy Snyder, Jeffrey Bainter, Ruoyun Ma, Zaiyang Long, Chien-lin Yeh, Rosemarie Bowler, Ulrike Dydak*

- P3-744 **Second-Hand Tobacco Smoke Exposure in Various US Occupations (NHANES 2007–08): Assessment Using Serum Cotinine and Urinary Total NNAL**  
*Binnian Wei, John T. Bernert, Benjamin C. Blount, Connie S. Sosnoff, Lanqing Wang*
- P3-745 **Tobacco Smoke Exposure among Smoking and Non Smoking Employees Working in Smoking-Allowed, Mixed and Smoke-Free Venues.**  
*Verónica Iglesias, Marcia Erazo, Andrea Droppelmann, Sergio Alvarado, Cecilia Orellana, Paulina Aceituno, Stephanie Mesías, Javiera Parro, Ana Navas-Acien*

**FOOD SAFETY**

- P3-746 **Human Aflatoxin Exposure in Kenya, 2007: a Cross-Sectional Study**  
*Ellen Yard, Johnni Daniel, Lauren Lewis, Michael Rybak, Ekaterina Paliakov, Andrea Kim, Joel Montgomery, Rebecca Bunnell, Mamo Umuro Abudo, Willis Akhwale, Robert Breiman, Shahnaaz Sharif*

**METALS: OCCUPATIONAL AND INDUSTRIAL EXPOSURE**

- P3-747 **Urinary Metal Exposures in an Artisanal Gold Mining Community in Madre De Dios, Peru**  
*Ellen Yard, Diane Dong, Melissa Halliday, Carlos Sanchez, Kathleen Caldwell*
- P3-748 **Mercury-Free Gold Production Using Borax in Artisanal Small-Scale Gold Mining in Zimbabwe to Protect Health and Environment**  
*Nadine Steckling, Stephan Bose-O'Reilly, Dennis Shoko, Stefan Muschack, Stefan Doring, Rudolf Schierl*
- P3-749 **Soil Ingestion as a Route of Mercury Exposure in a Ghanaian Small-Scale Gold Mining Community**  
*Mozhgon Rajae, Rachel Long, Thomas Robins, Elisha Renne, Niladri Basu*
- P3-750 **Living near Dump Sites in Los Laureles Canyon, Tijuana, Mexico: Significant Differences in Health Symptoms According to Location**  
*Wael Al-Delaimy, Catherine Wood Larsen*
- P3-751 **Multiple Metals Exposures amongst Community Residents in the Cadmium-Contaminated Mae Sot District, Thailand**  
*Niladri Basu, Shama Virani, Werawan Ruangyuttikarn, Muneko Nishijo, Witaya Swaddiwudhipong, Laura Rozek*
- P3-752 **Before-After Urinary Arsenic Comparison in a Human Biomonitoring in the Polluted Site of Gela, Italy**  
*Fabrizio Minichilli, Elisa Bustaffa, Liliana Cori, Fabrizio Bianchi*
- P3-753 **Levels of Lead and Mercury in Population Environmentally Exposed**  
*Fátima Moreira, Fernanda Bergamini, Andrea Sobral, Leda Jesus, Sayonara Azevedo, Regina Gomes*
- P3-754 **Lead: Contamination of Water-Crops System and Population Health in Gharb Region (NW of Morocco)**  
*F-Z. Azzaoui, H. Hami, A. Ahami, S. Boughribil, M. Elhioui*

**METALS: EXPOSURE ASSESSMENT**

- P3-755 **Monitoring and Assessment of Ambient Air Quality in the Region of Kardjali Town**  
*Jeni Staykova*
- P3-756 **National Estimates and Trend of Blood Lead, Mercury, and Cadmium Levels in the Korean General Adult Population: Data Analysis of the 2005, 2008-2011 Korean National Health and Nutrition Examination Survey**  
*Hong Young-Seoub, Seo Jeong-Wook, Lee Kyoung-Mu, Kim Byoung-Gwon, Chung Jin-Yong*
- P3-757 **Change of Longitudinal Trend of Blood Lead Level before and after Regulation of Leaded Gasoline in Korean Population**  
*Kyoung-Mu Lee, Ki-bok Kim, Young-Seoub Hong, Jeongseon Kim*
- P3-758 **Risk Factors for Lead Exposure in Adult Population in Southern Brazil**  
*Ana Carolina Lopes, Ellen Silbergeld, Ana Navas-Acien, Rachel Zamoiski, Mariana Ragassi Urbano, Maria de Fatima H. Carvalho, Marcia Liane Buzzo, Monica Maria Bastos Paoliello*
- P3-759 **The Contents and Distribution Characteristics of Atmospheric Lead in Urban China**  
*Tiansen Zou, Libo Pan, Sujuan Xue, Xiujie Fang, Fusheng WEI, Jinliang Zhang*
- P3-760 **Determining and Controlling Lead Exposure in School Children in Morelos, Mexico**  
*Paulina Farias, Urinda Alamo, José Luis Texcalac, Leonardo Mancilla*
- P3-761 **Effect of Lead Pollution Control on Childhood Blood Lead Level in Nantong, China: an Interventional Study**  
*Kai Chen*
- P3-762 **Estimating Air-Manganese Exposures in Two Ohio Towns**  
*Michelle Colledge, Jaime Wagner, Vihra Gocheva, Cheryl Beseler, Rosemarie Bowler, Danelle Lobdell*
- P3-763 **Human Biomonitoring Surveys in Slovenia: Biomarkers of Low-Level Exposure to Trace Elements**  
*Janja Snoj Tratnik, Darja Mazej, Majda Pavlin*

- P3-764 **Reference Values of Cadmium, Arsenic and Manganese in Blood and Factors Associated with Exposure Levels among Adult Population of Rio Branco, Acre, Brazil**  
*Carmen Freire, Rosalina Koifman, Denys Fujimoto, Vanessa Cristina Souza, Fernando Jr. Barbosa, Sergio Koifman*
- P3-765 **Residential Exposures to Arsenic and Hexavalent Chromium from CCA Wood**  
*Ky Gress, Lena Ma*
- P3-766 **The Separation of Arsenic Species by Using Inductively Coupled Plasma Mass Spectrometry (ICP/MS)**  
*Jin-Yong Chung, Hyoun-Ju Lim, Byoung-Gwon Kim, Young-Seoub Hong*
- P3-767 **Nutrient-Gene Interaction in Arsenic Metabolism**  
*Lizbeth López-Carrillo, Aubrey V. Herrera, R. Ulises Hernández-Ramirez, Walter Klimecki, A. Jay Gandolfi, Mariano E. Cebrián*
- P3-768 **Biomonitoring of Urinary Organic and Inorganic Arsenic in Four Different Polluted Areas in Italy**  
*Fabrizio Bianchi, Alessio Coi, Lilianna Cori, Fabrizio Minichilli, Elisa Bustaffa*
- P3-769 **Urinary Cadmium Levels and Menopausal Breast Cancer Risk: a Danish Prospective Case-Cohort Study**  
*Kirsten T. Eriksen, Anne Tjønneland, Kim Overvad, Jane A. McElroy, Caterina Vacchi-Suzzi, Mette Sørensen, Keith Levine, Jaymie R. Meliker, Ole Raaschou-Nielsen*
- P3-771 **Do Dietary Intake and Blood Level of Total Selenium Predict Circulating Levels of Selenium Species? A Cross-Sectional Study**  
*Marco Vinceti, Carlotta Malagoli, Simone Storani, Peter Grill, Bernhard Michalke*
- METALS: HEALTH OUTCOMES**
- P3-770 **Dietary Cadmium Intake and Risk of Prostate Cancer in Middle-Aged Danish Men**  
*Kirsten T. Eriksen, Jytte Halkjær, Jaymie R. Meliker, Jane A. McElroy, Mette Sørensen, Anne Tjønneland, Ole Raaschou-Nielsen*
- P3-772 **The Relation between Exposure to Environmental Selenium and Cancer Risk: a Failure of Observational Research?**  
*Marco Vinceti, Catherine Crespi, Marcella Malavolti, Carlotta Malagoli, Cinzia Del Giovane*
- P3-773 **Cadmium Exposure and Prostate Cancer in Mexico: Preliminary Results**  
*Luisa Torres-Sanchez, Ruth Argelia Vazquez-Salas, Sergio Montes-Lopez, Lizbeth Lopez-Carrillo, Mariano E Cebrian-Garcia*
- P3-774 **Association of Blood Cadmium and Lead with Prostate-Specific Antigen Levels: Results from the 2001-2010 National Health and Nutritional Examination Survey**  
*Hui Hu, Xiaohui Xu*
- P3-775 **Endometrial Cancer Risk for Sexual and Gender Minority Women in the HEER Study**  
*Jane McElroy*
- P3-776 **Arsenic Exposure and the Seroprevalence of Hepatitis a and B Antibodies in the US Population**  
*Andres Cardenas, Ellen Smit, Jeff W. Bethel, Andres Houseman, Molly L. Kile*
- P3-777 **The Association between Low-Level Blood Mercury and Lead and Immunoglobulin E in Korean Non-Allergic Population**  
*Taeshik Kim, Min-sang Yoo, Dongwook Lee, Yun-Chul Hong*
- P3-778 **Blood Metal Levels and Matrix Metalloproteinases Activity in Stroke Patients: a Hospital-Based Case-Control Study**  
*Wei-Te Wu, Yu-Jen Lin, Chung-Hsiang Liu, Saou-Hsing Liou*
- P3-779 **Heavy Metal Exposure, Vulnerability and Cardio-Metabolic Health: Results from the Survey of the Health of Wisconsin (SHOW)**  
*Kristen Malecki, Paul Creswell, F. Javier Nieto, Henry Anderson, Mark Werner*
- P3-780 **Environmental Exposure to Mercury, Lead and Cadmium and Association with Effects on Renal Function in Brazilian Adults**  
*José A. Menezes-Filho, Lorena S. Nunes, Diego A. Andrade, Júnia R. D. Ferreira, Gustavo S. Viana, Deivison Argolo, Juliana L.G. Rodrigues, Cecília F.S. Araújo*
- P3-781 **Cadmium and Lead Exposure and Risk of Age-Related Cataract in U.S. Adults**  
*Weiye Wan, Sung Kyun Park, Debra Schaumberg*
- P3-782 **Manganese Levels in Blood and Associated Factors in Urban Population Aged 40 or More in a City in the Southern Brazil**  
*Monica Paoliello, Ana Fukushigue*
- P3-783 **Cancer Mortality and Environmental Exposure of Cadmium by Geographic Information System (GIS)**  
*Wenjie Sun, Mao Wang*

**EXPOSURE ASSESSMENT: AIR POLLUTION**

- P3-784 **Increasing Chlorine Gas Exposure Estimates Are Associated with Decreasing Oxygen Saturation: a Natural Experiment Study**  
*Wenjie Sun, Dev Jani, David Reed, Bo Cai, Lawrence Mohr, James Gibson, Erik Svendsen*
- P3-785 **Effect Modification by Short Term Exposure Patterns in Time-Series Studies of Air Pollution and Health**  
*Nuredin Mohammed, Kin Bong Hubert Lam, Richard Atkinson, Ben Armstrong, H Ross Anderson, Chit Ming Wong, Jon Ayres*
- P3-786 **Air Quality Impacts of a Wood Stove Exchange Program in British Columbia, Canada**  
*Ryan Allen, Barbara Karlen, Gail Millar, Sara Leckie, Michael Brauer*
- P3-787 **Assessment of Commuters' Exposure to Traffic-Related Air Pollution in Different Travel Microenvironments**  
*Oksana Ananyeva, Olena Turos, Arina Petrosian, Tatiana Maremukha*
- P3-788 **Multi-Pollutant Mobile Platform Measurements of Air Pollutants Adjacent to the I-40 Corridor in Albuquerque, NM**  
*Erin Riley, Jonathan Fintzi, Timothy Gould, Kris Hartin, LaNae Schaal, Mark Davey, Lianne Sheppard, Timothy Larson, Michael Yost, Christopher Simpson*
- P3-789 **Concentrations of Outdoor Air Pollution (PM<sub>2.5</sub>) in Urban Informal Settlements of Nairobi, Kenya**  
*Thaddaeus Egondi, Kanyiva Muindi, Catherine Kyobutungi, Michael Gatari, Nawi Ng, Joacim Rocklöv*
- P3-790 **How Is Ambient Air Quality in Recent Years in The Capital City of Turkey, Ankara?**  
*Mustafa Babayigit, Recai Ogur*
- P3-791 **NO<sub>2</sub>, SO<sub>2</sub> and O<sub>3</sub> Indoor-Outdoor Relationships at Schools in Ekurhuleni Metropolitan Municipality, Gauteng Province, South Africa**  
*Joyce Shirinde, Janine Wichmann, Kuku Voyi*
- P3-792 **Personal Exposure to Black Carbon during Different Modes of Transport in Stockholm**  
*Anne-Sophie Merritt, Christer Johansson, Antonis Georgellis, Niklas Andersson, Tom Bellander*
- P3-793 **Continuous Personal PM<sub>2.5</sub> Exposure Measures for Preschool-Aged Children in Kunming, China**  
*Edmund Seto, Hilary Ong, David Holstius, Meiling Gao, Yan Li*
- P3-794 **Population Exposure Assessment Based on a Distributed Network of Low-Cost Continuous Reading PM<sub>2.5</sub> Sensors in Xi'an, China**  
*Meiling Gao, Junji Gao, Edmund Seto*
- P3-795 **Ambulatory Air Quality Monitoring in Free-Living Populations: the CITI-SENSE Barcelona Pilot Case Study**  
*Tom Cole-Hunter, David Donaire, Nadine Kubesch, David Martínez, Scott Weichenthal, the CITI-SENSE Consortium, Mark Williams, John Saffel, Alena Bartonova, Mark Nieuwenhuijsen*
- P3-796 **Application of a Low-Cost Method to Quantify Human Exposure to Ambient Particulate Matter Concentrations across a Wide Range of Microenvironments**  
*Stefan Reis, Susanne Steinle, Clive Sabel, Mathew Heal, Sean Semple, Marsailidh Twigg, Christine Braban, David Harrison, Chun Lin*
- P3-797 **Elemental and Morphological Analysis of Particulate Matter in Salvador, BA, Brazil: Urban Air Monitoring Using Biomonitor – Phase 2**  
*Nelzair Vianna, Olaf Malm, Laise Campos, Eliomara Alves, Adan Lino, Paulo Saldiva*
- P3-798 **Evaluating the Influence of Outdoor Physical Activity on Inhaled Air Pollution Dose**  
*Roby Greenwald, Anastasia Lopukhin*
- P3-799 **Participatory Monitoring in Air Pollution Exposure Studies: Framework, Challenges and Case Studies**  
*Jan Theunis, Jan Peters, Joris Van den Bossche, Alina Sirbu, Bart Elen, Stefano Ingarra*
- P3-800 **North Fork Valley Air Monitoring Project**  
*Ashley Collier, Ricardo Piedrahita, Nicholas Masson, Michael Hannigan, Joanna Gordon, Michael Russel, John Ortega, Brian Amstutz, Nicholas Merten*
- P3-801 **High-Time Resolution Mobile Monitoring on Ambient Particle during an Episode**  
*Chin Yu Hsu, Mu-jean Chen*
- P3-802 **Development and Evaluation of an Enhanced Children's Micropem (ECM) to Support Indoor Air Pollution Studies**  
*Ryan Chartier, Randy Newsome, Charles Rodes*
- P3-803 **Mapping Exposure to Urban Air Pollution Based on Opportunistic Mobile Data Collection by City Guards in Antwerp, Belgium**  
*Joris Van den Bossche, Bart Elen, Jan Peters, Jan Theunis, Bernard De Baets*
- P3-804 **Using Traffic Density as a Surrogate to Predict Aerosol Exposures to Toll Workers**  
*Ching-Huang Lai, Saou-Hsing Liou, Perng-Jy Tsai, Jouni J.K. Jaakkola*
- P3-805 **Using Mobile Noise Measurements to Build Spatiotemporal Models for In-Traffic and Roadside Exposure to BC and PNC: a Pilot Study in Bangalore India**  
*Luc Dekoninck, Dick Botteldooren, Luc Int Panis*

- P3-806 **Use of Personal Exposure to Ambient Pollution, Rather Than Ambient Concentration, Leads to Higher Betas and Greater Statistical Significance for PM<sub>2.5</sub> (PMF) and PM<sub>10-2.5</sub> (PMC) in Community, Time-Series Epidemiology**  
*William Wilson*
- P3-807 **Citizen Science: Indoor and Outdoor Air Quality around Schools**  
*Hilary Cowie, Stefan Reis, Kerry Riddell, Sean Semple, Joanne Crawford, Susanne Steinle, Ben Jackson, Colin Gillespie*

**METALS: NEUROLOGICAL OUTCOMES**

- P3-808 **Head Injury, Lead and the Risk of Parkinson's Disease**  
*Kathryn Taylor, Howard Hu, David Sparrow*
- P3-809 **Blood Lead, Blood Manganese, and Memory in Older US Adults**  
*Ellen Wells, Danelle Rolle, Linda Nie, Wei Zheng*
- P3-810 **Community Exposure to Air Manganese and Motor and Cognitive Outcomes**  
*Danelle T Lobdell, Rosemarie M Bowler, Vihra Gocheva, Michelle A Colledge*
- P3-811 **Selenium Protects Neonates against Neurotoxicity from Prenatal Exposure to Cadmium**  
*Xiaodan Yu, Ying Tian, Xin Yang, Chonghuai Yan*
- P3-812 **Effect of Prenatal Lead Exposure on Intellectual Ability of 84-Month-Old Japanese Children**  
*Nozomi Tatsuta, Kunihiko Nakai, Katsuyuki Murata, Miyuki Iwai-Shimada, Keita Suzuki, Naoyuki Kurokawa, Hiroshi Satoh*

**POSTER SESSION 3 - CONTINUED**Mary Gates Hall  
Room 282**RISK ASSESSMENT & COMMUNICATION**

- P3-813 **Modified Nucleosides – Metabolomic Biomarker for Risk Assessment?**  
*Olf Herbarth, Annerose Seidel*
- P3-814 **Evaluation of Biomonitoring Equivalents for Benzene Risk Assessment: an Environmental-Wide Association Study Approach**  
*Hien Le, Sarah Starks, Kim Kreckmann, J. Morel Symons*
- P3-815 **From Monitoring of Chemical Contamination of Urban Environment, Population Health Risk Assessments and Environmental Epidemiology Studies to Planning and Implementing Evidence-Based Preventive and Health Rehabilitating Strategies and Epidemiologic Evaluation of Their Efficiency in the Sverdlovsk Region, Russia**  
*Vladimir Gurvich, Sergey Kuzmin, Larisa Privalova, Boris Katsnelson, Olga Malykh, Elena Kuzmina, Sergey Yarushin, Inga Plotnikova*
- P3-816 **Social Costs of Air Pollution in Population Highly Exposed to PM<sub>10</sub> Industrial Emissions**  
*Arina Petrosian, Olena Turos, Oksana Ananyeva, Ganna Davydenko*
- P3-817 **Refining Assessment of PAH Exposure and Potential Carcinogenic Risk Assessment from Biomass Burning Incorporating Internal Dosimetry Metrics**  
*Dimosthenis Sarigiannis, Dimitris Zikopoulos, Marianthi Kermenidou, Spyridoula Nikolaki, Spyridon Karakitsios*
- P3-818 **INTEGRA: Investigating the Exposure Continuum from Global Scale Contamination to Tissue Dose**  
*Dimosthenis Sarigiannis, Spyridon Karakitsios, Alberto Gotti, George Loizou, John Cherrie, Roel Smolders, Katleen De Brouwere, Karen Galea, Kate Jones, Evangelos Handakas, Krystalia Papadaki, Anne Sleuwenhoek*
- P3-819 **Use of Markov Chain Monte Carlo Analysis with Physiologically-Based Pharmacokinetic Model of Mercury for Health Risk Assessment and External Exposure Reconstruction**  
*Stefan Döring, Beate Jahn, Dimosthenis A. Sarigiannis, Spyros Karakitsios, Stephan Böse O'Reilly*
- P3-820 **County-Level Environmental Quality and Associations with Cancer Incidence**  
*Jyotsna Jagai, Lynne Messer, Kristen Rappazzo, Christine Gray, Shannon Grabich, Danelle Lobdell*
- P3-821 **Nanotechnology and Human Health: Scientific Evidence and Risk Governance**  
*Marco Martuzzi, Steffen Foss Hansen, Khara Grieger*
- P3-822 **Risk Assessment, Health Impact Assessment, Risk Management: Time We Clarified**  
*Marco Martuzzi, Michael Depledge*

**POSTER SESSION 3 - CONTINUED**Mary Gates Hall  
Room 248**RISK ASSESSMENT & COMMUNICATION**

- P3-823 **Factors Affecting Risk Perception among Charcoal Producers**  
*Marya Laya, Zenaida Sumalde, Carmelita Rebanco, Antonio Alcantara*

- P3-824 **Psychometric Properties of a Scale Instrument Measuring Attitudes toward Chemical Safety**  
*Matthew O. Gribble, Pamela Dalton, Karen Bandeen-Roche, Daniele R. Reed, Mary A. Fox*
- P3-825 **The Lifelines Cohort Study: a Resource Providing New Opportunities for Environmental Epidemiology**  
*Wilma Zijlema, Judith Rosmalen, Kees de Hoogh, Salome Scholtens, Ronald Stolk*
- P3-826 **Chance is a Tool, Not a Force of Nature: Implications for Epidemiology**  
*Steve Wing*
- P3-827 **Lower Prevalence of Allergy, Hay Fever and Eczema among Foreign Born in NHANES 2005-2006**  
*David Tybor, Amy Chi, Doug Brugge*
- P3-828 **Reporting Exposure Biomonitoring Results to Study Participants: Challenges, Benefits, and Scalable Methods**  
*Julia Brody, Sarah Dunagan, Phil Brown, Rachel Morello-Frosch, Kenneth Arnold, Krzysztof Gajos*
- P3-829 **Search Strings for the Study of Putative Environmental Determinants of Disease**  
*Stefania Curti, Davide Gori, Valentina Di Gregori, Andrea Farioli, Alberto Baldasseroni, Maria Pia Fantini, David Christiani, Francesco Violante, Stefano Mattioli*
- P3-830 **Effectiveness of Risk Communication Using a Single- Pollutant Air Quality Index**  
*Lars Perlmutter, Kevin Cromar*
- P3-831 **Risk Perception in Four Areas of Italy Affected by Arsenic Pollution Derived from Natural or Anthropogenic Sources**  
*Alessio Coi, Lilliana Cori, Fabrizio Minichilli, Michele Santoro, Fabrizio Bianchi*
- P3-832 **Advancing Research into Practice: Heat-Health Information for Immigrants in South Australia**  
*Alana Hansen, Scott Hanson-Easey, Peng Bi*

11:50 - 14:00

**Ancillary Meetings**

Policy Committee Meeting  
Chair: Erik Lebret

HUB 307

ISEE Annual Conference Planning Committee  
Chair: George Thurston, ScD

HUB 340

14:00 - 15:30

**Parallel Sessions**

14:00 - 15:30

S.18

**ENVIRONMENTAL EPIDEMIOLOGY: PRACTICALITIES FOR ADDRESSING CLIMATE CHANGE**

HUB 334

Session Chairs: Mathilde Pascal and Colin L Soskolne

S-069

**Assessment of Climate Change Health Effects: a Research Framework***Jouni Jaakkola*

S-070

**Health Dimensions of New York City's Climate Mitigation and Adaptation Initiatives***Patrick Kinney*

S-071

**Indoor Air Pollution and Health and Climate Change***Wael Al-Delaimy*

S-072

**Speaking Up for the Vulnerable and Voiceless: Climate Change Research in Sub-Saharan Africa***Adetoun Mustapha*

S-073

**Extreme Heat Events and Rising Temperatures: Heat-Related Morbidity Vulnerability and Prevention***Helene Margolis*

14:00 - 15:30

S.19

**THE SOCIAL DISTRIBUTION OF ENVIRONMENTAL HAZARDS: PERSPECTIVES FROM EUROPE AND THE US**

HUB 332

Session Chairs: Anjum Hajat and Maggie Hicken

S-074

**The Consequences of Racial and Socioeconomic Disparities in the Distribution of Air Pollution around Public Schools in the Great Lakes Region***Paul Mohai, Byoung-Suk Kweon, Sangyun Lee*

S-075

**Socioeconomic Disparities in Air Pollution Exposure in a Large European City***Giulia Cesaroni, Chiara Badaloni, Carla Ancona, Marina Davoli, Francesco Forastiere*

S-076

**Are Social and Environmental Exposures Clustered? Results from a German Metropolitan Area***Barbara Hoffmann, Kateryna Fuks, Natalie Riedel, Susanne Moebus, Raimund Erbel, Karl-Heinz Jöckel, Nico Dragano*

S-077

**Associations between Air Pollution and Socio-Economic Status in England***Ai Milojevic, Jamie Pearce, Ben Armstrong, Ruth Doherty, Ian MacKenzie, Paul Wilkinson*W  
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S-078	<b>The Colorline Reflected in Green: the Distribution of Heat Risk-Related Land Cover in Relation to Racial Residential Segregation</b> <i>Rachel Morello-Frosch, Bill Jesdale, Lara Cushing</i>	
S-079	<b>The Association between Air Pollution and Psychosocial Stress in the Multi-Ethnic Study of Atherosclerosis</b> <i>Anjum Hajat, Ana Diez Roux, Margaret Hicken, Joel Kaufman</i>	
14:00 - 15:30	O.40 <b>ARE HEALTHY FOODS UNHEALTHY?</b> <b>Session Chairs:</b> Marie Pedersen and Cynnie Curl	HUB 214
O-221	<b>Association of Citrus Consumption with Risk of Incident Malignant Melanoma: Results from Two Prospective Cohort Studies</b> <i>Shaowei Wu, Jiali Han, Diane Feskanich, Eunyoung Cho, Meir Stampfer, Walter Willett, Abrar Qureshi</i>	
O-222	<b>Effects of Prenatal Stress and Maternal Dietary Intakes on Infant Behavior: Does Race Matter?</b> <i>Kelly Brunst, Michelle Bosquet Enlow, Srimathi Kannan, Kecia Carroll, Brent Coull, Rosalind Wright</i>	
O-223	<b>Association between Long-Term Dietary Exposure to Organophosphate Pesticides and Neurocognition: the Multi-Ethnic Study of Atherosclerosis (MESA)</b> <i>Cynthia Curl, Shirley Beresford, Richard Fenske, Annette Fitzpatrick, Alex Lu, Jennifer Nettleton, Joel Kaufman</i>	
O-224	<b>Organic Food Consumption and Hypospadias; Results from the Norwegian Mother and Child Cohort Study</b> <i>Anne-Lise Brantsaeter, Hanne Torjusen, Helle Margrete Meltzer, Eleni Papadopoulou, Jane A Hoppin, Margaretha Haugen</i>	
O-225	<b>Soy-Based Infant Formula Feeding and Menstrual Characteristics</b> <i>Kristen Upson, Quaker Harmon, Shannon Laughlin-Tommaso, Donna Baird</i>	
O-226	<b>Acute Hepatitis and Liver Failure of Unknown Etiology — United States, 2013</b> <i>Kevin Chatham-Stephens, David Johnston, Ethel Taylor, Melissa Viray, Art Chang, Sarah Park, Johnni Daniel, Dana Flanders, Rebecca Noe, Josh Schier, Lauren Lewis</i>	
14:00 - 15:30	O.41 <b>ENVIRONMENTAL FACTORS AND CHILDHOOD REPRODUCTIVE OUTCOMES</b> <b>Session Chairs:</b> Sheela Sathyanarayana and Claire Philippat	HUB 160 (Lyceum)
O-227	<b>Association between Maternal Exposure to Di(2-Ethylhexyl) Phthalate and Sex Hormone Levels in Fetal Blood</b> <i>Atsuko Araki, Takahiko Mitsui, Chihiro Miyashita, Tamie Nakajima, Seiko Sasaki, Tamiko Ikeno, Kazutoshi Cho, Sachiko Ito, Katsuya Nonomura, Reiko Kishi</i>	
O-228	<b>Exposure to Polychlorinated Compounds and Cryptorchidism; a Nested Case-Control Study</b> <i>Anna Rignell-Hydbom, Kristin Andersson, Joakim Dillner, Bo Jönsson, Lars Rylander</i>	
O-229	<b>Soy-Based Infant Feeding Is Associated with Estrogenized Urogenital Epithelium in Girls at 24 Weeks of Age</b> <i>Margaret Adgent, David Umbach, Babette Zemel, Andrea Kelly, Joan Schall, Eileen Ford, Judy Bernbaum, Walter Rogan, Virginia Stallings</i>	
O-230	<b>Urinary Phenols and Pubertal Development among a Multiethnic Cohort of Young Girls</b> <i>Mary Wolff, Susan Teitelbaum, Kathleen McGovern, Susan M Pinney, Gayle C Windham, Maida Galvez, Michael Rybak, Lawrence H Kushi, Frank M Biro, Antonia M Calafat</i>	
O-231	<b>Association of Serum Organochlorine Pesticides with Age at Pubertal Onset</b> <i>Thuy Lam, Paige L. Williams, Mary M. Lee, Susan A. Korrick, Linda S. Birnbaum, Jane S. Burns, Oleg Sergeev, Boris Revich, Larisa M. Altshul, Donald G. Patterson Jr., Russ Hauser</i>	
O-232	<b>Association of Life Stage Lead Exposures with Pubertal Onset and Hormones Related to Secondary Sexual Characteristics in a Mexican Birth Cohort</b> <i>Karen E. Peterson, Deborah J. Watkins, Myriam Afeiche, Zhenzhen Zhang, David Cantonwine, Brisa Sanchez, Adrienne Ettinger, Joyce Lee, Adrianna Mercado-Garcia, Howard Hu, Jorge Chavarro, Martha Tellez-Rojo</i>	
14:00 - 15:30	O.42 <b>THE IMPORTANCE OF TIME: ADVANCED TEMPORAL METHODS</b> <b>Session Chairs:</b> Lucas Neas and Alexandra Schneider	HUB 250
O-233	<b>Modeling to Predict Cases of Hantavirus Pulmonary Syndrome in Chile</b> <i>Elaine Nsoesie</i>	

- O-234 **Issues and Solutions: Application of Traditional Time- Series Regression Models for Study of Environmental Determinants of Infectious Diseases**  
*Chisato Imai, Ben Armstrong, Zaid Chalabi, Masahiro Hashizume, Punam Mangtani*
- O-235 **The Relationship between Heat Waves and the Incidence of Salmonella Infection in a Temperate Climate**  
*Adriana Milazzo, Lynne Giles, Ying Zhang, Ann Koehler, Janet Hiller, Peng Bi*
- O-236 **Applying Distributed Lag Models to Individual Data in Environmental Studies**  
*Antonio Gasparrini, Michela Leone, James E. Bennett, Marta Blangiardo, Ai Milojevic, Krishnan Bhaskaran, Shakoor Hajat, Ben Armstrong*
- O-237 **Constructing Individual Exposure Histories: Extending Record Linkage Techniques to Integrate Exposures during Windows of Susceptibility**  
*David Nelson, Michael Layefsky, Julie von Behren, Susan Hurley, Peggy Reynolds*
- O-238 **Analysis of Latency and Timing of Effect for Exposure to PM<sub>2.5</sub> on Lung Cancer in the Nurses' Health Study**  
*Molin Wang, Jaime Hart, Robin Puett, Biling Hong, Samuela Pollack, Donna Spiegelman, Francine Laden*

14:00 - 15:30

O.43

**ARSENIC EXPOSURE AND HEALTH EFFECTS**

HUB 145

**Session Chairs:** Veronica Iglesias and Molly Kile

- O-239 **Blood Pressure Changes in Relation to Arsenic Exposure in a US Pregnancy Cohort**  
*Shohreh Farzan, Yu Chen, Megan Murphy, jieying jiang, Mengling Liu, Emily Baker, Susan Korrick, Margaret Karagas*
- O-241 **Neurobehavioral Effects of Arsenic Exposure from Groundwater among Secondary School Children in Kandal Province, Cambodia**  
*Sao Vibol, Jamal Hisham Hashin*
- O-242 **The Associations between Arsenic Concentration in Drinking Water and Chronic Kidney Disease: a Nationwide Study in Taiwan**  
*Ya-Yun Cheng, Neng-Chyan Huang, How-Ran Guo*
- O-243 **Urinary Arsenic and Insulin Resistance in US Adolescents**  
*Qing Peng, Siobán Harlow, Sung Park*
- O-244 **Quantifying the Disease Burden of Arsenic Exposure from Private Drinking Water Wells in the United States**  
*Susan Greco, Gerald Stedje, Pearl Zheng, Anna Belova*

14:00 - 15:30

O.44

**AIR POLLUTION AND CARDIO-METABOLIC HEALTH**

HUB North Ballroom

**Session Chair:** Marie O'Neill

- O-245 **Benefit of Diabetes Mellitus Control for Reducing Effects of Air Pollution on Blood Pressure: a Panel Study**  
*Youn-hee Lim, Yun-Chul Hong*
- O-246 **Maternal Exposure to Air Pollution and the Risk for the Development of Type 1 Diabetes**  
*Ebba Malmqvist, Helena Elding-Larsson, Ida Jönsson, Anna Rignell-Hydbom, Sten-Anders Ivarsson, Håkan Tinnerberg, Emilie Stroh, Ralf Rittner, Kristina Jakobsson, Erik Swietlicki, Lars Rylander*
- O-247 **The Association of Air Pollution and Blood Glucose Levels**  
*Maayan Yitshak Sade, Itai Kloog, Idit Liberty, Victor Novack, Lena Novack*
- O-248 **Protective Effect of Dietary Vitamin C on the Association between PM<sub>2.5</sub> and Insulin Resistance**  
*Hye Yin Park, Jin Hee Kim, Youn-Hee Lim, Sanghyuk Bae, Ho Kim, Kweon Jung, Seung-Muk Yi, Yun-Chul Hong*
- O-249 **Estimating the Effects of Long-Term Exposure to Air Pollution on Inflammatory/Hemostatic Markers. Findings from the SWAN Study**  
*Rochelle Green, Rachel Broadwin, Brian Malig, Rupa Basu, Ellen Gold, Lihong Qi, Joyce Bromberger, Gail Greendale, Howard Kravitz, Kristin Tomey, Karen Matthews, Carol Derby, Elizabeth Jackson, Robin Green, Bart Ostro*
- O-250 **Air Pollution and Physical Activity: What We Need to Know to Inform Public Health Decision Making**  
*Tegan Boehmer, Susan Stone, Steve Hankey, Roby Greenwald*

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14:00 - 15:30	O.45	<b>LONG TERM AIR POLLUTION EXPOSURE AND CARDIOVASCULAR HEALTH</b> Session Chair: David Rich	HUB South Ballroom
O-251		<b>Long-Term Ozone Exposure and Cardiovascular Mortality in a Large-Scale Prospective Study</b> <i>Michelle Turner, Michael Jerrett, Daniel Krewski, Susan Gapstur, Ryan Diver, Bernardo Beckerman, Arden Pope</i>	
O-252		<b>Ambient PM<sub>2.5</sub>, by Kriging and LUR, and Excess CVD Mortality in the NIH-AARP Cohort</b> <i>Richard Hayes, Kevin Cromar, Yongzhao Shao, Ryan Shanley, Chris C. Lim, Jiyoung Ahn, George D. Thurston</i>	
O-253		<b>Satellite-Based Estimates of Long-Term PM<sub>2.5</sub> Exposure Are Associated with Degree of Coronary Occlusion</b> <i>Laura McGuinn, Cavin Ward-Caviness, William Kraus, Elizabeth Hauser, Alexandra Chudnovsky, Petros Koutrakis, David Diaz-Sanchez, Lucas Neas, Robert Devlin</i>	
O-254		<b>The Association between Ambient Particulate Matter Exposure and Risk of Pulmonary Embolism</b> <i>Vivian Pun, Jaime Hart, Christopher Kabrhel, Carlos A. Camargo Jr., Andrea Baccarelli, Francine Laden</i>	
O-255		<b>Free Light Chains as a Biomarker of Chronic Exposure to Air Pollution</b> <i>Frauke Hennig, Kateryna Fuks, Susanne Moebus, Gudrun Weinmayr, Michael Memmesheimer, Raimund Erbel, Karl-Heinz Jöckel, Barbara Hoffmann, Lewin Eisele</i>	
O-256		<b>Long-Term Exposure to Airborne Fine Particulate Matter and Oxides of Nitrogen and Changes in Blood Pressure: the Multi-Ethnic Study of Atherosclerosis (MESA)</b> <i>Yeh-Hsin Chen, Sara Adar, Ana Diez-Roux, Amy Auchincloss, Sung Kyun Park, Martha Daviglus, Adam Szpiro, Marie O'Neill, Joel Kaufman</i>	

15:30 - 16:00 Coffee Break

16:00 - 17:30 **Parallel Sessions**

16:00 - 17:30	S.20	<b>REDUCING EXPOSURE MISCLASSIFICATION IN ENVIRONMENTAL EPIDEMIOLOGY: IS IT ALWAYS DESIRABLE AND WHAT IS THE IMPACT ON INFERENCES?</b> Session Chairs: Donna Spiegelman and Adam Szpiro	HUB 332
S-080		<b>An Empirical Assessment of Exposure Measurement Error and Effect Attenuation in Bi-Pollutant Epidemiologic Models</b> <i>Lisa Baxter, Kathie Dionisio</i>	
S-081		<b>Methods to Correct Measures of Effect for Bias Due to Exposure Measurement Error</b> <i>Donna Spiegelman</i>	
S-082		<b>Effects of Classical-Like and Berkson-Like Measurement Error on Inference</b> <i>Lianne Sheppard, Chris Paciorek, Adam Szpiro</i>	
S-083		<b>Does More Accurate Exposure Prediction Necessarily Improve Health Effect Estimates?</b> <i>Adam Szpiro, Silas Bergen, Chris Paciorek, Lianne Sheppard</i>	
16:00 - 17:30	O.46	<b>AIR POLLUTION</b> Session Chair: Michelle Bell	HUB South Ballroom
O-257		<b>Source Appointed Ambient Fine Particulate in Beijing, China and Circulating Biomarkers, Blood Pressure, and Pulmonary Function in Healthy Adults</b> <i>Shaowei Wu, Furong Deng, Hongying Wei, Jing Huang, Xin Wang, Yu Hao, Masayuki Shima</i>	
O-258		<b>Association between Wheeze and Selected Air Pollution Sources in an Air Pollution Priority Area in South Africa: a Cross - Sectional Study</b> <i>Joyce Shirinde, Janine Wichmann, Kuku Voyi</i>	
O-259		<b>Respiratory Effects of Fine and Ultrafine Particulates from Indoor Sources- a Randomized Sham-Controlled Exposure Study of Healthy Volunteers</b> <i>Vanessa Jana Soppa, Gudrun Weinmayr, Frauke Hennig, Roel Schins, Bryan Hellack, Ulrich Quass, Thomas Kuhlbusch</i>	
O-260		<b>Particulate Matter Composition and Atherosclerosis: Longitudinal Study in MESA Air</b> <i>Sun-Young Kim, Lianne Sheppard, Joel Kaufman, Silas Bergen, Adam Szpiro, Timothy Larson, Amanda Gassett, Ana Diez Roux, James Stein, Claudia Korcarz, Sverre Vedal</i>	
O-261		<b>Ambient Air Pollution Exposure and Longitudinal Change in Percent Emphysema on Computed Tomography (CT): the Multi-Ethnic Study of Atherosclerosis (MESA) Lung and Air Pollution Studies</b> <i>Jaime Madrigano, Sara Adar, Carrie Aaron, Joseph Schwartz, Eric Hoffman, Paul Enright, John Austin, Adam Szpiro, Karen Hinckley Stukovsky, Patrick Kinney, Sverre Vedal, Ana Diez-Roux, Joel Kaufman, R. Graham Barr</i>	

O-262		<b>Forest Fire Smoke Exposure and Cardiorespiratory Mortality in British Columbia, Canada from 2003-2012</b> <i>Sarah Henderson, Angela Yao</i>	
16:00 - 17:30	O.47	<b>HEALTH IMPACTS OF COMMUNITY AND OCCUPATIONAL NOISE</b> <b>Session Chairs:</b> Wolfgang Babisch and Sara Adar	HUB 214
O-263		<b>Traffic Noise Exposure and Markers of Obesity</b> <i>Andrei Pyko, Charlotta Eriksson, Agneta Hilding, Claes-Göran Östenson, Göran Pershagen</i>	
O-264		<b>Impact of Road Traffic Noise on Obesity and Body Composition.</b> <i>Jeppe Schultz Christensen, Ole Raaschou-Nielsen, Anne Tjønneland, Rikke Baastrup Nordsborg, Kim Overvad, Thorkild IA Sørensen, Mette Sørensen</i>	
O-265		<b>Road Traffic Noise and Hypertension – Accounting for the Location of Rooms</b> <i>Wolfgang Babisch, Gabriele Wölke, Joachim Heinrich</i>	
O-266		<b>Impacts of Wind Turbine Noise on Sleep – Results of a Pilot Study and Design of a Quasi-Experimental Investigation</b> <i>Philip Bigelow, James Lane</i>	
O-267		<b>Bilateral High-Frequency Hearing Loss and Coronary Heart Disease: the National Health and Nutrition Examination Survey in the United States</b> <i>Wenqi Gan, Jacqueline Moline</i>	
O-268		<b>Years of Life Lost Due to Transportation Noise and Air Pollution: a Comparative Risk Assessment for Switzerland in 2010</b> <i>Martin Röösli, Danielle Vienneau, Christian Schindler, Nicole Probst-Hensch, Nino Künzli, Laura Perez</i>	
16:00 - 17:30	O.48	<b>INFECTIOUS DISEASE</b> <b>Session Chair:</b> Karen Levy	HUB 334
O-269		<b>Species Distribution Modeling of Dengue Mosquitoes in Two Environmental Regimes, Lahore and Swat: Implications in Vector Biology</b> <i>Syeda Hira Fatima, Salman Atif, Basit Rasheed</i>	
O-270		<b>The Influences of Climate Variations on Dengue Outbreaks in Southern Taiwan Throughout 1998 to 2012</b> <i>Ting-Wu Chuang</i>	
O-271		<b>Dengue Fever Spatial Characteristics, Relationship with Land Use and Case Prediction in Selangor, Malaysia</b> <i>Haidar Rizal Toha, Jamal Hisham Hashim, Mohd Shahir Shamsir, Khairil Anuar Arshad, Mazrura Sahani</i>	
O-273		<b>Series of Case Patients with Nontuberculous Mycobacteria Isolation, Central North Carolina, 2006-2010</b> <i>Genee S. Smith, Jason E. Stout, Kyle P. Messier, Andrew J. Ghio, Elizabeth D. Hilborn</i>	
O-274		<b>Seasonality of Diarrheagenic {Escherichia Coli}: a Systematic Review and Meta-Analysis</b> <i>Karen Levy, Rebecca Philipsborn, Sharia M Ahmed, Berry J Brosi</i>	
16:00 - 17:30	O.49	<b>GREENSPACE AND HEALTH</b> <b>Session Chairs:</b> Michael Brauer and Perry Hystad	HUB 160 (Lyceum)
O-275		<b>Greenness and Allergies: Evidence of Differential Associations in Two Areas in Germany.</b> <i>Elaine Fuertes, Iana Markevych, Andrea von Berg, Carl-Peter Bauer, Dietrich Berdel, Sibylle Koletzko, Dorothee Sugiri, Joachim Heinrich</i>	
O-276		<b>Exploring Associations between Green Space and Physical Activity: a Canadian National, Cross-Sectional Study</b> <i>Owen McMorris, Paul Villeneuve, Jason Su, Michael Jerrett</i>	
O-277		<b>Inequality, Green Spaces, and Pregnant Women: Roles of Ethnicity and Individual and Neighbourhood Socioeconomic Status</b> <i>Payam Dadvand, John Wright, David Martinez, Xavier Basagaña, Rosie R. C. McEachan, Marta Cirach, Christopher J. Gidlow, Kees de Hoogh, Regina Gražulevičienė, Mark J Nieuwenhuijsen</i>	
O-278		<b>Green Space and Tree Cover: Impacts on Birth Outcomes in Durham-Chapel Hill, NC</b> <i>Kathleen Bush, Laura Jackson, Alexandra Sears, Pamela Maxson, Sharon Edwards, Marie Lynn Miranda</i>	
O-279		<b>Surrounding Greenness and Mortality in the Nurses' Health Study</b> <i>Peter James, Jaime Hart, Rachel Banay, Francine Laden</i>	
O-280		<b>Exposure to Neighborhood Green Space and Mental Health: Evidence from the Survey of the Health of Wisconsin</b> <i>Kirsten Beyer, Andrea Kaltenbach, Aniko Szabo, Sandra Bogar, F. Javier Nieto, Kristen Malecki</i>	

16:00 - 17:30	O.50	<b>HEALTH EFFECTS OF METAL EXPOSURE AND NUTRITIONAL RELATED ASPECTS IN EARLY LIFE AND CHILDHOOD</b> <b>Session Chairs:</b> Mara Tellez Rojo and Ellen Wells	HUB 145
O-281		<b>Mercury in the Early Life in Mexico to Environmental Toxicants (ELEMENT) Cohort: Levels in Women, Children, and Fish</b> <i>Nil Basu, Rebecca Tutino, Zhenzhen Zhang, Brisa Sanchez, David Cantonwine, Jackie Goodrich, Emily Somers, Lourdes Schnaas, Maritsa Solano, Adriana Mercado, Karen Peterson, Howard Hu, Mara Tellez-Rojo</i>	
O-282		<b>Low-Level Mercury Exposure and Occurrence of Asthma in School-Age Children</b> <i>Kyoung-Nam Kim, Ho Jang Kwon, Yun-Chul Hong</i>	
O-283		<b>Metals in Hair and Neurobehavioral Development in Children Aged 6–12</b> <i>Cheryl Stein, Mary Wolff, David Savitz, David Bellingier, Tom Jursa, Donald Smith</i>	
O-284		<b>Elevated Blood Lead Levels and Participation in the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) among Children 1-4 Years</b> <i>Yutaka Aoki, Debra Brody</i>	
O-285		<b>The Role of Antenatal Lead Exposure and Anemia in Determining Early Child Temperament: Evidence from the Avon Longitudinal Study of Parents and Children</b> <i>Katarzyna Kordas, Caroline Taylor, Jean Golding</i>	
O-286		<b>Differential Effect of Blood Lead Levels on Infant Stature According to Serum Zinc Status</b> <i>Alejandra Cantoral, Martha María Téllez-Rojo, Teresa Shamah, Mauricio Hernández-Ávila, Lourdes Schnaas, Howard Hu, Karen Peterson, Adrienne Ettinger</i>	
16:00 - 17:30	O.51	<b>MATERNAL BIOMARKERS OF EXPOSURE AND PREGNANCY OUTCOMES</b> <b>Session Chairs:</b> Robert Laumbach and Pam Factor-Litvak	HUB 250
O-287		<b>Environmental Chemicals in the Blood of Pregnant Women and Their Newborns from San Francisco</b> <i>Rachel Morello-Frosch, Tracey Woodruff, Lara Cushing, Bill Jesdale, Jackie Schwartz, Miaomiao Wang, Weihong Guo, Tan Guo, Sissy Petropoulou, June-Soo Park, Myrto Petreas, Ryzard Gajek, Jianwen She, Dina Dobraca</i>	
O-288		<b>Uncovering Developmental Windows of Susceptibility to Chemical Mixtures Using Micro-Spatial Analysis of Teeth</b> <i>Manish Arora, Christine Austin, Birgit Claus Henn, Brent Coull, Matha Maria Tellez Rojo, Howard Hu, Robert Wright</i>	
O-289		<b>Determinants of Acrylamide Hemoglobin Adduct Levels in Cord Blood in a European Prospective Mother Child Study (NEWGENERIS)</b> <i>Marie Pedersen, Hans von Stedingk, Kristine B Gutzkow, Berit Granum, Lisbeth E Knudsen, John Wright, Leda Chatzi, Jos C Kleinjans, Dan Segerbäck, Manolis Kogevinas, Margareta Törnqvist, NewGeneris study group</i>	
O-290		<b>Hydroxylated PCB Metabolites, Maternal Smoking and Pregnancy Outcomes</b> <i>Gu Yiwei, Katrina Kezios, Liu Xinhua, Cirillo Piera, Tarrant Darcy, Myrto Petreas, June-Soo Park, Barbara Cohn, Pam Factor-Litvak</i>	
O-291		<b>Mediation of the Relationship between Phthalate Exposure and Preterm Birth by Oxidative Stress</b> <i>Kelly Ferguson, Thomas McElrath, Yin-Hsiu Chen, Bhramar Mukherjee, John Meeker</i>	
ETH-15		<b>Ethical and Philosophical Dimensions of Applying Biomarkers to Pregnant Women</b> <i>Colin L Soskolne</i>	
16:00 - 17:30	DEBATE	<b>SHOULD THERE BE ANY RESTRICTIONS ON UNIVERSITIES OR ACADEMICIANS RECEIVING PAYMENTS FROM INDUSTRY OR OTHER SOURCES?</b> <b>Moderator:</b> Bruce Lanphear	HUB North Ballroom
		<b>RESOLVED:</b> No one should do anything to restrict universities and academicians from receiving institutional or personal payments from industry	
		<b>Featuring:</b> Raymond Richard Neutra, M.D. Dr.PH Wael Al-Delaimy, MD, PhD	
19:30 - 23:30		<b>Conference Dinner</b>	EMP Museum



07:15 - 08:30		<b>ISEE COUNCIL MEETING</b>	HUB 307
08:00 - 12:00		<b>Conference Registration</b> Speaker Ready Room	HUB Ballroom Foyer HUB 238
08:30 - 10:00		<b>PLENARY SESSION 4</b> <b>Session Chairs:</b> Veronica Vieira, ScD and Yun-Chul Hong, MD, PhD	HUB Ballroom
PL-08		<b>The Current State of Air Pollution Exposures and Health Effects in China</b> <i>Wei Huang, ScD</i>	
PL-09		<b>Cities, Mobility and Health: Future Challenges and Prospects</b> <i>Michael Brauer, ScD</i>	
PL-10		<b>Ambient Ammonia Exposures in an Agricultural Community and Pediatric Asthma Morbidity</b> <i>Christine Loftus, Michael Yost, Griselda Arias, Elizabeth Torres, Maria Tchong, Jenna Armstrong, Kris Martin, Catherine Karr</i>	
		<b>Presentation of Awards for Best Student Paper</b> <i>Perry Hystad, PhD, presenter</i>	
10:00 - 10:20		Morning Break	
10:20 - 11:50		<b>Parallel Sessions</b>	
10:20 - 11:50	O.52	<b>CLIMATE CHANGE AND POPULATION HEALTH</b> <b>Session Chair:</b> Xiaochuan Pan	HUB 145
O-292		<b>Association between High Temperature and Mortality in Metropolitan Areas of Four Cities in Various Climatic Zones, China</b> <i>Yinlong Jin, Yibin Cheng, Shuyuan Yu, Xiaodong Chen, Yulin Wang</i>	
O-293		<b>Non-Linear Association between Exposure to Ambient Temperature and Children's Hand-Foot-And-Mouth Disease in Beijing, China</b> <i>Meimei Xu, Weiwei Yu, Shilu Tong, Xiaochuan Pan</i>	
O-294		<b>Weather Variability and Influenza a (H7N9) Transmission in Shanghai, China: a Bayesian Spatial Analysis</b> <i>Wenbiao Hu, Wenyi Zhang, Xiaodong Huang, Archie Clements, Kerrie Mengersen</i>	
O-295		<b>Assessment of Environmental Factors Associated with Dengue Virus Serotypes</b> <i>Xiaodong Huang, Archie C.A. Clements, Gail William, Shilu Tong, Wenbiao Hu</i>	
O-296		<b>Association of Climate Factors with Infectious Diseases in Arctic and Subarctic Regions – a Systematic Review</b> <i>Christina Hedlund, Yulia Blomstedt, Barbara Schumann</i>	
ETH-16		<b>Ethical Considerations for Climate Change and Population Health</b> <i>Colin Soskolne</i>	
10:20 - 11:50	O.53	<b>ENVIRONMENTAL FACTORS AND CHILDHOOD METABOLIC OUTCOMES</b> <b>Session Chair:</b> Andrew Rundle	HUB North Ballroom
O-297		<b>Impact of Very Low Prenatal Lead Exposure and Calcium Intake during Pregnancy on Postnatal Child Growth</b> <i>Yun-Chul Hong, Youn-Hee Lim, Surabhi Shah Kulkarni, Eunjeong Kim, Mina Ha, Hyesook Park, Yangho Kim, Bung-Nyun Kim, Namsoo Chang, Se-young Oh, Young-Ju Kim, Chooghee Park, Eun-Hee Ha</i>	
O-298		<b>Prenatal Lead Exposure and Blood Pressure in Children: Possible Effect Modification by Socioeconomic Status</b> <i>Roman Pabayo, Howard Hu, Aimin Zhang, Brisa Sanchez, Adrienne Ettinger, Karen Peterson, Sung Kyun Park, David Cantonwine, Lourdes Schnaas, Robin O. Wright, Hector Lamadrid-Figueroa, Martha Maria Tellez-Rojo</i>	
O-299		<b>Bisphenol a and Childhood Body Size Outcomes in an Inner-City Cohort</b> <i>Lori Hoepfner, Robin Whyatt, Diurka Diaz, Antonia Calafat, Frederica Perera, Andrew Rundle</i>	

O-300	<b>Early Life Bisphenol a Exposure and Child Body Mass Index: a Prospective Cohort Study</b> <i>Joseph Braun, Bruce Lanphear, Antonia Calafat, Sirad Deria, Jane Khoury, Scott Venners</i>	
O-301	<b>Perchlorate, Thiocyanate, Nitrate and Childhood Growth</b> <i>Nancy Mervish, Ashley Pajak, Susan L. Teitelbaum, Susan M. Pinney, Gayle C. Windham, Lawrence H. Kushi, Frank M. Biro, Liza Valentin-Blasini, Ben Blount, Mary S. Wolff</i>	
O-302	<b>Prepubertal Serum Organochlorine Pesticide Concentrations and Growth among Russian Boys</b> <i>Jane Burns, Paige Williams, Oleg Sergeev, Mary Lee, Susan Korrick, Boris Revich, Thuy Lam, Russ Hauser</i>	
10:20 - 11:50	O.54 <b>OCCUPATION AND THE ENVIRONMENT</b> Session Chair: Jonathan Chevrier	HUB 334
O-303	<b>Amyotrophic Lateral Sclerosis, Occupational Risk Factors and Exposure Windows: a Case-Control Study in Michigan</b> <i>Feng-Chiao Su, Stuart Batterman, Brian Callaghan, Eva Feldman</i>	
O-304	<b>Wet Work, Prevalence of Hand Eczema and Incidence and Persistence of Atopic Dermatitis in Early Work Life</b> <i>Jessica Kellberger, Astrid Peters-Weist, Sabine Heinrich, Susanne Pfeiffer, Christian Vogelberg, Diana Roller, Jon Genuneit, Gudrun Weinmayr, Christian Heumann, Erika von Mutius, Dennis Nowak, Katja Radon</i>	
O-305	<b>Occupation and Risk of ALS in Denmark: a Population- Based Study</b> <i>Ryan Seals, Johnni Hansen, Ole Gredal, Marc Weisskopf</i>	
O-306	<b>Methylation of the Divalent Metal Transporter-1 Gene and Parkinsonism in Manganese-Exposed Welders</b> <i>Susan Searles Nielsen, Harvey Checkoway, Susan Criswell, Federico Farin, Patricia Stapleton, Lianne Sheppard, Noah Seixas, Jessica Lundin, Brad Racette</i>	
O-307	<b>Associations of Organic and Inorganic Mercury Exposure and Blood Pressure in a Small-Scale Gold Mining Community in Ghana</b> <i>Mozhgon Rajae, Rachel Long, Thomas Robins, Elisha Renne, Niladri Basu</i>	
ETH-17	<b>Current use of Toxicants that are Proven Health Hazards: An Ongoing Challenge with Profound Ethical Implications</b> <i>Juan P Ramos-Borilla</i>	
10:20 - 11:50	O.55 <b>HEALTH IMPACT ASSESSMENT IN AIR POLLUTION</b> Session Chairs: David Rojas-Rueda and Mike Brauer	HUB 160 (Lyceum)
O-308	<b>The Global Burden of Disease (GBD) Attributable to Ambient Air Pollution: Estimates from the GBD 2013</b> <i>Cohen Aaron, Michael Brauer, Greg Freedman, Richard Burnett, H Ross Anderson, Theo Vos</i>	
O-309	<b>Methodologies for Health Impact Assessment of Long-Term Exposure to Particulate Air Pollution</b> <i>Brian Miller, Hilary Cowie, Pierpaolo Mudu, Marco Martuzzi</i>	
O-310	<b>Effects of City Specific Data on Health Impact Assessments of Reduced Ozone Concentrations</b> <i>Jesse Berman, Patrick Breysse, Ronald White, Frank Curriero</i>	
O-311	<b>Air Pollution in a French Urban Area: a Health Impact Assessment on Mortality, Lung Cancer Incidence and Low Birth Weight</b> <i>Xavier Morelli, Camille Rieux, Josef Cyrus, Bertil Forsberg, Rémy Slama</i>	
O-312	<b>The Health Benefits of Reducing the Air Pollution Health Burden in Sydney, Australia</b> <i>Richard Broome, Neal Fann, Tina Navin, Charles Fulcher, Geoff Morgan</i>	
O-313	<b>Burden of Coronary Heart Disease from Near Roadway Air Pollution and Potential Impact of Greenhouse Gas Reduction in Southern California</b> <i>Rakesh Ghosh, Fred Lurmann, Laura Perez, Bryan Penfold, Sylvia Brandt, John Wilson, Meredith Millet, Nino Kuenzli, Rob McConnell</i>	
10:20 - 11:50	O.56 <b>EXPOSURE MODELING IN AIR POLLUTION RESEARCH</b> Session Chair: Adam Szpiro	HUB South Ballroom
O-314	<b>A National Prediction Model Based on Universal Kriging and Land-Use Regression Using Satellite- Based NO<sub>2</sub> Measurements for Epidemiological Analysis of Long-Term Health Effects</b> <i>Michael T. Young, Matthew J. Bechle, Paul D. Sampson, Julian D. Marshall, Lianne A. Sheppard, Joel D. Kaufman</i>	
O-315	<b>GEOS-Chem Data Visualization and Application in Epidemiology: Mapping Wildfire-Emitted PM<sub>2.5</sub> Levels in the Western US</b> <i>Jia Liu, Francesca Dominici, Loretta J. Mickley, Melissa P. Sulprizio, Xu Yue, Michelle L. Bell</i>	

- O-316 **Personal Versus Fixed-Site Monitoring for Assessing PM<sub>2.5</sub> Exposure in an Industrial City, Saudi Arabia**  
*Salem AlBalawi, Tnja Pless-Mulloli, Anil Namdeo, Susan Hodgson*
- O-317 **Individual-Based Exposure Assessment to Traffic-Related Air Pollution: Comparing Land Use Regression and Dispersion Modelling in Multiple European Cities**  
*Kees de Hoogh, Michal Korek, Jaakko Kukkonen, Menno Keuken, Gerard Hoek, Tom Bellander*
- O-318 **Integrating Concepts of Population Exposure into Atmospheric Dispersion Models at Different Spatial Scales, Taking into Account Individual Mobility**  
*Stefan Reis, Susanne Steinle, Massimo Vieno, Rachel Beck, Pietro Zambelli*
- O-319 **Comparison of Regression Models of Traffic-Related Ultrafine Particles in Three Near-Highway Neighborhoods in the Metropolitan Boston Area**  
*Allison Patton, Wig Zamore, Jonathan Levy, Doug Brugge, John Durant*

10:20 - 11:50

O.57

**NOVEL EXPOSURE ASSESSMENT APPROACHES IN BIOMONITORING FOR ORGANIC CHEMICALS**  
Session Chairs: Antonia Calafat and Claire Philippat

HUB 250

- O-320 **Measurement Variation and Concentration Distributions of Semivolatile Organic Chemicals in Deciduous Teeth**  
*David Camann, Alice Yau, Michelle Zuniga, Raymond Palmer, Lynne Heilbrun, Claudia Miller*
- O-321 **Collecting and Pooling Repeated Biological Samples to Limit Bias and Optimize Power in Biomarker-Based Epidemiological Studies - a Simulation Study Applied to Short Half-Life Chemicals**  
*Claire Philippat, Flavie Perrier, Lise Giorgis-Allemand, Rémy Slama*
- O-322 **The Rationale for Reporting Measured Values below the Limit of Detection or Quantification and Using Them in the Data Analysis**  
*Matthew Longnecker, Line Haug, Greg Travlos, Cathrine Thomsen*
- O-323 **Predicting Prenatal Exposure to Polybrominated Diphenyl Ethers (Pbdes), p,p'-Dichlorodiphenyltrichloroethane (p,p'-DDT), and p,p'-Dichlorodiphenyldichloroethylene (p,p'-DDE) from Maternal and Child Blood Levels 9 Years after Delivery**  
*Fraser Gaspar, Marc-Andre Verner, Jonathan Chevrier, Robert Gunier, Andreas Sjodin, Asa Bradman, Brenda Eskenazi*
- O-324 **Environmental Risk Score as a New Tool to Examine Multi- Pollutants in Epidemiologic Research: an Example from the NHANES Study Using Serum Lipid Levels**  
*Sung Kyun Park, Yebin Tao, John Meeker, Siobán Harlow, Bhramar Mukherjee*
- O-325 **Epidemiologic Analysis of the Effect of Mixtures: Application of a New Method to a Study of Organochlorines and ADHD**  
*Thomas Webster, Verónica Vieira, Susan Korrick*

11:50

Meeting Adjourned



**A**

Abdeen, Ziad - P1-023  
 Abrafi Boamah, Ellen - P1-177  
 Abraham, Emilie - P1-108  
 Acosta Montes, Jorge Octavio - P2-384  
 Adar, Sara - O-165, P2-494  
 Adgent, Margaret - O-155, O-229  
 Adlard, Bryan - P2-551  
 Ae-Ngibise, Kenneth - P2-406  
 Agodi, Antonella - P3-575, P3-576  
 Ahmad, Shahbaz - P2-352  
 Ait Bamai, Yu - P2-319  
 Aja, Hayley - P1-213  
 Akerstrom, Magnus - P3-595, P3-596  
 Åström, Christofer - O-037, P1-121  
 Al-Delaimy, Wael - P2-476. P3-750, S-071, ETH-06, ETH-09, ETH-11  
 Albalawi, Salem - O-316, P2-451  
 Aleksandryan, Anahit - P2-403, P2-404  
 Alexeeff, Stacey - O-102  
 Allen, Ryan - P3-786  
 Almerud, Pernilla - P3-739  
 Alseaidan, Mohammad - P1-017  
 Altug, Hicran - P3-628  
 Amegah, Adeladza Kofi - O-186  
 Amini, Hassan - P2-387, P3-714,715  
 Ananyeva, Oksana - P3-787  
 Ancona, Carla - P1-270, P1-272  
 André, Paulo - P2-508  
 Angelon-Gaetz, Kim - P2-538  
 Antanaitiene, Jolanta - P2-330  
 Anthopoulos, Rebecca - O-044  
 Antonio Martínez, Karina Roxana - P1-084  
 Aoki, Yutaka - O-284, P1-019  
 Apte, Joshua - P2-472  
 Araki, Atsuko - O-227  
 Armstrong, Ben - O-099  
 Arora, Manish - O-288  
 Asante, Kwaku Poku - S-046  
 Assibey-Mensah, Vanessa - P2-359  
 Austin, Claire - P1-138  
 Austin, Elena - M-10  
 Azhar, Gulrez Shah - P1-097  
 Azuma, Kenichi - P1-223, P1-224  
 Azzaoui, F-Z. - P3-754

**B**

Babayigit, Mustafa - P3-790  
 Babisch, Wolfgang - O-265  
 Bae, Hunn-Joo - P1-159  
 Bae, Jisuk - O-176  
 Bae, Sanghyuk - P3-610  
 Baja, Emmanuel S. - O-027  
 Baker, Dean - P2-364  
 Bakolis, Ioannis - P1-214, P2-427, P2-428  
 Bakulski, Kelly - O-067  
 Balluz, Lina - P2-497  
 Balshaw, David,  
 Banerjee, Shailendra - P1-283  
 Banjoko, Bosun - P1-089  
 Barceló, Maria - P1-276  
 Bard, Denis - P2-484  
 Barkoski, Jacqueline - P3-616  
 Barn, Prabjit - P2-357  
 Barraza-Villarreal, Albino - P2-317  
 Barregard, Lars - P3-593, P3-594

Barrie, Martin D. - O-205  
 Barrozo, Ligia - O-171  
 Bartell, Scott - P2-489  
 Basu, Nil - O-281  
 Basu, Niladri - M-02, P3-751  
 Basu, Rupa - P1-107  
 Baumgartner, Jill - O-185  
 Baxter, Lisa - S-080  
 Becerra, Adan - O-031  
 Behere, Prakash - P2-416  
 Bell, Griffith - P2-495  
 Bellali, Hedia - P2-459, P2-460  
 BENTAYEB, Malek - P1-163  
 Bergamini, Fernanda - P3-573  
 Berhane, Kiros - S-060  
 Berman, Jesse - O-310  
 Bertelsen, Randi - P3-591  
 Beyer, Kirsten - O-280  
 Bi, Peng - P2-337, P2-338  
 Bigelow, Philip - O-266  
 Bind, Marie-Abele - O-220  
 Blanes-Vidal, Victoria - P1-242  
 Bloom, Michael - M-11  
 Boehmer, Tegan - O-190  
 Boldemann, Cecilia - P1-289  
 Bono, Roberto - P2-421, P3-692, P3-693  
 Bordner, Autumn - P1-180  
 Bornehag, Carl-Gustaf - P1-015, P2-546  
 Bornman, Riana - O-105  
 Bouchar, Maryse - P3-588  
 Boyles, Abee L. - P2-437  
 Braggio, John - P1-149  
 Brantsaeter, Anne-Lise - O-224  
 Brauer, ScD, Michael - PL-09  
 Braun, Joseph - O-300  
 Bravo, Mercedes - P1-152  
 Brender, Jean - P3-648  
 Breton, Carrie - O-064  
 Breyse, Patrick N - S-047  
 Brody, Julia - P1-239, P3-828  
 Broome, Richard - O-312  
 Brouwer, Maartje - P1-229  
 Bruce, Nigel - O-182  
 Brunst, Kelly - O-222  
 Buck Louis, Germaine - O-046  
 Buckley, Jessie - P3-635  
 Bueno García, Maria Lucia - P2-492  
 Burgos, Soledad - P3-694, P3-695  
 Burm, Eunae - P1-032, P1-033  
 Burns, Jane - O-302  
 Burris, Heather - O-157  
 Bush, Kathleen - O-278  
 Bustamante Montes, Lilia Patricia - P1-026  
 Byun, Ga-Ram - P2-308  
 Byun, Hyang-Min - P2-523

**C**

Calafat, Antonia - P2-553  
 Callahan, Catherine - O-120  
 Callejas, Lina Maria - P1-269  
 Camann, David - O-320  
 Camitan, Neri - P2-393  
 Cantonwine, David - P1-018  
 Cantoral, Alejandra - O-286  
 Cardenas, Andres - O-140, P3-776  
 Carlin, Danielle J. - O-038  
 Carmona, Juan - P2-522  
 Carr Shmool, Jessie - P3-699

Carter, Ellison - P1-184  
 Carvalho, Mariana Azevedo - P3-619  
 Casey, Joan A. - P1-135  
 Castelyn, Ludwine - P3-679  
 Cervantes Martínez, Karla - P1-199  
 Cesaroni, Giulia - O-071, O-090, S-075  
 Chan, Vibol - P2-345, P2-346  
 Chandrashekar, Chandrashekar - P3-629  
 Chang, Howard H. - O-017, P3-604  
 Chang, Li-Te - P2-510  
 Chang, Ta-Yuan - P1-268  
 Chang, Tsui-Ming - P2-539  
 Chartier, Ryan - P3-802  
 Chatham-Stephens, Kevin - O-226  
 Chen, Chu-Chih - P1-024  
 Chen, Hong - O-054  
 Chen, Kai - P3-761  
 Chen, Mei-Huei - S-013  
 Chen, Mei-Lien - P1-025  
 Chen, Mu-Jean - P2-473  
 Chen, Nai-Tzu - P2-549  
 Chen, Szu-Ying - P3-680  
 Chen, Yeh-Hsin - O-256  
 Chen, Yi-Chen - P2-298, P2-299  
 Chen, Yu - S-036, S-044  
 Chen, Yu-Kuei - P3-559  
 Cheng, Ya-Yun - O-242  
 Cheong, Hae-Kwan - S-005  
 Chevrier, Cecile - O-127  
 Chevrier, Jonathan - S-064  
 Chhetri, Bimal - O-212  
 Chi, Gloria - S-011  
 Chiang, Shu-O - P1-251  
 Chien, Chun-Ju - O-077  
 Chiu, Hsi-Yaun - P2-516  
 Chiu, Yueh-Hsiu Mathilda - O-150  
 Cho, Jaelim - O-026  
 Cho, Yoon Hee - P1-254  
 Choi, Crystal CY - P1-110  
 Choi, Giehae - P1-143, P3-608  
 Choi, Won-Jun - P1-047  
 Choi, Yoon-Hyeong - P2-557  
 Christensen, Bryan - P1-178  
 Christensen, Jeppe Schultz - O-264  
 Christensen, Rogerio Araujo - P2-464  
 Chuang, Hsiao-Chi - P3-687  
 Chuang, Kai-Jen - P1-211, P1-212  
 Chuang, Ting-Wu - O-270  
 Chuang, Yun-Shiuan - P3-570  
 Chung, Jin-Yong - P3-766  
 Chung, Soo Eun - P1-049  
 Cohn, Barbara - O-104  
 Cohen, Aaron - O-308  
 Cole-Hunter, Tom - P1-274, P3-795  
 Colicino, Elena - O-218  
 Colledge, Michelle - P3-762  
 Collier, Ashley - P3-800  
 Conlon, Kathryn - O-022, O-163  
 Conti, Susanna - P3-675  
 Copat, Chiara - P2-388  
 Corlin, Laura - P1-288, P2-490  
 Corvalan, Carlos - P2-336  
 Cosselman, Kristen - P3-688  
 Cowell, Whitney J. - O-192  
 Cowie, Hilary - P3-807  
 Cox, Kyley - P1-020, P2-528  
 Cromar, Kevin - P2-474  
 Crooks, James - P2-293

Cupr, Pavel - P1-074  
Cupul-Uicab, Lea - P2-402, P3-650  
Curiel, Arturo - O-052  
Curl, Cynthia - O-223  
Curti, Stefania - P3-829  
Czarnota, Jenna - O-039

## D

Dabass, Arvind - O-034  
Dadvand, Payam - O-277, P3-683, S-059  
Dalvie, Mohamed Aqiel - P1-231  
Danjou, Aurélie - P3-720  
De Boever, Patrick - P2-513, P2-514, P2-515  
De Hoogh, Kees - O-317, P1-249  
De Sanjose, Silvia - O-016  
De Smedt, Tom - P2-440  
De'donato, Francesca - O-094  
Deflorio-Barker, Stephanie - O-213  
Degefu, Dagmawi - P2-389  
Dekoninck, Luc - P3-805  
Del Razo, Luz Maria - S-034  
Dellavalle, Curt - P1-238  
Demoury, Claire - P1-258  
DENYS, Sébastien - P1-050  
Deziel, Nicole - P2-415  
Deziel, Nicole C - P1-245  
Dix-Cooper, Linda - P2-380  
Djafri, Defriman - P2-344  
Dockery, Douglas - P1-096  
Dominguez-Bello, Maria Gloria - PL-03  
Donauer, Stephanie - P3-641  
Dong, Yu-Chen - P3-654  
Donovan, Geoffrey - S-055  
Dórea, José - P1-046  
Dorjderem, Odtsetseg - P3-663  
Döring, Stefan - P3-819  
Dougnon, Victorien - P3-560  
Downward, George - P1-172  
Drecksel, Dana - P1-136  
Drory, Alisa - P2-295  
Dutta, Anindita - PL-07  
DUTTA, Bornali - P2-397  
Dutta, Priya - O-130  
Dutton, Nina - P1-236, P1-237

## E

Ebi, Kristie L - S-002, S-028  
Egeghy, Peter - P1-077  
Eggesbø, Merete - O-111  
Egondi, Thaddaeus - P1-112, P3-789  
Ehrlich, Shelley - M-13  
Ein Mor, Ela - P3-653  
Emeville, Elise - P1-233  
Erickson, Anders - O-172  
Eriksen, Kirsten T. - P1-277, P3-769, P3-770  
Eriksson, Charlotta - O-194  
Ernst, Kacey C - S-053  
Erren, Thomas C. - O-014, P1-079  
Escamilla, Consuelo - P2-318  
Espaldon, Marya Laya - P1-091  
Espejo-Herrera, Nadia - O-005  
Ettinger, Adrienne - O-138  
Eum, Jin-Hee - P2-332  
Evans, Kristin - P3-633  
Eze, Ikenna - P3-726, P3-727

## F

Fabbri, Federico - P1-075  
Factor-Litvak, Pam - O-290  
Fan, Tianteng - P2-512

Farhi, Adel - M-12, P3-612  
Farias, Paulina - P3-760  
Farzan, Shohreh - O-239  
Fatima, Syeda Hira - O-269  
Fazzo, Lucia - P3-672  
Fecht, Daniela - O-195  
Fechter-Leggett, Ethan - O-091  
Feingold, Beth - P3-704  
Ferguson, Kelly - O-050, O-291  
Ferrante, Margherita - P2-418, P2-419  
Fierens, Sebastien - O-132  
Fillol, Clémence - P3-583  
Finkelstein, Yoram - P2-413  
Finnbjornsdottir, Ragnhildur G. - P2-501  
Fischer, Paul - P1-166  
Flak, Audrey - P2-305  
Fletcher, Tony - P1-134, P2-543  
Fleury, Manon - S-031  
Forastiere, Francesco - P3-615  
Fossati, Serena - P1-109  
Francis Olaki, Inangolet - P2-537  
Frankenfeld, Cara L. - O-156, P1-002  
Freeman, Shirra - P3-572  
Freire, Carmen - P3-764  
Fruh, Victoria - P1-197  
Frumkin, Howard - PL-01  
Fuertes, Elaine - O-275  
Fulk, Florence - P1-140  
Furlong, Melissa - O-152, P1-226

## G

Gallagher, Lisa - P3-735  
Gan, Wenqi - O-267, P3-582  
Gao, Meiling - O-042, P3-794  
Garcia, Maria Lucia Bueno - P2-455  
Garibay-Chavez, Guadalupe - P2-334  
Gaspar, Fraser - O-103, O-323  
Gasparrini, Antonio - O-236, P1-113  
Gass, Katherine - O-097, O-169  
Gehring, Ulrike - O-122  
George, Christine Marie - S-026  
Ghosh, Rakesh - O-313  
Ghosh, Rebecca - P1-217  
Giannadaki, Despina - P3-732  
Gillooly, Sara - P3-630  
Giorgis-Allemand, Lise - O-144  
Girguis, Mariam - P3-618  
Glynn, Anders - P2-548, P3-577  
Goggins, William - O-059  
Golan, Rachel - O-029, P2-456  
Gold, Diane R - S-045  
Goldsmith, David F - P1-051  
Gombojav, Enkhjargal - P1-139  
Goodrich, Jaclyn M. - O-066, P2-517  
Gossai, Anala - P1-068  
Gottesfeld, Perry - S-022  
Goudarzi, Houman - P3-644  
Goudreau, Sophie - P1-280  
Gray, Christine L. - P2-326, P2-327  
Greco, Susan - O-244  
Green, Rochelle - O-249  
Greenwald, Roby - P3-798  
Gress, Ky - P3-765  
Gribble, Matthew O. - P3-824  
Grimalt, Joan - S-068  
Grimsrud, Tom K - P3-717  
Gronlund, Carina - O-058  
Groth, III, Ph.D., Edward - M-01  
Gruzieva, Olena - P2-315  
Guimarães, Mariana - P1-244, P3-611  
Gunier, Robert - O-203, P1-059

Guo, Biao - P2-353  
Guo, How-Ran - P2-488  
Gyllenhammar, Irina - P2-545

## H

Ha, Eun-Hee - O-297  
Ha, Sandie - P3-602  
Habermann, Mateus - P1-144  
Hagström, Katja - P2-390  
Hajat, Anjum - S-010, S-079  
Hakami, Amir - P2-470  
Halonen, Jaana I - P2-499  
Hamad, Fatima - P2-382, P3-718  
Hami, Hinde - P1-078, P2-417  
Handal, Alexis J. - P3-651  
Hansell, Anna - P1-271, P2-347, P3-832  
Hao, Hua - P3-621, P3-622  
Harley, Kim G - S-025  
Harris, Gerald - M-06, P2-434  
Harris, Maria H - O-149  
Harris, Shelley - P3-738  
Hart, Jaime - O-070, O-072, P2-430  
Hartle, Jennifer C. - P1-010  
Haryanto, Budi - P2-342  
Hasaan, Nasir Mohd - S-001  
Hashim, Jamal Hisham - O-271  
Hashim, Zailina - P1-085, P3-652  
Hashizume, Masahiro - P3-731, S-004  
Haugen, Margaretha - O-151  
Hayes, Richard - O-252  
Hazlehurst, Marnie - O-082  
He, Yunxin - P1-165  
Heederik, Dick - P2-446  
Henderson, Sarah - O-062, O-262  
Heo, Jina - P1-164  
Herbarth, Olf - P3-813  
Herbstman, Julie - P1-240, P2-383  
Hernández Cadena, Leticia - P2-324  
Herr, Caroline - P2-311, P3-701  
Herrera C., Ronald F. - P2-429  
Hertz-Picciotto, Irva - O-217  
Hicken, Margaret - O-189, P3-707  
Hii, Yien-Ling - S-029, S-051  
Hilborn, Elizabeth D. - P2-392  
Hinckley Stukovsky, Karen - P2-424  
Hixson, Brooke - O-188  
Hoepner, Lori - O-299  
Hoffman, Barbara - O-255  
Hoffmann, Barbara - S-076  
Hogg, Daniel - P1-072  
Honda, Yasushi - P1-098  
Hondula, David M. - O-021  
Hong, Chuan - P3-574  
Hong, Soyoun - P2-379  
Horton, Megan - O-035  
Hou, Lifang - P2-520, P2-521  
Houot, Jennifer - P3-678  
Hsu, Chin Yu - P3-801  
Hsu, Wan-Hsiang - P2-511  
Hu, Hui - P3-774  
Hu, Shu Yang - P3-713  
Hu, Wenbiao - O-101, O-294, O-295  
Huang, Hintchun - P3-620  
Huang, Huang - P2-420  
Huang, Lisu - S-017  
Huang, Po-Chang - P1-264  
Huang, Po-Chin - P2-552, P3-638  
Huang, Siying - P1-052  
Huang, Yu-Kai - P3-725  
Huang, Yu-Sih - P2-300  
Huang, SCD, Wei - PL-08

Hurley, Susan - O-173  
Huss, Anke - O-197, P1-260  
Hystad, Perry - O-112, S-054

**I**  
Iavarone, Ivano - O-199, P3-716  
Iglesias, Verónica - P1-067, P3-745  
Imai, Chisato - O-234  
Inaba, Yohei - P3-585  
Ingole, Vijendra - P1-111  
Inoue-Choi, Maki - P2-527  
Insel, Beverly - O-147  
Ito, Kazuhiko - O-110, P1-154, P2-333  
Itoh, Sachiko - O-049

**J**  
Jaakkola, Jouni - S-069, P1-220  
Jacquemin, Benedicte - O-143, P1-202  
Jagai, Jyotsna - P3-820  
James, Katherine A - S-035  
James, Peter - O-279, S-056  
Jandarov, Roman - O-170  
Jang, Jae-Yeon - P2-475  
Janssen, Nicole - P3-690  
Jeon, Byoung-Hak - P2-320  
Jerrett, Michael - M-09  
Jin, Lan - O-086  
Jin, Yinlong - O-292  
Johns, Lauren E. - P1-022  
Johnson, Michael A - S-049  
Johnson, Paula - P2-481  
Johnston, Fay - O-167  
Jones, Miranda R. - O-191  
Jones, Rena - O-004  
Joo, Hyunjoo - P1-009  
Joubert, Bonnie - O-063  
Just, Allan - O-118

**K**  
Kabir, Ayesha Ferdosi - P1-101  
Kaiser, Pauline,  
Kamara, Habib Issa - P3-631  
Karagas, Margaret - P2-375  
Karakis, Isabella - P1-225  
Kashima, Saori - P3-734  
Kasper, Nicole - P2-378  
Katiyar, Ratna - P3-740  
Kaufman, Joel D - S-006, S-008  
Kaur, Bhupinder - O-146  
Keil, Alexander - S-065  
Kellberger, Jessica - O-304  
Keller, Joshua - S-007  
Kershaw, Kiarri,  
Khafaie, Morteza Abdullatif - P3-730  
Khanjani, Narges - P1-104, P2-502  
Kho, Younglim - P2-372  
Kim, Byung Mi - S-014  
Kim, Clara Tammy - P2-350  
Kim, E Jin - P3-708  
Kim, Eun-Hye - P3-627  
Kim, Eunjeong - P3-609  
Kim, Guen-Bae - P1-132  
Kim, Ho - P1-160, P2-453, S-003  
Kim, Honghyok - O-096, P1-167  
Kim, Hwan-Cheol - P1-141  
Kim, Hyo-Mi - P2-296  
Kim, Hyunsoo - P1-162  
KIM, JIN HEE - P1-004  
Kim, Jong-Hun - P2-349  
Kim, Jung Ah - P1-129, P1-130

Kim, Kyoung-Nam - O-282  
Kim, Minjun - P1-256  
Kim, Na Kyung - P1-191  
Kim, Shinwoo - P1-156  
Kim, Sun-Young - O-260, P1-148  
Kim, Taeshik - P3-777  
KIM, Young-Min - P1-128  
Kim, Young-Suk - P1-039  
Kingsley, Samantha - P1-117  
Kinney, Patrick - O-019, P1-122, S-070  
Kioumourtzoglou, Marianthi-Anna - M-15, P1-189, P1-190, P3-724  
Kipen, Howard,  
Kirrane, Ellen - P1-038  
Kiryчук, Shelley - P2-447  
Kishi, Reiko - S-012  
Klemm, Rebecca - P2-431  
Kloog, Itai - P1-150  
Kobayashi, Sachiko - O-177  
Kogevinas, Manolis - O-002, O-108, P1-088, PL-04  
Koli, Rahul - P3-711  
Konishi, Shoko - P1-114  
Kordas, Katarzyna - O-285, P3-569  
Korek, Michal - P1-187  
Korsh, Jessica - P3-668  
Kotík, Lukáš - P1-252  
Kouadio, Kouame - P2-445  
Kponee, Kalé - O-215  
Krakowiak, Paula - O-009  
Krasnov, Helena - P1-221  
Krigbaum, Nickilou - P2-407  
Kromhout, Hans - P1-092  
Krueger, Whitney - O-214  
Kunugita, Naoki - O-011  
Kuo, Chin-Chi - S-032  
Kuzmina, Elena - P3-815  
Kwok, Richard - P1-131  
Kwon, Eun Jin - P2-547  
Kwon, Nicolette - P3-669

**L**  
Lai, Ching-Huang - P3-804  
Laine, Jessica - P1-066  
Lal, Aparna - O-116  
Lam, Thuy - O-231  
Lamichhane, Dirga K. - P2-363  
Lane, Kevin - O-043, P1-207, P3-681  
Langlois, Peter - O-209  
Lanphear, Bruce - S-019, S-023  
LAO, Xiang Qian - P1-222  
Latifovic, Lidija - O-015  
Laumbach, Robert - M-14  
Laws, Rebecca - O-129, P1-094  
Lawson, Joshua - O-121  
Laya, Marya - P3-823  
Le, Hien - P3-814  
Lebret, Erik - P2-467, P3-658, P3-659  
Lee, Duk-Hee - P1-234  
Lee, Eun-Hee - P3-586  
Lee, Hyemi - P3-639  
Lee, Hyewon - P1-205  
Lee, Hyung Joo - P1-151  
Lee, Jong-Tai - O-056  
Lee, Kyoung-Mu - P3-757  
Lee, Mee-Ri - P1-003  
Lee, Nian-Wei - P1-235  
Leibler, Jessica - S-041  
Lévesque, Benoit - O-008, P2-391  
Levin, Ronnie - O-211, P2-479  
Levy, Karen - O-274  
Lewis, Jessica J. - P1-173

Lewis, Toby - P2-306  
Li, Guoxing - P2-503  
Li, Ming-Chieh - P3-646  
Li, Yanhong - P2-386  
Li, Yonghong - O-093  
Li, Yu - P2-491  
Li, Zheng - O-184  
Liang, Fengchao - P1-103  
Liao, Xiaomei - P2-439  
Liao, Yi-Peng - O-065  
Liew, Zeyan - O-128, O-178  
Lim, Chris - P1-116  
LIM, JI AE - P2-519  
Lim, Youn-Hee - O-245, P1-102  
Limaye, Vijay - P1-120  
Lin, Chien-Yu - P1-232  
Lin, Cynthia - P2-396  
Lin, Po-Hsiu - P3-729  
Lin, Yu-Jen - P3-736  
Lin, Yu-Ting - O-141  
Linares, Cristina - P1-099  
Lindert, Jutta - ETH-03, ETH-08, ETH-10, P3-700  
Liou, Saou-Hsing - P1-250  
Liu, Chuang - P2-321  
Liu, Hai-Ying - O-083  
Liu, Jamie Yun - P1-028  
Liu, Jeremiah - P3-625  
Liu, Jia - O-315  
Liu, Jiaying - P1-014  
Liu, Jun - P3-568  
Liu, Liqun - P3-673  
Liu, Qiyong - S-030  
Liu, Ruiling - O-073, P1-243  
Ljungman, Petter - O-089  
Lobdell, Danelle T - P3-810  
Lodoisamba, Delgerzul - P2-507  
Loftus, Christine - PL-10  
Löhmus, Mare - P2-312  
Longnecker, Matthew - O-322  
Lopes, Ana Carolina - P3-758  
Lopes, Bruno De Almeida - O-204  
López-Carrillo, Lizbeth - P3-767  
Louie, Nica - P3-666  
Lozier, Matthew J - P1-176  
Lubczynska, Malgorzata - P1-115  
Luben, Tom - P2-487  
Lupatsch, Judith E - P2-540

**M**  
Ma'pol, Aminuddin - P2-303  
Macintyre, Elaina - P2-480  
Madaniyazi, Lina - P1-161  
Madrigano, Jaime - O-261  
Madrigano, Jaime - P3-662  
Magallan, Isabel - P1-290  
Magid, Hoda - P2-426  
Magzamen, Sheryl - P2-436, P3-660  
Maitre, Lea - P2-369  
Malashock, Daniel - P2-482  
Malebo, Ntsoaki - P1-216  
Malecki, Kristen - P3-779  
Malmqvist, Ebba - O-246  
Malykh, Olga - P1-081  
Margolis, Helene - S-073  
Margolis, Helene G - ETH-14  
Marinaccio, Alessandro - P3-676  
Markevych, Iana - S-057  
Marshall, Julian - O-045, P1-182  
Marsit, Carmen - O-148  
Martuzzi, Marco - P3-821, P3-822  
Matte, Thomas - P1-118, P3-601

Maule, Alexis - P1-087  
 Mccarthy, John - P1-285  
 Mcconnell, Rob - P3-685  
 Mcdonald, Kaila - P3-605  
 Mcelroy, Jane - P3-775  
 Mcguinn, Laura - O-253  
 Mcmorris, Owen - O-276  
 Mdluli, Fezile - P2-394  
 Meier, Reto - O-012  
 Mejía-Aranguré, Juan Manuel - O-210  
 Meliker, PhD, Jaymie,  
 Mendez, Michelle - S-033  
 Mendola, Pauline - P2-354  
 Menezes-Filho, José A. - O-115, P3-780  
 Merritt, Anne-Sophie - P3-792  
 Mervish, Nancy - O-301  
 Metayer, Catherine - O-202  
 Michikawa, Takehiro - P2-355  
 Milazzo, Adriana - O-235  
 Mildred, Maisonet - P3-636  
 Miller, Brian - O-309  
 Miller, Charles - P3-562  
 Milner, James - P3-563  
 Milojevic, Ai - O-162, S-077  
 Minichilli, Fabrizio - P3-752, P3-768  
 Miranda Filho, Adalberto - P3-643  
 Mirowsky, Jaime - O-032  
 Mitsakou, Christina - O-080  
 Mohai, Paul - S-074  
 Mohammed, Nureddin - P1-201, P3-785  
 Molina-García, Alejandro - P2-351  
 Molla, Yordanos - P1-073  
 Monaghan, Andrew J - S-050  
 Montrose, Luke - P1-194  
 Moon, Katherine - P2-425  
 Moore, June - P3-590  
 Mora, Ana M. - P1-060, P1-061, P1-062  
 Morelli, Xavier - O-311  
 Morello-Frosch, Rachel - P3-665, S-078  
 Morgan, Geoff - O-041  
 Morgenstern, Rachelle - P3-637  
 Mori, Mihoko - P1-215  
 Mortensen, Mary - P3-580  
 Mosquin, Paul - P1-185  
 Mumford, Sunni - P3-573  
 Muñoz, María Pía - P1-065  
 Muñoz-Quezada, María Teresa - P1-227  
 Munyinda, Nosiku - P2-400, P2-401  
 Murray, MD, PhD, Christopher - PL-05  
 Mustapha, Adetoun - ETH-07, P3-702, S-072

## N

Nachman, Rebecca - P1-013  
 Nafees, Asaad Ahmed - P3-742  
 Naish, Suchithra - P2-343  
 Nånberg, Eewa - P1-021  
 Navarro, Kathleen - M-05  
 Neitzel, Richard - P1-090  
 Nelson, David - O-036, O-237  
 Nelson, Lauren - P2-304  
 Nery, Telma - P2-461, P2-462, P2-463  
 Neutra, Raymond R - ETH-02, ETH-13, P3-657  
 Newman, Nicholas - P1-044  
 Ng, Chris Fook Sheng - P1-209  
 Nieuwenhuijsen, Mark,  
 Nirel, Ronit - P1-246  
 Nkhebenyane, Jane - P3-566  
 Nkosi, Vusumuzi - P1-267  
 Noh, Su Ryeon - O-123, P1-133  
 Noonan, Curtis - P1-076  
 Nori-Sarma, Amruta - P2-478

Nsoesie, Elaine - O-233  
 Nwaka, Geoffrey - P3-697

## O

O'Callaghan-Gordo, Cristina - P2-365  
 O'Lenick, Cassandra - P3-706  
 Ögren, Mikael - O-196  
 Ojengbede, Oladosu - S-048  
 Olden, Kenneth - PL-02  
 Olives, Casey - M-17  
 Olives, Casey - S-009  
 Olympio, Kelly Polido Kaneshiro - P1-040  
 Osborne, Nicholas - P3-565  
 Ou, Chun-Quan - P2-291  
 Ou, Judy - P1-284, P3-712  
 Oudin Åström, Daniel - O-095  
 Ouidir, Marion - O-079  
 Oulhote, Youssef - P1-070, P1-071  
 Overdevert, Ilse - S-038

## P

Pabayoy, Roman - O-298  
 Padilla, Cindy - P3-705  
 Padula, Amy - S-066  
 Pan, Janet - P2-550  
 Pan, Libo - P2-530  
 Pan, Wen-Chi - P1-210  
 Pan, Xiaochuan - P3-599  
 Panni, Tommaso - P3-709  
 Paoliello, Monica - P3-782  
 Pappin, Amanda - P2-469  
 Parajuli, Rajendra - P1-036  
 Park, Eun-Kyo - P1-005  
 Park, Hye Yin - O-248, P1-208  
 Park, Ju Young - P2-367  
 Park, Sung Kyun - O-324  
 Parsonnet, Julie - S-043  
 Parvez, Faruque - O-006  
 Pasetto, Roberto - P3-737  
 Patton, Allison - O-319  
 Pearce, John L - P2-457  
 Pearson, Dharshani - P1-124  
 Pedersen, Marie - O-289, P2-358  
 Pelé, Fabienne - O-109  
 Peng, Qing - O-243  
 Perera, Frederica - P1-008, P3-617  
 Perez, Laura - O-018  
 Periasamy, Srinivasan - P1-080  
 Perlmutter, Lars - P3-830  
 Perron, Stéphane - P1-279  
 Peters, Cheryl - O-134  
 Peterson, Karen E. - O-232  
 Petrosian, Arina - P3-816  
 Philippat, Claire - O-125, O-321  
 Phillips, Michael - P1-179  
 Picciotto, Sally - S-063  
 Piedrahita, Ricardo - P1-183  
 Pierce, Brandon - O-219  
 Pinheiro, Samya - P2-328, P2-329  
 Pinney, Susan M. - P2-532, P3-664  
 Pope, Arden - S-061  
 Porucznik, Christina - P1-011, P1-012  
 Power, Melinda C. - O-025  
 Price, Lance - S-040  
 Puett, Robin - P1-198  
 Pun, Vivian - O-168, O-254  
 Punshon, Tracy - P1-069  
 Pyko, Andrei - O-263

## Q

Qiu, Hong - P1-155, P2-449  
 Quansah, Reginald - O-001

## R

Raanan, Rachel - O-119  
 Ragettli, Martina S - O-193  
 Rainham, Daniel - P1-230  
 Rajae, Mozhgon - O-307, P3-749  
 Rajiva, Ajit - P1-119  
 Ramos-Borilla, Juan P - ETH-17  
 Rappazzo, Kristen M - P3-649  
 Rappld, Ana G. - O-158  
 Raspanti, Greg - P1-170  
 Raza, Auriba - P2-500  
 Reis, Stefan - O-318, P2-477, P3-796  
 Relman, David - S-042  
 Remigio, Richard V - O-183  
 Rentschler, Katie - P2-524  
 Reyes, Jeanette - O-175  
 Reynolds, Peggy - O-136  
 Rice, Mary B - O-164  
 Rich, David Q. - O-030, P2-486  
 Richardson, David - P2-441  
 Richter, Elihu - P3-667  
 Riederer, Anne - O-117  
 Rignell-Hydbom, Anna - O-180, O-228  
 Riley, Erin - P3-788  
 Ritz, Beate - O-023, P1-228, P2-414  
 Rivera-González, Luis O. - P1-027  
 Roberts, Eric - O-098  
 Rodrigues, Mónica - P2-443, P2-444, P3-728  
 Rodrigues, Poliany - P1-158  
 Rojas-Rueda, David - P1-282  
 Romano, Megan E. - P1-030, P1-031, P2-377  
 Rooney, James - P2-435  
 Röösl, Martin - O-268, P1-275  
 Rose, Melissa - O-010  
 Rosen, Sari - P3-655  
 Rosenthal, Frank - ETH-04, S-018, P3-743  
 Roser, Katharina - P1-261  
 Ross, Michelle - O-087  
 Rothenberg, Sarah - O-154, P2-536  
 Rückerl, Regina - P3-682  
 Rudel, Ruthann - P3-721  
 Ruojie, Zhao - P1-171  
 Ryan, Patrick - M-07  
 Ryan, Patrick - P2-323  
 Rylander, Lars - P2-542

## S

Sadetzki, Siegal - O-206  
 Sagiv, Sharon - O-076, O-126, O-181  
 Sahai, Sushma - P1-248  
 Saldiva, Silvia - P1-204, P3-600  
 Saldiva De André, Carmen - P3-686  
 Sallsten, Gerd - P1-218  
 Sanchez-Guerra, Marco - P1-196  
 Sanders, Alison - O-068  
 Sandler, Dale - O-131  
 Sang, Tian - P3-623  
 Santoro, Michele - P1-247, P3-831  
 Sarigiannis, Denis A - ETH-12, P3-817, P3-818  
 Sarkar, Atanu - P1-253  
 Sarmiento-Suarez, Rodrigo - O-139, P1-278  
 Sarovar, Varada - P3-614  
 Sata, Fumihiro - P2-366  
 Sathyanarayana, Sheela - O-113, S-024  
 Savitz, David - P2-356  
 Scher, Deanna - P2-408  
 Schifano, Patrizia - O-061, O-174, P2-292  
 Schmeltz, Michael - O-057

Schneider, Alexandra - P1-153  
 Schoof, Rosalind - P1-035  
 Schreinemachers, Dina - P3-587  
 Schumann, Barbara - O-296, P1-123  
 Schwartz, Brian - O-153  
 Scortichini, Matteo - O-055  
 Scott, Laura - P1-093, P2-442  
 Seals, Ryan - O-305, P2-438  
 Searles Nielsen, Susan - O-306  
 Semenza, Jan C. - P2-339, P2-341, P2-340, S-027, S-052  
 Semmens, Erin - P1-174  
 Seow, Wei Jie - P1-219  
 Seposo, Xerxes - P1-100  
 Serdar, Berrin - P3-741  
 Serrano, Samantha - P1-029  
 Seto, Edmund - P3-793  
 Sewe, Maquins - P2-348  
 Shah, Anar - P2-454  
 Shaposhnikov, Dmitry - P2-294  
 Sheikh, Mashhood Ahmed - P3-698  
 Sheppard, Lianne - S-082  
 Shin, Ji-Hye - P1-105  
 Shin, Mikyong - P3-661  
 Shirinde, Joyce - O-258, P3-791  
 Shlafman, Nurit - P3-691  
 Shoaff, Jessica - O-074  
 Shrestha, Srishti - P2-541  
 Shu, Huan - P2-371  
 Siag, Kamal Nain - P3-677  
 Silbergeld, Ellen - S-037  
 Silva, Mirta - P2-554  
 Silver, Monica K - P1-041, P1-042  
 Sim, Malcolm - O-166  
 Simons, Koen - P2-450  
 Singer, Alison B. - P1-083  
 Singer, Julio - O-100  
 Smargiassi, Audrey - P1-273  
 Smith, Genee S. - O-273  
 Smith, Marissa N. - P2-368  
 Smith, Tara - S-039  
 Snoj Tratnik, Janja - P3-763  
 Soares Da Silva, Agnes - P2-471  
 Sobkowicz, Aaron - P2-556  
 Sohn, Jungwoo - P2-496  
 Sordillo, Joanne - S-045  
 Soltero Rodriguez, Leticia Nayeli - P3-670  
 Son, Jiyoung - O-092  
 Soneja, Sutyajeet - P1-181  
 Song, Yun-Feng - P2-331  
 Soo Chen, Kwan - P1-281  
 Soppa, Vanessa Jana - O-259  
 Soskolne, Colin - ETH-15, ETH-16  
 Soskolne, Colin L -  
 Souza Paraiso, Maria Leticia - P2-448  
 Spiegelman, Donna - S-081  
 Spycher, Ben D. - O-201  
 Sram, Radim J - P1-200  
 Stafoggia, Massimo - P1-147  
 Stanaway, Ian - P2-535  
 Staykova, Jeni - P3-755  
 Stayner, Leslie - O-051  
 Steckling, Nadine - P3-748  
 Stein, Cheryl - O-283  
 Steinmaus, Craig - O-003  
 Stingone, Jeanette A - P2-307  
 Stone, Susan - O-250  
 Stone, Susan Lyon - P2-468  
 Strickland, Matthew - M-16, O-187  
 Stroustrup, Annemarie - P2-362  
 Strumylaite, Loreta - O-135

Su, Chang - P2-505  
 Su, Feng-Chiao - O-303  
 Su, Ta-Chen - P2-555  
 Suarez, Jose Ricardo - P3-645  
 Sun, Wenjie - P3-783, P3-784  
 Sun, Xuezheng - P2-452  
 Sung, Tzu-Ching - P2-297  
 Sunyer, Jordi - P2-322  
 Sunyer Deu, Jordi - PL-06  
 Svendsen, Erik - O-133  
 Szpiro, Adam - P2-432, S-083

## T

Takaro, Tim K. - P2-313  
 Tallon, Lindsay - P3-722  
 Tamayo Y Ortiz, Marcela - P1-043  
 Tatsuta, Nozomi - P3-812  
 Taylor, Ethel - P3-564  
 Taylor, Kathryn - P3-808  
 Teitelbaum, Susan L. - P1-006  
 Téllez-Rojo, Martha-María - P3-647  
 Tessum, Christopher - P3-656  
 Thach, Thuan Quoc - P1-146  
 Theunis, Jan - P3-799  
 Thomas, Deena - P2-376  
 Thompson, Brooke - P2-399  
 Tobollik, Myriam - P2-465, P2-466  
 Toichuev, Rakhmanbek - P1-259, P2-409, P2-410, P2-411  
 Toichueva, Gulnara - P3-640  
 Tomasek, Ladislav - O-207  
 Tondel, Martin - P2-405  
 Tong, Shilu - O-159, O-160  
 Torres-Sanchez, Luisa - P3-773  
 Tougaard, Ninna Hahn - P1-082  
 Tran, Thi-Chien - P1-106  
 Tripathy, Sheila - P1-188  
 Trnovec, Tomas - P2-374  
 Trowbridge, Jessica - O-114  
 Tsai, Chang-Chih - P1-265  
 Tsai, Meng-Shan - P2-544  
 Tseng, Yen-Cheng - P3-703  
 Tsuchiya, Kenji J. - P1-037  
 Tsuda, Toshihide - P1-255  
 Tsui, Hung-Chang - P2-316  
 Turner, Michelle - O-251, P1-263, P3-674  
 Turyk, Mary - P2-526  
 Tutino, Rebecca - P1-058  
 Tybor, David - P3-827

## U

Underhill, Lindsay - P2-325  
 Upson, Kristen - O-225  
 Urbinello, Damiano - P1-262  
 Vacchi-Suzzi, Caterina - P3-561

## V

Vacquier, Blandine - P1-257  
 Valentín-Blasini, Liza - P2-412  
 Van Den Bossche, Joris - P3-803  
 Van Erp, Annemoon M. - P1-206  
 Van Nieuwenhuyse, An - P3-589  
 Van Wendel De Joode, Berna - O-075, P2-373  
 Vanderslice, Jim - M-04  
 Veras, Mariana - O-145  
 Vermeulen, Roel - O-208, P3-634, P3-684  
 Vesterinen, Hanna - P2-361  
 Vianna, Nelzair - P3-797  
 Víbol, Sao - O-241  
 Vieira, Sandra - P3-606

Vieira, Veronica - P2-370  
 Vilas-Boas, Daniel S - P1-195  
 Villegas-Cintra, Camila M. - P3-592, P3-597  
 Villeneuve, Paul - P2-509, S-058  
 Vinceti, Marco - P3-771, P3-772  
 Vineis, Paolo,  
 Virani, Shama - O-137  
 Vodonos, Alina - P1-192, P3-733  
 Volckens, John - M-08  
 Von Ehrenstein, Ondine - O-200  
 Vonkobyletzki, Laura - P1-016  
 Voss, Robert W. - P2-422

## W

Wade, Tim - P2-533, P2-534  
 Wang, I-Jen - P2-301, P2-302, P3-571, P3-578  
 Wang, Meng - P1-145  
 Wang, Molin - O-238  
 Wang, Shu-Li - O-078, O-179, P3-642, S-015  
 Wang, Weiye - P3-781  
 Wang, Yi - O-033  
 Wang, Yu-Chun - O-060  
 Ward, Mary H. - P1-241  
 Ward, Tony - P1-175  
 Warembourg, Charline - O-048  
 Warner, Marcella - O-107  
 Warren, Christian - S-020  
 Watkins, Deborah - P1-007  
 Webster, Thomas - O-325  
 Wei, Binnian - P2-423, P3-744  
 Weichenthal, Scott - O-040, O-085, P2-483  
 Weinberger, Kate - O-020  
 Weinmann, Tobias - O-198  
 Weisskopf, Marc - S-067  
 Weldon, Brittany - P3-581  
 Wells, Ellen M - ETH-01, ETH-05, P3-809  
 Wen, Hui-Ju - S-016  
 Wen, Xiao Jun (John) - P2-498  
 Weuve, Jennifer - P3-723  
 Wheeler, Benedict - P1-286  
 Wheeler, David - P2-398  
 Whitehead, Todd - P1-064  
 Whyatt, Robin - O-124  
 Wichmann, Janine - P1-168, P1-169, P2-485  
 Wilken, Jason - P1-034  
 Wilker, Elissa - O-024  
 Wilkinson, Paul - O-084  
 Willers, Saskia M - O-161  
 Wilson, Lauren - P3-719  
 Wilson, William - P2-433, P3-806  
 Wine, Osnat - P3-607  
 Wing, Steve - P3-826  
 Wittkopp, Sharine - O-216  
 Wolf, Kathleen - P1-287  
 Wolf, Kathrin - O-088  
 Wolff, Mary - O-230  
 Wollenburg, Emelia - P2-395, P3-579  
 Wong, Chit-Ming - O-069  
 WONG, Claudie CY - O-007  
 Woodruff, Tracey - O-287  
 Wright, J. Michael - P2-529  
 Wu, Shaowei - O-221, O-257  
 Wu, Wei-Te - P2-381, P3-778

## X

Xia, Yajuan - P2-385  
 Xu, Jian - P1-045  
 Xu, Meimei - O-293, P2-504  
 Xu, Xiaohui - O-142

## Y

Yakubu, Yakubu Almu-Min - P3-696  
Yan, Chonghuai - P1-053, P1-054, P1-055, P1-056, P1-057, S-021  
Yang, Aileen - P1-142  
Yang, Chiu-Yueh - O-106  
Yang, Chun-Yuh - P1-186  
Yang, Eun Kyoung - P1-125, P1-126, P1-127  
Yang, Hsiao-Yu - O-013  
Yang, Zhao - P3-624  
Yao, Jiayun - P1-203  
Yard, Ellen - P3-746, P3-747  
Yasumoto, Shinya - O-081  
Ye, Xiaoyun (Sherry) - P1-001  
Yeh, Chih-Ching - P2-518  
Yeh, Yating - P3-689  
Yitshak Sade, Maayan - O-247, P3-598, P3-613  
Yohannessen, Karla - P2-314  
Yoo, Young - P2-309  
Yorifuji, Takashi - P2-360  
Young, Michael T. - O-314  
Young-Seoub, Hong - P3-756  
Yu, Xiaodan - P3-811  
Yuan Ting, Hsu - P1-086  
Yucel, Fikri - P2-335

## Z

Zawide, Firdu - P3-567  
Zhang, Chengchen - O-047  
Zhang, Jinliang - P2-458  
Zhang, Li - P3-584  
Zhang, Yajuan - P2-506  
Zhang, Yanping - P1-193  
Zhang, Ying - O-053, P1-095  
Zhao, Nan - P3-603  
Zheng, Laura - P1-063  
Zhong, Jia - P2-493  
Zhou, Hui - P2-310  
Zhou, Jian - P2-531  
Zhou, Jiang - P3-626  
Zhou, Ying - M-03, P3-671  
Zigler, Corwin - S-062  
Zijlema, Wilma - O-028, P3-825  
Zimmermann, Lauren - P3-632  
Zou, Tiansen - P3-759  
Zu, Ke - P1-157



## Conference Opening Reception

**Sunday, August 24th 18:30 - 20:30**

The ISEE 2014 Conference Opening Reception will be held at Meany Hall on the University of Washington Campus. Join us in celebrating the opening of the conference with drinks, appetizers, and live music.

## Conference Dinner at the EMP Museum

**Wednesday, August 27 at 19:30 to 23:30**

One ticket included with ISEE 2014 registration

The ISEE 2014 Conference Dinner is planned for Wednesday evening, August 27th, at the Experience Music Project Museum (EMP) in Seattle. Organizers have reserved the entire museum for ISEE 2014 attendees. Visit with your friends and colleagues, enjoy some northwest microbrews or local wines and a buffet dinner featuring ingredients local to the Pacific Northwest before heading into the interactive museum exhibit spaces or out to the dance floor!

Round-trip transportation will be provided between the University area and the EMP. Shuttles from the HUB to the EMP will run from 18:30 to 19:30.

### **About the EMP**

Set amid the backdrop of the Space Needle, the EMP is housed in a one-of-a-kind building designed by Frank Gehry. Founded by Paul Allen, the EMP Museum is dedicated to the history and exploration of music and popular culture. With its roots in rock 'n' roll, EMP serves as a gateway museum, reaching multigenerational audiences through collections, exhibitions, and educational programs, using interactive technologies to engage and empower visitors.

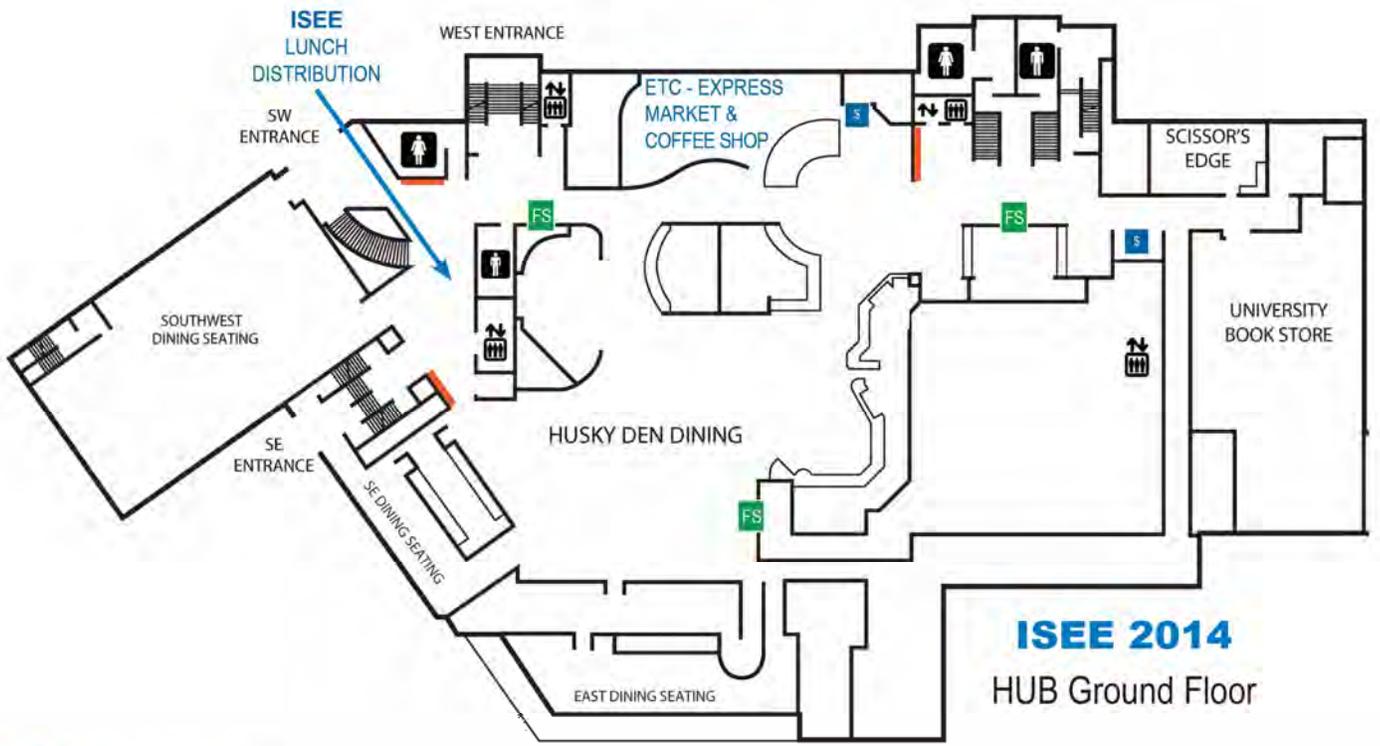
## Student and New Researcher Network (SNRN) Event

The Student and New Researcher Network (SNRN) of ISEE has organized an evening workshop and social focused on promoting multidisciplinary environmental health research. The workshop will begin with presentations by leading environmental health researchers on how to conduct innovative multidisciplinary research. This will be followed by "speed round table discussions" where individuals will be able to highlight their current research, ideas, opportunities or potential partnerships. The goal of the workshop is to ignite research collaborations and enhance networking among students and new researchers. The workshop will be followed by a social event that includes a buffet dinner, drinks and activities! **This event is sold out.**

**When:** August 25th, 2014 | Starts at 5:30pm

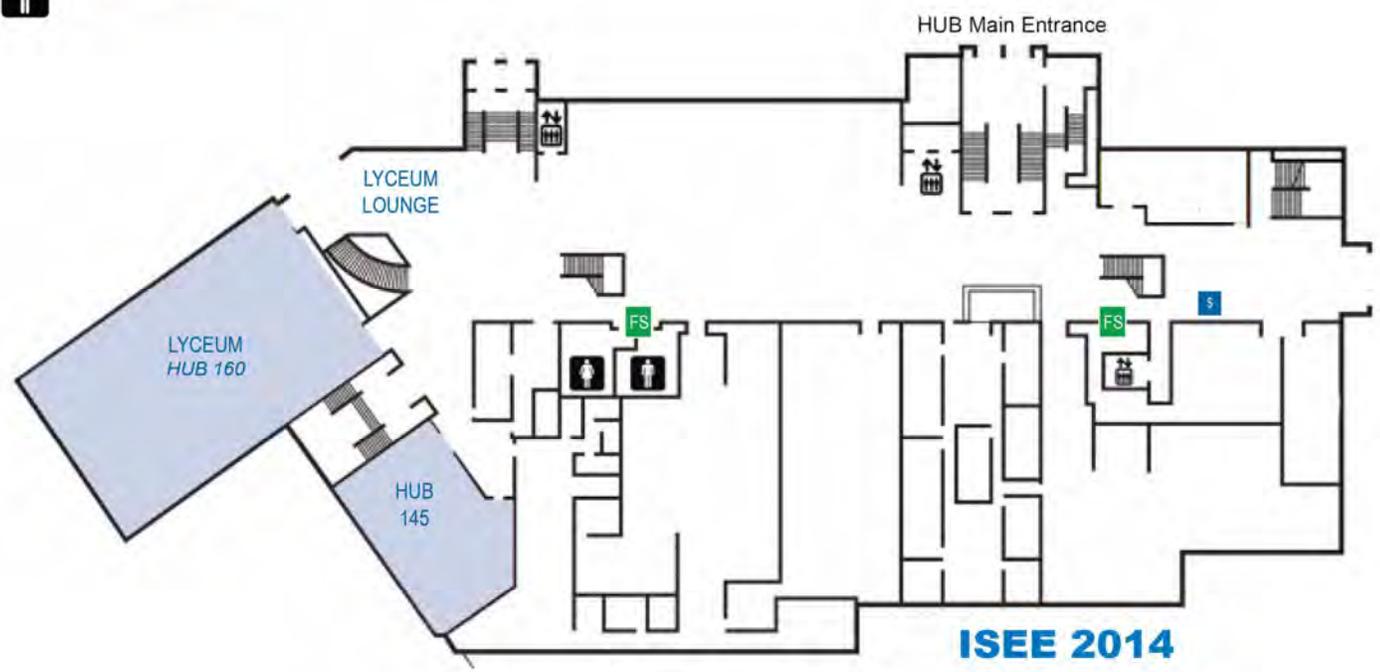
**Where:** UW Waterfront Activities Center (within walking distance of the conference center).



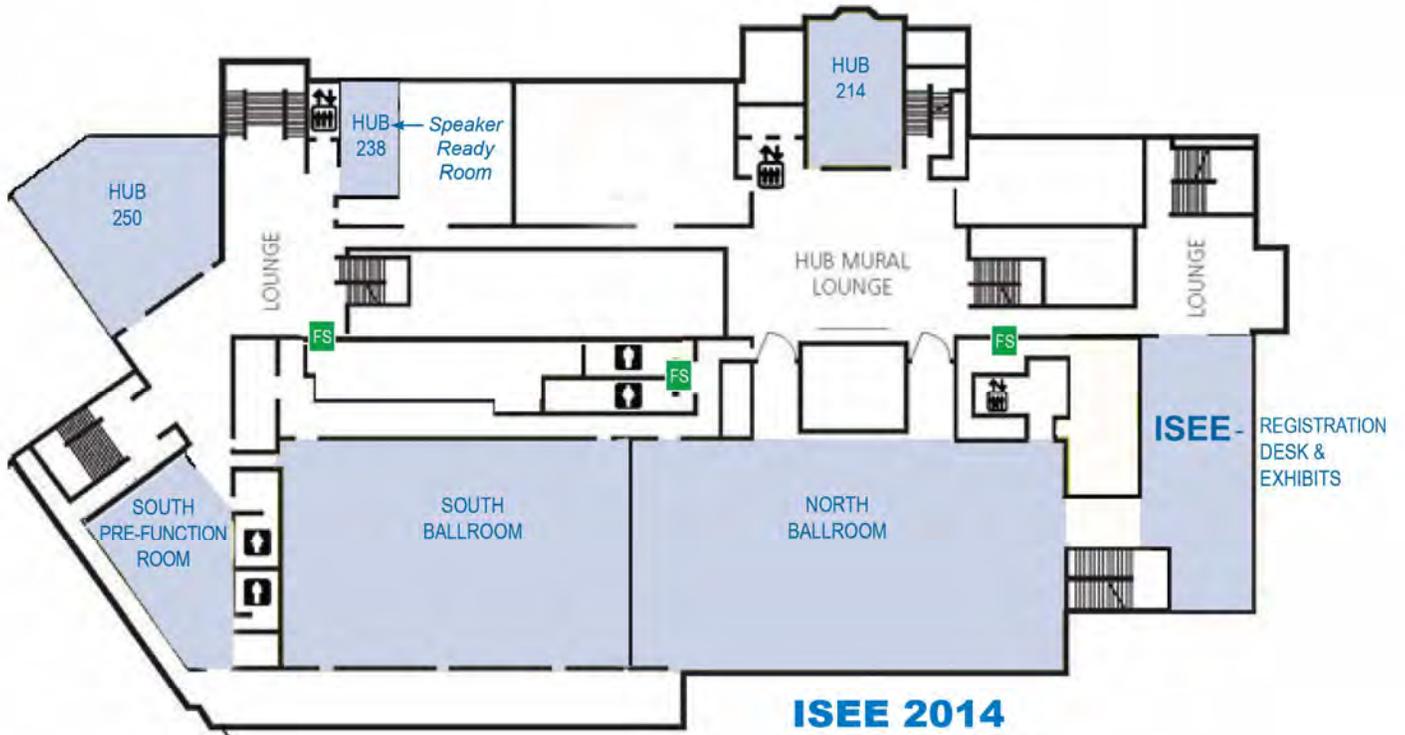


**ISEE 2014**  
HUB Ground Floor

-  = ATM MACHINE
-  = WATER BOTTLE FILLING STATION
-  = RESTROOMS

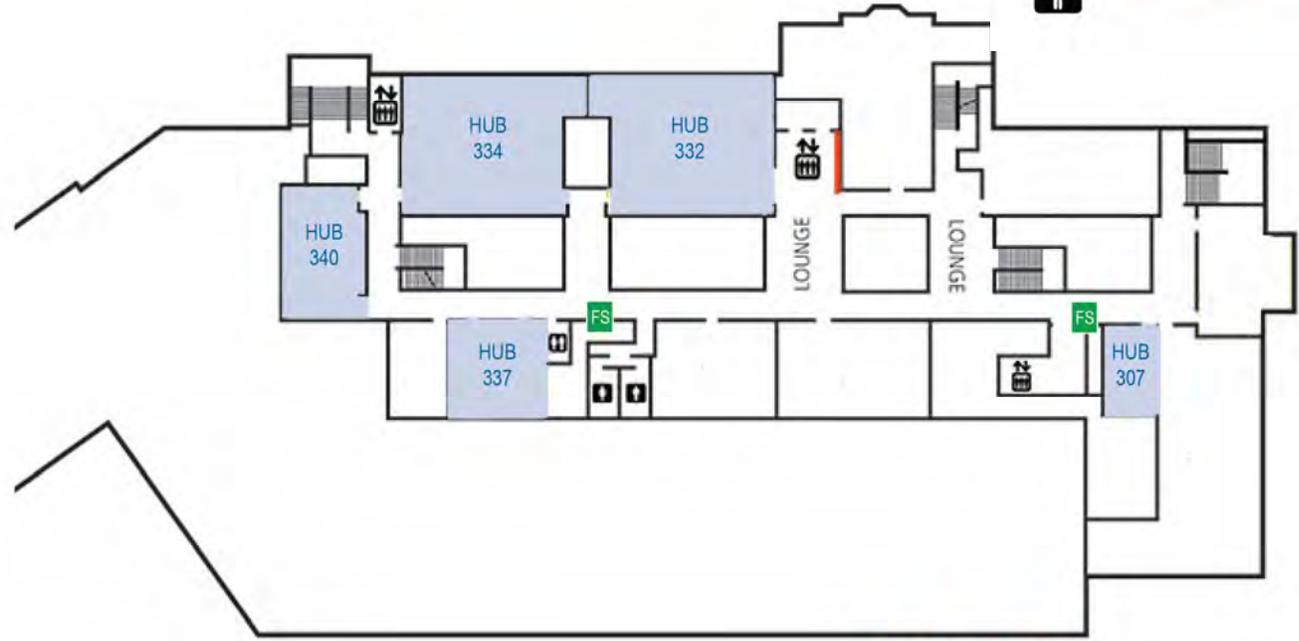


**ISEE 2014**  
HUB - First Floor



**ISEE 2014**  
HUB - Second Floor

-  = ATM MACHINE
-  = WATER BOTTLE FILLING STATION
-  = RESTROOMS



**ISEE 2014**  
HUB - Third Floor

**ISEE 2014**

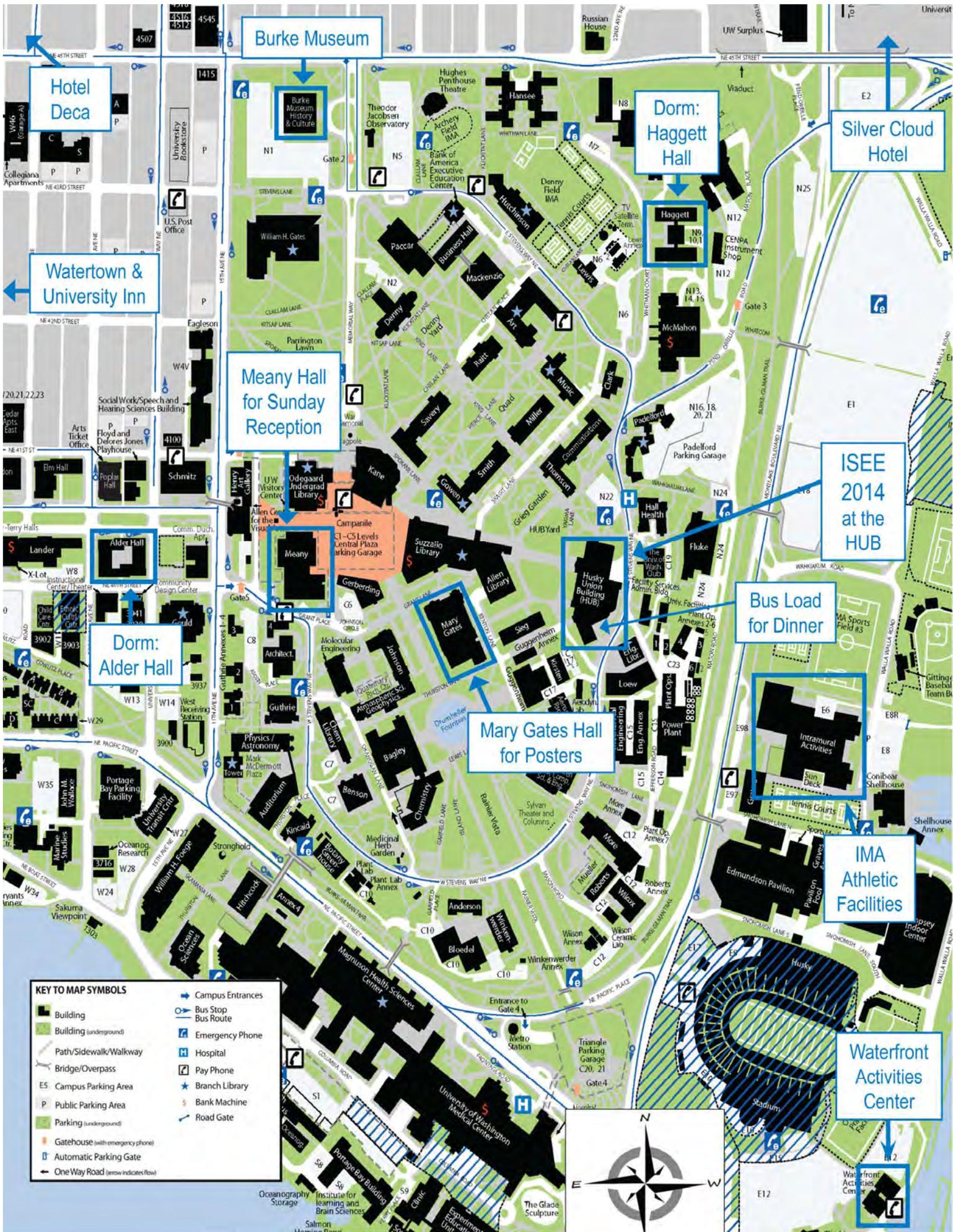
**Seattle WA**

*August 24-28, 2014*

# Program-at-a-Glance



Sunday, Aug 24	Monday, Aug 25	Tuesday, Aug 26	Wednesday, Aug 27	Thursday, Aug 28
	<b>07:30—08:30</b> Morning Sessions	<b>07:30—08:30</b> Morning Sessions	<b>07:30—08:30</b> Morning Sessions	
<b>08:30—11:50</b> Morning Pre-Conference Workshops	<b>08:30—10:00</b> Plenary Session 1	<b>08:30—10:00</b> Plenary Session 2	<b>08:30—10:00</b> Plenary Session 3	<b>08:30—10:00</b> Plenary Session 4
	<b>10:00—10:20</b> Coffee Break	<b>10:00—10:20</b> Coffee Break	<b>10:00—10:20</b> Coffee Break	<b>10:00—10:20</b> Coffee Break
	<b>10:20—11:50</b> Parallel Sessions	<b>10:20—11:50</b> Parallel Sessions	<b>10:20—11:50</b> Parallel Sessions	<b>10:20—11:50</b> Parallel Sessions
	<b>11:50—14:00</b> Poster Session 1 Lunch	<b>11:50—14:00</b> Poster Session 2 Lunch	<b>11:50—14:00</b> Poster Session 3 Lunch	
<b>13:00—16:30</b> Afternoon Pre-Conference Workshops	<b>14:00—15:30</b> Parallel Sessions	<b>14:00—15:30</b> Parallel Sessions	<b>14:00—15:30</b> Parallel Sessions	
	<b>15:30—16:00</b> Coffee Break	<b>15:30—16:00</b> Coffee Break	<b>15:30—16:00</b> Coffee Break	
	<b>16:00—17:30</b> Parallel Sessions	<b>16:00—17:30</b> Parallel Sessions	<b>16:00—17:30</b> Parallel Sessions	
<b>18:30—19:30</b> Opening Reception Meany Hall			<b>19:30—23:30</b> Conference Dinner EMP Museum	



**KEY TO MAP SYMBOLS**

	Campus Entrances
	Bus Stop
	Bus Route
	Emergency Phone
	Hospital
	Pay Phone
	Branch Library
	Bank Machine
	Road Gate
	Building
	Building (underground)
	Path/Sidewalk/Walkway
	Bridge/Overpass
	Campus Parking Area
	Public Parking Area
	Parking (underground)
	Gatehouse (with emergency phone)
	Automatic Parking Gate
	One Way Road (arrow indicates flow)

