Proposal of members for the Guideline Development Group (GDG)

Provisional title of the guidelines: WHO global air quality guidelines

Purpose: Air pollution is the largest single environmental risk for health and a major health concern, as recognized by the Sixty-eighth World Health Assembly in resolution WHA68.8 in May 2015.

WHO air quality guidelines are used as a reference tool to help decision-makers across the world in setting standards and goals for air quality management. Their regular update is essential to continue protecting populations from the adverse health effects of air pollution.

The scope of this project is to provide up-to-date evidence-based recommendations for a limited number of ambient air pollutants and/or interventions to improve air quality and public health. In order to do so, a group of experts will be appointed by WHO to participate in the Guideline Development Group (GDG) for the duration of the process (estimated 4 years). The GDG is multidisciplinary and aims to be balanced in terms of gender and geography. GDG members will advise WHO in the development of the guidelines from an early stage, by defining the scope of the project and key questions to be considered, and using and interpreting the scientific evidence, along with other considerations, to formulate recommendations. For this purpose, GDG members will be requested to participate in a series of WHO expert meetings during the process.

Biographies of the proposed experts to be invited to the GDG are published here for public comment, after a detailed assessment by WHO of the absence of relevant conflicts of Interest (COIs) related to the nature of the project and specific tasks of participants in the GDG.

Comments and/or suggestions can be addressed to info@ecehbonn.euro.who.int until 29 July 2016.

Al-Dimashki, Marwan

Institutional affiliations, currently and in the prior 4 years:
Senior Environmental Consultant
Environmental Monitoring Information System of Kuwait (eMISK)
Environment Public Authority (EPA)
(www.emisk.org, www.beatona.net)

Academic Degrees: BSc Applied Chemistry (Damascus University, Syria)
MSc Environmental Pollution Control (Leeds University, United Kingdom)
PhD Environmental Health (Birmingham University, United Kingdom)

City and country of primary residence: Kuwait City, State of Kuwait

Dr Marwan Al-Dimashki is a graduate from Damascus University, Syria (BSc in Chemistry), Leeds University, United Kingdom (MSc in Environmental Pollution Control) and Birmingham University, United Kingdom (PhD in Chemistry, Environmental Health). He worked as the Manager of the Environmental Research Laboratory at the Higher Institute for Applied Sciences and Technology in Damascus, as a Project Manager with UNDP-Country Office-Syria, as an environmental consultant for the European Commission Delegation in Damascus, and as a lecturer in environmental sciences and
pollution control at Damascus University and the Arab International University in Syria. He is currently working as a senior environmental consultant for the Environment Public Authority in Kuwait. Dr Al-Dimashki has been actively involved as a regional expert on air quality and chemical pollution with regional and international organizations such as; WHO/CEHA (Amman), UNEP-Chemicals & the International Panel on Chemical Pollution (Geneva), UNEP/MAP (Athens), UNEP/ROWA (Manama) and UNESCWA (Beirut). He has authorized more than 200 scientific reports and research projects and studies on air, water and soil pollution. He has published more than 35 research papers in international journals and scientific conferences on air quality monitoring and toxic organic micropollutants (i.e., PAHs and Nitro-PAHs). He has been involved in the development of ambient air quality standards and indices for Syria, Kuwait and the GCC Region by applying the WHO Air Quality Guidelines.

Appoh, Emmanuel Kabenlah-Egya

Institutional affiliations, currently and in the prior 4 years:
Head, Environmental Quality Department
Environmental Protection Agency, Ghana

Academic Degrees: BSc (Hons) Biological Sciences (Kwame Nkrumah University of Science and Technology, Ghana)
MSc Environmental Science (Kwame Nkrumah University of Science and Technology, Ghana)

City and country of primary residence: Accra, Ghana

Emmanuel Kabenlah-Egya Appoh is a BSc (Hons) and MSc degree holder in the fields of Biological Sciences and Environmental Science respectively, both obtained from the Kwame Nkrumah University of Science and Technology, Ghana. He is currently the Head of the Environmental Quality Department of Environmental Protection Agency and responsible for environmental quality monitoring including air, water, land and marine pollution monitoring; and also ensuring the transformation of the local environmental quality guidelines into standards for use in Ghana. He is involved in ambient, point source and household indoor air pollution management and health assessment among others. He also has extensively conducted air quality monitoring and contributed to some health-related activities in Ghana and is currently the coordinator of both the development of Accra Mega City air pollution management planning and a focal person for the local Pollution Management Environment and health development programmes. He participated in the harmonization of health and exposure assessment of indoor air pollution protocols in Rome, Italy from 9-10 March 2004; and also took part as WHO temporal adviser at the WHO Expert meeting on future update of WHO Global Air Quality Guidelines in Bonn Germany (2015). He serves on national committee for standards development/review at Ghana Standards Authority.

Professor Balakrishnan, Kalpana

Institutional affiliations, currently and in the prior 4 years:
Director
World Health Organization Collaborating Center for Occupational and Environmental Health
Professor Kalpana Balakrishnan obtained her undergraduate degree from the All India Institute of Medical Sciences, New Delhi, and subsequently her doctoral and post-doctoral training at the Johns Hopkins University, USA. Her primary research involvement has been in the area of exposure assessment and environmental epidemiology serving as the lead investigator in numerous national and international research projects with a focus on air pollution in the ambient, household and occupational environment. She has contributed to several national and international technical assessments concerned with air quality including the Global Burden of Disease and Comparative Risk Assessments (GBD 2000, GBD 2010, GBD 2013), The IARC Monographs for household (2006) and ambient air pollution (2013), The Global Energy Assessment (2009), The World Health Organization Air Quality Guidelines for ambient (2006) and household air pollution (2014). She currently serves as member of the National Steering Committee on Air Pollution Related Issues for Health Effects for the Ministry of Health Govt. of India, and as Co-Chair for The Air pollution Regional Assessment Report for the Asia-Pacific Clean Air Partnership, United Nations Environment Program. She also serves as a Regional Editor for Environmental Health Perspectives and as an Associate Editor for the International Journal of Public Health and Air Quality, Atmosphere and Health.

**Brauer, Michael**

**Institutional affiliations, currently and in the prior 4 years:**

Professor  
School of Population and Public Health, the University of British Columbia

Affiliate Professor, Department of Global Health, University of Washington/Institute for Health Metrics and Evaluation

**Academic Degrees:** ScD Environmental Health (Harvard University, USA)  
BSc Biochemistry and Environmental Sciences (University of California-Berkeley, USA),

**City and country of primary residence:** Vancouver, Canada

Dr Michael Brauer received his BSc in Biochemistry and Environmental Sciences from the University of California-Berkeley and a ScD in Environmental Health from Harvard University. His research focuses on linkages between the built environment and human health, with specific interest in transportation-related and biomass air pollution, the global health impacts of air pollution and the relationships between multiple exposures mediated by urban form and population health. He has been a leader in the application of geospatial data to environmental health research. He has participated in monitoring and epidemiological studies throughout the world and served on
numerous international, national and local advisory committees. He is an Associate Editor of Environmental Health Perspectives and a member of the Core Analytic Team for the Global Burden of Disease. His contributions to environmental health have been acknowledged by a number of awards including the Wesolowski Award from the International Society of Exposure Science, WH Thurlbeck Prize for Research in Lung Disease from the Wolf and Ghita Churg Foundation, the Bastable-Potts Asthma Research Prize and the Innovation in Health Research Award from the Asthma Society of Canada, the Distinguished Achievement Award for Overall Excellence from the UBC Faculty of Medicine and several publication awards.

Brunekreef, Bert

Institutional affiliations, currently and in the prior 4 years:
Utrecht University Institute for Risk Assessment Sciences

Academic Degrees: PhD Environmental Epidemiology (Wageningen University, Netherlands)

City and country of primary residence: De Bilt, Netherlands

Professor Bert Brunekreef received his PhD in Environmental Epidemiology from the Wageningen University in 1985 and spent a sabbatical research year at Harvard School of Public Health. In 1986 he became an assistant professor at the Department of Environmental Health of the Wageningen University and a full professor in 1993. Since early 1990s, he has been the coordinator of five EU funded studies (PEACE, TRAPCA, AIRALLERG, AIRNET, ESCAPE) in the field of air pollution, allergy and health. He was a partner in many other international collaborative studies and PI on three studies funded by the US Health Effects Institute. In 2000, his Wageningen Department was moved to Utrecht University where it merged with the existing RITOX Institute to create the ‘Institute for Risk Assessment Sciences (IRAS)’. In 2005 IRAS absorbed the Veterinary Public Health Department, and Professor Brunekreef is Director of IRAS since January 1, 2005. IRAS has currently about 130 employees. Professor Brunekreef is Professor of Environmental Epidemiology in both the Faculties of Veterinary Medicine, and the Faculty of Medicine at the Utrecht University. On several occasions, Bert Brunekreef served as advisor on national and international panels in the field of environmental health, including the Dutch National Health Council, of which he is a member, WHO and the US EPA. Bert Brunekreef is co-author of more than 550 peer reviewed journal articles in the field of environmental epidemiology and exposure assessment. In recent years, he received the ISEE John Goldsmith award (2007), the European Lung Foundation Award (2007), an honorary doctorate of the Catholic University of Leuven, Belgium (2008), the Heineken Prize for Environmental Sciences (2008), and an Academy Professorship of the Dutch Royal Academy of Sciences (2009) to which he also was elected to become a member in 2009. In 1995, he was the main organizer of the annual ISEE/ISEA conference in the Netherlands. He was the President of ISEE for 2000 and 2001.

Cohen, Aaron J.

Institutional affiliations, currently and in the prior 4 years:
Principal Scientist (2000-May 2016), Consultant Scientist (May 2016-present)
Health Effects Institute, 75 Federal Street Suite 1400 Boston, MA 02110-1817, USA
Affiliate Professor of Global Health, Institute for Health Metrics and Evaluation, University of Washington (2012-present)

**Academic Degrees:**
- DSc Epidemiology (Boston University, School of Public Health Boston, USA)
- MPH Epidemiology/Biostatistics (Boston University, School of Public Health Boston, USA)
- BS Health Sciences (Northeastern University Boston, USA)
- AS Respiratory Therapy (Northeastern University Boston, USA)

**City and country of primary residence:** Newtonville, USA

Dr Aaron J Cohen is Consultant Scientist at the Health Effects Institute (HEI) in Boston, MA. Prior to his retirement from HEI in May 2016 Dr Cohen led for 26 years HEI’s US and international epidemiologic research programs on the adverse effects of air pollution. Past HEI responsibilities included the organization and management of epidemiologic research projects such as the Reanalysis of the American Cancer Society and Six-City studies of air pollution and mortality, and multicity time-series studies of air pollution and daily mortality in Europe, North America, Asia and Latin America. He led HEI’s 2004 and 2010 reviews of the literature on the health effects of air pollution in the developing countries of Asia, and initiated, and currently co-coordinates, HEI’s Health Outcomes Research program, which assesses the health impacts of actions taken to improve air quality. Since 1999 Dr Cohen has served as a Temporary Advisor to the World Health Organization (WHO) on the evaluation of epidemiologic evidence, air pollution health impact assessment, and air quality guideline development and has served as a member of International Agency for Research on Cancer (IARC) working groups on diesel exhaust and outdoor air pollution. He co-chaired the Expert Groups that produced estimates of the global burden of disease due to Urban Air Pollution in 2000 and Ambient Air Pollution for the Global Burden of Disease 2010 project and is a member of the Core Analytic Team of the Global Burden of Disease project. Dr Cohen holds a D.Sc. in Epidemiology (1991), and Masters in Public Health (1985) from the Boston University School of Public Health, where he is adjunct Assistant Professor of Environmental Health. He is also Affiliate Professor of Global Health at the Institute for Health metrics and Evaluation at the University of Washington. Epidemiology is Dr Cohen’s second career. He is also a Registered Respiratory Therapist (AS and BS, Northeastern University), and worked for 15 years in newborn intensive care at Brigham and Women’s Hospital in Boston, and subsequently as Research Associate in Perinatal Epidemiology, conducting epidemiologic and clinical research on neonatal respiratory disease, and the evaluation of related medical technologies.

**Forastiere, Francesco**

**Institutional affiliations, currently and in the prior 4 years:**
- Director of the Etiological and Occupational Epidemiology Division
- Department of Epidemiology, Lazio Regional Health Service, Rome, Italy

**Academic Degrees:**
- MD (Medical School, Catholic University, Rome, Italy)
- MSc in Epidemiology (London School of Hygiene and Tropical Medicine, London, United Kingdom)
- PhD in Epidemiology and Occupational Medicine (University of Linköping, Sweden)
City and country of primary residence: Rome, Italy

Dr Francesco Forastiere started his career with clinical research on chronic respiratory disorders and asthma in 1978. As medical epidemiologist he has initially conducted several studies of workers employed in various occupations entailing a cancer risk. During the eighties he studied the environmental and occupational factors associated with lung cancer, the effects of indoor and outdoor pollution on respiratory health of children, with particular emphasis on the effects of passive smoking. He has been the Italian Coordinator of the International Study on Asthma and Allergies in Childhood (ISAAC). In a project coordinated by the IARC during the nineties, he contributed to the evaluation of the role of active and passive smoking on lung cancer. Since then, he has been conducting studies on the health effects of air pollution in the general environment using time-series and case-crossover methods. In addition, he studied the effects of silica exposure on silicosis and other autoimmune disorders, the effects of pesticide exposure on human immune response, the role of residential radon exposure on lung cancer. He has been the coordinator/participant of several EU funded projects on air pollution he has repeatedly served as temporary adviser to IARC (Monographs program) and to WHO. He has contributed to the WHO Air Quality Guidelines, Global Update, 2005, and to the WHO REVHAAAP and HRAPIE projects. He has published 473 papers in peer-reviewed journals. He has focused on the application of research findings to a wide range of public policy issues, including air pollution, childhood asthma, and environmental tobacco smoke.

Guttikunda, Sarath K.

Institutional affiliations, currently and in the prior 4 years:

Affiliate Associate Research Professor (October, 2012 to Present)
Department of Atmospheric Sciences, Desert Research Institute, Reno, USA

Director, (January 2012 to Present)
Urban Emissions Pvt. Ltd., New Delhi, India

Adjunct Associate Professor (September 2014 to August, 2016)
Centre for Climate Studies, Indian Institute of Technology, Mumbai, India

Project Scientist (December 2011 to July 2014)
Transportation Research & Injury Prevention Programme (TRIPP)
Indian Institute of Technology, New Delhi, India

Academic Degrees:
PhD, Air Pollution Modelling, Pollution Control Technologies, and Environmental Policy (The University of Iowa, Iowa City, USA)
B.Tech (Hons), Chemical Engineering, (Indian Institute of Technology, Kharagpur, India)

City and country of primary residence: Goa, India
Dr Sarath Guttikunda is a TED fellow; an affiliate assistant professor at Desert Research Institute, Reno, USA; and Director of Urban Emissions Pvt. Ltd., an independent research group on air pollution (India). He is the developer of the SIM-air (Simple Interactive Models for Better Air Quality) family of tools, dedicated for sharing information on air pollution and climate change among the developing country cities with applications in cities of Asia and Africa. His research interests are studying the impact of urban emissions at local, regional, and global level. He was previously employed at the World Bank (Washington DC, USA, 2002-2006), looking at synergy projects between air quality and climate change and was part of the team which built India’s first air quality forecasting system, piloted during the 2010 Commonwealth Games in Delhi (http://www.delhiairquality.info). This program is now expanded to all of India on an open data and dissemination platform accessible @ http:www.indiaairquality.info. He attended the Indian Institute of Technology, Kharagpur, for Bachelors in Chemical Engineering (1997) and the University of Iowa, Iowa City, USA for his Doctorate degree (2002).

Hassanvand, Mohammad Sadegh

Institutional affiliations, currently and in the prior 4 years:
Assistant professor
Center for Air Pollution Research, Institute for Environmental Research, Tehran University of Medical Sciences, Tehran, Iran

Academic Degrees: BSc, MSc, PhD Environmental health (Tehran University of Medical Sciences, Iran)

City and country of primary residence: Tehran, Iran

Dr Mohammad Sadegh Hassanvand was born in 1982 in Lorestan, Iran. He received his B.Sc, M.Sc and Ph.D in Environmental Health from Tehran University of Medical Sciences (2007, 2009 and 2014, respectively). He has been serving as a faculty member at Tehran University of Medical Sciences since June 2014. His research interests lie in the area of air pollution health impact assessment, exposure assessment, indoor and outdoor air pollution monitoring, and chemical characterization of particulate matter. He has been the corresponding author or co-author of 16 articles in international journals that most of them are about air pollution. He has been an Editorial Board member of the “Environment and Health” Journal (published in Farsi), and the “Air pollution and Health” Journal, published in English. He has been a member of standard development group for National Air Quality Standards in Ministry of health and Department of Environment in Iran since 2015. He has designed and implemented, in collaboration with others, several short workshops; including workshops on health impact assessment of air pollution, AirQ 2.2.3 software, air pollution exposure assessment and source apportionment of PM. He has taught graduate and post-graduate courses at Tehran University of Medical Sciences.

Huang, Wei

Institutional affiliations, currently and in the prior 4 years:
Research Professor
Dr Huang received her doctorate training in environmental health at Harvard School of Public Health (Boston, US) between 1997 and 2003. Post-graduation, she worked at the Health Effects Institute (Boston, US), responsible for overseeing “Air Pollution Health Effects Studies in Asia (PAPA)” project for studies in China and Thailand. Since she joined Peking University (Beijing, China) in 2007, Dr Huang has focused on examining air pollution attributed cardiovascular, respiratory and metabolic disease mortality risk and effects, underlying pathophysiologic mechanisms, and health interventions, mostly in collaborations with well-established international public health professionals and clinical physicians. Besides research and teaching responsibilities at Peking University, Dr Huang also works closely with state agencies on strategic planning and conduct of health based air quality criteria research management in recent years. In 2013, Dr Huang was invited to participate to the WHO/IARC Monographs Working Group for volume 109 of “Ambient Air Pollution” on the evaluation of carcinogenic risks to humans. In October 2015, Dr Huang was nominated and received an honour award of “scientific arising scientist” from China Ministry of Science and Technology and the Bill & Melinda Gates Foundation, for her long-term dedication to air quality improvement and public health research in China.

Kan, Haidong

Institutional affiliations, currently and in the prior 4 years:
Professor
Fudan University, Shanghai, China

Academic Degrees: PhD Environmental Epidemiology (Fudan University of China)
MSc Environmental Health Sciences (Fudan University, Shanghai, China)
MD (Shanghai Medical University, Shanghai, China)

City and country of primary residence: Shanghai, China

Professor Haidong Kan, obtained his Ph.D. degree in 2003 at Fudan University of China. He completed his postdoc training at the National Institute of Environmental Health Sciences of the United States. He is now a professor of environmental epidemiology at Fudan University in Shanghai, China. His research is focused on the health impact of ambient air pollution and global climate change.

Krzyzanowski, Michal
Institutional affiliations, currently and in the prior 4 years:
Visiting Professor
Environmental Research Group, King’s College London, United Kingdom (since 2013).

Head of Office
World Health Organization, European Centre for Environment and Heath, Bonn (Until August 2012)

Academic Degrees:
MSc Physics (Warsaw University, Poland)
ScD Biostatistics (National Institute of Hygiene, Warsaw, Poland)
PhD (Dr hab.) Environmental Epidemiology (National Institute of Hygiene, Warsaw, Poland)

City and country of primary residence: Warsaw, Poland

Dr Michal Krzyzanowski is an environmental epidemiologist acting as a consultant in the area of environmental health. While in WHO, he led a team of environmental scientists and managers of the WHO/ECEH in Bonn assisting the Member States in assessment and management of environmental health risks in the European Region of WHO. His technical work focused on the evaluation of scientific evidence on health impact of environmental hazards, in particular of air pollution. He has worked on the methods for systematic review of epidemiological evidence in support of risk assessment and health policies. The “Global update the WHO Air Quality Guidelines” in 2005 as well as a series of Indoor Air Quality Guidelines were the products of his WHO team. Before joining WHO in 1991, Dr Krzyzanowski conducted epidemiological research on health aspects of air pollution and other environmental factors in Poland, United States and France. He is an author of more than 200 scientific publications. He holds MSc in Physics from Warsaw University and ScD and PhD (Dr hab) in Epidemiology from National Institute of Hygiene, Warsaw, Poland. In 2013, he received a John R. Goldsmith Award for his contributions to the knowledge and practice of environmental epidemiology.

Künzli, Nino

Institutional affiliations, currently and in the prior 4 years:
Deputy Director Swiss Tropical and Public Health Institute Basel (Swiss TPH) – associate institute of University of Basel

Dean Swiss School of Public Health (SSPH+)

Academic Degrees: MD (University of Basel, Medical School, Switzerland)
MPH (University of California, Berkeley, USA)
PhD (University of California, Berkeley, USA)

City and country of primary residence: Basel, Switzerland

With an MD from the University of Basel and a PhD from UC Berkeley (USA), Dr Künzli is Deputy Director of the Swiss Tropical and Public Health Institute Basel, Switzerland where he heads the new Department of Education and Training, fostering undergraduate, graduate and postgraduate public health training as well as PhD programs of >160 SwissTPH PhD students. He is Professor of
Public Health at the University Basel Medical School. As of January 2015 he got appointed as Dean of the Swiss School of Public Health (SSPH+) (50%).

With >300 research articles Künzli’s research focus is on environmental epidemiology with an emphasis on understanding the effects of air pollution on health through exposure science, epidemiology and policy relevant impact assessment studies. He is in the board of directors of major air pollution network studies (including the Swiss SAPALDIA study or the European ESCAPE and TRANSPHORM projects). During 2002-2005 he was tenured Associate Professor at the University of Southern California in Los Angeles (USA) in the group of the Children’s Health Study on air pollution and health. He received an ICREA Research Professor position in Barcelona, where he contributed to the Centre for Research in Environmental Epidemiology (CREAL) (2006-2009).

Künzli regularly serves on national and international advisory committees and was member of two U.S. National Academy of Science committees on air pollution and health. Since 2012, he is the President of the Swiss Federal Commission on Air Hygiene – the clean air advisory board of the Swiss Government.

**Luben, Thomas J.**

**Institutional affiliations, currently and in the prior 4 years:**

Senior Epidemiologist, United States Environmental Protection Agency (EPA)

Adjunct Professor, University of North Carolina, Gillings School of Global Public Health, Department of Epidemiology

**Academic Degrees:**

PhD, Environmental Health, (Colorado State University, USA)

MSPH, Environmental Health, (Tulane University School of Public Health and Tropical Medicine, USA)

BSc, Biology, (Allegheny College, USA)

**City and country of primary residence:** Durham, USA

Dr Luben is an expert in the field of environmental epidemiology. His primary expertise lies in exploring exposures to air pollution and water contaminants while focusing on male and female reproductive outcomes such as adverse pregnancy outcomes and decreased fertility. In this role, he have been successful in developing and introducing new and innovative scientific methods, conducting and publishing policy-relevant epidemiologic studies, characterizing the scientific basis for criteria air pollutants leading to the revision of national ambient air quality standards (NAAQS), and contributing to the scientific community as a reviewer for scientific journals and participant in national and international scientific conferences. His expertise allows him to play a key leadership role in the assessment of the health effects of air pollution and provide advice to U.S. Environmental Protection Agency (EPA) managers on issues related to environmental epidemiologic analyses, especially in the area of reproductive and developmental effects. Dr Luben’s contributions have led to the advancement of the state of the science on the relationship between ubiquitous environmental pollutants and reproductive and developmental outcomes, and the protection of public health through the implementation of several revised NAAQS.
Morawska, Lidia

Institutional affiliations, currently and in the prior 4 years:
Professor
Science and Engineering Faculty, Queensland University of Technology, Brisbane, Australia.

Academic Degrees:
PhD Physics (Jagiellonian University, Cracow, Poland)
MSc Physics (Jagiellonian University, Cracow, Poland)

City and country of primary residence: Brisbane, Australia

Since 2003, Dr Lidia Morawska is a Professor in the School of Chemistry, Physics and Mechanical Engineering, Faculty of Science & Engineering, Queensland University of Technology (QUT) in Brisbane, Australia, the Director of the International Laboratory for Air Quality and Health (ILAQH) at QUT, which is a WHO Collaborating Centre, and the Director in Australia for the Australia–China Centre for Air Quality Science and Management (ACC – AQSM). She conducts fundamental and applied research in the interdisciplinary field of air quality and its impact on human health and the environment, with a specific focus on science of airborne particulate matter. Professor Morawska is a physicist and received her doctorate at the Jagiellonian University, Krakow, Poland for research on radon and its progeny. Professor Morawska is an author of over 600 journal papers, book chapters and conference papers. She has also been involved at the executive level with a number of relevant national and international professional bodies and has been acting as an advisor to the World Health Organization. She is a past President of the International Society of Indoor Air Quality and Climate.

Oanh, Nguyen Thi Kim

Institutional affiliations, currently and in the prior 4 years:
Environmental Engineering and Management (EEM), Asian Institute of Technology (AIT)

Academic Degrees:
Dipl. Eng. in Meteorology (Odessa Hydrometeorology Institute, Ukraine)
M.Eng., Dr Eng. in Environmental Technology and Management (AIT, Thailand)

City and country of primary residence: Pathumthani, Thailand

Dr Kim Oanh is a full professor at EEM, AIT in Thailand, where she teaches and conducts research in air pollution engineering and management. She got her Dipl. Eng. in Meteorology (1978) from Odessa Hydrometeorology Institute, Ukraine; M. Eng. (1991) and Dr Eng. (1994) in Environmental Technology and Management from AIT, Thailand. Her research involves field measurements of particulate matter and toxic volatile organic compounds (VOC) and semi-VOC to assess exposure and health effects. She also conducts source monitoring, emission inventory and air quality
modelling at urban/regional scales to assess effects on human health and agricultural crops. Emission reduction of short-lived climate pollutants from major sources in Asia, such as traffic and open burning, is a focus of her current research. Kim Oanh has served as advisor to 150 master and 12 PhD AIT graduates. She has published 2 books (ed.) and about 100 papers in international peer-reviewed journals and many international conference papers (https://www.researchgate.net/profile/Nguyen_ Thi_Oanh). She was a co-chair of UNEP-WMO (2011) “Tropospheric ozone and black carbon” Assessment Report. She was/is PI of over 40 regional research projects. Currently, she is a member of IGAC SSC (2015-2016) and co-chair of the IGAC MANGO (Monsoon Asia and Oceania Networking Group).

Patdu, Maria Katherina C.

Institutional affiliations, currently and in the prior 4 years:
Head of Programs
Clean Air Asia

Academic Degrees:
BSc in Environmental Science (Ateneo de Manila University, Philippines)

City and country of primary residence: Pasig City, Philippines

Kaye Patdu, Clean Air Asia (CAA) Head of Programs, provides leadership and guidance for CAA Programs covering Air Quality and Climate Change, Low Emissions Urban Development, Clean Fuels and Vehicles, and Green Freight and Logistics. She also oversees key regional air quality projects. Kaye also liaises with the National Environment Ministries for the Governmental Meeting on Urban Air Quality jointly organized by Clean Air Asia and United Nations Environment Programme. She is one of the key developers of the Clean Air Scorecard – an AQ management assessment tool for cities and one of the lead authors of the “Guidance Framework for Better Air Quality in Asian Cities”. She conducted research on the status of adoption and development progress of air quality standards and air quality indexes in Asia. Ms Patdu maintains Clean Air Asia’s database of air quality data for over 400 Asian cities. She was part of the Technical Working Group and Public Consultation for the development of the PM2.5 Air Quality Guideline values in the Philippines in 2013. She also represents CAA in the Air Quality TWG under the Regional Forum for Environment and Health.

Powell, Pippa D.

Institutional affiliations, currently and in the prior 4 years:
Director
European Lung Foundation

Academic Degrees:
BSc in Biomedical Science (University of Sheffield, United Kingdom)
PhD (University of Sheffield, United Kingdom)
City and country of primary residence: Sheffield, United Kingdom

Dr Pippa Powell has headed up European Lung Foundation (ELF) since 2005 and has worked together with the Chairs to develop and grow the organization. In addition to her background and PhD in biomedical science, Pippa has more than 10 years’ experience working in health care communications – as a journal editor and a medical writer. More recently, Pippa has focused on information for patients, working with the press and media to ensuring accurate reporting of respiratory science and awareness campaigns for the general public. Pippa has championed the role of the patient within science and has been working with professionals to find best practice for patient and public input into health care. Through the joint European Respiratory Society (ERS)/ELF Healthy Lungs for Life initiative, Pippa has worked extensively in the field of air quality – with the aim of better explaining the risks of air pollution to the public and respiratory patients. This has involved developing public awareness campaigns, patient educational materials, holding public events and ensuring coverage in the press and media. It key to ensure that people have the knowledge and tools to be able to protect their lungs from the negative impacts of poor air quality.

Riojas-Rodríguez, Horacio

Institutional affiliations, currently and in the prior 4 years:
Environmental Health Director
National Institute Of Public Health

Academic Degrees:
PhD in Epidemiology (National Institute of Public Health, Mexico)
MSc in Environmental Health (National Institute of Public Health, Mexico)
Physician (National Autonomous University of Mexico, UNAM)

City and country of primary residence: Cuernavaca, Morelos, Mexico.

Dr Horacio Riojas Rodríguez is Researcher in Medical Sciences “E” level by the Coordination of the National Institutes of Health, National researcher Level II by the National System of Researches Mexico, Director of Environmental Health Department at the Center for Population Health Research at the National Institute of Public Health Mexico; Leader of the research line by mission on health and environment. Director of the WHO/PAHO collaborating centre on Environmental Epidemiology in Mexico. Academic coordinator of the PhD in environmental health sciences program at the National Institute of Public Health, Member of International Society of Environmental Epidemiology ISEE and Member of Executive Editorial Committee of International Journal ECOHEALTH. He is author and co-author of several articles in different journals and books of national and international circulation. Also, he has presented his work at national and international congresses; and his publications have been cited as well. Areas of expertise include: outdoor and indoor air pollution; metals and neurodevelopment and climate change and health.

Samet, Jonathan, M.

Institutional affiliations, currently and in the prior 4 years:
Dr. Samet, a pulmonary physician and epidemiologist, is Distinguished Professor and Flora L. Thornton Chair, Department of Preventive Medicine at the University of Southern California Keck School of Medicine and Director of the USC Institute for Global Health. Previously, he was chair of the Department of Epidemiology of the Johns Hopkins Bloomberg School of Public Health. His career has centered on epidemiologic research on threats to public health and using research findings to support policies that protect population health. His research has addressed indoor and outdoor air pollution, smoking, radiation risks, cancer etiology and outcomes, and sleep. He has been involved with multiple committees related to air quality guidelines and regulations: the Clean Air Scientific Advisory Committee (CASAC) of the US EPA (Chair 2008 to 2012) and the prior Working Group for the WHO Air Quality Guidelines. He chaired the Committee on Research Priorities for Airborne Particulate Matter for the US National Academy of Sciences. He is a member of the US National Academy of Medicine.

Wan, Xia.

Institutional affiliations, currently and in the prior 4 years:
Associate professor
Institute of Basic Medical Sciences, Chinese Academy of Medical Sciences and School of Basic Medicine, Peking Union Medical College

Academic Degrees:
PhD in epidemiology and statistics (Peking Union Medical College, China)
Master Degree of Social Medicine & Health Administration (Beijing University of Chinese Medicine)

City and country of primary residence: Beijing, China

Dr. Xia Wan received her PhD in epidemiology and statistics from Peking Union Medical College in China in 2007. She works on tobacco control, burden of diseases and environmental pollution, especially on air and water pollution. As a visiting scholar, she attended “Certificate program in Global Tobacco Control” at Institute of Global Tobacco Control (IGTC) at Johns Hopkins Bloomberg School of Public Health (JHSPH) in 2012, and studied global burden of diseases at the Institute for Health Metrics and Evaluation at the University of Washington from 2014 to 2016. Since 2007, she participated in several projects funded by NIH, China Medical Board (CMB) and Bloomberg foundation, etc. Among these, she was a lead investigator of a NIH-funded project to study the susceptibility to smoking initiation among young migrant women in China. She has published
several research articles in Lancet, PLoS One, Tobacco Control, etc. And she got the State Scholarship Fund Award by China Scholarship Council, CMB Faculty Development Award by CMB, Global Tobacco Control Alumni Awards for Excellence by JHSPH, and five awards in the Science and Technology by Ministry of Education, Chinese Medical Association and Chinese Preventive Medicine Association.

**Williams, Martin L.**

**Institutional affiliations, currently and in the prior 4 years:**

Professor

Environmental Research Group, King’s College London, United Kingdom

**Academic Degrees:**

BSc Chemistry (Cardiff University, United Kingdom)

PhD Theoretical chemistry (Bristol University, United Kingdom)

**City and country of primary residence:** St. Albans, United Kingdom

Dr Martin Williams is Professor of air quality at King’s College, London, United Kingdom. Initially an atmospheric scientist primarily modelling air pollution, using mathematical skills acquired during his PhD, he moved into a science post in the United Kingdom environment ministry, graduating to run the policy on United Kingdom air quality. His research includes an assessment of scenarios to mitigate climate change on air quality and public health, urban air quality, exposure assessment and the health effects of air pollution and has published papers in all these areas. Until recently he was Head of the Air Quality policy programme in Defra with responsibility for air quality policy, industrial pollution control and research. He was until recently Chairman of the Executive Body of the United Nations Convention on Long Range Transboundary Air Pollution. He is a member of Defra’s Air Quality Expert Group and Chair of Defra’s Air Quality Modelling Steering Group. He chaired the recent expert consultation for the revision of the WHO Air Quality Guidelines. He was part of the WHO REVIHAAP project reviewing the literature on the health effects of air pollutants. He has also been an advisor to the USEPA, the Health Effects Institute, and the European Commission.

**Wright, Caradee Y.**

**Institutional affiliations, currently and in the prior 4 years:**

Specialist Scientist

South African Medical Research Council and University of Pretoria, previously Council for Scientific and Industrial Research

**Academic Degrees:**

BSocSc (Hons) (University of Natal, South Africa)

MSocSc Geography, Environmental Management (University of Natal, South Africa)

PhD Public Health (University of Otago, NZ)
City and country of primary residence: Pretoria, South Africa

Dr Caradee Wright is a Specialist Scientist at the South African Medical Research Council leading the Climate and Health Research Programme. Previously, she worked at the Council for Scientific and Industrial Research as Research Group Leader: Environmental Health Research Group. She holds a PhD in Public Health from the University of Otago (NZ) and an MSocSc in Geography/Environmental Management from the University of Natal. Her research focuses on preventing risks from environmental factors, namely air pollution, and also solar ultraviolet radiation exposure. She uses personal dosimetry, health risk assessment and other tools to assess exposure and health impacts to design ways to minimise risks and ensure safe environments for communities. She leads epidemiological studies to determine respiratory health among schoolchildren and households in air pollution hotspots in South Africa. Her postdoctoral research considered risk prioritization for air quality management among vulnerable communities. Presently, she is exploring population-level mortality data in relation to air quality as a first step to better understand the relation between mortality and air pollution in the country. Caradee is a member of the South African Young Academy of Science, Vice-President of the National Association for Clean Air and Co-Editor of the Clean Air Journal.

Zuber, André

Institutional affiliations, currently and in the prior 4 years:
European Commission, Environment Directorate

Academic Degrees:
PhD in Meteorology, Atmospheric Physics (Stockholm University)
Masters in Mathematics and natural sciences (Stockholm University)

City and country of primary residence: Brussels, Belgium

Dr André Zuber worked in the Swedish Environmental Protection Agency on air quality and climate change policy from 1990 to 2002. He worked on the development of European Union (EU) air pollution actions and policies in particular of the Commission Clean Air for Europe (CAFE) programme from 2002 to 2005 and the Commission Thematic Strategy on Air Pollution from 2004 to 2006. He worked on the development and implementation of the Clean Air Policy Package from 2010 to 2015. He was the responsible desk officer of the EU Air Quality legislation from 2005 to 2006 and of the EU National Emissions Directive from 2006 to 2015. He is the commission coordinator on all matters related to EU involvement in the Convention on Long Range Transboundary Air Pollution (CLRTAP) since 2002. He is chief negotiator of the EU in relation to major revisions of CLRTAP protocols since 2010. His main responsibility was to lead and chair the CLRTAP “Task Force on Hemispheric Transport on Air Pollution from 2006 to 2012. He is responsible for maintaining close contacts between the Commission and the WHO regional office in Bonn in relation to air pollution health aspects, including the update of the WHO Global Guidelines. He contributes to key aspects of air quality in international processes (UNEP, OECD, WHO, United Nations SDGs, Arctic Council).
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