



Health and Environmental Change: Pushing Research Boundaries Through Arizona-France Cooperation



Wednesday, November 16th, 2022 | 8:30a.m. – 4:15p.m

University of Arizona | Health Sciences Innovation Building

1670 E. Drachman Street – 5th floor Room 567

[REGISTRATION](#)



Workshop Program

8:30 a.m. – 9:00 a.m.	Introduction Dr. Iman Hakim Professor and Dean, Mel and Enid Zuckerman College of Public Health, University of Arizona Dr. Anne-Marie Gué CNRS Research Director, National Institute of Systems Science and Engineering, and Lead Coordinator, Health and the Environment Interdisciplinary Initiative, CNRS Dr. Laurent Nicolas CNRS Research Director, National Institute of Systems Science and Engineering
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SESSION 1: The OneHealth Perspective

9:00 a.m. – 9:15 a.m.	Dr. Frank von Hippel Professor, Community, Environment and Policy Department, and Lead, OneHealth Research Initiative, University of Arizona <i>One Health research at the University of Arizona</i>
9:15 a.m. – 9:30 a.m.	Dr. Gudrun Bornette CNRS Senior Research Director <i>OneHealth approach: positioning and challenges in ecology and environment</i>
9:30 a.m. – 9:45 a.m.	Dr. Michael Canva CNRS Senior Researcher, LN2 International Research Laboratory, CNRS, University of Sherbrooke <i>CNRS International Laboratories for the convergence of science, technology, engineering, and social sciences in global change research</i>
9:45 a.m. – 10:00 a.m.	Short discussion
10:00 a.m. – 10:15 a.m.	Tea/Coffee Break

SESSION 2: Climate change and governance for resilience

10:15 a.m. – 10:30 a.m.	Dr. Sabrina Helm Associate Professor, Norton School of Family and Consumer Sciences, University of Arizona <i>Climate change as a pre-traumatic stressor: psychological adaptations and behavioral responses</i>
10:30 a.m. – 10:45 a.m.	Dr. Ladd Keith Assistant Professor, School of Landscape Architecture and Planning, and Chair of Sustainable Built Environments, University of Arizona <i>Planning for urban heat resilience</i>
10:45 a.m. – 11:00 a.m.	Dr. Céline Verchère Associate Researcher, LN2 International Research Laboratory, CNRS, University of Sherbrooke <i>Is knowing enough to take action? Some food for thought on the levers of action to understand better and to reduce the impact on the climate and the environment.</i>
11:00 a.m. – 11:15 a.m.	Short discussion

SESSION 3: Environmental contaminants and health impacts

- 11:15 a.m. – 11:30 a.m. [Dr. Alicja Babst-Kostecka](#)
Assistant Professor, Department of Environmental Science, University of Arizona
Plant-based solutions for the removal and re-use of metals from contaminated mine tailings
- 11:30 a.m. – 11:45 a.m. [Dr. Melissa Furlong](#)
Assistant Professor, Community, Environment and Policy Department, University of Arizona
Integrating Big Data for pesticide epidemiology
- 11:45 a.m. – 12:00 p.m. [Dr. Julien Gigault](#)
CNRS Researcher, TAKUVIK International Research Laboratory, CNRS, Laval University
Environmental impacts of nanocontaminants
- 12:00 p.m. – 12:15 p.m. Short discussion

LUNCH BREAK

- 12:15 p.m. – 1:00 p.m. 2nd floor, room 202A

SESSION 4: Climate change and health equity

- 1:00 p.m. – 1:15 p.m. [Dr. Mona Arora](#)
Assistant Research Professor, Community, Environment and Policy Department, University of Arizona
Climate, health & equity: mobilizing partnerships to build community resilience
- 1:15 p.m. – 1:30 p.m. [Dr. Chris Lim](#)
Assistant Professor, Community, Environment and Policy Department, University of Arizona
Low-cost sensors for exposure assessment and environmental epidemiology
- 1:30 p.m. – 1:45 p.m. [Dr. Denis Machon](#)
Professor, CNRS LN2 International Research Laboratory, University of Sherbrooke
Design of sensors: from the definition of specifications to production
- 1:45 p.m. – 2:00 p.m. Short discussion

SESSION 5: Climate change and infectious diseases

- 2:00 p.m. – 2:15 p.m. [Dr. Janko Nikolich-Zugich](#)
Professor and Head, Department of Immunobiology, and Director, Aegis Consortium, University of Arizona
Pandemics of today and of the future – where to collaborate first?

- 2:15 p.m. – 2:30 p.m. **Dr. Kacey Ernst**
Professor, Epidemiology and Biostatistics Department, University of Arizona
Climate change influence on vector-borne disease transmission: identifying mechanisms, models and solutions
- 2:30 p.m. – 2:45 p.m. **Dr. Bernard Cazelles**
Professor, Sorbonne Université, Institut de Biologie de l'ENS, CNRS, INSERM, ENS-PSL
Analyzing the relationships between climate and infectious diseases: the challenge of non-stationarity
- 2:45 p.m. – 3:00 p.m. Short discussion

GENERAL DISCUSSION: Perspectives for Arizona-France research cooperation on health and environmental change

- 3:00 p.m. – 4:00 p.m. Moderators
- Dr. Andrew Comrie**
Professor, School of Geography, Development & Environment, University of Arizona, and Chief Academic Officer, Arizona Board of Regents
- Dr. Regis Ferriere**
Director, iGLOBES International Research Laboratory, CNRS, ENS-PSL University, University of Arizona
- Dr. Kelly Reynolds**
Professor and Chair of the Department of Community, Environment and Policy; Director of the Environment, Exposure Science and Risk Assessment Center (ESRAC), University of Arizona
- 4:00 p.m. – 4:10 p.m. Closing remarks
- Dr. Iman Hakim**
Professor and Dean, Mel and Enid Zuckerman College of Public Health, University of Arizona

LIGHT RECEPTION

- 4:15 p.m. – 5:30 p.m. 2nd floor, room 202A

Presenter Bios



Dr. Mona Arora

Assistant Research Professor, Community, Environment and Policy Department, University of Arizona

Dr. Mona Arora is an Assistant Research Professor at the College of Public Health. She obtained her Master of Science in Public Health (MSPH) degree in Tropical Medicine from the Tulane University School of Tropical Medicine & Hygiene and has a doctorate degree in Geography from the University of Arizona. Dr. Arora currently leads the **ADHS-CDC COVID Disparities Initiative** at the Arizona Center for Rural Health aimed at mobilizing partnerships to advance health equity & address social determinants of health-related to COVID-19 health disparities among higher risk and underserved populations. Her research focuses on building the public health system's capacity and capability to address global "wicked problems," including pandemics, disasters, and climate change. She uses qualitative methodologies to evaluate public health and healthcare systems' capacity for climate adaptation. She has worked extensively with rural and tribal communities to facilitate community resilience for public health emergencies. Dr Arora teaches on climate change and serves on various national committees including the Lancet Countdown U.S. Policy Brief Working Group and the Network of National Public Health Institutes Global Climate Change workgroup.



Dr. Alicja Babst-Kostecka

Assistant Professor, Department of Environmental Science, University of Arizona

Dr. Alicja Babst-Kostecka research combines genetic, phenotypic, and environmental information in an integrated framework to study plant adaptation to changing environmental conditions. Dr. Babst-Kostecka is particularly interested in the mechanisms that allow certain plant species to colonize industrially contaminated habitats at former mining sites. These species thereby undergo rapid genetic and physiological adaptation. Specifically, they have evolved the ability to tolerate and sometimes accumulate remarkable amounts of metal trace elements – traits that Dr. Babst-Kostecka is studying in both field and controlled laboratory experiments. Her interdisciplinary work sets the stage for mitigating the legacies of industrial exploitation. By advancing the molecular basis of phytoremediation and biofortification efforts, she strives to contribute to improving environmental and human health. Dr. Babst-Kostecka is also a co-director of the Center for Environmentally Sustainable Mining at the University of Arizona. The Center develops research and educational initiatives that enhance the environmental sustainability of mining.



Dr. Gudrun Bornette

CNRS Senior Research Director

Dr. Gudrun Bornette is an ecologist specializing in the functioning of wetlands. After having linked the geomorphology of fluvial hydrosystems to the hydraulic and hydrogeological functioning of wetlands, she proposed models of the functioning and dynamics of fluvial hydrosystems according to these parameters. She then deciphered the functioning of artificial wetlands (agro-piscicultural ponds, gravel pits) and developed methods for the functional diagnosis of wetlands using aquatic vegetation as a descriptor of the functioning of these ecosystems. For the past ten years, she has been interested in the relationship between the functioning of wetlands and their capacity to host pathogens, by focusing on environmental reservoirs of cholera, the circulation and survival of antibiotic-resistant bacteria in hydrosystems, and angiostrongylosis, in collaboration with French and foreign physicians, geologists, and ecologists (Democratic Republic of Congo, Haiti).



Dr. Michael Canva

CNRS Senior Researcher, LN2 International Research Laboratory, CNRS, University of Sherbrooke

Michael Canva studied applied physics at École Normale Supérieure de Cachan (1985-1989). He carried out his PhD (1989-1992) at the University of Orsay, now Paris-Saclay, in France and has been a CNRS researcher mostly at Institut d'Optique Graduate School as part of the Charles Fabry Laboratory (LCF) since 1993. He worked on hybrid materials and their applications in photonics – initially on polymer materials, doped with organic chromophores, and currently on nano-bioplasmatics. This work focuses both on the material aspect and the relationships between its structure and composition on the one hand, and their properties on the other, as well as on its implementation in optical systems for applications. In 2012, he headed the new biophotonics group.

He has already made two sabbaticals in the USA, collaborating with George Stegeman at CREOL at Central Florida University from 1996 to 1998, and with Tuan Vo-Dinh at Duke University in 2009-2010. Since 2014, he works at Sherbrooke University, in Québec, Canada where he also serves as director of the International Research Laboratory Nanotechnologies and Nanosystems. He co-authored about 125 publications and 250 conferences.



Dr. Bernard Cazelle

Professor, Sorbonne Université, Institut de Biologie de l'ENS, CNRS, INSERM, ENS-PSL

Dr. Bernard Cazelles is Professor at Sorbonne Université (SU). He is a member of “Eco-Evolution Mathematics” team at Ecole Normale Supérieure (ENS) and of UMMISCO a SU/IRD research unit. Bernard Cazelles is mainly interested in explaining the complex patterns of populations observed in nature. Different directions have been explored, one concerns theoretical works on the interactions between stochasticity and non-linearity in population dynamics. Another direction concerns the analysis of infectious diseases with focus on the complex interplay between several factors: climatic forcing, interaction between pathogens, heterogeneity of the immune response and spatial heterogeneity. These last years, Bernard Cazelles was at the head of the Department

“Ecologie & Evolution” from CNRS/ENS/SU. He also serves as associate editor in “Chaos, Solitons and Fractals” and in “PLoS Global Public Health”. Also involves in Public Health activities, he was appointed member of the “Haut Conseil de la Santé Publique” (2018-2022) and since 2020 he is member of Scientific Advisory Board of “Santé Publique France”.



Dr. Andrew Comrie

Professor, School of Geography, Development & Environment, University of Arizona, and Chief Academic Officer, Arizona Board of Regents

Dr. Comrie is a geographer, interdisciplinary climate scientist, and former Provost at the University of Arizona. He currently serves as the Chief Academic Officer for the Arizona Board of Regents, where he is responsible for system strategy in academic affairs, including fostering academic access and excellence at all three of Arizona's public universities. In addition to his academic appointment as Professor in the School of Geography, Development & Environment, Dr. Comrie has joint appointments in Hydrology & Atmospheric Sciences and in Public Health. His research is in two broad areas. The first links climate with health, pathogens, and vectors as well as with broader atmospheric environmental issues, and focuses on questions such as ‘How do disease

patterns shift in space and time with changes in climate?’ The second draws on his experience as a senior institutional leader, and examines questions in higher education such as ‘How do resources flow to support the university's multiple missions?’ He has served as editor and editorial board member for respected international scholarly journals and on many national and international professional committees and boards. He is the author of the open-access book ‘Like Nobody's Business: An Insider's Guide to How US University Finances Really Work.’



Dr. Kacey Ernst

Professor, Epidemiology and Biostatistics Department, University of Arizona

Dr. Ernst is Professor and Program Director of Epidemiology at the University of Arizona College of Public Health. Her primary research focus is vectorborne and zoonotic diseases. Her work spans from seeking an understanding of the underlying mechanisms of changing disease risk to better inform short- and long-term forecasts of disease risk and to transform this into early warning systems and community engaged strategies for mosquito-borne diseases. Her work is highly collaborative and transdisciplinary. She is co-director of the Bridging Biodiversity and Conservation Science Initiative at the University of Arizona, within the Arizona Institute for Resilient Environment and Society (AIRES). She is currently serving as a co-author on the National Climate Assessment Climate and Health Chapter.



Dr. Régis Ferrière

iGLOBES Director, France-Arizona Institute for Global Grand Challenges Deputy Director, Eco-evolutionary Mathematics Professor at ENS-PSL

Dr. Ferrière is a mathematical ecologist who studies a broad array of questions about life on Earth and off Earth. He is particularly interested in how ecological systems emerge and evolve, how they adapt to environmental challenges and how their adaptation reshapes the environment. He obtained his doctoral degree in mathematical ecology at Paris University and subsequently worked as a research associate at the University of Arizona and the International Institute for Applied Systems Analysis in Laxenburg, Austria. With collaborators in Austria and The Netherlands, Dr. Ferrière pioneered the field of eco-evolutionary mathematics, that he has been expanding ever since. As a professor at Ecole Normale Supérieure in Paris, France, Dr. Ferrière

was the founding director of the CNRS-ENS Ecotron IleDeFrance, a large research infrastructure to promote experiments on complex ecological systems under highly controlled environmental conditions. In 2012, Dr. Ferrière was appointed as an Associate Professor at the University of Arizona. With support from the Partner University Fund, he established a collaboration bridge through research and advanced training between UArizona and ENS. In 2017, he extended the cooperation program as he became director of the iGLOBES (Interdisciplinary and Global Environmental Studies) International Research Laboratory, a joint venture between UArizona, ENS, and the French National Center for Scientific Research (CNRS). iGLOBES has been instrumental in the creation, in 2021, of the France-Arizona Institute for Global Grand Challenges, intended to foster existing and new collaborations between the French scientific community and UArizona in all disciplines. A strong advocate for respect, diversity and inclusion in scientific endeavors, Dr. Ferrière strives to nurture and promote the best talents and ideas to advance science that can help solve the global grand challenges of our time.



Dr. Melissa Furlong

Assistant Professor, Community, Environment and Policy Department, University of Arizona

Dr. Furlong is an environmental epidemiologist who studies the chronic health effects of environmental contaminants, with an emphasis on pesticides and neurological outcomes. She holds a PhD in epidemiology from the University of North Carolina at Chapel Hill, a Master's in Public Policy from Duke University, and a B.S. in Psychology and Neuroscience, also from Duke University. She is the recipient of a Pathway to Independence Award from NIEHS (K99/R00). Dr. Furlong's primary research interests include developing and implementing novel approaches to investigate associations between environmental contaminants and longitudinal chronic health outcomes, particularly neurological and childhood health.



Dr. Julien Gigault

CNRS Researcher, TAKUVIK International Research Laboratory, CNRS, Laval University

Julien Gigault is a CNRS research scientist in the TAKUVIK laboratory, an international laboratory of the french CNRS and Université Laval (Québec City, Canada). As an environmental and analytical chemist, he dedicated his research to the source, fate, and impact of nanoscale materials in the environment, especially in Polar areas. Since 2014, he focuses his research on the anthropogenic or accidental nanoparticles' presence and effects in the environment. In 2016, he started to demonstrate the existence of nanoplastics in the environments resulting from the degradation of plastic debris. His research group is developing analytical strategies to detect these nanoplastics in the environment and their impact. Based on the in-situ measurement, the second part of his work consists of developing experimental approaches to understand better the transport pathways and the life-cycle of the anthropogenic nanoparticles in the environment, such as nanoplastics.



Dr. Anne Marie Gué

Research Director, Institute for Engineering and System Sciences (INSIS).

Dr. Anne Marie Gué completed her Ph.D. degree in 1986 in Solid State Physics at Toulouse University. Dr. Gué has been a CNRS Researcher in Toulouse, since 1988. She has been a Scientific officer for Multidisciplinarity INSIS-CNRS since September 2016. She is currently carrying out research in the field of microfluidics for health applications (Lab on Chips). She has published in more than 200 scientific journals and international conferences. She has been the head and founder of the French scientific network MicroNanofluidics from 2008-2014. She has been deputy director of L.A.A.S.-C.N.R.S., 750 pers. (2011-2015).



Dr. Iman Hakim

Professor and Dean, Mel and Enid Zuckerman College of Public Health, University of Arizona

Dr. Iman Hakim, MBBCh, PhD, MPH, is Dean of the University of Arizona Mel and Enid Zuckerman College of Public Health (MEZCOPH), the Mel and Enid Zuckerman Endowed Chair in Public Health and the founding director of the Global Health Institute. She is a member of the University of Arizona Cancer Center and Sarver Heart Center at the College of Medicine – Tucson. She holds joint appointments in the Department of Nutritional Sciences at the College of Agriculture and Life Sciences and in the Department of Family and Community Medicine at the College of Medicine – Tucson. Dr. Hakim is internationally known for her translational research and work on the role of bioactive food compounds, such as green tea and d-limonene, in modulation of oxidative damage and prevention of chronic diseases such as cancer, cardiovascular diseases and diabetes. Her research focuses on health promotion, dietary interventions, and the role of gene-environment and gene-nutrition interactions in chronic disease prevention. Dr. Hakim earned her medical degree from Cairo University in Egypt, where she completed her pediatric residency. She received her PhD in child health and nutrition from Ain-Shams University in Cairo, Egypt, and her Master of Public Health degree from the University of Arizona.

Dr. Hakim earned her medical degree from Cairo University in Egypt, where she completed her pediatric residency. She received her PhD in child health and nutrition from Ain-Shams University in Cairo, Egypt, and her Master of Public Health degree from the University of Arizona.



Dr. Sabrina Helm

Associate Professor, Norton School of Family and Consumer Sciences, University of Arizona

I am an academic with a background in marketing and management and a passion for the natural environment. I received my Ph.D. in business administration from the University of Duesseldorf, Germany. Prior to relocating to Tucson, I was Professor of Strategic Marketing at Witten/Herdecke University, Germany. Despite this strong background in business studies, my current research focuses on sustainable consumption, the role of marketing in affecting overconsumption as a main driver of climate change, mental health effects of climate change and psychological adaptation and coping responses, and mindful teaching approaches with respect to climate change. I am a board member of the Macromarketing Society, where I am working with a network of international colleagues to critically assess and transform teaching approaches at business schools to address

climate change. My research has been published in diverse journals, for example Journal of Marketing, Journal of Service Research, Journal of Business Research, Population and Environment, and Global Environmental Change.



Dr. Frank von Hippel

Professor, Community, Environment and Policy Department, and Lead, OneHealth Research Initiative, University of Arizona

Frank A. von Hippel is a professor of environmental health sciences in the Mel & Enid Zuckerman College of Public Health and the lead of the One Health Research Initiative at the University of Arizona. Frank was born and raised in Alaska, received his A.B. in biology at Dartmouth College in 1989, and his Ph.D. in integrative biology at the University of California, Berkeley in 1996. He taught for Columbia University (1996-1999), the University of Alaska Anchorage (2000-2016), and Northern Arizona University (2016-2021) before moving to the University of Arizona in 2021. Frank has taught ecology field courses in over twenty countries, and conducted research in the Americas, Africa and Australia. He conducts research at the nexus of ecotoxicology, mechanisms of toxicity, and health

disparities, with a focus on Indigenous and underserved communities. Frank uses locally occurring wildlife and laboratory animals as models for human exposure and disease, and he employs a Community Based Participatory Research (CBPR) approach. Frank's research has been widely covered in the press, including *The New York Times*, National Public Radio, *The Economist*, the BBC, and many other media outlets. Frank is the author of *The Chemical Age* (University of Chicago Press, 2020) and he is the creator and host of the *Science History Podcast*.



Dr. Ladd Keith

Assistant Professor, School of Landscape Architecture and Planning, and Chair of Sustainable Built Environments, University of Arizona

Ladd Keith, Ph.D., is an assistant professor in the School of Landscape Architecture and Planning and a faculty research associate at the Udall Center for Studies in Public Policy at the University of Arizona. An urban planner by training, he has over a decade of experience planning for climate change with diverse stakeholders in cities across the U.S. His research explores heat planning and governance with funding from the National Oceanic and Atmospheric Administration, the Centers for Disease Control and Prevention, and the Department of Transportation. He also founded and serves as chair for the Sustainable Built Environments undergraduate degree program which is offered in person, fully online, and at the Universidad Peruana de Ciencias Aplicadas in Lima, Peru. He has a Ph.D. in Arid Lands Resource Sciences and an MS in Planning from the University of Arizona.



Dr. Chris Lim

Assistant Professor, Community, Environment and Policy Department, University of Arizona

Dr. Lim's research examines how the environment impacts human health applying epidemiologic, statistical, and data science methods. He is specifically interested in the health effects of air pollution and climate change, and whether there are disparities in the exposures and associated health outcomes. He also explores the potential application of low-cost sensor technologies for personal-level exposure assessment, urban air pollution modeling, and community-based environmental justice projects. Lim currently leads a study examining the health and academic impact of green playground renovations in New York City public schools, and another study that will look at the impact of air pollution on pediatric asthma in Tucson schools. He completed his postdoctoral training at the Yale School of the Environment and obtained his PhD from NYU School of Medicine.



Dr. Denis Machon

Professor, CNRS LN2 International Research Laboratory, University of Sherbrooke

Denis Machon completed his PhD at the age of 26 from Grenoble INP and his postdoctoral studies from University College of London. During these years, he worked on phase transitions in solid state, both on the experimental and theoretical aspects. As a professor assistant at University Lyon 1, his research interests were centered on high-pressure physics and thermodynamics. His main research activities were devoted to understanding of the combined effects of pressure, size and interface in the phase stability. In 2017, he joined as associated professor the "Laboratoire Nanotechnologies et Nanosystèmes" (LN2), a joint International Research Laboratory co-operated in Canada by "Université de Sherbrooke" and in France by CNRS. At LN2, he works on mesoporous silicon and germanium as anode materials for Li-ion batteries. He recently participated in the development of a new activity at LN2: sensors for environmental monitoring.



Dr. Laurent Nicolas

CNRS Research Director, National Institute of Systems Science and Engineering

Laurent NICOLAS is born in 1960. He is Research Director at the French National Center for Scientific Research (CNRS). He is Scientific Deputy Director of the CNRS Division of Engineering and Systems Sciences (INSIS), in charge of international affairs. He is also supervising the IRC (International Research Center) developments for the CNRS. He graduated as an engineer from the Ecole Nationale Supérieure d'Ingénieurs Electriciens in Grenoble. He holds a Ph.D. degree in Electrical Engineering in Lyon. Laurent NICOLAS joined the CNRS in 1986 as researcher in the Electrical Engineering Center of Lyon (CEGELY). His field of interest was computational electromagnetics, electromagnetic compatibility and bio-electromagnetism. He became Director of the CEGELY in 2003, and set up in 2007 the Ampere Lab which he headed until 2011. From December 2011 to July 2022, he was Scientific Deputy Director of the CNRS-INSIS, in charge of the fields related to micro- and nanotechnologies, micro- and nanosystems, electronics, photonics, electromagnetism and electrical energy.



Dr. Janko Nikolich-Zugich

Professor and Head, Department of Immunobiology, and Director, Aegis Consortium, University of Arizona

Dr. Nikolich-Žugich received his M.D., MSc and Ph.D. in Immunology from Belgrade University School of Medicine. His long-term interests include basic mechanisms of T-cell function, immunity to infection in older adults, vaccines, and biomarkers of declining immunity in the elderly, immune rejuvenation, immune monitoring in chronic conditions of aging and the impact of inflammation and nutritional intervention in aging, immunity and metabolic disorders. Dr. Nikolich-Žugich worked as a Research Associate at the Scripps Clinic and Research Foundation. He then joined the Memorial Sloan-Kettering Cancer Center in New York as Assistant and then Associate Member (Professor) and the Head of both the Flow Cytometry Core Facility and the Laboratory of T Cell Development. In 2001, Dr. Nikolich-Žugich assumed the position of Senior Scientist at the Oregon Health & Science University at the Vaccine and Gene Therapy Institute, along with joint appointments as a tenured Professor in the Department of Molecular Microbiology and Immunology and a Senior Scientist at the Oregon National Primate Research Center. In 2008, Dr. Nikolich-Žugich moved to the University of Arizona to lead the Department of Immunobiology and the Arizona Center on Aging.



Dr. Kelly Reynolds

Professor and Chair of the Department of Community, Environment and Policy; Director of the Environment, Exposure Science and Risk Assessment Center (ESRAC), University of Arizona

Kelly Reynolds, PhD is a Professor in the Environmental Health Sciences Program, Chair of the Community, Environment and Policy Department, Director of the Environment, Exposure Science and Risk Assessment Center, and Director of the Western Region Public Health Training Center at the Mel & Enid Zuckerman College of Public Health, The University of Arizona. She has over 35 years of experience working in environmental health and exposure sciences and leading diverse, multidisciplinary teams. In 2015, Dr. Reynolds received the Excellence in Research Award in the College of Public Health and has received national and international recognition for her various service and research contributions. She is a prior recipient of the Water Quality Association's Lifetime Honorary Membership Award and the water treatment industry's William B. Fritzsche Memorial Top 50 International Award. During her career, she has formally mentored over 100 graduate students, served as a principal investigator on numerous projects, published over 400 journal articles, book chapters, and professional reports, and cultivated the advancement in methods for the detection and human health risk assessment of water, food and airborne environmental hazards.



Dr. Céline Verchère

Associate Researcher, LN2 International Research Laboratory, CNRS, University of Sherbrooke

Dr Céline Verchère has a doctorate in sociology and graduated in Political Science. She has worked for over ten years as an expert in the "Usage and User Experience (Ux) group" for the CEA (Commissariat à l'Énergie Atomique et aux Énergies Alternatives) at the MINATEC Campus in Grenoble (France). During this time, she reflected upon and developed the application of humanities and social science (sociology, anthropology) methodologies within industry, with the aim of accompanying new design approaches for technological innovations. Dr Verchère has lived in Canada since 2014 and has been welcomed as an associate researcher in the Interdisciplinary Institute for Technological Innovation (3IT) at the University of Sherbrooke. Currently, she is the associate director of the IRL LN2 and co-leader of the axis: Impacts, Uses and Society. She is diversifying and strengthening her approach by deepening the links between "use" and the triptych "applied ethics, sustainable development and social responsibility (CSR)". As a member of the [Labos1.5](#), she is also engaged in a reflection on the role of science and scientists in the ecological transition (governance issues, etc.).