34th Annual Conference of the International Society for Environmental Epidemiology

Hybrid Event

18-21 sept. 2022

Megaron Athens International Conference Centre

Final Program
Download the official Conference App

1. Conference App Download Instructions
   Use your device to scan the QR Codes

2. Download The Event App by EventsAIR

3. When you are prompted for a code upon launching the App, insert iseef22
   In order to log in, tap the Log In icon and insert your email address and the 4-digit PIN that has been sent to you. The conference App will be available about two weeks before the conference.
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Dear friends, colleagues, interested citizens, ISEE Community,

With great enthusiasm we welcome you to the 34th Annual ISEE Conference in Athens, Greece, in 18-21 September, 2022, which is the first in-person Conference after two years of fully on-line Conferences (2020, 2021).

Having learnt from recent experience, our Conference also has a hybrid format attracting about 500 on-line participants in addition to the 1,100 participants who travelled to Athens.

The main theme of the 2022 Conference is “Strengthening the global role of environmental epidemiology”, stressing the need to study and understand local conditions in order to synthesize the knowledge and make a difference for our Planet. The scientific program includes a diversity of topics associated with environmental epidemiology, represents several multi-disciplinary approaches and links to policy.

We would like to thank ISEE, the members of our local organizing and scientific committees and PCO CONVIN for the great help in organizing the first hybrid conference of ISEE. And we would like to thank all keynote speakers, presenters, participants, session chairs for their important contributions to the program.

The city of Athens, where a civilization developed 2,500 years ago became a global legacy, will form the background for fostering the Conference theme.

In the 2022 Conference we continue advancing our Society’s aims in promoting Epidemiological studies linking environmental exposures to human health. The issue of Climate Change and its impact on health, which needs global coordination for effective action, is central to our Conference, along with the other topics that formed the center of our activities in the past and where we have been very impactful. On the exposure side we focus, in addition to climate/meteorology, on ambient and indoor air pollution, water pollution, noise, built environment and occupational exposures.

For health outcomes, our focus includes effects on children and the ageing, with novel health outcomes (e.g. neurological/ neurobehavioral, mental health) and more studied ones, like cardio-metabolic and respiratory, for which we need to gain deeper understanding.

Environmental equity is a central topic with global dimension. Policy, following the release of revised air quality guidelines, and ethics considerations also need to be addressed both locally and globally. Our society has a tradition in working on the advancement of methodology and this Conference includes the in-depth methods developments.

We have worked towards making our Conference greener and accessible to all. The local experience is based on the traditional culture, including the Mediterranean cuisine emphasizing its gourmet vegetarian dishes and locally produced drinks.

We are looking forward to having a scientifically stimulating conference and really hope that you will enjoy both the conference and the Athens culture, life and spirit!

Klea Katsouyanni
Professor, National & Kapodistrian University of Athens

Evangelia Samoli
Assoc. Professor, National & Kapodistrian University of Athens
Welcome to the 34th Annual Conference of the International Society for Environmental Epidemiology!

I am delighted that my time as President of ISEE is marked by participating in this conference, which will bring together our members after several years of only meeting online. This conference, “Strengthening the global role of environmental epidemiology,” features a robust program that highlights the important work of our community.

In addition to several keynote lectures and panels, the program includes something for everyone, from symposia and oral sessions to poster presentations and Pecha Kucha sessions. ISEE chapters and committees have organized several sessions, including “Civic Engagement at ISEE: Ramping up our efforts for impactful research”, Tuesday, September 20 at 07:30; “Scientist Connections with Environmental Justice Communities”, Tuesday, September 20 at 14:15; “Two-Way Road: How has the environment affected the COVID-19 pandemic and how the pandemic response affected the environment in the Latin America and Caribbean region”, Tuesday, September 20 at 14:15; “Air Pollution and Health: The Case of Central and Southeast Europe”, Wednesday, September 21 at 07:30; and a keynote discussion, “Race and Racism from a Global Perspective”, Wednesday, September 21 at 10:30.

We are also excited to support our younger members with a slate of activities organized by our Student and New Researchers Network (SNRN). The Student and New Researchers Network (SNRN) is open to all students, postdoctoral trainees, and new researchers (who have fewer than 5 years of experience from their terminal degree) in the field of environmental epidemiology or other related disciplines. In addition to their informal networking session which will be held Monday, September 19 at 19:00 in Parko Eleftherias, the SNRN has organized two early morning sessions: “Transitioning from PhD to Post-Doc” on Tuesday, September 20 at 07:30, and “Beyond Academia: Fulfilling and Exciting non-academic careers”, on Wednesday, September 21 at 07:30. We will close out the conference with the SNRN Awards on Wednesday, so be sure to come and recognize the emerging work from the future of the field!

The conference provides a unique opportunity for our members to come together and learn about the state of the society and share their feedback at the Annual Membership Meeting. This year, the meeting will be held on Monday, September 19, and I hope to see many of you there. The Society is only as strong as its members, and we welcome the opportunity to hear about your membership experience. ISEE chapters and committees will also be holding meetings over the lunch hours, and we encourage your participation. These meetings provide an opportunity to get more involved in regions or topics for which you have passion. Finally, I hope we will see you at the ISEE Award Ceremony, which will be held at 08:30 on Wednesday, September 21. I can think of no better way to wrap up the conference than to celebrate the incredible achievements of our members.

ISEE operates thanks to our members who generously volunteer their time for the success of the Society in various capacity. Please consider joining a committee, work with a regional chapter, or help us in the year-round activities that ISEE offers to all of us. We need everyone’s help!

Thank you for your participation in this year’s conference, and I look forward to what the next few days will bring.
ORGANIZATION – COMMITTEES

ISEE 2022 COMMITTEES

LOCAL ORGANIZING COMMITTEE

Klea Katsouyanni, Co-Chair
Evangelia Samoli, Co-Chair
Antonis Analitis
Vassiliki Benetou
Erasmia Bizani
Evangelia Diapouli

Konstantina Dimakopoulou
Konstantinos Eleftheriadis
Anna Karakatsani
Maria Kasdagli
Maria Nikoloutsou
Stefania Papatheodorou

Jenny Polit
Sophia Rodopoulou
Vana Spyrsa
Giota Touloumi
Sofia Zafeiratou

INTERNATIONAL ORGANIZING COMMITTEE

Andersen Zorana (DK)
Baccarelli Andrea (US)
Barratt Ben (UK)
Boogaard Hanna (US)
Brunekreef Bert (NL)
Burrows Kate (US)
Cheong Hoe-Kwan (KR)
de Hoogh Kees (CH)
Gasparrini Antonio (UK)
Gehring Ulrike (NL)
Gouveia Nelson (BR)
Hoffmann Barbara (DE)

Honda Yasushi (JP)
Huang Wei (CN)
Jalaludin Bin (AU)
Katsouyanni Klea (GR), Co-Chair
Kauffmann Joel (US)
Khanjani Narges (IR)
Kogevinas Manolis (ES)
Kioumourtzoglou Marianthi (US)
Lin PH Debby (US)
Mora Ana Maria (CR)
Mustapha Adetoun (NG)
Pau-Chung Chen (TW)

Payne-Sturges Devon (US)
Pearson Dharshani (US)
Poku Asante Kwaku (GH)
Samoli Evi (GR), Co-chair
Shu-Li Wang Julie (TW)
Smargiassi Audrey (CA)
Stafoggia Massimo (IT)
Tamayo Ortiz Marcela (MX)
Valvi Dania (US)
Weisskopf Marc (US)
Willis Mary (US)

ORAL SESSIONS REVIEW COMMITTEE

Andersen Zorana (DK)
Baccarelli Andrea (US)
Barratt Ben (UK)
Cheong Hoe-Kwan (KR)
Gehring Ulrike (NL)

Gouveia Nelson (BR)
Hoffmann Barbara (DE)
Kaufman Joel (USA)
Kioumourtzoglou Marianthi (US)
Stafoggia Massimo (IT)

POSTER DISCUSSION REVIEW COMMITTEE

Asante Kwaku Poku (GH)
Burrows Kate (US)
Chen Pau-Chung (TW)
Honda Yasushi (JP)

Khanjani Narges (IR)
Smargiassi Audrey (CA)
Willis Mary (US)

THEMATIC POSTER VIEWING REVIEW COMMITTEE

Gasparrini Antonio (UK)
de Hoogh Kees (CH)
Huang Wei (CN)
Mora Ana Maria (CR)

Lin Debby (US)
Shu-Li Wang Julie (TW)
Tamayo Ortiz Marcela (MX)

TRAVEL AWARDS COMMITTEE

Analitis Antonis (GR)
Diapouli Evangelia (GR)
Papatheodorou Stefania (US)

GRANTS COMMITTEE

Benetou Vicky (GR)
Dimakopoulou Konstantina (GR)
Zafeiratou Sofia (GR)
ABOUT ISEE

OUR VISION
We are a scientific association in environmental epidemiology that impacts research, training and policy worldwide.

OUR MISSION
To foster epidemiological studies on the effects of environmental exposures in people, stimulate communication between health professionals, promote methodological advances, and strengthen environmental health policy.

OUR PHILOSOPHY
➜ Our membership is open to environmental epidemiologists and other scientists worldwide.
➜ We provide a forum for the discussion of problems unique to the study of health and the environment by supporting annual meetings, newsletters, critical reviews and commentaries, workshops, and regional events.
➜ We facilitate communication across disciplines by involving epidemiologists, toxicologists, exposure analysts, and other environmental scientists and moral philosophers in our annual meetings and committees.
➜ We support innovative approaches to substantive or methodologic problems and applications of environmental epidemiology by featuring new research at our annual meetings and supporting new researchers.
➜ We use environmental epidemiology to inform public policy by developing consensus statements, scientific commentaries, and acting as liaisons with academic, governmental, inter-governmental, non-profit and business institutions.
➜ We support the involvement of scientists from around the world and subsidizing membership costs for scientists in developing countries to encourage their participation.

OUR VALUES
All members are expected to embrace the following values:
✔ Integrity. Do what is morally and ethically right.
✔ Diversity. Promote an environment that is free from prejudice and discrimination and embraces the uniqueness of every member’s experiences, background, interests, culture, and contributions.
✔ Member Service. Be responsible stewards of ISEE resources in effectively meeting the needs of members.
✔ Communication. Recognize that effective communication (writing, speaking, or listening) is the responsibility of all members.
✔ Respect and Trust. Treat each other with fairness, dignity, understanding, and compassion.
✔ Career Development. Promote training, education, mentoring, and career growth.
✔ Excellence. Foster creativity, innovation, and teamwork while seeking continuous improvement in the science and practice of environmental epidemiology.
✔ Sustainability. Meet the needs of the present without compromising the ability of future generations to meet their needs.
OUR CONFLICT-OF-INTEREST POLICY

It is our policy that the efforts and activities of officers, councilors, committee chairs and other Society members performed on behalf of the ISEE not be compromised by any significant conflict of interest including:

Engaging in any business or other activities that would directly or indirectly materially adversely affect the ISEE, including but not limited to affecting the reputation, professionalism or finances of ISEE.

Using the ISEE membership and platform to pursue or support personal ideological or financial gains beyond the norms expected from membership of a professional scientific society. Influencing nominations for awards or provision of travel awards to benefit oneself.

Seeking sponsorship from exhibitor, sponsor, contractor, or any other person or entity as conference organizer that would result in personal financial profit.

You can read more about this policy, and download our conflict-of-interest form at https://iseepi.org/conflict_of_interest_policy.php.

CONTACTING ISEE

For questions or information about applying for or renewing your membership, membership status, your member subscription to Epidemiology, or joining a committee please contact the ISEE Secretariat.

International Society for Environmental Epidemiology
c/o Infinity Conference Group, Inc.
1035 Sterling Road, Suite 202
Herndon, VA 20170 USA
Phone: 1-703-925-0178, toll free (US only): 844-369-4121
Fax: 1-703-925-9453
E-mail: secretariat@iseepi.org

Infinity Conference Group is committed to assisting the ISEE leadership to successfully serve its membership and move the organization forward. Located in Washington D.C region of the U.S., Infinity Conference Group, Inc. (ICG) provides high-quality professional and reliable association management and conference planning services for organizations who seek exceptional support, keen oversight, a unique vision, and have a desire to improve the world in which we live.

ISEE OFFICERS

<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRESIDENT [2022-2023]</td>
<td>Andrea Baccarelli</td>
</tr>
<tr>
<td>PAST-PRESIDENT [2022]</td>
<td>Mark Nieuwenhuijsen</td>
</tr>
<tr>
<td>COUNCILORS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mildred Maisonet [2020-2022]</td>
</tr>
<tr>
<td></td>
<td>Nelson Gouveia [2020-2022]</td>
</tr>
<tr>
<td></td>
<td>Adetoun Mustapha [2021-2023]</td>
</tr>
<tr>
<td></td>
<td>Yue-Liang Guo [2021-2023]</td>
</tr>
<tr>
<td></td>
<td>Zorana Jovanovic Andersen [2022-2024]</td>
</tr>
<tr>
<td></td>
<td>Jaime E. Hart [2022-2024]</td>
</tr>
</tbody>
</table>
About Athens

A bustling, cosmopolitan metropolis, yet the cradle of democracy and civilization, Athens is central to economic, financial, industrial, political and cultural life of Greece. Standing at the crossroads of three continents, Greece’s capital has been, due its geographical position, a melting pot of different cultures, which have come together throughout its long history and still do so today. It’s the land of hospitality, known since ancient times, where Greek people give a warm welcome to every visitor traveling to Athens to catch up memories to a unique destination.

Athens is a modern European city with an old-town feel; ancient monuments fuse with a trendy, cosmopolitan scene. Masterpieces of significant architectural values stand tall today in a harmonious coexistence with impressive modern buildings. But, also, is an ideal congress destination, combining state-of-the-art infrastructure, excellent congress facilities and easy access from all over the world with world-class cultural attractions, modern amenities and diverse entertainment.

About the Venue

MEGARON ATHENS INTERNATIONAL CONFERENCE CENTRE (MAICC)
Vas. Sofias Ave. & Kokkali St., Athens 115 21, Greece
T. +30 210 7282000

ABOUT MAICC
The MAICC is distinguished as one of the leading and most technologically advanced conference venues in Europe. A building of modern architecture, the MAICC dominates imposingly with its Doric austerity. The venue located on Vasillisis Sofias avenue, in very close distance to the city center, yet, surrounded by its own landscaped gardens, it offers a soothing environment, beautiful aesthetics, cutting edge technology and unrivalled client service.
Right in the heart of the city, only a few minutes away from Syntagma square, the MAICC is easily accessible by all means of transportation. The Metro station is located a few meters away from the main entrance of the MAICC. It is also very close to major hotels, museums, shops, and fine restaurants, many of which are within walking distance.
The MAICC has had the privilege to host several of the most important congresses in Greece. It was designed and built with great respect to the environment and green urban planning. Furthermore, it has been incorporated subtly into the park of the complex.
The technology and stage systems incorporated into the halls are at the forefront of technology, while all sound and audiovisual systems are connected to the in-house broadcast standard recording studio, which enables sound and video recording in broadcast format.

HOW TO REACH MAICC
→ From the airport
  You can take bus X95, or a 35-minute ride on the Metro will bring you to the venue.
→ From the railway station
  It’s just 30 minutes to the «Megaro Moussikis» Metro station.
→ From Piraeus
  It’s just a few minutes ride on the Metro.
OUR MISSION
To foster epidemiological studies on the effects of environmental exposures in people, stimulate communication between health professionals, promote methodological advances, and strengthen environmental health policy.

MEMBERSHIP OPPORTUNITIES
ISEE members can join committees and regional chapters. These groups offer a direct path for engagement and leadership within ISEE. Members can contribute to conference planning, policy setting, membership initiatives, and more. Chapters organize activities that speak to environmental health topics of interest faced by countries in those regions.

INITIATIVES FOR THE FUTURE
We have recently launched programs such as the Peer Editing Program, online lectures and teaching videos, and new awards to support environmental health professionals across the globe. Select members can also apply for publication waivers for free publication in our journals such as Environmental Epidemiology.
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16 Chapters & 70 Countries Represented
50+ Travel Awards
@ISEE_global https://iseepi.org
3 Journal Partners
6 Awards
600+ Students & Early Career Researchers

Membership Rates

<table>
<thead>
<tr>
<th>Membership Type</th>
<th>1-year</th>
<th>3-year</th>
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</thead>
<tbody>
<tr>
<td>Full Membership</td>
<td>$200</td>
<td>$540</td>
</tr>
<tr>
<td>Standard Membership</td>
<td>$180</td>
<td>$486</td>
</tr>
<tr>
<td>LMIC Membership</td>
<td>$30</td>
<td></td>
</tr>
<tr>
<td>Student Membership</td>
<td>$60</td>
<td></td>
</tr>
<tr>
<td>Emeritus Membership</td>
<td>$90</td>
<td></td>
</tr>
<tr>
<td>Subsidized/Early Career Membership</td>
<td>$100</td>
<td></td>
</tr>
<tr>
<td>Government Membership</td>
<td>$120</td>
<td></td>
</tr>
</tbody>
</table>
### VENUE AREAS & LEVELS

#### CONFERENCE AREAS OVERVIEW

<table>
<thead>
<tr>
<th>Conference Venue (New Building)</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trianti Hall</td>
<td>Level 0</td>
</tr>
<tr>
<td>Trianti Foyer Right Side</td>
<td>Level 0</td>
</tr>
<tr>
<td>Trianti Foyer Left Side</td>
<td>Level 0</td>
</tr>
<tr>
<td>Trianti Foyer Middle</td>
<td>Level 0</td>
</tr>
<tr>
<td>Trianti Balcony</td>
<td>Level 0</td>
</tr>
<tr>
<td>Foyer Muses</td>
<td>Level 0</td>
</tr>
<tr>
<td>Foyer Kokkali</td>
<td>Level 0</td>
</tr>
<tr>
<td>Multipurpose Hall</td>
<td>Level 0</td>
</tr>
<tr>
<td>Skalkotas Hall</td>
<td>Level -1</td>
</tr>
<tr>
<td>MC 2</td>
<td>Level -1</td>
</tr>
<tr>
<td>MC 3</td>
<td>Level -1</td>
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<tr>
<td>MC 3.2</td>
<td>Level -1</td>
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<tr>
<td>MC 3.3</td>
<td>Level -1</td>
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<tr>
<td>MC 3.4</td>
<td>Level -1</td>
</tr>
<tr>
<td>MC 3.5</td>
<td>Level -1</td>
</tr>
<tr>
<td>Poster Area A</td>
<td>Level 1</td>
</tr>
<tr>
<td>Registration &amp; Self Check-in St</td>
<td>Level 0</td>
</tr>
<tr>
<td>Exhibition</td>
<td>Level 0</td>
</tr>
<tr>
<td>Poster Area B</td>
<td>Level 0</td>
</tr>
<tr>
<td>Parallel Hall</td>
<td>Level 0</td>
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<td>Parallel Hall</td>
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<tr>
<td>Parallel Hall</td>
<td>Level 0</td>
</tr>
<tr>
<td>Speaker Preview Room</td>
<td>Level -1</td>
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</tbody>
</table>

#### Old Building (Entrance from Conference Venue)

<table>
<thead>
<tr>
<th>Old Building (Entrance from Conference Venue)</th>
<th>Level</th>
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</thead>
<tbody>
<tr>
<td>Foyer Mitropoulos</td>
<td>Level 0</td>
</tr>
<tr>
<td>Allegro</td>
<td>Level 0</td>
</tr>
<tr>
<td>Covid-Test Station</td>
<td>Level 0</td>
</tr>
<tr>
<td>Childcare Station</td>
<td>Level 0</td>
</tr>
</tbody>
</table>
ABSTRACT BOOK
ISEE 2022 Conference abstracts have been published in electronic format and will be sent to all the registered delegates.

APP
Android devices
Search for The Event App by EventsAIR on PlayStore. When you are prompted for a code upon launching the App, insert ise2022.

iOS devices
Search for The Event App by EventsAIR on AppStore. When you are prompted for a code upon launching the App, insert ise2022.

CASH BAR
Two cash bars will be operating throughout Conference dates in the Conference venue: one is situated in the Trianti foyer balcony (Poster Area A), and one in the Skalkotas foyer (Level -1). Delegates are welcome to purchase food and beverage items, at the respective costs. Kindly note that the cash bar will remain closed during official Coffee and Lunch Breaks.

CASH POINTS
An Alpha Bank ATM machine is located inside the MAICC (Main Building entrance). Closest bank is Piraeus Bank (Address: 97, Vassilisis Sofias avenue). Banks in Greece operate daily from 08:00 to 14:00.

CLOAKROOM
A Cloakroom will be operating in the ground level of the Conference venue, in close proximity with the Registration Desk. Delegates’ items (such as coats, poster cases, etc.) can be left at the Cloakroom only on a daily basis and during Conference operating hours.

CONGRESS DATES
Sunday, 18 September to Wednesday, 21 September 2022

CONGRESS VENUE
Megaron Athens International Conference Centre (MAICC)
Vas. Sofias avenue & Kokkali street,
Athens 115 21, Greece.
T. +30 210 7282000

COVID-19 PROTOCOLS
The International Society for Environmental Epidemiology aims to provide a safe environment in our 2022 Conference. This is the first planned Conference with physical in-person attendance after our 2019 Conference in Utrecht, The Netherlands.

✔ Non-registered delegates will not be allowed into the Conference Areas
✔ Certificate of a negative rapid-test done by professional staff (no self-tests accepted) 24 hrs ahead of first entry to Conference areas must be demonstrated at the Secretariat for obtaining your badge. Professional testing will be available at the Conference Venue on Sunday from 09:00-17:00 and Monday from 08:00-14:00, at the cost of 7 EUR.
✔ Participants with symptoms such as fever, cough, shortness of breath, etc., will not be allowed into all Conference Venue premises.
✔ All participants must respect physical/social distancing. Maintain at least a 1.5 meter distance between yourself and others.
✔ Wearing a mask (N95, KN95, or KF94) is mandatory for all present at the Venue throughout the Conference, and you are please requested to bring your own masks. The appropriate use (both nose and mouth covered), storage and cleaning or disposal are essential to make masks as effective as possible.
✔ Hand sanitizer will be available in several places of the Conference Venue.
✔ Regularly and thoroughly wash your hands with soap and water.
✔ Avoid touching your eyes, nose and mouth
✔ Cover your mouth and nose with your bent elbow or tissue when you cough or sneeze.

CURRENCY / EXCHANGE
The Greek currency is euro (EUR). Exchange offices are located all around the city centre (exchange offices and banks).

ELECTRICITY
The electrical power supply voltage in Greece is 220-240 Volts (US/Canada: 110-120 Volts).

EMERGENCY CONTACTS
Police: 100
Fire department: 199
Medical emergency (ambulance): 166
European emergency contact number (all above): 112
ENVIRONMENTAL POLICY
The ISEE 2022 Conference is observing an environmentally friendly policy. In this context, every effort has been made from preparation to realization of the Conference, to minimize impact on the environment. The Organising Secretariat observes an in-house recycling policy, and offices are hosted in energy saving premises. During the ISEE 2022 Conference, no plastic badges will be used. All delegate material is environmentally friendly, where possible made from recycled material. Delegates will receive a water container, which they can fill at the water stations available in various Conference areas. Venue selection has taken into account easy access through a variety of public transportation environmentally friendly choices, thus minimizing carbon footprint.

EXHIBITION OPERATING HOURS
All exhibitors are listed in the Program Book (see Industry Section and Venue Floorplans). The exhibition will run during Conference dates at the designated areas, during coffee and lunch breaks.
MONDAY 19.09.2022 ➜ 08:30-19:00
TUESDAY 20.09.2022 ➜ 07:30-17:45
WEDNESDAY 21.09.2022 ➜ 07:30-18:30

FACILITIES FOR PERSONS WITH IMPAIRED MOBILITY
MAICC premises have been specifically designed to support the needs of persons with impaired mobility. All Conference areas are equipped with facilities that allow easy access, whilst specially designed restrooms, trolley bars and ramps are available in all levels.

FOOD & BEVERAGES
Coffee & Lunch during official breaks is included in the delegate registration fee and will be served in designated catering stations in all Congress areas.

HYBRID FORMAT
Overcoming the pandemic crisis – and a long period of postponing the event – we are excited to finally be able to organize a physical event with interaction and full of networking opportunities in the beautiful and historic capital of Greece, Athens. Thanks to flexible technology provided to us, the Organizers have adapted the new trend in congresses structure: the ISEE 2022 is held in a hybrid format. It will be mainly a Conference with physical attendance; nevertheless, it will also have a strong digital presence with participation of high-level attendees. Physical participation is encouraged so that this Conference makes a strong statement marking the reopening of face-to-face interaction and networking. All Conference sessions can be watched live via the ISEE 2022 virtual platform, by clicking on the session’s name, where you can find more information and the livestream itself.

Live Support: A Live Support system will be available for all attendees who will participate in the Conference, in order to resolve any technical issues that may arise and/or provide guidance through the platform.
Meeting Hub: You will be able to contact all participants and interact with your colleagues through the Meeting Hub section.

IMPORTANT NOTE: ISEE 2022 sessions will be recorded and made available for post-viewing for a period of three (3) months following Conference dates.

INTERNET
Free WiFi access will be available in all Congress areas throughout the duration of the ISEE 2022 Conference.
Network: isee2022

LANGUAGE
English is the official language of the ISEE 2022. No simultaneous interpretation is provided.

LIABILITY AND INSURANCE
Registration fees do not include participants’ insurance against personal accidents, sickness and cancellations by any party, theft, loss or damage to personal possessions. Participants are requested to make their own arrangements with respect to health and travel insurance. ISEE and the Conference PCO Convin SA accept no liability.

LOST & FOUND
A lost and found service is available at the Cloakroom, operating near the Registrations Desk.

PARKING
The Congress venue offers a total of 750 parking spaces in a 3-story underground car-park facility.

PHOTOS
Photos of sessions and Conference areas will be taken during the ISEE 2022 Conference. Attendees are advised to contact the Registrations Desk, for any issue or objection with this respect.
PRESS OFFICE
Members of the Press are welcome to register and receive the delegate material from the Registration Desk. Conference material will be made available upon request and through the official social media of the Conference and its Organizers.

REGISTRATION
BADGES
Registration badges will be used during the ISEE 2022 Conference. Participants will receive their badges upon check-in at the Registrations Desk. For identification purposes and admission to scientific sessions, participants are requested to wear their badges at all times. Admission to Conference areas will not be allowed without badge identification.

CERTIFICATES OF ATTENDANCE
A Certificate of Attendance will be sent to all registered participants after the Conference via email.

REGISTRATION & HOSPITALITY DESK
The Registrations Desk and Onsite Secretariat is located near the main entrance of the Conference venue.

Operating hours:
SUNDAY 18.09.2022 → 09:00-17:30
MONDAY 19.09.2022 → 07:00-19:00
TUESDAY 20.09.2022 → 07:00-18:00
WEDNESDAY 21.09.2022 → 07:00-18:30

The Hospitality Desk will be operating near the Registrations Desk, offering services to delegates that could facilitate their travel arrangements and make their stay in Athens as pleasant as possible, including information about hotels and the city.

REGISTRATION FEES
In-person (Physical) Attendance

<table>
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<tr>
<th>CATEGORY</th>
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<tbody>
<tr>
<td>ISEE Member fee</td>
<td>800,00€</td>
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<tr>
<td>Non-Member fee</td>
<td>980,00€</td>
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<td>ISEE Member Student fee</td>
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<td>Non-Member Student fee</td>
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<td>ISEE Member LMIC fee</td>
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<td>Non-Member LMIC fee</td>
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<td>ISEE Member Emeritus fee</td>
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<td>ISEE Member Government fee</td>
<td>730,00 €</td>
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<tr>
<td>Non-Member Government fee</td>
<td>840,00 €</td>
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Virtual Registration: Live access to the Virtual Platform for: Virtual live attendance at all sessions / Access to the Virtual Exhibition area / Access to e-poster area
Additionally: Electronic certificate of attendance (pdf) / Conference mobile app / Final program e-book (pdf) / Abstract e-book (pdf) / Abstracts to be published online as a Supplement of Environmental Health Perspectives / On-demand recorded sessions attendance through the Virtual Platform for a minimum of three (3) months after completion of the ISEE 2022 Conference.
SELF-CHECK-IN STATIONS
Conference delegates who do not have outstanding payments may collect their name badges through the Self-check-in stations, located near the main entrance of the Conference venue, thus avoiding queues for badge pick-up.

SOCIAL RESPONSIBILITY & SUSTAINABILITY
CSR
ISEE 2022 promotes CSR actions and initiatives which reflect our identity and sense of responsibility to society and people.

WHAT YOU CAN DO
Tailor-made Aid Box
Create your own amenities box for the Athens Homeless Foundation

MSF
Support the worldwide movement of Médecins Sans Frontières

WHAT WE DO
No portion of food wasted.
All leftover food portions will be donated to the non-profit organization Boroume.

CHILDCARE SERVICES
Childcare services for children aged 2+ will be provided during the ISEE 2022 conference. There will be a specially assigned room (Allegro hall) in the conference venue for childcare from Monday, 19 to Wednesday 21 September. Operating hours are 9:00-17:00. There is no associated cost for this service. Pre-booking is required.

SUSTAINABILITY
ISEE 2022 implements a Carbon Management Program. We invite you to answer the questionnaire shared through the informative letter sent to all registered delegates ahead of the event. With the above process, any environmental impacts of the event will be balanced by the offsetting procedure in Jangi 91.8 MW Wind Farm in Gujarat (ID Num: 6702 - UNFCCC CERTIFIED PROJECTS).

TELECOMMUNICATIONS
There are 3 main GSM operators in Greece: Cosmote, Vodafone, and Wind. The protocols for digital mobile telephone transmissions are based on GSM technology, operating at the frequencies of 900 and 1800 MHz. Please contact your provider for further details.

TIME
Athens follows UTC/GMT +3 hours during the summer period.

TIPPING
In restaurants, hotels, taxis or other services, tipping is optional, and customized per case, depending on whether you are pleased with the service. Approximately 5% of the bill is a good guideline.

WEATHER
The weather in Athens in September is sunny and pleasant, with average temperature ranging between 20°C (68°F) and 30°C (86°F).

TAXI SERVICES
Delegates can hire taxis at the taxi station located across the Conference venue or address the Hospitality Desk for orders by phone.
PRESENTER GUIDELINES

INSTRUCTIONS FOR SESSION CHAIRS, SPEAKERS & ORAL/PECHA KUCHA PRESENTERS

All Conference session halls are equipped with the following:
✔ Projector & 16:9 screen (also suitable for 4:3 presentations)
✔ Chairs’ table and microphones
✔ Lectern with laptop, wireless microphone & laser pointer
✔ Audience microphones for discussion purposes

No personal computers will be allowed.

All presentations should be handed in at the Speakers’ Preview Room (MC 3.5 Hall), located in level -1 of the Conference venue, latest two (2) hours prior to the respective session, or the day before for early morning presentations. We strongly advise presenters to check their presentations well in advance, to ensure content is depicted according to their wishes. The Speakers’ Preview Room will be operating throughout Conference dates, according to the below schedule:

Operating hours:

- **SUNDAY 18.09.2022**: 09:00-17:30
- **MONDAY 19.09.2022**: 07:00-19:00
- **TUESDAY 20.09.2022**: 07:00-18:00
- **WEDNESDAY 21.09.2022**: 07:00-18:30

Chairs, Speakers and Oral abstract presenters who are present in Athens should be close to the stage and ready for the session at least 15 minutes before its beginning, to meet the steward/hostess and ensure everything is in place. Chairs are allocated at the panel desk, where chair screens and fixed microphones will be provided to facilitate their assignment. Chairs are advised to be alert and observe time allocation, as they are responsible for the smooth running of their session and the overall programme flow.

Those participating virtually will be asked to turn on their microphone and camera and share their screen when it is their turn to present. Each oral presentation is allocated 12 minutes, plus 3 minutes of discussion time. Each Pecha Kucha presentation is allocated 5 minutes of presentation time. Presenters are kindly requested to observe the time allotted to their presentations to ensure the smooth running of the Conference program.

INSTRUCTIONS FOR POSTER PRESENTERS

POSTER PRESENTATIONS DISPLAYED ONSITE:

Presenters registered within the authors’ registration deadline for physical attendance have been allocated a panel for displaying their poster in Conference Poster Areas (A & B). Physical posters will be mounted and dismounted on a daily basis. Each poster panel will be marked with the poster presentation codes for each day of the Conference. Please note that there will be no option to mount unallocated posters on an unassigned poster panel; there will also be no option to mount your poster to the panel on a different date than the one assigned.

POSTER MOUNTING SCHEDULE: 07:00-08:00 am on the day of presentation
POSTER DISMANTLING SCHEDULE: 18:00-19:00 on the day of presentation

POSTER DIMENSIONS: Maximum allowed is standard A0 size (120cm height x 84cm width) | ORIENTATION: Vertical (portrait).

It is essential that presenters clear their poster board promptly and within the time limit, as indicated above. Please note that posters left on a poster board after the removal deadline will be discarded. The ISEE2022 PCO, CONVIN SA, will not be responsible for posters or any material left behind, lost, stolen or damaged.

A Poster Helpdesk will be operating during Conference dates, for onsite support, during mounting and dismounting hours. However, posters will not be mounted or dismounted by the Poster Helpdesk staff, who will be there to assist you with locating your panel and providing adhesive material for mounting.

POSTER VIEWING HOURS: Physical poster presenters are urged to make themselves available in the Poster Area during official coffee / lunch breaks, in order to discuss their findings with other delegates.

POSTER DISCUSSION:

Posters selected by the dedicated review Committees are allocated time for presentation within dedicated Poster Discussion Sessions. We would like to stress that this does not apply to all poster presentations. Posters selected to be part of the Poster Discussion Sessions are mounted in a dedicated Poster Area of the Conference venue, according to the above mounting / dismounting schedule. Each Poster Discussion Session is allocated 90 minutes. The Poster Discussion Session Chairs will be coordinating discussions in front of each poster panel. Each poster is allocated 3 minutes for presentation and 3 minutes for discussion.

E-POSTERS:

In addition, all poster presenters have been asked to provide an electronic version of their posters. The electronic versions of all the posters will be available throughout Conference dates, as well as during the post-viewing period, at the Virtual Platform e-Poster Gallery. Once accessing each separate e-Poster in the platform gallery, delegates will be able to submit questions on the posters, which you can reply via the chat in an asynchronous way. This is the only form of presentation for presenters that have registered for virtual attendance within the authors’ registration deadline. There will be no dedicated time for e-poster presentation during the ISEE 2022 Conference, nor panels available for a printed version to be mounted by a colleague attending onsite.
OPENING CEREMONY & WELCOME RECEPTION

WHEN: Sunday, 18 September 2022 at 19:30-22:00
WHERE: Byzantine & Christian Museum (1 km / 13 min. walking distance from MAICC – Walk in groups starting from the Conference Venue)
WHAT: Opportunity to network with friends in an oasis at the very heart of the city.
WHO: All registered attendees (included in registration fee)
DRESS CODE: Smart casual
DURING THE WELCOME RECEPTION: “Modes & Moods - Music by Mikis Theodorakis” Jazz approach of Mikis Theodorakis’ music, by the Dimitris Kalantzis Quartet

CONFERENCE DINNER

WHEN: Tuesday, 20 September 2022 at 20:00-23:30
WHERE: BLE AZURE Venue
WHAT: Buffet dinner with colleagues in a relaxing atmosphere overlooking the sea.
WHO: Registration fee add on. Tickets can be purchased by delegates at 50 € and by accompanying persons at 100 € until 18 September.
DRESS CODE: Cocktail attire
Following Dinner
DJ party

HOW TO GET THERE: Transportation by shuttle busses will be provided. Pick-up from the Congress venue entrance (MAICC) at 19:00. Return shuttles from the Dinner venue to the Congress venue (MAICC) starting from 23:30 hrs.

HOW TO PURCHASE TICKETS:
Tickets can be purchased at the Registration Desk and will be displayed on the delegate badge.
Important note: Conference Dinner tickets will be available until 18 September.
SPECIAL FEE applicable for accompanying persons attending both events (Welcome Reception & Networking Dinner): 150 €.
ISEE Awards
ISEE 2022 AWARDS

John Goldsmith Award
for Outstanding Contributions to Environmental Epidemiology

Francesco Forastiere,
National Research Council, Palermo, Italy

This award was created to honor the legacy of Dr John Goldsmith (passed away 1999), one of the organizers, early leaders, and constant supporter of the International Society for Environmental Epidemiology. This award is given to investigators for “sustained and outstanding contributions to the knowledge and practice of environmental epidemiology.” Recipients have typically contributed in substantive and innovative fashion to the methods and practice of epidemiology over many years.

Tony McMichael Mid-Term Career Award

Cathryn Tonne,
ISGlobal, Barcelona Institute for Global Health, Barcelona, Spain

This award was created in Dr Tony McMichael’s memory to recognize mid-career scientists. Tony, who passed away in 2014, was a world renowned epidemiologist known not only for his scientific work, but also for his compassionate mentoring of junior colleagues. He was President of ISEE from 2008-2009.

Rebecca James Baker Award

Yanelli Núñez,
Mailman School of Public Health, Columbia University, New York, USA

This award was created in memory of Dr. Rebecca Baker, a young investigator with a commitment to environmental epidemiology as a tool for improving public health and quality of life. She worked on many international studies with people from different cultures and backgrounds, and was an active member in the Society. She passed away in 2004. The award is given to new investigators who embody her approach to epidemiological research.
Best Environmental Epidemiology Paper Award

Josh Alampi,
Simon Fraser University, Burnaby, Canada

"Association Between Gestational Exposure to Toxicants and Autistic Behaviors Using Bayesian Quantile Regression"

American Journal of Epidemiology

This ISEE annual award for the 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.

ISEE 2022 NEW RESEARCHERS ABSTRACT AWARDS

**Best Environmental Epidemiology Paper Award**

Abstracts will be judged before the meeting, and awards handed out during the closing ceremony.
ISEE FELLOWS 2022 RECIPIENTS

Gwen Collman, NIEHS, United States

Nelson Gouveia, University of Sao Paulo, Brazil

Shu-Li Julie Wang, National Health Research Institutes, Taiwan

Ying Zhang, University of Sydney, Australia

LMIC BEST ABSTRACT AWARD

Aqiel Dalvie
“The association between urinary concentrations of organophosphate metabolites and asthma-related outcomes at 12-month follow-up among children from informal settlements in Western Cape, South Africa”,
Africa Chapter

Mohammad Miri
“Determinants of carbon load in airway macrophages in pregnant women”,
Eastern Mediterranean Chapter

Siddhartha Mandal
“Assessing daily PM2.5 at every square kilometer of India over 2008-2020 using a machine learning framework”,
Asia & Western Pacific Chapter

Laura Andrea Rodriguez-Villamizar
“Long-term exposure to PM2.5 and avoidable mortality in Colombia 2014-2019”,
Latin America and Caribbean Chapter
Scientific Program
# PROGRAM OVERVIEW

## SUNDAY 18 SEPTEMBER 2022

<table>
<thead>
<tr>
<th>TIME</th>
<th>MC3 HALL (180 seats) -1 Level</th>
<th>MC2 HALL (150 seats) -1 Level</th>
<th>MC3.2 HALL (55 seats) -1 Level</th>
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<td>ISEE NEW MEMBERS NETWORKING EVENT (at the Welcome Reception venue - THE BYZANTINE MUSEUM)</td>
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<td>OPENING CEREMONY (at the Welcome Reception venue - THE BYZANTINE MUSEUM)</td>
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<td>20:00-22:00</td>
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<td>EXPANSE WP3 Meeting</td>
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<td>09:30-09:45</td>
<td>WORKSHOP 02 [HALF DAY] Practical guidance and tools to recover and restore environments impacted by chemical incidents</td>
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<td>09:45-10:00</td>
<td>WORKSHOP 03 [HALF DAY] Advanced two-stage methods in environmental epidemiology – study designs, statistical models, and software</td>
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<td>10:00-10:15</td>
<td>WORKSHOP 04 - part I [FULL DAY] How to Conduct Systematic Reviews and Meta-Analyses to Improve Environmental Health Policy and Decision-Making</td>
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<td>10:15-10:30</td>
<td>WORKSHOP 01 [HALF DAY] The Role of Implementation Science in Global Environmental Public Health</td>
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<td>10:30-10:45</td>
<td>ISEE BOARD MEETING</td>
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<td>OPENING CEREMONY (at the Welcome Reception venue - THE BYZANTINE MUSEUM)</td>
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<td>WELCOME RECEPTION at the BYZANTINE MUSEUM</td>
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# PROGRAM OVERVIEW

## MONDAY 19 SEPTEMBER 2022

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<td>KEYNOTE PANEL 1</td>
<td>Climate Change and Health</td>
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<td>09:30-09:45</td>
<td>CHAIR: K. Ebi (US)</td>
<td>SPEAKER: J. Hess (US)</td>
<td>PANELISTS: I. Hamilton (UK), K. Aunan (NO)</td>
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- **KEYNOTE LECTURE 1**
  - Airborne microplastics: are they the new enemy?
  - SPEAKER: F. Kelly (UK)

- **KEYNOTE PANEL 1**
  - Climate Change and Health
  - CHAIR: K. Ebi (US)
  - SPEAKER: J. Hess (US)
  - PANELISTS: I. Hamilton (UK), K. Aunan (NO)

- **SYMPOSIUM 01**
  - Climate disasters, human health, and public health responses

- **SYMPOSIUM 02**
  - Multimodal environmental influences on children and adolescent’s brain, cognitive, and mental health outcomes

- **SYMPOSIUM 03**
  - Strengthening the global role of environmental epidemiology in the issue of water, sanitation and public health in Latin American and Caribbean countries

- **SYMPOSIUM 04**
  - PFAS hotspots and highly exposed communities: addressing community needs and advancing global collaborative exposure assessment and epidemiological research

- **SYMPOSIUM 05**
  - Undermeasured and undervalued: examining social-structural factors in women’s and children’s global environmental health

- **SYMPOSIUM 06**
  - The Multi-Country Multi-City (MCC) Collaborative Research Network: an international collaboration for global studies on environmental risks, climate change, and health

- **SYMPOSIUM 07**
  - Disparities in US drinking water quality and access

- **SYMPOSIUM 08**
  - Magnetic Resonance Imaging (MRI); a cross-cutting tool at the intersection of environmental epidemiology and developmental neuroscience

- **COFFEE BREAK**

- **ORAL PRESENTATIONS**
  - **SESSION 09**: Climate change: Health Impact Assessment and intervention policies
  - **SESSION 10**: Air pollution and neurobehavioural outcomes
  - **SESSION 11**: Environmental exposures and emerging outcomes

- **PECHA KUCHA SESSION 01**
  - Air pollution (from ambient and indoor sources) and health

- **SYMPOSIUM 09**
  - Infections and the environment

- **SYMPOSIUM 10**
  - Long-term exposure to air pollution and health outcomes

- **SYMPOSIUM 11**
  - Child health and exposure to PFAs

- **SYMPOSIUM 12**
  - Reproductive outcomes and various environmental exposures (2)

- **ISEE GENERAL MEMBERSHIP MEETING**

- **SNRN social event (picnic @ Parko Eleftherias - next to Conference venue)**
<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>09:00-09:15</td>
<td>ISEE EASTERN MEDITERRANEAN CHAPTER MEETING</td>
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<td>10:00-10:15</td>
<td>ORAL PRESENTATIONS SESSION 01: Air pollution, diabetes and cardometabolic outcomes</td>
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<td>PECHA KUCHA SESSION 02: Exposure assessment</td>
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<td>11:00-11:15</td>
<td>ORAL PRESENTATIONS SESSION 05: Challenges in health studies of chemicals: from methods to policy</td>
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<td>11:30-11:45</td>
<td>ORAL PRESENTATIONS SESSION 09: Reproductive outcomes and various environmental exposures (1)</td>
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<tr>
<td>11:45-12:00</td>
<td>ISEE ASIA &amp; WESTERN PACIFIC CHAPTER MEETING</td>
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<td>12:30-12:45</td>
<td>ORAL PRESENTATIONS SESSION 13: Occupational exposures, mental health and other outcomes</td>
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<td>13:00-13:15</td>
<td>ORAL PRESENTATIONS SESSION 18: Advances in statistical methods</td>
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<td>13:15-13:30</td>
<td>ORAL PRESENTATIONS SESSION 19: Environmental equity: environmental inequalities and health implications (1)</td>
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<td>13:30-13:45</td>
<td>ORAL PRESENTATIONS SESSION 20: Exposure assessment, measurement error, uncertainty and correction methods</td>
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<td>13:45-14:00</td>
<td>ORAL PRESENTATIONS SESSION 21: Air pollution and cancer</td>
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<td>PECHA KUCHA SESSION 12: Health impact and risk assessment</td>
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<td>ORAL PRESENTATIONS SESSION 22: Reproduction outcomes</td>
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<td>ISEE ETHICS &amp; PHILOSOPHY COMMITTEE MEETING</td>
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<td>ORAL PRESENTATIONS SESSION 23: Reproductive outcomes</td>
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<td>ORAL PRESENTATIONS SESSION 36: Reproduction outcomes</td>
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**MONDAY 19 SEPTEMBER 2022**
## PROGRAM OVERVIEW

**TUESDAY 20 SEPTEMBER 2022**

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<thead>
<tr>
<th>TIME</th>
<th>TRIANTI HALL Plenary Hall (1480 seats) 0 Level</th>
<th>SKALKOTAS HALL Parallel Hall 1 (380 seats) -1 Level</th>
<th>MULTIPURPOSE HALL Parallel Hall 2 (200 seats) 0 Level</th>
<th>MC3 HALL Parallel Hall 3 (180 seats) -1 Level</th>
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<td><strong>GOLDSMITH AWARD</strong>&lt;br&gt;CEREMONY &amp; LECTURE</td>
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<td><strong>KEYNOTE LECTURE 2</strong>&lt;br&gt;Assessing environmental factors in COVID-19 outbreaks: a One Health perspective&lt;br&gt;SPEAKER: L. Smit (NL)</td>
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<td><strong>KEYNOTE LECTURE 3</strong>&lt;br&gt;Promoting healthy and sustainable urban environments across global contexts&lt;br&gt;SPEAKER: C. Tonne (ES)</td>
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<td><strong>KEYNOTE PANEL 2</strong>&lt;br&gt;EU policy plans on air pollution&lt;br&gt;CHAIR: F. Forastiere (UK)&lt;br&gt;SPEAKER: T. Henrichs (BE)&lt;br&gt;DICUSSANTS: B. Hoffmann (DE), S. Perroud (BE)</td>
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<td>SYMPOSIUM 10&lt;br&gt;A new era in global climate change and human health research funding and action</td>
<td>SYMPOSIUM 11&lt;br&gt;Impact of exposure measurement error (ME) on the health effect estimates: quantification and correction</td>
<td>SYMPOSIUM 12&lt;br&gt;The project EXHAUSTION - Heat and air pollution effects on cardiopulmonary mortality and morbidity: geographical variability and vulnerable groups in Europe</td>
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<td>SYMPOSIUM 13&lt;br&gt;Advancing air pollution epidemiology in India: building capacity locally to address questions of context, policy relevance and methodological robustness</td>
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<td><strong>SYMPOSIUM 15</strong>&lt;br&gt;Location, Location, Location! The importance of geospatial exposure constructs to assess pesticide exposures and related adverse health outcomes in agricultural settings</td>
<td><strong>SYMPOSIUM 16</strong>&lt;br&gt;Toxicity of air pollutant mixtures: overcoming the toxic mixture of spatial misalignment, collinearity, and measurement error</td>
<td><strong>SYMPOSIUM 17</strong>&lt;br&gt;Two-way road: how has the environment affected the Covid-19 pandemic and how the pandemic response affected the environment in the Latin America and Caribbean Region</td>
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### TUESDAY 20 SEPTEMBER 2022

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<tr>
<th>MC2 HALL (150 seats) -1 level</th>
<th>MC3.2 HALL (55 seats) -1 Level</th>
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<th>MC3.4 HALL (55 seats) -1 Level</th>
<th>BREAKOUT ROOM (20 seats) 0 Level</th>
<th>POSTER DISCUSSION AREA - Exhibition &amp; Poster Area, 0 Level</th>
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<tr>
<td><strong>EARLY MORNING SESSION 04</strong></td>
<td><strong>SNRN - Transitioning from PhD to Postdoc</strong></td>
<td><strong>EARLY MORNING SESSION 05</strong></td>
<td><strong>A panel discussion of challenges of air pollution and COVID-19 research in the Eastern Mediterranean Region</strong></td>
<td><strong>EARLY MORNING SESSION 06</strong></td>
<td><strong>The participation of family groups and young people for the strengthening and application of environmental epidemiology. Report of Brazilian families</strong></td>
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<tr>
<td><strong>SYMPOSIUM 14</strong></td>
<td><strong>Perfluoroalkyl and polyfluorooalkyl substances (PFAS) in Indigenous communities: a case of environmental injustice</strong></td>
<td><strong>ORAL PRESENTATIONS SESSION 22</strong></td>
<td><strong>Health effects of short-term air pollution exposure</strong></td>
<td><strong>ORAL PRESENTATIONS SESSION 23</strong></td>
<td><strong>Child health and exposure to pesticides and other chemicals</strong></td>
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<td><strong>ISEE CAPACITY BUILDING &amp; EDUCATION COMMITTEE MEETING</strong></td>
<td><strong>ISEE COMMUNICATIONS COMMITTEE MEETING</strong></td>
<td><strong>ENVIRONMENTAL EPIDEMIOLOGY EDITORIAL BOARD MEETING</strong></td>
<td><strong>ISEE POLICY COMMITTEE MEETING</strong></td>
<td><strong>ISEE ETHICS &amp; PHILOSOPHY COMMITTEE MEETING - PART II</strong></td>
<td><strong>LUNCH BREAK</strong></td>
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<td><strong>SYMPOSIUM 19</strong></td>
<td><strong>Scientist connections with Environmental Justice Communities</strong></td>
<td><strong>ORAL PRESENTATIONS SESSION 25</strong></td>
<td><strong>Environment and cardiovascular disease</strong></td>
<td><strong>ORAL PRESENTATIONS SESSION 26</strong></td>
<td><strong>Environmental equity: environmental inequalities and health implications (2) (with Ethics Discussion)</strong></td>
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<td><strong>COFFEE BREAK</strong></td>
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<td><strong>ORAL PRESENTATIONS SESSION 31</strong></td>
<td><strong>Air pollution, cognitive function and dementia-related health outcomes</strong></td>
<td><strong>ORAL PRESENTATIONS SESSION 32</strong></td>
<td><strong>Health consequences of meteorological events and precipitation (with Ethics Discussion)</strong></td>
<td><strong>ORAL PRESENTATIONS SESSION 33</strong></td>
<td><strong>Air pollution and emerging health outcomes</strong></td>
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<td><strong>ORAL PRESENTATIONS SESSION 34</strong></td>
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<td><strong>POSTER DISCUSSION SESSION 05</strong></td>
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<td><strong>COFFEE BREAK</strong></td>
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<td><strong>POSTER DISCUSSION SESSION 06</strong></td>
<td>**Chemical Exposures</td>
<td>Occupational Exposures and Health</td>
<td>Water Quality**</td>
<td><strong>CONFERENCE DINNER (20:00 - 23:30) - First bus leaving at 23:30 - Last bus leaving at 00:30</strong></td>
<td><strong>Transfer to Conference Dinner Venue (by bus - last leaving at 19:20)</strong></td>
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*ISee 2022 ● 31*
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<tr>
<th>TIME</th>
<th>TRIANTI HALL Plenary Hall (1480 seats) 0 Level</th>
<th>SKALKOTAS HALL Parallel Hall 1 (380 seats) -1 Level</th>
<th>MULTIPURPOSE HALL Parallel Hall 2 (200 seats) 0 Level</th>
<th>MC3 HALL Parallel Hall 3 (180 seats) -1 Level</th>
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<tbody>
<tr>
<td>07:30-07:45</td>
<td>Early Morning Session 07</td>
<td>Actionable insights from Environmental Health Practice: bridging the gap between research to practice</td>
<td>Early Morning Session 08</td>
<td>Early Morning Session 09</td>
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<td>07:45-08:00</td>
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<td>Bridging Implementation Science and Health Equity to Mitigate Climate Change Impacts</td>
<td>Air Pollution and Health: The Case of Central and Southeast Europe</td>
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<td>08:30-08:45</td>
<td>Awards Ceremony</td>
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<td>09:00-09:15</td>
<td>Keynote Lecture 4</td>
<td>Reproducible science for knowledge and decision-making</td>
<td>SPEAKER: J.P.A. Ioannidis (US)</td>
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<td>09:30-09:45</td>
<td>Keynote Lecture 5</td>
<td>Reinforcing democratic structures to protect the environment and health: when science meets democratic structures, re-writing the Chilean constitution</td>
<td>SPEAKER: M.E. Quinteros Cáceres (CL)</td>
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<td>10:00-10:15</td>
<td>Keynote Panel 3</td>
<td>ARTF Keynote: Race and Racism from a Global Perspective</td>
<td>SPEAKERS: M.G. Tesfau (IT) J. Beaman (US)</td>
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<td>12:15-12:30</td>
<td>SYMPOSIUM 20</td>
<td>Epidemiological studies for preparedness and response to public health and environmental crises and disasters</td>
<td>SYMPOSIUM 21</td>
<td>SYMPOSIUM 22</td>
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<td>12:30-12:45</td>
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<td>Is access to environmental public health monitoring and surveillance an equity and justice issue in low- and middle-income countries?</td>
<td>Climate change, heat and maternal health: estimating current and future burdens</td>
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<td>ORAL PRESENTATIONS SESSION 35</td>
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<td>Occupational exposures and respiratory outcomes</td>
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- COFFEE BREAK
- LUNCH BREAK
- WOMEN'S SESSION
- BRAINSTORMING ON EE CRISIS
- SNRN AWARDS & CLOSING CEREMONY
<table>
<thead>
<tr>
<th>MC2 HALL Parallel Hall 4 (150 seats) -1 Level</th>
<th>MC3.2 HALL Parallel Hall 5 (55 seats) -1 Level</th>
<th>MC3.3 HALL Parallel Hall 6 (40 seats) -1 Level</th>
<th>MC3.4 HALL Parallel Hall 7 (55 seats) -1 Level</th>
<th>BREAKOUT ROOM Council Room (20 seats) 0 Level</th>
<th>POSTER DISCUSSION AREA - Exhibition &amp; Poster Area, 0 Level</th>
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<tr>
<td><strong>EARLY MORNING SESSION 10</strong></td>
<td><strong>ORAL PRESENTATIONS SESSION 36</strong> Air pollution: maternal and neonatal health</td>
<td><strong>ORAL PRESENTATIONS SESSION 37</strong> Using metabolomics to understand mechanisms of environmental exposures</td>
<td><strong>ORAL PRESENTATIONS SESSION 38</strong> Greenspace, built environment, and health</td>
<td><strong>ORAL PRESENTATIONS SESSION 39</strong> Reproductive outcomes and exposure to air pollution</td>
<td><strong>POSTER DISCUSSION SESSION 07</strong> Built and Physical Environment exposures</td>
</tr>
<tr>
<td>SNRN - Beyond academia: fulfilling and exciting non-academic careers</td>
<td><strong>US-Eastern Mediterranean Initiative group meeting</strong></td>
<td>Wartenberg Awardee Event</td>
<td><strong>MEET THE PRESIDENT</strong></td>
<td><strong>LUNCH BREAK</strong></td>
<td><strong>LUNCH BREAK</strong></td>
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<td><strong>ORAL PRESENTATIONS SESSION 42</strong> Environment and health in low and medium income countries (2)</td>
<td><strong>ORAL PRESENTATIONS SESSION 43</strong> Modelling techniques for exposure assessment</td>
<td><strong>ORAL PRESENTATIONS SESSION 44</strong> Risk communication and participatory epidemiology (with Ethics discussion)</td>
<td><strong>ORAL PRESENTATIONS SESSION 45</strong> Maternal exposures and neurobehavioural outcomes</td>
<td><strong>POSTER DISCUSSION SESSION 08</strong> Environment and health in low and medium income areas</td>
<td>**ENVIRONMENTAL EQUITY</td>
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<tr>
<td><strong>PECHA KUCHA SESSION 04</strong> Climate change and health</td>
<td><strong>ORAL PRESENTATIONS SESSION 49</strong> Impacts of exposure to chemicals on maternal and child health</td>
<td><strong>ORAL PRESENTATIONS SESSION 50</strong> Child health and metals exposure</td>
<td><strong>ORAL PRESENTATIONS SESSION 51</strong> Air pollution, ultrafine particles, radon and various health outcomes</td>
<td><strong>POSTER DISCUSSION SESSION 09</strong> Exposome</td>
<td>Health Impact Assessment, Risk communication and Participatory Epidemiology</td>
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### Hall MC3

#### 10:30-13:30  PCW 07: Strategies for enhancing peer review as a reviewer and author

**Presenters:** Sabah Quraishi (USA), Joel Kaufman (USA)  
**Duration:** 3 hours (half-day)  
**Format:** In-person only (virtual attendance not applicable)  
**Attendance limit:** Up to 50 delegates

Peer review is a critical quality control mechanism in the advancement of science. However, few researchers receive any formal training on how to effectively review and critique a scientific manuscript. We intend to provide workshop participants with knowledge, skills, and strategies to maximize the quality and utility of their reviews. Learning about the review process and how to provide better reviews can also help authors improve their own manuscripts.

We will familiarize participants with the overall peer review process: the purpose, potential biases, and ethical dilemmas of peer review, conducting and writing the review itself, and responding to reviews as an author. Participants will learn key elements of a reviewer report and what to include in private comments to the editor. Techniques to convey comments politely and constructively and the journal decisions and appeals process will be discussed. The session will feature interactive examples of responses to reviewer reports and case studies. Participants will be encouraged to share their own experiences and perspectives. All members of ISEE may benefit from this session, however, we anticipate the greatest interest from early-career researchers and members from low- and middle-income countries. After the session, participants will have a clearer understanding of the peer review process, how to write useful reviews, and how to successfully respond to reviewer comments on their own work.

### Hall MC2

#### 10:30-13:30  PCW 02: Practical guidance and tools to recover and restore environments impacted by chemical incidents

**Presenter:** Antonio Peña-Fernández (UK)  
**Duration:** 3 hours (half-day)  
**Format:** Hybrid  
**Attendance limit:** Up to 50 delegates

The release of chemical substances into the environment, either deliberately or involuntarily, can affect multiple countries simultaneously, with serious implications for human health and the environment. Although rare, recent attacks with the highly toxic Novichok nerve agent in Salisbury (UK), have put the spotlight on the importance of having appropriate capacity, capabilities and trained personnel, to quickly respond to these events to protect humans and the environment. Thus, technical guidance and resources should be available as part of the preparedness and planning that all governments should establish, so first responders (central government departments; emergency response personnel; local authorities) can tailor robust recovery strategies to minimise the number of people exposed and remediate the environment to avoid future exposures to the hazards released.

The aim of this workshop is to introduce participants to the practical, evidence-based guidance and innovative six-step decision framework for tailoring an effective protection and recovery strategy following a chemical incident developed by Public Health England (PHE) in collaboration with other UK Government Departments and Agencies and local authorities. The session will involve a mix of mini-lectures and case based scenarios on the practical guidance and tools developed, which are freely downloadable in the PHE website: https://www.gov.uk/government/collections/recovery-remediation-and-environmental-decontamination

The workshop will cover:
- Relevance of chemical incidents.  
- Introduction to the PHE guidance (UK Recovery Handbook for Chemical Incidents) and tool (Chemical Recovery Record Form).  
- Factors influencing recovery and restoration following a chemical incident.  
- Intervention: two real-world/developed scenarios involving emerging chemical pollutants will be provided. Using the available PHE recovery tools, individuals or small groups will tailor a recovery intervention to get the impacted environment (food production systems, inhabited areas and open water systems) back to normal.  
- Communication: participants will communicate their interventions using the Chemical Recovery Record form. Attendees are invited to bring their own laptops/tablets.
Hall MC3.3

10:30-13:30  PCW 03: Advanced two-stage methods in environmental epidemiology – Study designs, statistical models, and software

Presenters: Francesco Sera (Italy), Ana Maria Vicedo-Cabrera (Switzerland), Antonio Gasparrini (UK)
Duration: 3 hours (half-day)
Format: In-person only (virtual attendance not applicable)
Attendance limit: Up to 25 delegates

Two-stage designs have become standard tools in environmental epidemiology, where data from multiple locations are analyzed separately and then pooled using meta-analytical methods. Typical applications are represented by multi-city time series studies or pooled cohort or case-control studies. The basic meta-analytical designs assume the simple case in which single and independent risk effect estimates are collected from different locations. However, this prevents more complex applications that are becoming common in modern epidemiological analyses, for instance when estimates refer to multiple risk effects, when they are clustered within regions, when they are collected at multiple times or for different levels of exposures or modifiers, or when they are spatially correlated.

This workshop will illustrate a unified framework and software for meta-analysis that flexibly extends the two-stage design. This is based on a general mixed-effects model that allows multivariate, hierarchical, longitudinal, and spatial meta-analysis and meta-regression, thus covering the special cases mentioned above. The methodology will be illustrated using a mix of lectures and practical case studies, using data from multi-location studies on the health effects of environmental factors. These will cover examples of meta-analyses of multiple outcomes, estimates of cities nested within regions, measures collected at multiple times or exposure/modifiers levels, or spatially correlated. The analyses will be performed using the new R package mixmeta, with data and R code made available for future study.

The definition of a unified framework for meta-analysis, along with a freely-available software, will provide researchers with a flexible tool for addressing non-standard pooling problems in two-stage designs applied to environmental studies.

Hall MC3.4

10:30-17:30  PCW 04: How to Conduct Systematic Reviews and Meta-Analyses to Improve Environmental Health Policy and Decision-Making

Presenters: Nicholas Chartres (USA), Tracey Woodruff (USA), Juleen Lam (USA), Barbara Hudson-Hanley (USA)
Duration: 6 hours (full-day) – Intermission at 13:30-14:30
Format: Hybrid
Attendance limit: Up to 55 in-person / Unlimited virtual

BACKGROUND: Over the past 25 years, decision-making in the clinical arena has relied on systematic reviews (SR) as a source of trusted, evidence-based advice for patients and to inform billions of dollars of healthcare spending. To bridge between SR in environmental health (EH) and the clinical sciences, authoritative bodies, U.S. agencies, and academic scientists developed and implemented validated, peer-reviewed SR methods including the UCSF PRHE Navigation Guide and the U.S. National Toxicology Program’s OHAT.

SIGNIFICANCE: Systematic reviews have been adapted from clinical medicine, where data is largely from randomized, controlled trials. Environmental health SRs often rely on data from human epidemiological studies to inform the relationship between exposures and adverse health outcomes. While there has been an increase in SR use in EH over the last decade, there is divergent approaches to key elements of the SR process, including assessing risk of bias (ROB) and evaluation of the quality of the body of evidence.

It is, therefore, critical that the SR methods implemented in EH adhere to best practices and do not inappropriately exclude or downgrade environmental epidemiological studies, while using methods such as meta-analyses that can help increase the statistical power and strengthen the findings from these studies by producing quantitative estimates of risk.

RELATIONSHIP BETWEEN PRESENTATIONS: The first presentation will discuss the evolution of SR in EH and how they have evolved from the clinical sciences. Next, participants will learn the key steps to conducting best practice SRs, including problem identification, protocol development, study search strategy, risk of bias assessment and evidence synthesis. The final two presentations will be practical training sessions. Firstly, participants will learn how to conduct ROB assessments, including a discussion on the important biases to consider in environmental epidemiological studies. Secondly, they will learn to synthesize epidemiological studies, including the use of meta-analysis when appropriate, into a bottom-line and actionable summary of the evidence.
Implementation science (IS), defined as the study of methods to promote the adoption and integration of evidence-based interventions (e.g., programs, practices, and policies) into routine health care, community, and public health settings, closes the research to practice gap and can lead to actionable change across individual, community, organizational and societal levels. IS holds potential to improve global environmental public health through the adaptation, uptake, sustainment and spread of environmental health interventions that prevent or mitigate harmful exposures and support environmental health equity. Recognizing the need to build capacity in IS in environmental health, the National Institute of Environmental Health Sciences hosted the Advancing Environmental Health Equity through Implementation Science virtual workshop in February 2022 that drew a global audience. Workshop survey results highlight the need for more training in IS and its application to environmental health issues. To help address this need, this half-day workshop will provide a more in-depth overview of IS through a series of eight interconnected modules: (1) defining IS and how it can be applied to environmental health issues in the United States (e.g., greening interventions) and globally (e.g., clean cookstove uptake and scale-up in low- and middle-income countries); (2) common IS theories and frameworks; (3) IS study designs and methods; (4) implementation strategies; (5) implementation outcomes; (6) policy IS; (7) tips for writing IS grant applications and (8) an overview of current IS funding opportunities from the National Institutes of Health. Participants are encouraged to bring example(s) of their current or planned research to this workshop where they will have the opportunity to engage with the facilitators to identify potential IS research questions. After attending this workshop, participants will be able to (1) describe IS and how it differs from effectiveness research and (2) identify possible IS questions in their own work.
The workshop will be organized around brief presentations by environmental epidemiologists from LMICs, as well as the NIH, the Wellcome Trust, the WHO, and the WMO. These presentations will lay the groundwork for structured discussions with all participants on key areas of interest, outlined below:

1) **Community engagement approaches at national and local levels**
   Identify those approaches you have found most effective to solicit the consensus values and concerns of local communities, national policy makers and other stakeholders, as well as the greatest engagement in research and follow-up translation to action? In which settings are these approaches likely to be generalizable? How different are these from one community, nation, and region to another?

2) **Using climate and weather forecasts to model health outcomes at useable temporal and spatial scales**
   Where and when are existing climate and weather forecasts sufficient to support health vulnerability and adaptation planning in the context of constrained public resources in LMICs? What should be done to optimize climate/weather forecasts, and health outcomes modeling to guide investments in infrastructure, health and ecosystem services that promote and protect health?

3) **Combining observational, experimental and implementation research in adaptation science.**
   Given urgency, uncertainty and changing climate and development conditions over time, how can we best accelerate traditional linear steps in the scientific process, and allow for a continuing need to adapt our findings? What are acceptable and appropriate standards of evidence for translation to interventions, programs and policies in this context?

4) **Partnerships that enhance data access, analyses and interpretation**
   Relevant data for climate and health research and health services is growing at an unprecedented rate, but is diverse, fragmented, incomplete, and frequently available at the wrong temporal and/or spatial scale for community and other subnational climate and health decision making.
   How can the academic and government research communities best support the formation of broadly useful and FAIR* data for climate health services. (*Findable, Accessible, Interoperable and Reuseable)

**WORKSHOP PLAN:** Presentations followed by breakouts. Each breakout group will address one (assigned) of the questions above.

Number of breakouts to be determined by number of participants. Each breakout group will be either all virtual or all in person; ideally contain 4-7 people each.

**Note:** Need moderators, scribes and reporters

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<th>Time</th>
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<td>Introduction and learning objectives</td>
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<td><strong>Global Research Perspectives</strong></td>
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<td>Public Health Foundation of India</td>
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<td>University of Cape Coast - Ghana</td>
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<td>15:05</td>
<td>Discussion – Q and A</td>
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<td><strong>Funding Agency Strategies for CCH</strong></td>
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<td>14:10</td>
<td>NIH – Strategic Framework for Climate Change and Health</td>
<td>Aubrey</td>
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<tr>
<td>15:20</td>
<td>Wellcome Trust – Climate and Health Strategy</td>
<td>Madeline/Irini</td>
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<td>15:30</td>
<td>Discussion – Q and A</td>
<td>All</td>
</tr>
<tr>
<td>15:35</td>
<td>Break out 1: Research</td>
<td>Groups – virtual and in person</td>
</tr>
<tr>
<td>15:55</td>
<td>Report out 1: Research priorities and lessons</td>
<td>Rapporteurs</td>
</tr>
<tr>
<td>16:10</td>
<td>Coffee Break</td>
<td>All</td>
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<tr>
<td></td>
<td><strong>Multi-lateral Resources and Tools to support research and planning</strong></td>
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<td>16:20</td>
<td>WHO – Resources to support planning and research</td>
<td>Diarmid</td>
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<tr>
<td>16:30</td>
<td>WMO – Resources to support planning and research</td>
<td>Joy</td>
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<tr>
<td>16:40</td>
<td>Discussion – Q and A</td>
<td>All</td>
</tr>
<tr>
<td>16:45</td>
<td>Break out 2: Capacity building Lessons</td>
<td>Groups – virtual and in person</td>
</tr>
<tr>
<td>17:05</td>
<td>Report out 2: Capacity building Lessons</td>
<td>Rapporteurs</td>
</tr>
<tr>
<td>17:20</td>
<td>Final comments: initial synthesis</td>
<td>Gwen</td>
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<tr>
<td>17:30</td>
<td>End of workshop</td>
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</tbody>
</table>
Hall MC2

14:30-17:30  PCW 06: Causal Mediation analysis and its application in environmental epidemiology

Presenters: Chen Chen (USA), Tarik Benmarhnia (USA)
Duration: 3 hours (half-day)
Format: Hybrid
Attendance limit: Maximum 40 delegates

Identification of modifiable risk factors of adverse health outcomes and underlying mechanisms to support informed decisions to protect public health has been a major target in environmental epidemiology. In the recent decade, we have witnessed an increasing interest in using mediation analysis to study the pathways and mechanisms behind the associations between environmental determinants and various disease outcomes. The study of mediation could improve our understanding of the disease etiology or drivers of social inequalities in health (e.g., environmental injustice), and help identifying possible intervention points. Knowledge of mediation is also central for the assessment of public health interventions since they help to better predict the circumstances under which interventions will work.

Traditional approaches to mediation analysis are based on adjusting for the mediator in standard regression models, which has been proven to be biased under circumstances common in environmental epidemiology studies, such as the presence of mediator-outcome confounding, exposure-mediator interaction, multiple mediators, and intermediate confounding. Recent epidemiological literature proposed different approaches to deal with such methodological challenges under the potential outcomes’ framework, while their application in environmental epidemiology is still limited.

The goal of this workshop is to highlight key methodological challenges that arise when assessing mediation and to provide an overview of different modern methods that can be used to deal with these challenges. Specifically, we will provide a theoretical overview of the mediation analysis methods and related identification assumptions, discuss potential methodological challenges with traditional methods, and introduce alternative modern analytical methods (e.g., inverse probability weighting, inverse odds ratio weighting) that can deal with such challenges. We will also discuss settings with multiple mediators and exposure-mediator interactions. In the second part of this workshop, we will cover multiple analytical methods using R programming language with examples from environmental epidemiology to facilitate translation to real-world data analysis.

Hall MC3

10:30-13:30  PCW 07: Strategies for enhancing peer review as a reviewer and author

Presenters: Sabah Quraishi (USA), Joel Kaufman (USA)
Duration: 3 hours (half-day)
Format: In-person only (virtual attendance not applicable)
Attendance limit: Up to 50 delegates

Peer review is a critical quality control mechanism in the advancement of science. However, few researchers receive any formal training on how to effectively review and critique a scientific manuscript. We intend to provide workshop participants with knowledge, skills, and strategies to maximize the quality and utility of their reviews. Learning about the review process and how to provide better reviews can also help authors improve their own manuscripts.

We will familiarize participants with the overall peer review process: the purpose, potential biases, and ethical dilemmas of peer review, conducting and writing the review itself, and responding to reviews as an author. Participants will learn key elements of a reviewer report and what to include in private comments to the editor. Techniques to convey comments politely and constructively and the journal decisions and appeals process will be discussed. The session will feature interactive examples of responses to reviewer reports and case studies. Participants will be encouraged to share their own experiences and perspectives.

All members of ISEE may benefit from this session, however, we anticipate the greatest interest from early-career researchers and members from low- and middle-income countries. After the session, participants will have a clearer understanding of the peer review process, how to write useful reviews, and how to successfully respond to reviewer comments on their own work.
Environmental research has been transformed by new data technologies, such as electronic health records linkage, wearables and remote sensing. These tools provide the opportunity to perform large population-based studies, with the longitudinal collection of small-area or individual-level outcomes and exposure profiles finely reconstructed over space and time. However, these studies require innovative analytical methods.

This workshop will illustrate a new study design, called case time series, for investigating transient health risks associated with time-varying exposures. This design combines modelling features typical of aggregated time series with design aspects of self-matched methods such as the case-crossover. The modelling framework is highly adaptable to various outcome and exposure definitions, and it is based on efficient estimation and computational methods that make it suitable for the analysis of highly-informative longitudinal data resources.

The methodology will be illustrated with real-data examples of applications in small-area and individual-level analyses of environmental risks. A first case study will present an analysis of mortality risks associated with non-optimal temperature, using data from multiple small-area administrative units and high-resolution modelled exposure measurements. A second case study will show an individual-level analysis that assessed the association between multiple environmental exposures and allergic symptoms, using real-time measurements from a smartphone study.

The case time series design represents a general and flexible tool that is particularly suited for exploiting novel data technologies and resources in epidemiological analyses. This workshop will provide the attendants with a thorough overview of the design’s framework of the case time series methodology, and with practical examples of its application in various contexts. The material will include data and R code to replicate the illustrative analyses.
## DAY 1
### Sunday, 18 September 2022

| Hall MC3 | 10:30-13:30 | PCW 07: Strategies for enhancing peer review as a reviewer and author  
Presenters: Sabah Quraishi (USA), Joel Kaufman (USA)  
See details on page 34 |
|----------|-------------|---------------------------------------------------------------------|
| Hall MC2 | 10:30-13:30 | PCW 02: Practical guidance and tools to recover and restore environments impacted by chemical incidents  
Presenter: Antonio Peña-Fernández (UK)  
See details on page 34 |
| Hall MC3.3 | 10:30-13:30 | PCW 03: Advanced two-stage methods in environmental epidemiology – Study designs, statistical models, and software  
Presenters: Francesco Sera (Italy), Ana Maria Vicedo-Cabrera (Switzerland), Antonio Gasparrini (UK)  
See details on page 35 |
| Hall MC3.4 | 10:30-17:30 | PCW 04: How to Conduct Systematic Reviews and Meta-Analyses to Improve Environmental Health Policy and Decision-Making  
Presenters: Chartres Nicholas (USA), Tracey Woodruff (USA), Paul Whaley (UK), Juleen Lam (USA), Barbara Hudson-Hanley (USA)  
See details on page 35 |
| ISEE Council Room | 10:30-15:30 | ISEE BOARD MEETING |
| Hall MC3.3 | 14:00-17:30 | PCW 01: The Role of Implementation Science in Global Environmental Public Health  
Presenter: Lindsey Martin (USA)  
See details on page 36 |
| Hall MC3 | 14:30-17:30 | PCW 05: Climate Change and Health in LMICs: Toward Equitable, Transdisciplinary Research in Environmental Epidemiology  
Moderator: Joshua Rosenthal (USA)  
Presenters: Stella Hartinger (Peru), Poornima Prabhakaran (India), Adeladza Kofi Amegah (Ghana), Aubrey Miller (USA), Irini Pantellidou (UK), Diarmid Campbell-Lendrum (Switzerland), Joy Shumake-Guilmot (Switzerland)  
See details on page 36 |
Day 1
Sunday, 18 September 2022

Hall MC2
14:30-17:30  PCW 06: Causal Mediation analysis and its application in environmental epidemiology
Presenters: Chen Chen (USA), Tarik Benmarhnia (USA)
See details on page 38

Hall MC3.2
14:30-17:30  PCW 08: The case time series design for environmental epidemiology
Presenters: Antonio Gasparrini (UK), Ana Maria Vicedo-Cabrera (Switzerland), Francesco Sera (Italy)
See details on page 39

The Byzantine Museum (outside venue)
18:45-19:30  ISEE NEW MEMBERS NETWORKING EVENT

The Byzantine Museum (outside venue)
19:30-22:00  OPENING CEREMONY & WELCOME COCKTAIL
See details on page 20
Hall Trianti

08:30-09:15 KEYNOTE LECTURE 1: Airborne microplastics: are they the new enemy?
Chair: Klea Katsouyanni (Greece)
Speaker: Frank Kelly (UK)

09:15-10:15 KEYNOTE PANEL 1: Climate change and health
Chair: Kristie Ebi (USA)
Speaker: Jeremy Hess (USA)
Climate and Health Adaptation at Scale: The Evidence We Have, and the Evidence We Need
Panelist: Ian Hamilton (UK)
Putting health in all climate change policies: the health co-benefits of meeting the Paris Agreement
Panelist: Kristin Aunan (Norway)
Heat stress and air pollution - Two sides of the same coin

10:15-10:45 COFFEE BREAK | POSTER VIEWING

Hall Trianti

10:45-12:15 SYMPOSIUM 01: Climate disasters, human health, and public health responses
Chairs: Joan Casey (USA), Irva Hertz-Picciotto (USA)
O-SY-001 Building community and health system resilience to climate disasters in Australia
Sotiris Vardoulakis (Australia)
O-SY-002 California wildfires: mental and physical health, unmet needs, and future directions
Irva Hertz-Picciotto (USA)
O-SY-003 Climate change in the Caribbean: transforming vulnerabilities into resiliency
José Cordero (USA)
O-SY-004 Heatwaves and forest fires and their combined effects in the Greater Athens area
Klea Katsouyanni (Greece)
O-SY-005 Mortality burden of heatwaves in Sydney Australia is exacerbated by the urban heat island and climate change: can tree cover help mitigate the health impacts?
Geoffrey Morgan (Australia)

Hall Skalkotas

10:45-12:15 SYMPOSIUM 02: Multimodal environmental influences on children and adolescent’s brain, cognitive, and mental health outcomes
Chairs: Amy Margolis (USA), Marianthi-Anna Kioumourtzoglou (USA)
O-SY-006 Early-life urban exposome and brain structural connectivity and morphology in preadolescents
Anne-Claire Binter (Spain)
O-SY-007 Approaches to identify the contribution of understudied toxicants in complex metal mixtures
Johnnye Lewis (USA)
O-SY-008 Do complex mixtures of prenatal environmental and social exposures explain variation in risk for behavioral symptoms in adolescence?
Jaime Benavides (USA)
O-SY-009 Prenatal exposure to mixtures of replacement flame retardant chemicals and children’s neuro-behavioral outcomes in a sample of children from socioeconomically disadvantaged communities
Theresa Bastain (USA)
O-SY-010 A life-course approach for examining the impact of multiple air pollutants on adolescent anxiety and depression and the role of DNA methylation
Kelly Brunst (USA)
10:45-12:15 SYMPOSIUM 03: Strengthening the global role of environmental epidemiology in the issue of water, sanitation and public health in Latin American and Caribbean countries
Chairs: Telma Cassia dos Santos Nery (Brazil), Marcio Ribeiro Barbosa (Brazil)
O-SY-011 The role of the University in the formation, discussion and training of researchers in environmental epidemiology. How to strengthen Latin America?
Sandra Cortes (Chile)
O-SY-012 Waterborne arsenic and fluoride exposure in Mexico: risk assessment and epidemiological research on their health effects
Paulina Farias Serra (Mexico)
O-SY-013 Diseases and deaths from pesticides in Brazil
Paulo Junior Paz de Lima (Brazil)
O-SY-014 Surveillance and epidemiological control network in Latin America – The importance of water and sewage monitoring. Overview of pesticides in water for human consumption in Brazil – Information through the website – Good water to drink “Água Boa de Beber”
Telma de Cassia dos Santos Nery (Brazil)
O-SY-015 The role of the World Alternative Water Forum (FAMA) and social mobilization
Edson Aparecido da Silva (Brazil)

10:45-12:15 SYMPOSIUM 04: PFAS hotspots and highly exposed communities: addressing community needs and advancing global collaborative exposure assessment and epidemiological research
Chairs: Tony Fletcher (United Kingdom), Laurel Schaider (USA)
O-SY-016 PFAS exposures in Veneto, Italy: the role of biomonitoring in addressing a serious public health threat
Cristina Canova (Italy)
O-SY-017 Risk assessment in PFAS “hotspot” populations – A challenge
Kristina Jakobsson (Sweden)
O-SY-018 Perspectives in risk communication due to the PFOS pollution case in Korsoer, Denmark
Janne Møller (Denmark)
O-SY-019 PFAS in serum of residents living in the neighborhood of a major PFAS manufacturer plant in Belgium
Ann Colles (Belgium)
O-SY-020 The PFAS hotspot HBM network: development of a HBM PFAS guidance document for emerging PFAS hotspots, based on shared experiences across PFAS hotspots in EU
Katleen De Brouwere (Belgium)

10:45-12:15 ORAL PRESENTATIONS SESSION 01: Air pollution, diabetes and cardiometabolic outcomes
Chairs: Hanna Boogaard (USA), Rachit Sharma (USA)
O-OP-001 Long-term air pollution exposure and diabetes risk in American older adults: a national cohort study
Maayan Yitshak Sade (USA)
O-OP-002 Air pollution exposure and glucose and lipids levels among the World Trade Center Health Program General Responder cohort
Pablo Knobel (USA)
O-OP-003 Longitudinal associations between metabolites and long-term exposure to ambient air pollution: results from the KORA cohort study
Yueli Yao (Germany)
O-OP-004 Exposure to air pollution, road noise and surrounding green space and risk for type 2 diabetes: a multi-exposure study covering Denmark
Mette Sørensen (Denmark)
**DAY 2**  
Monday, 19 September 2022

<table>
<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Speaker</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-OP-005</td>
<td>Air pollution, metabolomic response, and bone mineral density among Women's Health Initiative participants</td>
<td>Diddier Prada (USA)</td>
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<tr>
<td>O-OP-006</td>
<td>Exposure to household and outdoor air pollution and fasting plasma glucose as a marker of diabetes risk in Chinese adults</td>
<td>Rita Biel (Canada)</td>
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</tr>
<tr>
<td>Hall MC3.2</td>
<td>ORAL PRESENTATIONS SESSION 02: Reproductive outcomes and various environmental exposures (1)</td>
<td>Chairs: Jordi Sunyer (Spain), Jie Chen (USA)</td>
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<tr>
<td>O-OP-007</td>
<td>Heavy metals and diminished ovarian reserve: single-exposure and mixture analyses amongst women consulting in French fertility centers</td>
<td>Maximilien Génard-Walton (France)</td>
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<tr>
<td>O-OP-008</td>
<td>Association of solar and geomagnetic activity with fetal growth</td>
<td>Veronica Wang (USA)</td>
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<tr>
<td>O-OP-009</td>
<td>A prospective study of cadmium concentrations and uterine fibroid incidence</td>
<td>Kristen Upson (USA)</td>
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<tr>
<td>O-OP-010</td>
<td>Associations between phenols and phthalates and placental weight in a mother-child cohort with improved exposure assessment</td>
<td>Nicolas Jovanovic (France)</td>
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<tr>
<td>O-OP-011</td>
<td>Exposure to perfluoroalkyl substances at preconception in association with fertility outcomes in women from Singapore</td>
<td>Nathan Cohen (USA)</td>
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<tr>
<td>O-OP-012</td>
<td>Water fluoridation and birth outcomes in California</td>
<td>Dana Goin (USA)</td>
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<tr>
<td>Hall MC3.3</td>
<td>ORAL PRESENTATIONS SESSION 03: Noise exposure and health</td>
<td>Chairs: Kees de Hoogh (Switzerland), Maria Foraster (Spain)</td>
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</tr>
<tr>
<td>O-OP-013</td>
<td>Associations between aircraft noise exposure and adiposity in the U.S.-based prospective Nurses' Health Studies</td>
<td>Matthew Bozigar (USA)</td>
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<tr>
<td>O-OP-014</td>
<td>Long-term exposure to source-specific transportation noise and diabetes mellitus mortality: a national cohort study</td>
<td>Danielle Vienneau (Switzerland)</td>
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<tr>
<td>O-OP-015</td>
<td>Impact of road traffic noise on annoyance and preventable mortality in European cities: a health impact assessment</td>
<td>Sasha Khomenko (Spain)</td>
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<tr>
<td>O-OP-016</td>
<td>Transportation noise exposure, insulin resistance and diabetes: what is the role of sleep?</td>
<td>Noemie Letellier (USA)</td>
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<tr>
<td>O-OP-017</td>
<td>Associations between residential exposure to aircraft noise, cardiovascular disease, and all-cause mortality in the Nurses’ Health Studies</td>
<td>Stephanie Grady (USA)</td>
<td></td>
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<tr>
<td>O-OP-018</td>
<td>A nationwide cohort study on transportation noise and tinnitus: expanding current knowledge on the adverse health effects of noise pollution</td>
<td>Manuella Lech Cantuaria (Denmark)</td>
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</tbody>
</table>
**Hall MC3.4**

**10:45-12:15 ORAL PRESENTATIONS SESSION 04: Environment and health in low and medium income countries (1) – WITH ETHICS DISCUSSION**

Chairs: Adetoun Mustapha (Nigeria), Robbie Parks (USA)

**O-OP-019** Characterization of urban built and natural environments with high-resolution satellite images and unsupervised deep learning

Antje Barbara Metzler (UK)

**O-OP-020** Diarrhea in children under 5 years and extreme precipitation in Nigeria

Athicha Uttajug (Japan)

**O-OP-021** The protective effect of green space on heat-related respiratory hospitalization among children under five years of age in Hanoi, Vietnam

Tran Ngoc Dang (Vietnam)

**O-OP-022** Pesticide exposure assessment in farmers from Malaysia, Uganda, and the United Kingdom: an analysis of urinary biomarker concentrations

Will Mueller (United Kingdom)

**O-OP-023** Occupational heat stress induced renal health impacts – A field study on outdoor workers in Southern India

Vidhya Venugopal (India)

**Poster Discussion Area**

**10:45-12:15 POSTER DISCUSSION SESSION 01: Advances in Epidemiology and Statistical Methods | Exposure assessment**

Chairs: Youn-Hee Lim (Denmark), Hannah E. Laue (USA)

**P-0003** Application of High Spatiotemporal Air Pollution Surfaces and Participants’ Activity Space for Identification of the Instantaneous Effect of Air Pollution on Rescue Medication Use for California Residents

Jason Su (USA)

**P-0006** Development of environmental risk score of the biomarker for chronic kidney disease in residents exposed to pollutant mixtures

Hyun A. Jang (Korea)

**P-0019** Capture of local sources variation using a hierarchical Bayesian spatiotemporal model for the spatial prediction of air pollution levels

Marc Saez (Spain)

**P-0020** Benchmark dose in the presence of co-exposure to melamine and di-(2-ethylhexyl) phthalate and urinary renal injury markers in pregnant women

Chu-Chih Chen (Taiwan)

**P-0030** Comparison of machine learning methods for the prediction of cardiovascular mortality from environmental and socio-economic neighbourhood factors

Kathrin Wolf (Germany)

**P-0818** Simultaneous assessment of chemical and biological contaminants in settled house dust

Kiyoun Lee (Korea)

**P-0819** Comparison of PM2.5 air pollution exposure estimates at WHIMS participant locations based on different modelling approaches and impact on health effects estimation

Melinda Power (USA)

**P-0824** A Comparison of Measured Airborne and Self-Reported Secondhand Smoke Exposure in the MADRES Pregnancy Cohort Study

Karl O’Sharkey (USA)

**P-0826** Integrating Time-Activity and Air Sensors into Smartphone-based PM2.5 and Ozone Exposure Model for Epidemiologic Studies

Michael Breen (USA)

**P-0839** Heavy metal contamination of soil in informal foundries and surrounding homes in South Africa

Busisiwe Shezi (South Africa)
Citizen science approach to mapping background radiation for environmental epidemiology
Ben Spycher (Switzerland)

Land Use Regression modelling of airborne microbial markers in the vicinity of livestock farms: evaluation of stepwise linear regression and random forest modelling approaches
Myrna De Rooij (Netherlands)

Investigating Population Exposure Assignment Methods for Air Pollution from Google Street View Polylne Data in Copenhagen, Denmark
Heresh Amini (Denmark)

A Bayesian Spatio-temporal Multisource Air Pollution Exposure Model for the UK
Abi Riley (UK)

12:15-13:15 LUNCH BREAK | POSTER VIEWING

Hall Skalkotas

12:15-13:15 ISEE NORTH AMERICA CHAPTER MEETING

Hall Multipurpose

12:15-13:15 ISEE LATIN AMERICA & CARIBBEAN CHAPTER MEETING

Hall MC3

12:15-13:15 ISEE EUROPE CHAPTER MEETING

Hall MC2

12:15-13:15 ISEE EASTERN MEDITERRANEAN CHAPTER MEETING

Hall MC3.2

12:15-13:15 ISEE ASIA & WESTERN PACIFIC CHAPTER MEETING

Hall MC3.3

12:15-13:15 EHP ASSOCIATE EDITOR MEETING

Hall MC3.4

12:15-13:15 ISEE AFRICA CHAPTER MEETING

Hall Council Room

12:15-13:15 ISEE ETHICS & PHILOSOPHY COMMITTEE MEETING - PART I
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Chairs</th>
<th>Presenters</th>
</tr>
</thead>
</table>
| 13:15-14:45  | **SYMPOSIUM 05:** Undermeasured and undervalued: examining social-structural factors in women's and children's global environmental health | Jessica Laine Carmeli (Switzerland), Ami Zota (USA)                | Perinatal and children's environmental epidemiology: what about birth integrity?  
Jessica Laine Carmeli (Switzerland)  
Adverse childhood events and health-related quality of life among women undergoing hysterectomy for uterine leiomyoma  
Ami Zota (USA)  
Maternal and newborn health risks of climate change: a call for awareness and global action  
Nathalie Roos (Sweden)  
Environmental hazards, social inequality, and fetal loss: implications of live-birth bias for estimation of disparities in birth outcomes  
Dana Goin (USA)  
Federally-assisted housing and blood lead levels in the United States, 1999-2016  
MyDzung Chu (USA) |
| 13:15-14:45  | **SYMPOSIUM 06:** The Multi-Country Multi-City (MCC) Collaborative Research Network: an international collaboration for global studies on environmental risks, climate change, and health | Antonio Gasparrini (United Kingdom), Ana Maria Vicedo-Cabrera (Switzerland) | The MCC Network: an international collaboration for global health research  
Antonio Gasparrini (United Kingdom)  
Global analyses on health effects of temperature and climate change: the contribution of the MCC Network  
Ana Maria Vicedo-Cabrera (Switzerland)  
Air pollution and daily mortality in the Multi-country Multi-city study: single and joint effect with heat  
Massimo Stafoggia (Italy)  
Mapping global mortality burden associated with multiple environmental stressors: a new framework by the MCC Network  
Yuming Guo (Australia)  
The role of environmental factors in the COVID-19 pandemic: research from the MCC Network  
Francesco Sera (Italy) |
| 13:15-14:45  | **SYMPOSIUM 07:** Disparities in US drinking water quality and access         | Ronnie Levin (USA), Jacqueline MacDonald Gibson (USA)            | Racial disparities in access to U.S. community water systems: effects on children's health  
Jacqueline MacDonald Gibson (USA)  
Safe home water access for low-income families with young children  
Angie Cradock (USA)  
Socioeconomic disparities in exposures to unregulated industrial contaminants in U.S. public drinking water supplies  
Laurel Schaider (USA)  
Nitrate contamination in Maryland drinking water and policy reforms to safeguard private wells  
Darya Minovi (USA) |
### Scientific Program

#### DAY 2

**Monday, 19 September 2022**

**Hall MC3**

<table>
<thead>
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<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>13:15-14:45</td>
<td>SYMPOSIUM 08: Magnetic Resonance Imaging (MRI); a cross-cutting tool at the intersection of environmental epidemiology and developmental neuroscience Chairs: Megan Horton (USA), Akhgar Ghassabian (USA)</td>
</tr>
<tr>
<td>O-SY-037</td>
<td>Pre-natal and neonatal neuroimaging in the BiSC cohort Jordi Sunyer (Spain)</td>
</tr>
<tr>
<td>O-SY-038</td>
<td>Resting-state functional connectivity patterns are associated with metal mixture exposure in young adolescents Megan Horton (USA)</td>
</tr>
<tr>
<td>O-SY-039</td>
<td>Prenatal exposure to endocrine disrupting chemicals and brain development in adolescents Akhgar Ghassabian (USA)</td>
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<tr>
<td>O-SY-040</td>
<td>Ambient air pollution and functional brain network development in adolescence Devyn Cotter (USA)</td>
</tr>
<tr>
<td>O-SY-041</td>
<td>Outdoor residential air pollution exposure and the development of brain morphology across childhood: a longitudinal study Michelle S.W. Kusters (Spain)</td>
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**Hall MC2**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>13:15-14:45</td>
<td>ORAL PRESENTATIONS SESSION 05: Challenges in health studies of chemicals: from methods to policy Chairs: Giovanni Leonardi (UK), Amira Aker (Canada)</td>
</tr>
<tr>
<td>O-OP-024</td>
<td>The relative importance of faecal and urinary excretion of PFAS and implications for epidemiological studies Tony Fletcher (UK)</td>
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<tr>
<td>O-OP-025</td>
<td>Associations between perfluoroalkyl substances and lipid profile in a highly exposed adult community in the Veneto Region: a comparison of mixture-based statistical approaches Erich Batzella (Italy)</td>
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<tr>
<td>O-OP-026</td>
<td>The Devil they knew: chemical documents analysis of industry influence on PFAS Science Tracey Woodruff (USA)</td>
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<tr>
<td>O-OP-027</td>
<td>Associations between organochlorine pesticide mixtures and sex steroid hormones modified by age, gender and body mass index in the US 2011-2016: a quantile-based g-computation approach Juwel Rana (Bangladesh)</td>
</tr>
<tr>
<td>O-OP-028</td>
<td>Prenatal endocrine disrupting chemical exposure and child IQ: accounting for uncertainty in pattern identification in a two-stage health analysis Elizabeth Gibson (USA)</td>
</tr>
<tr>
<td>O-OP-029</td>
<td>Data quality evaluation criteria for systematic review of epidemiology studies under the Toxic Substances Control Act (TSCA): refinement through practical application in risk evaluation Leora Vegosen (USA)</td>
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</table>
### Hall MC3.2

**13:15-14:45 ORAL PRESENTATIONS SESSION 06: Environment and aging**

**Chairs:** Anna Hansell (UK), Laura Corlin (USA)

<table>
<thead>
<tr>
<th>O-OP-030</th>
<th>Associations of source-specific PM2.5 and incident disability in older U.S. adults: the Health Retirement Study</th>
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<tr>
<td>O-OP-031</td>
<td>Investigation on associations between long-term air pollution exposure and osteoporotic fracture using nationwide cohort study data in South Korea</td>
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<tr>
<td>O-OP-032</td>
<td>Shortened leucocyte telomere length is associated with increased daily air temperature: KORA F3 and KORA F4</td>
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<tr>
<td>O-OP-033</td>
<td>Ambient exposure and fetal black carbon load in association with telomere length in cord blood</td>
</tr>
<tr>
<td>O-OP-034</td>
<td>Role of sleep quality in the acceleration of biological aging and its potential for preventive interaction on air pollution insults: findings from the UK Biobank cohort</td>
</tr>
<tr>
<td>O-SY-127</td>
<td>Association of environmental chemical exposure during pregnancy with subsequent breast cancer risk</td>
</tr>
</tbody>
</table>

### Hall MC3.3

**13:15-14:45 ORAL PRESENTATIONS SESSION 07: Exposure assessment for chemicals and PFAs**

**Chairs:** Kwaku Poku Asante (Ghana), Peter Paul Egeghy (USA)

| O-OP-035 | Exposure assessment of per- and polyfluoroalkyl substances (PFAS) and disinfection by-products (DBPs) in drinking water during pregnancy |
| O-OP-036 | An assessment of health risks posed by consumption of pesticide residues in fruits and vegetables among residents in the Kampala Metropolitan Area in Uganda |
| O-OP-037 | Incorporating land use and wind direction in assessment of residential exposure to agricultural herbicides |
| O-OP-038 | Pilot study of consumer product chemicals measured using silicone wristband monitors |
| O-OP-039 | A healthy and diverse diet and the association with perfluoroalkyl acids (PFAA) concentrations in Swedish adolescents |
| O-OP-040 | Cumulative risk assessment and exposure characteristics of parabens in the general Taiwanese using multiple hazard indices approaches |

### Hall MC3.4

**13:15-14:45 ORAL PRESENTATIONS SESSION 08: Child health and exposure to phthalates – WITH ETHICS DISCUSSION**

**Chairs:** Jessie Buckley (USA), Lorenzo Fabbri (Spain)

| O-OP-041 | Mixtures of phthalates and phthalate replacements in relation to size-for-gestational age in the LIFECODES Fetal Growth Study |
| O-OP-042 | Associations of pregnancy and early childhood phthalate exposures with adolescent lipid levels and insulin resistance: The HOME Study |

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**ISEE 2022**

**Day 2**

**Monday, 19 September 2022**
### O-OP-043
Parental Exposure to Phthalates and Children’s Behavior: Results from the PEACE Study
Jordana Leader (USA)

### O-OP-044
Associations between bispheonls and onset of puberty: the Hokkaido Study
Atsuko Ikeda-Araki (Japan)

### O-OP-045
Effects of Prenatal Phthalate Exposure on Early Childhood Expressive Language Development Trajectories
Justin Yu (USA)

### Poster Discussion Area

**13:15-14:45 POSTER DISCUSSION SESSION 02: Children’s environment and health | Reproductive outcomes**
Chair: Oyewale Mayowa Morakinyo (Nigeria), Rina So (Denmark)

- **P-0414** Exposure to Surrounding Greenness and Air Pollution Related to Nasal Microbiota Among Asthmatic Children
  Aji Kusumaning Asri (Taiwan)

- **P-0449** Pb, As, Cd and Hg mixture in cord blood and effects in birth outcomes – Bayesian analysis. PIPA Project – Brazil
  Natafly De Figueiredo (Brazil)

- **P-0451** Urinary arsenic concentration and bronchial asthma prevalence in children from Arica, Chile
  María Pía Muñoz (Chile)

- **P-0454** Cord blood transcriptome-wide association study identifying genes associated with metabolic disrupting chemicals and infant growth
  Anran Cai (Netherlands)

- **P-0461** Arsenic exposure and respiratory outcomes during childhood in the INMA study
  Antonio José Signes Pastor (Spain)

- **P-0479** Nitrate exposure from drinking water during pregnancy and risk of small-for-gestational-age in infants from a population-based study in Denmark
  Anja Jensen (Denmark)

- **P-0481** Prenatal Exposure to Ambient Air Pollution and Offspring Cerebral Palsy in Ontario, Canada: A Population-Based Cohort Study
  Carmen Messerlian (USA)

- **P-0520** Attendance Benefits of the EPA’s School Bus Rebate Program: A Randomized Design
  Meredith Pedde (USA)

- **P-0538** Dose-response relation between maternal exposure to arsenic in drinking water and risk of congenital heart disease in offspring – A nationwide cohort study
  Annette Ersbøll (Denmark)

- **P-1182** Associations of per- and polyfluoroalkyl substances (PFAS) and their mixture with oxidative stress biomarkers during pregnancy
  Kaitlin Taibl (USA)

- **P-1189** Synthetic pyrethroids exposure among women from fertility clinic and embryological outcomes - is there an association?
  Joanna Jurewicz (Poland)

- **P-1191** Prenatal Mycoestrogen Concentrations in Relation to Placental and Birth Weights
  Zorimar Rivera-Núñez (USA)

- **P-1214** Associations of Urinary Phthalate Metabolites and Inflammatory Biomarkers Characteristic of the Preeclamptic Pathway Among Pregnant Women in Puerto Rico
  Amber Cathey (USA)

- **P-1220** Fetal death: analysis of angiogenic factors during pregnancy
  Luciana Duzolina Manfré Pastro (Brazil)

**14:45-15:15 COFFEE BREAK | POSTER VIEWING**
Hall Trianti

15:15-16:15 ORAL PRESENTATIONS SESSION 09: Climate change: Health Impact Assessment and intervention policies
Chairs: Sotiris Vardoulakis (Australia), Dan Greenbaum (USA)

O-OP-046 Extreme Heat Public Health Preparedness Planning and Response Activities in the Most Populous Jurisdictions in the United States: Survey Results
Nicole Errett (USA)

Jeremy Hess (USA)

O-OP-048 Inequalities in drought effects on non-external, circulatory, and respiratory mortality in the population of macro urban areas of Brazil
Coral Salvador (Switzerland)

O-OP-049 The impact of climate change on agricultural labour productivity: implications for human mobility and poverty
Andreas Flouris (Greece)

Hall Skalkotas

15:15-16:15 ORAL PRESENTATIONS SESSION 10: Air pollution and neurobehavioural outcomes
Chairs: Danielle Vienneau (Switzerland), Dylan Wood (UK)

O-OP-050 Lifetime Residential Air Pollution Exposure, Amygdala Volumes, and Emotional Function in Young Adults
Karl O’S Sharkey (USA)

Habyeong Kang (USA)

O-OP-052 Early life metal exposure is associated with reduced fractional anisotropy in the corpus callosum in children
Elza Rechtman (USA)

Hall Multipurpose

15:15-16:15 ORAL PRESENTATIONS SESSION 11: Environmental exposures and emerging outcomes
Chairs: Nicole Probst-Hensch (Switzerland), Haotian Wu (USA)

O-SY-129 Metabolome-wide association study suggests antagonistic responses to cadmium and selenium in diseased human lungs
Dean Jones (USA)

O-OP-055 Associations between long-term air pollution and kidney diseases in the US Medicare population
Whanhee Lee (Korea)

O-OP-056 Chronic Kidney Disease (CKD) and Exposure to Fine Particulate Matter and Ozone: A Cross-Sectional Study Utilizing North Carolina Electronic Healthcare Records
David Dillon (USA)

O-OP-057 Combined effects of air pollution and neighborhood violence on epilepsy and seizures in children
Rachit Sharma (USA)
### Hall MC3

**15:15-16:15 PECHA KUCHA SESSION 01: Air pollution (from ambient and indoor sources) and health**

**Chairs:** Francesca De Donato (Italy), Maria-Iosifina Kasdagli (Greece)

- **O-PK-01**
  Associations between short-term ambient PM2.5, oxidant gases and respiratory hospitalizations in children: effect modification by PM2.5 transition metals, sulfur and oxidative potential
  Jill Korsiak (Canada)

- **O-PK-02**
  The Spatial Modification of the Non-Linear Effects of Ambient Oxides of Nitrogen during Pregnancy on Birthweight in a South African Birth Cohort
  Aweke A. Mitku (Ethiopia)

- **O-PK-03**
  Short-term effects of particulate matter and desert dust on mortality in Southern Europe, the Middle East and Eastern Asia
  Massimo Stafoggia (Italy)

- **O-PK-04**
  Effects of a Liquefied Petroleum Gas Stove and Continuous Fuel Distribution Intervention on Anthropometric Outcomes at Birth
  Hina Raheel (USA)

- **O-PK-05**
  Ambient fine particulate matter exposure and lung cancer risk in the NIH-AARP Diet and Health Study
  Jared Fisher (USA)

- **O-PK-06**
  Prescribed Fires, Smoke Exposure, and Hospital Utilization Among Heart Failure Patients
  Henry Raab (USA)

- **O-PK-07**
  DNA methylation as a potential mediator of the association between indoor air pollution and neurodevelopmental delay in a South African birth cohort
  Anke Huels (USA)

- **O-PK-08**
  Particle Components and Risk of Psychiatric Hospitalization in the U.S.
  Xinye Qiu (USA)

### Hall MC2

**15:15-16:15 PECHA KUCHA SESSION 02: Exposure assessment**

**Chairs:** Jaime Hart (USA), Francesco Sera (Italy)

- **O-PK-09**
  Long-term exposure to air pollution, cause-specific mortality and incidence of stroke and acute coronary heart disease in the Rome Longitudinal Study: the BIGEPI project
  Federica Nobile (Italy)

- **O-PK-10**
  Mobile monitoring of air pollutants; performance evaluation of a mixed-model framework in relation to number of drive days
  Jules Kerckhoffs (Netherlands)

- **O-PK-11**
  Blood and urinary metal levels among exclusive marijuana users in the National Health and Nutrition Examination Survey (2005-2018)
  Katlyn McGraw (USA)

- **O-PK-12**
  Serum half-life of PFOA after end of exposure: a highly exposed community in the Veneto Region
  Erich Batzella (Italy)

- **O-PK-13**
  The challenge of assessing exposure to fast-elimination endocrine disruptors: When collecting? Which matrix? How many samples?
  Brice Appenzeller (Luxembourg)

- **O-PK-14**
  Spatiotemporally resolved daily relative humidity predictions across Germany during 2000-2021: a Random Forest approach
  Nikolaos Nikolaou (Germany)

- **O-PK-15**
  Exposure Differences Between Measures of Residential and Smartphone Mobility Derived Greenness in the US-Based Nurses’ Health Study 3 Cohort
  Grete Wilt (USA)

- **O-PK-16**
  Biological and Environmental Sampling at ATSDR PFAS Exposure Assessment Sites
  Karen Scruton (USA)
DAY 2
Monday, 19 September 2022

Hall MC3.2
15:15-16:15 ORAL PRESENTATIONS SESSION 12: Health impact and risk assessment
Chairs: Heather Walton (UK), Cassandra Clark (USA)
O-OP-058 Cooling cities through urban green interventions: A health impact assessment in European cities
Tamara Iungman (Spain)
O-OP-059 A quantitative burden of proof risk function to evaluate environmental risk factors in comparative risk assessments
Michael Brauer (Canada)
O-OP-060 Methods for evaluating environmental health impacts at different stages of the policy process in cities
Jaime Benavides (USA)
O-OP-061 Cancer hazard Evaluations for Contemporary Needs: What’s New at NIEHS
Ruth Lunn (USA)

Hall MC3.3
15:15-16:15 ORAL PRESENTATIONS SESSION 13: Occupational exposures, mental health and other outcomes
Chairs: Dean Baker (USA), Wei Huang (China)
O-OP-062 Consumption of Iron- and Protein-Rich Diets may Ameliorate the Effect of Metals-Induced Anemia among Informal Electronic Waste Recyclers in Ghana
Sylvia Takyi (Ghana)
O-OP-063 Gendered precarious employment trajectories and self-reported health outcomes: a retrospective study in France
Emilie Counil (France)
O-OP-064 Functional changes in neural mechanisms underlying post-traumatic stress disorder in World Trade Center responders
Azzurra Invernizzi (USA)
O-OP-065 Occupational Risk Factors of Prenatal Depression in Pregnant Women in the New York City Metropolitan Area
Yueh-Hsiu Mathilda Chiu (USA)

Hall MC3.4
15:15-16:15 ORAL PRESENTATIONS SESSION 14: Respiratory disorders in children and adults
Chairs: Anna Karakatsani (Greece), Jeroen De Bont (Sweden)
O-OP-066 Precipitation and lung health in children with asthma
Nicholas Nassikas (USA)
O-OP-067 Air pollution, lung function and mortality: survival and mediation analyses in UK Biobank
Samuel Cai (UK)
O-OP-068 Effects of long-term exposure to particle components on inpatient asthma hospitalizations among children and adults in the U.S. using Bayesian kernel machine regression (BKMR)
Bryan N. Vu (USA)
O-OP-069 Short-term exposure to livestock farm emitted endotoxin and acute effects on lung function in non-farming residents
Myrna De Rooij (Netherlands)

Hall Trianti
16:15-17:45 SYMPOSIUM 09: Infections and the environment
Chairs: Manolis Kogevinas (Spain), Maribel Casas (Spain)
O-SY-042 Immunotoxic chemicals, childhood infections, and long-term health effects
Maribel Casas (Spain)
O-SY-043 Ambient air-pollution and COVID-19
Manolis Kogevinas (Spain)
**O-SY-044** Climate change and cascading risks from infectious disease  
Jan C. Semenza (Germany)

**O-SY-045** Looking forward: COVID-19 and greenhouse gas emissions  
Kristie Ebi (USA)

**Hall Skalkotas**

16:15-17:45 ORAL PRESENTATIONS SESSION 15: Long-term exposure to air pollution and health outcomes  
Chairs: Maya Negev (Israel), Meng Wang (USA)

**O-OP-070** The impact of exposure measurement error on the estimated concentration-response relationship between long-term exposure to PM2.5 and mortality  
Yaguang Wei (USA)

**O-OP-071** Long-term exposure to source-specific fine particles and mortality – a pooled analysis of 14 European cohorts within the ELAPSE project  
Jie Chen (USA)

**O-OP-072** Health effects of long-term exposure to ultrafine particles around Schiphol airport  
Nicole Janssen (Netherlands)

**O-OP-073** Long-term Exposure to PM2.5 Components and Mortality among Medicare Beneficiaries  
Mahdieh Danesh Yazdi (USA)

**O-OP-074** Causal modeling of the effects of fine particulate matter and nitrogen dioxide on natural-cause mortality within the ELAPSE project  
Kathrin Wolf (Germany)

**O-OP-075** A nationwide study of air pollution on the NCD related morbidity in an unselected population  
Torben Sigsgaard (Denmark)

**Hall Multipurpose**

16:15-17:45 ORAL PRESENTATIONS SESSION 16: Child health and exposure to PFAs  
Chairs: Dania Valvi (USA), Sean Patrick (South Africa)

**O-OP-076** Glyphosate in house dust and risk of childhood acute lymphoblastic leukemia in California  
Mary Ward (USA)

**O-OP-077** Cumulative exposure to per- and polyfluoroalkyl substances from pregnancy to age 12 years and bone health in early adolescence: the HOME Study  
Jessie Buckley (USA)

**O-OP-078** Latent profiles of early life perfluoroalkyl substances exposure and body composition at age 12 years: The Health Outcomes and Measures of the Environment (HOME) Study  
Jordan Kuiper (USA)

**O-OP-079** Plasma concentrations of Per- and Polyfluoroalkyl Substances and alanine aminotransferase among Adolescents with and without NAFLD from the Teen-Longitudinal Assessment of Bariatric Surgery (Teen-LABS) Study  
Brittney Baumert (USA)

**O-OP-080** Metals, Perfluoroalkyl Substance, and Birth Outcomes in the New Hampshire Birth Cohort Study: Beyond Single-Class Mixture Approaches  
Gyeoyoon Yim (USA)

**O-OP-081** Dietary folate intake modifies the relationship between per- and polyfluoroalkyl substances and immune markers among U.S. adolescents  
Yu Zhang (USA)
Hall MC3
16:15-17:45 ORAL PRESENTATIONS SESSION 17: Reproductive outcomes and various environmental exposures (2)
Chairs: Mary Willis (USA), Estela Blanco (Chile)

O-OP-082 Fetal and infant death associated with short-term ozone exposure
Sandie Ha (USA)

O-OP-084 Association of vitamin D and green space. Results from the GINIplus & LISA birth cohorts
Marie Standl (Germany)

O-OP-085 Exposure to ambient temperature extremes during peri-conception and fecundability
Carrie Nobles (USA)

O-OP-086 Admission to neonatal intensive care in relation to satellite-based estimates of NO2 and PM2.5 in the United States, 2018
Pauline Mendola (USA)

O-OP-087 Traffic-related air pollution and pregnancy loss in Eastern Massachusetts, USA
Michael Leung (USA)

Hall MC2
16:15-17:45 ORAL PRESENTATIONS SESSION 18: Advances in statistical methods
Chairs: Tarik Benmarhnia (USA), Massimo Stafoggia (Italy)

O-OP-088 Misclassification bias in the assessment of gene-by-environment interactions
Marc Weisskopf (USA)

O-OP-089 mpower – An R package for power analysis of exposure mixture studies
Phuc Nguyen (USA)

O-OP-090 Mixtures, linear index models and log-transformation of exposure data
Thomas Webster (USA)

O-OP-091 Integrating biological knowledge in Kernel-based analyses of environmental mixtures and health
Glen McGee (Canada)

O-OP-092 Identifying drivers of vulnerability to heat and cold in European cities: an inverse probability weighting approach
Pierre Masselot (UK)

O-OP-093 Comparing effects of air pollution on mortality within the ELAPSE project under standard and causal approaches
Massimo Stafoggia (Italy)

Hall MC3.2
16:15-17:45 ORAL PRESENTATIONS SESSION 19: Environmental equity: environmental inequalities and health implications (1)
Chairs: Nelson Gouveia (Brazil), Rosemarie De La Rosa (USA)

O-OP-094 Nationwide geospatial analysis of county-level racial/ethnic composition and public drinking water arsenic and uranium
Irene Martinez-Morata (USA)

O-OP-095 Addressing U.S. racial-ethnic inequality in air pollution exposure
Yuzhou Wang (USA)

O-OP-096 Socioeconomic disparities in aerosol pollutant exposure may be amplified by ultrafine particles despite declining PM2.5
Arshad Arjunan Nair (USA)

O-OP-097 The Role of Exposure to Per- and Polyfluoroalkyl Substances in Racial/Ethnic Disparities in Hypertension: Results from the Study of Women's Health Across the Nation
Ning Ding (USA)

O-OP-098 Racial/ethnic disparities in phthalate metabolite mixtures and risk of preterm birth: A pooled study of 16 US cohorts
Barrett Welch (USA)
O-OP-099  Exposure to lead, cadmium, mercury and arsenic among Asian children and adolescents in the United States: NHANES 2015-2018  
Lanxin Song (USA)

厅 MC3.2

16:15-17:45  口头报告 session 20: 测量评估，测量误差，不确定性及校正方法  
主席：乔尔·施瓦茨（美国），尤利·姚（德国）

O-OP-100  阿司匹林在怀孕中的暴露评估：一项对比自我报告摄入量与母性和新生儿生物标志物措施的研究  
Zeyan Liew (USA)

O-OP-101  负责高性能的涉及空间和时间的高分辨率温度数据为圣保罗，巴西；一个对 epidemiologists 有价值的资源  
Aina Roca-Barceló (UK)

O-OP-102  比较了测温站和气候再分析数据的温度相关模型化数据 & 重置死亡率  
Malcolm Mistry (UK)

O-OP-103  空气污染暴露的校正方法：用 Stratified Regression 校正：对全因死亡率的影响  
Yijing Feng (USA)

O-OP-104  地理不确定性：绿化和抑郁发病率在前瞻性研究中的作用  
Charlotte Roscoe (USA)

O-OP-105  地磁干扰降低心率变量在正常老化研究中的作用  
Petros Koutrakis (USA)

厅 MC3.4

16:15-17:45  口头报告 session 21: 空气污染与癌症  
主席：托马斯·贝尔兰德（瑞典），伊尔塞·费雷拉·达·席尔瓦（巴西）

O-OP-106  长期暴露于空气污染和肾癌的癌变 - 低水平空气污染：在欧洲的一个研究（ELAPSE）  
Ulla Hvidtfeldt (Denmark)

O-OP-108  长期暴露于PM2.5对内分泌相关的癌症患者的影响  
Ejin Kim (Korea)

O-OP-109  森林火灾与加拿大: 一个基于人口的队列研究  
Jill Korsiak (Canada)

O-OP-110  室内木柴炉和火炉的使用及对肺癌风险的影响  
Surel Mehta (USA)

O-OP-111  社区的社会和自然环境对前列腺癌的影响  
Hari Iyer (USA)

海报讨论区

16:15-17:45  海报讨论区 03: 呼吸系统疾病在儿童/成人 | 神经行为变化在儿童/成人 | COVID-19和环境  
主席：大卫·罗哈斯-鲁埃达（美国）、金英娟（韩国）

P-0519  COVID-19封锁/解封与季节对儿童暴露的影响  
Natalie Crnosija (USA)
## Long term exposure to air pollution and COVID-19 incidence: a prospective population-based study in northern Italy
Giovanni Veronesi (Italy)

## Detection and quantitative assessment of SARS-CoV-2 in wastewater influent in Mazovian District, Poland
Agata Stobnicka-Kupiec (Poland)

## Predictive model for severe COVID-19 using SARS-CoV-2 whole genome sequencing and electronic health record data, March 2020-May 2021
Lei Zhu (USA)

## SARS-CoV-2 infection is associated with functional changes in resting-state neural mechanisms among Italian adolescents and young adults: a longitudinal case control study
Azzurra Invernizzi (USA)

## Residential green space is associated with a buffering effect on stress responses during the COVID-19 pandemic in mothers of young children, a prospective study
Stijn Vos (Belgium)

## Mental health dynamics during the national quarantine in China
Yimeng Song (USA)

## Social environment, inequality, and COVID 19 in Nicaragua: did we underreport COVID-19 impact on those most highly vulnerable socioeconomic population groups?
Steven Cuadra (Nicaragua)

## Prenatal metals exposure and pre-adolescents’ emotional and behavioral problems
Manuel Lozano (Spain)

## Intergenerational Transmission of Stress: Multi-domain Stressors from Maternal Childhood and Pregnancy Predict Children's Mental Health in a Racially and Socioeconomically Diverse, Multi-site Cohort
Nicole Bush (USA)

## Annoyance and sleep disturbance due to traffic noise: a comparison with WHO exposure-response functions
Karla Romero Starke (Germany)

## Antenatal depression and environmental pollutants
Nataly De Figueirêdo (Brazil)

## Long-term exposure to ambient air pollution from multiple sources and associations with asthma incidence in children born in Denmark 1998-2016
Marie Pedersen (Denmark)

## Maternal stressful life events during pregnancy and child asthma: an investigation of effect modification by postnatal neighborhood opportunity
Margaret Adgent (USA)

## PM2.5 and NO2 as Potential Modifiers of Clinical Trial Results on Asthma Exacerbation and Control
Lizbeth Gomez (USA)

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Hall Trianti

18:00-19:00  ISEE GENERAL MEMBERSHIP MEETING

Parko Eleftherias - next to Conference venue

19:00-20:00  SNRN social event
## DAY 3  
**Tuesday, 20 September 2022**

### Hall Skalkotas

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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</table>
| 07:30-08:30| EARLY MORNING SESSION 01: Civic engagement at ISEE: ramping up our efforts for impactful research  
Chair: Audrey J de Nazelle (UK)  
Panelists: Zorana Andersen (Denmark), Charlie Roscoe (USA), Aina Roca Barcelo (UK), Gudrun Weinmayr (Germany), Mildred Maisionet (USA), Adetoun Mustapha (Nigeria), Agnes Soares (USA), Hanna Boogaard (USA), Barbara Hoffmann (Germany)  
Presenters: Maria Elisa Quinteros Caceres (Chile), Pallavi Pant (USA), Jien-Wen Chien (Taiwan), Keren Agay-Shay (Israel), Devon Payne Sturges (USA), Sophie Perroud (Belgium) |

### Hall Multipurpose

<table>
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<th>Time</th>
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| 07:30-08:30| EARLY MORNING SESSION 02: Nitrate-Contaminated Drinking Water: A widespread health threat and some potential solutions  
Chairs: Ronnie Levin (USA), Mary Ward (USA)  
Presenters: Darya Minovi (USA), Erik Olson (USA), Birgitte Hansen (Denmark) |

### Hall MC3

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| 07:30-08:30| EARLY MORNING SESSION 03: Ethical issues and bias in scientific publishing: What to look out for and how to address bias in the publication process  
Chair: Sabah Quraishi (USA)  
Presenter: Joan Casey (USA) |

### Hall MC2

<table>
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<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>07:30-08:30</td>
<td>EARLY MORNING SESSION 04: SNRN - Transitioning from PhD to Postdoc</td>
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### Hall MC3.2

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<th>Time</th>
<th>Session</th>
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| 07:30-08:30| EARLY MORNING SESSION 05: A panel discussion of challenges of air pollution and COVID-19 research in the Eastern Mediterranean Region  
Chair: Wael Al-Delaimy (USA)  
Presenters: Myriam Mrad (Lebanon), Barrak Alahmad (USA & Kuwait), Kenza Khomsi (Morocco), Fayez Abdulla (Jordan) |

### Hall MC3.3

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<th>Time</th>
<th>Session</th>
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| 07:30-08:30| EARLY MORNING SESSION 06: The participation of family groups and young people for the strengthening and application of environmental epidemiology. Report of Brazilian families  
Chair: Telma Cassia dos Santos Nery (Brazil)  
Presenters: Daniel N Cardoso (USA), Ivan N Cardoso (Brazil) |

### Hall Trianti

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<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>08:30-09:00</td>
<td>GOLDSMITH AWARD CEREMONY &amp; LECTURE</td>
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### Hall Trianti

<table>
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<tr>
<th>Time</th>
<th>Session</th>
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| 09:00-09:45| KEYNOTE LECTURE 2: Assessing environmental factors in COVID-19 outbreaks: a One Health perspective  
Chair: Bert Brunekreef (Netherlands)  
Speaker: Lidwien Smit (Netherlands) |
| 09:45-10:30| KEYNOTE LECTURE 3: Promoting healthy and sustainable urban environments across global contexts  
Chair: Bert Brunekreef (Netherlands)  
Speaker: Cathryn Tonne (Spain) |
Hall Trianti

10:30-11:15  KEYNOTE PANEL 2: EU policy plans on air pollution  
Chair: Francesco Forastiere (UK)  
Speaker: Thomas Henrichs (Belgium)  
EU activities for regulation of air pollution – The new AAQD  
Discussants: Sophie Perroud (Belgium), Barbara Hoffmann (Germany), Michelle Bell (USA)

11:15-11:45  COFFEE BREAK | POSTER VIEWING

Hall Trianti

11:45-13:15  SYMPOSIUM 10: A new era in global climate change and human health research funding and action  
Chairs: Gwen Collman (USA), Aubrey Miller (USA)  
O-SY-046  A new era in global climate change and human health research funding and action – NIH  
Gwen Collman (USA), Aubrey Miller (USA)  
O-SY-046a  A new era in global climate change and human health research funding and action – EPA  
Bryan Hubbell (USA)  
O-SY-047  A new era in global climate change and human health research funding and action – CDC  
Erik Svendsen (USA)  
O-SY-048  A new era in global climate change and human health research funding and action – EC  
Tuomo Karjalainen (Belgium)

Hall Skalkotas

11:45-13:15  SYMPOSIUM 11: Impact of exposure measurement error (ME) on the health effect estimates: quantification and correction  
Chairs: Klea Katsouyanni (Greece), Dimitris Evangelopoulos (UK)  
O-SY-049  Impact of exposure measurement error (ME) on the health effect estimates: introduction  
Klea Katsouyanni (Greece)  
O-SY-049a  Identifying determinants and characterizing the type of exposure measurement error in association with different error-prone exposure assessment methods  
Dimitris Evangelopoulos (UK)  
O-SY-050  Accounting for space and time in measurement error corrections  
Joel Schwartz (USA)  
O-SY-051  Using SIMEX and regression calibration to correct for mixtures of classical and Berkson measurement error  
Barbara Nicholas (nee Butland) (UK)  
O-SY-052  Empirical measurement error bias correction for the effects of functions of the exposure history: cumulative average PM2.5 in relation to all-cause mortality  
Donna Spiegelman (USA)

Hall Multipurpose

11:45-13:15  SYMPOSIUM 12: The project EXHAUSTION – Heat and air pollution effects on cardiopulmonary mortality and morbidity: geographical variability and vulnerable groups in Europe  
Chairs: Alexandra Schneider (Germany), Francesca De Donato (Italy)  
O-SY-053  Short-term heat effects and effect modification by ambient air pollution on cardiovascular and respiratory mortality across 148 cities from 13 European countries – Results of the EXHAUSTION project  
Susanne Breitner (Germany)
### Scientific Program

#### DAY 3
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<table>
<thead>
<tr>
<th>O-SY-054</th>
<th>Age standardized heat and cold related mortality impacts across European cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-SY-055</td>
<td>Analysis of short-term heat effects on cardiopulmonary mortality using national and regional small area data - Results of the EXHAUSTION project</td>
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<tr>
<td>O-SY-056</td>
<td>Long-term effects of air temperature on cardiopulmonary outcomes in prospective European cohort studies</td>
</tr>
<tr>
<td>O-SY-057</td>
<td>Heat and health prevention in European Region under a changing climate: the urgent need for a faster roll-out of Heat-Health Action Plans (HHAPs)</td>
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</tbody>
</table>

**Hall MC3**

**11:45-13:15 SYMPOSIUM 13: Advancing air pollution epidemiology in India: building capacity locally to address questions of context, policy relevance and methodological robustness**

**LAST MINUTE CANCELLATION**

**Hall MC2**

**11:45-13:15 SYMPOSIUM 14: Perfluoroalkyl and polyfluoroalkyl substances (PFAS) in Indigenous communities: a case of environmental injustice**

**Chairs: Amira Aker (Canada), Mélanie Lemire (Canada)**

<table>
<thead>
<tr>
<th>O-SY-062</th>
<th>Contamination of country foods by perfluoroalkyl acids in the Arctic</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-SY-063</td>
<td>Elevated exposure to long-chain perfluoroalkyl and polyfluoroalkyl substances (PFAS) in Inuit from Nunavik, Arctic Canada: a call for global action</td>
</tr>
<tr>
<td>O-SY-064</td>
<td>Exposure to PFAS in two Alaska Native Communities</td>
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<tr>
<td>O-SY-065</td>
<td>PFAS exposure and immunotoxic effects in children from Greenland</td>
</tr>
<tr>
<td>O-SY-066</td>
<td>Determinants of polyfluoroalkyl substances and perfluoroalkyl substances (PFAS) biomarkers in First Nations Communities of the Northwest Territories and Yukon</td>
</tr>
<tr>
<td>O-SY-067</td>
<td>Indigenous lifeblood in land, water, and natural resources: the unknown threat of PFAS contamination</td>
</tr>
</tbody>
</table>

**Hall MC3.2**

**11:45-13:15 ORAL PRESENTATIONS SESSION 22: Health effects of short-term air pollution exposure**

**Chairs: Michelle Bell (USA), Garyfallos Konstantinoudis (UK)**

<table>
<thead>
<tr>
<th>O-OP-112</th>
<th>Acute effects of ambient air pollution on asthma emergency department visits in 10 US states</th>
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</thead>
<tbody>
<tr>
<td>O-OP-113</td>
<td>Short-term ambient air pollution exposure and risk of atrial fibrillation in patients with intracardiac devices</td>
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<tr>
<td>O-OP-114</td>
<td>Longitudinal assessment of the association between short-term air pollution exposure and symptoms of generalized anxiety disorder in Nurses' Health Study II</td>
</tr>
<tr>
<td>O-OP-115</td>
<td>Heterogeneity in acute PM$_{2.5}$ mortality: big data strategies in the Mexico City Metropolitan Area</td>
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O-OP-116 The effect of ambient air pollution and wildfire smoke on emergency department visits for persons experiencing homelessness in San Diego, California
Lara Schwarz (USA)

O-OP-117 Contributions of Biomass Burning Events to Daily PM10 Concentrations and The Short-Term Associations with Hospital Admissions in Malaysia
Muhammad Abdul Basit Ahmad Tajudin (Japan)

Hall MC3.3

11:45-13:15 ORAL PRESENTATIONS SESSION 23: Child health and exposure to pesticides and other chemicals
Chairs: Marina Vafeiadi (Greece), Jenni Shearston (USA)

O-OP-118 Associations between urinary paraben concentrations and measures of cardiometabolic risk in pre-school children of the ENVIRONAGE birth cohort
Brigitte Reimann (Belgium)

O-OP-119 Persistent organic pollutant exposure and thyroid function among 12-year-old children
Hélène Tillaut (France)

O-OP-120 Association of Prenatal Exposure to Persistent Organic Pollutants and Childhood Lipid Levels: The Rhea Birth Cohort (Greece)
Marina Vafeiadi (Greece)

O-OP-121 Association of prenatal exposure to heavy metal mixtures and anogenital distance in newborns
Tal Michael (Israel)

O-OP-122 Mixture exposure to plastic-related short half-life chemicals and associations with childhood asthma and allergies: The Hokkaido Study
Yu Ait Bamai (Belgium)

O-OP-123 Oxidative stress of glyphosate, AMPA and metabolites of pyrethroids and chlorpyrifos pesticides among primary school children in Cyprus
Konstantinos Makris (Cyprus)

Hall MC3.4

11:45-13:15 ORAL PRESENTATIONS SESSION 24: Light at night, sleep and impacts of urbanicity on health – WITH ETHICS DISCUSSION
Chairs: Yuming Guo (Australia), Jaana Halonen (Finland)

O-OP-124 Artificial light at night exposure and sleep behaviors in adults of Shahedieh Cohort Study
Mohammad Javad Zare Sakhvidi (Iran)

O-OP-125 Light at night exposure and risk of depression and other mental disorders: a systematic review
Tommaso Filippini (Italy)

O-OP-126 External exposome and sleep outcomes in the Nurses’ Health Study
Cindy Hu (USA)

O-OP-127 Association between outdoor light at night, sleep duration, and sleep quality in the US based-Health Professionals Follow-Up Study
Ilkania Chowdhury-Paulino (USA)

O-OP-128 Physical Environmental Hazards and Major Depression in Older U.S. Adults: The Health and Retirement Study
Jennifer D’Souza (USA)
**Poster Discussion Area**

**11:45-13:15**  
**POSTER DISCUSSION SESSION 04: Aging and Environment | Non-communicable diseases including cancer, cardio-metabolic and neurological**  
**Chairs: Martine Vrijheid (Spain), Hanbin Zhang (UK)**

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<thead>
<tr>
<th>Poster #</th>
<th>Title</th>
<th>Authors</th>
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<tr>
<td>P-0044</td>
<td>The association between long-term PM2.5 exposure and late-life amyloid burden in the Atherosclerosis Risk in Communities (ARIC) study cohort</td>
<td>Erin Bennett (USA)</td>
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<tr>
<td>P-0052</td>
<td>Newborn ribosomal DNA content as a potential early marker of genomic instability and longevity in association with prenatal air pollution exposure</td>
<td>Dries Martens (Belgium)</td>
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<tr>
<td>P-0056</td>
<td>Ambient Air Pollution and Clinical Dementia: Systematic Review and Meta-analysis</td>
<td>Marc Weisskopf (USA)</td>
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<tr>
<td>P-0068</td>
<td>Greater residential greenness is associated with reduced epigenetic aging in a population survey in North Carolina</td>
<td>Andrey Egorov (USA)</td>
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<tr>
<td>P-1058</td>
<td>Long-term exposure to transportation noise and risk of type 2 diabetes: a cohort study</td>
<td>Mette Sørensen (Denmark)</td>
</tr>
<tr>
<td>P-1060</td>
<td>Multidimensional sleep clusters and cardiometabolic risk factors in adolescents: Results from the GINIplus and LISA studies</td>
<td>Mingming Wang (Germany)</td>
</tr>
<tr>
<td>P-1061</td>
<td>Earthquake exposure and development of ischemic heart disease</td>
<td>Changwoo Han (Korea)</td>
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<tr>
<td>P-1064</td>
<td>Association between Food Insecurity and Cardiometabolic Outcomes in the U.S. Adult Population</td>
<td>Sericea Stallings-Smith (USA)</td>
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<tr>
<td>P-1068</td>
<td>Association of multiple environmental risk factors with prevalent diabetes mellitus and obesity - Results from the population-based KORA FIT cohort in Augsburg, Germany</td>
<td>Fiona Niedermayer (Germany)</td>
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<tr>
<td>P-1070</td>
<td>Wireless phones and brain tumour risk in young people: results of the multi-national MOBI-Kids study</td>
<td>Gemma Castaño-Vinyals (Spain)</td>
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<td>P-1082</td>
<td>Historical redlining and modern-day cardiovascular disease across New York City</td>
<td>Pablo Knobel (USA)</td>
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<tr>
<td>P-1084</td>
<td>Association between Air Pollution and Prostate Cancer in the US-based Health Professionals Follow-Up Study</td>
<td>Ilkania Chowdhury-Paulino (USA)</td>
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<td>P-1087</td>
<td>Long-term effects of air pollutant exposures on site-specific cancer incidence in elders</td>
<td>Yaguang Wei (USA)</td>
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<td>P-1096</td>
<td>Metal exposures and risk of Parkinson’s disease: a European prospective cohort (NeuroEPIC4PD)</td>
<td>Yujia Zhao (Netherlands)</td>
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<tr>
<td>P-1104</td>
<td>Residential exposure to airborne polychlorinated biphenyls and risk of cardiovascular diseases: A register-based cohort study</td>
<td>Laura Deen (Denmark)</td>
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**13:15-14:15**  
**LUNCH BREAK | POSTER VIEWING**
Hall Multipurpose
13:15-14:15 SNRN SESSION

Hall MC3
13:15-14:15 ISEE ANNUAL CONFERENCE COMMITTEE MEETING

Hall MC2
13:15-14:15 ISEE CAPACITY BUILDING & EDUCATION COMMITTEE MEETING

Hall MC3.2
13:15-14:15 ISEE COMMUNICATIONS COMMITTEE MEETING

Hall MC3.3
13:15-14:15 ENVIRONMENTAL EPIDEMIOLOGY EDITORIAL BOARD MEETING

Hall MC3.4
13:15-14:15 ISEE POLICY COMMITTEE MEETING

Council Room
13:15-14:15 ISEE ETHICS & PHILOSOPHY COMMITTEE MEETING - PART II

Hall Trianti
14:15-15:45 SYMPOSIUM 15: Location, Location, Location! The importance of geospatial exposure constructs to assess pesticide exposures and related adverse health outcomes in agricultural settings
Chairs: Jose Ricardo Suarez (USA), Briana Chronister (USA)

O-SY-068 Geographic and record-based pesticide exposure assessment, biologic exposure signatures, and chronic disease modelling in California
Beate Ritz (USA)

O-SY-069 Geospatial determinants of urinary insecticide concentrations and internalizing disorders in Ecuadorian adolescents
Briana Chronister (USA)

O-SY-070 Residential exposure to pesticides and birth outcomes using the Dutch birth registry
Mariana Simões (Netherlands)

O-SY-071 Residential proximity to agricultural pesticide use and respiratory health in the CHAMACOS study
Robert Gunier (USA)

O-SY-072 Residential proximity to pesticide sprayed sites and sex and adrenal hormones in Ecuadorian adolescents
Georgia Kayser (USA)

O-SY-073 Geospatial analyses as a tool to monitor the implementation of regulation on aerial pesticide spraying in Matina County, Costa Rica
Luis Palomo Cordero (Costa Rica)
### Hall Skalkotas

#### SYMPOSIUM 16: Toxicity of air pollutant mixtures: overcoming the toxic mixture of spatial misalignment, collinearity, and measurement error  
**Chairs:** Howard Chang (USA), Jaime Hart (USA)

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<th>Session</th>
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<th>Presenters</th>
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<tr>
<td>O-SY-074</td>
<td>Measurement errors in Gaussian mixture models using high-dimensional air pollution constituents data</td>
<td>Xin Zhou (USA)</td>
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<tr>
<td>O-SY-075</td>
<td>Impact of exposure measurement error in multi-pollutant models: a simulation study in the time-series framework</td>
<td>Dimitris Evangelopoulos (United Kingdom)</td>
</tr>
<tr>
<td>O-SY-076</td>
<td>Predictive clustering methods to identify differential toxicity of air pollutant mixtures</td>
<td>Joshua Keller (USA)</td>
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<td>O-SY-077</td>
<td>Impact of long-term exposures of PM2.5 components and sources on cause-specific mortality in a US Medicare cohort: results from two-stage residual analysis</td>
<td>Helen Suh (USA)</td>
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</tbody>
</table>

### Hall Multipurpose

#### SYMPOSIUM 17: Two-way road: how has the environment affected the Covid-19 pandemic and how the pandemic response affected the environment in the Latin America and Caribbean Region  
**Chairs:** Marcela Tamayo-Ortiz (Mexico), Rafael Buralli (Brazil)

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<tr>
<th>Session</th>
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<th>Presenters</th>
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<tr>
<td>O-SY-078</td>
<td>Association between Covid-19 mortality and atmospheric pollution</td>
<td>Horacio Riojas-Rodriguez (Mexico)</td>
</tr>
<tr>
<td>O-SY-079</td>
<td>Air pollution and post-Covid-19 syndrome</td>
<td>Nelson Gouveia (Brazil)</td>
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<tr>
<td>O-SY-080</td>
<td>Built environment, transport, and Covid-19</td>
<td>David Rojas-Rueda (USA)</td>
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<tr>
<td>O-SY-081</td>
<td>SARS-CoV-2 in wastewater: studies in Latin America</td>
<td>Astrid Schilmann (Mexico)</td>
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<tr>
<td>O-SY-082</td>
<td>Covid-19 related waste management in the LAC region</td>
<td>Agnes Soares da Silva (USA)</td>
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<tr>
<td>O-SY-083</td>
<td>Association between air pollution in Lima and the high incidence of Covid-19: findings from a post hoc analysis</td>
<td>Diego Fano-Sizgorich (Peru)</td>
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### Hall MC3

#### SYMPOSIUM 18: Understanding the link between the urban exposome and health  
**Chairs:** Annette Peters (Germany), Jelle Vlaanderen (Netherlands)

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<thead>
<tr>
<th>Session</th>
<th>Title</th>
<th>Presenters</th>
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</thead>
<tbody>
<tr>
<td>O-SY-084</td>
<td>Characterizing the urban exposome in Europe</td>
<td>Kees de Hoogh (Switzerland)</td>
</tr>
<tr>
<td>O-SY-085</td>
<td>Statistical methods for quantifying the link between the urban exposome and health</td>
<td>Marc Chadeau-Hyam (United Kingdom)</td>
</tr>
<tr>
<td>O-SY-086</td>
<td>Exploring the exposome across the life-course; air pollution, metabolomics and lung function</td>
<td>Olena Gruzieva (Sweden)</td>
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<td>O-SY-087</td>
<td>The urban exposome and mortality: an analysis of European administrative cohorts</td>
<td>Evi Samoli (Greece)</td>
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<td>O-SY-088</td>
<td>Urban labs – The personalized building block of exposome research</td>
<td>Nicole Probst Hensch (Switzerland)</td>
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**DISCUSSION:**  
From results to impact around the world: how to engage and inform citizens  
Mark Nieuwenhuijsen (Spain) & Roel Vermeulen (Netherlands)
Hall MC2

14:15-15:45 SYMPOSIUM 19: Scientist connections with Environmental Justice Communities  
Chairs: George Thurston (USA), Kelvin Fong (Canada)

O-SY-089 Indigenous community environmental challenges and needs  
Misel Joe (Canada)

O-SY-090 Engagement of communities is critical to environmental health: lessons from some remote Canadian communities  
Atanu Sarkar (Canada)

O-SY-091 Partnering with the community to advocate for clean air: a case study from the South Bronx, NYC  
Jenni Shearston (USA)

O-SY-092 A Community-centered approach to inform change: the Assessing Imperial Valley Respiratory Health and the Environment Study  
Yoshira Ornelas Van Horne (USA)

O-SY-093 Providing expert witness testimony regarding affected Community impacts of natural gas pipeline proposals  
George Thurston (USA)

DISCUSSION FORUM: Opportunities for Scientist Engagement with Environmental Justice Communities  
All Speakers

Hall MC3.2

14:15-15:45 ORAL PRESENTATIONS SESSION 25: Environment and cardiovascular disease  
Chairs: Petter Ljungman (Sweden), Sofia Zafeiratou (Greece)

O-OP-129 Long-term exposure to transportation noise and incidence of ischemic heart disease: A pooled analysis of nine Scandinavian cohorts  
Andrei Pyko (Sweden)

O-OP-130 Association between long-term exposure to air pollution and cardio-metabolic phenotypes – A MRI-data based analysis  
Margarethe Woeckel (Germany)

O-OP-131 Association of short-term exposure to ambient PM1 with total and cause-specific cardiovascular disease mortality  
Ruijun Xu (China)

Katlyn McGraw (USA)

O-OP-133 Residential exposure to petroleum refining and stroke in the southern United States  
Honghyok Kim (USA)

O-OP-134 Phthalates and Incident Diabetes in Midlife Women: The Study of Women’s Health Across the Nation (SWAN)  
Mia Peng (USA)

Hall MC3.3

14:15-15:45 ORAL PRESENTATIONS SESSION 26: Environmental equity: environmental inequalities and health implications (2) – WITH ETHICS DISCUSSION  
Chairs: Tamara Schikowski (Germany), Mona Dai (USA)

O-OP-135 Interrogating the use of “maternal” in environmental epidemiology: opportunities for increasing linguistic and substantive precision  
Adrien Wilkie (USA)

O-OP-136 Sociodemographic disparities and metal concentrations in US drinking water supplies  
Mona Dai (USA)
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O-OP-137 Environmental health impacts and inequalities in green space and air pollution exposures in six European cities
Evelise Pereira Barboza (Spain)

O-OP-138 DDT for malaria elimination: an ethical dilemma
Nosiku Munyinda (Zambia)

O-OP-139 Work environment characteristics of environmental epidemiologists and mental health conditions – A cross sectional survey among ISEE members
Jutta Lindert (Germany)

Hall MC3.4

14:15-15:45 ORAL PRESENTATIONS SESSION 27: In search of epigenetic signatures of environmental exposures
Chairs: Devon Payne-Sturges (USA), Tommaso Filippini (Italy)

O-OP-140 HDMA2: A framework for High Dimensional Mediation Analysis with application to maternal smoking, placental DNA methylation and birth outcomes
Johanna Lepeule (France)

O-OP-141 Arsenic Exposure, Blood DNA Methylation and Cardiovascular Disease
Arce Domingo (Spain)

O-OP-142 Epigenetic Mediation of Prenatal Tobacco and Alcohol Exposure and Infant Neurodevelopment in a South African Birth Cohort: A High-Dimensional Mediation Analysis
Sarina Abrishamcar (USA)

O-OP-143 Prenatal wildfire exposure associates with differential placental DNA methylation and pregnancy traits
Rebecca Schmidt (USA)

O-OP-144 Exposure to Ambient Gaseous Pollutants, Serum miRNA Networks, Lipid Metabolism, and Non-Alcoholic Fatty Liver Disease in Young Adults
William Patterson (USA)

O-OP-145 Mitochondrial DNA Copy Number Dynamics from Birth through Adolescence in a Population of Dominican and African American Children
Allison Kupsco (USA)

Poster Discussion Area

14:15-15:45 POSTER DISCUSSION SESSION 05: Air pollution (ambient & indoor) and Sources
Chairs: Audrey de Nazelle (UK), Anne-Claire Binter (Spain)

P-0098 Combined Deep Learning and Land Use Regression Models for Ultrafine Particles and Black Carbon in Montreal and Toronto, Canada
Marshall Lloyd (Canada)

P-0100 Expression of aflatoxin genes in fungal isolates from vehicle air filters
Malgorzata Gotoff-Szymczak (Poland)

P-0112 Effects of vitamin D on association between air pollution and mental health in Korean adults: Results from the Korea National Health and Nutrition Examination Survey (KNHANES)
Hyoseon Kim (Korea)

P-0120 Europe-wide air pollution modelling from 2000 to 2019 using geographically weighted regression
Youchen Shen (Netherlands)

P-0137 Association of PM 2.5 components with the incidence of end-stage kidney disease in two large European cohorts
Gudrun Weinmayr (Germany)
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P-0138 Association between ambient air pollutants and influenza - A systematic review and meta-analysis
Regina Pickford (Germany)

P-0148 Long-term exposure to air pollution and decreased renal function in older adults: A longitudinal cohort study
Heeseon Jang (Korea)

P-0157 Impact of Do-It-Yourself and Commercial Air Cleaner Usage on Health and Residential PM2.5
Mallory Turner (USA)

P-0180 Short-term effects of carbonaceous particles on mortality: A time-series study in London
Rachael Piper (UK)

P-0212 Partitioning personal measurements into personal exposure to pollution from indoor and outdoor sources in London inhabitants - An analysis within the MELONS project
Hanbin Zhang (UK)

P-0230 Effects of a liquefied petroleum gas cookstove and fuel intervention on preterm birth and gestational duration: the multi-country Household Air Pollution Intervention Network (HAPIN) trial
Lisa Thompson (USA)

P-0237 Air pollution impacts at very low levels: Shape of the concentration-mortality relationship in a large population-based Canadian cohort
Michael Brauer (Canada)

P-0239 Application of geostationary satellite and high-resolution meteorology data in estimating hourly PM2.5 levels during the Camp Fire episode in California
Bryan N. Vu (USA)

P-0240 Transportation-Related Emissions Surrogates Support Modeling of Oxides of Nitrogen Exposure
Nathan Pavlovic (USA)

P-0242 Application of an ultra-low-cost passive sampler for light-absorbing carbon in India and Mongolia
Bujin Bekbulat (USA)

15:45-16:15 COFFEE BREAK | POSTER VIEWING

Hall Trianti

16:15-17:45 ORAL PRESENTATION SESSION 28: The exposome and health
Chairs: Roel Vermeulen (Netherlands), Adjani Peralta (USA)

O-OP-146 Metabolomics links lifestyle variables to breast cancer in the Long Island Breast Cancer Study Project
Lauren Petrick (USA)

O-OP-147 External exposome and all-cause mortality in two large administrative cohorts: Rome (Italy) and Greece
Federica Nobile (Italy)

O-OP-148 The urban exposome and type 2 diabetes: A deep learning approach
Haykanush Ohanyan (Netherlands)

O-OP-149 Exploring early life exposome related to low birth weight through machine learning methods
Mei Huei Chen (Taiwan)

O-OP-150 Impact of residential relocation on environmental exposures in European cohorts: an exposome-wide approach
Apolline Saucy (Spain)

O-OP-151 Metabolic Pathways Altered by Air Pollution Exposure in Association with Lipid Profiles in Young Adults
Jiawen Liao (USA)
Hall Skalkotas

16:15-17:45 ORAL PRESENTATIONS SESSION 29: Impacts of environmental exposures on COVID-related outcomes
Chairs: Payam Dadvand (Spain), Maria Foraster (Spain)

O-OP-152 A Spatial and Contextual Exposome-Wide Association Study of COVID-19 Hospitalizations in Florida, United States
Hui Hu (USA)

O-OP-153 Spatial Analysis of Ambient Air Pollution and COVID-19 Death in a Hospitalized Cohort of Confirmed Cases in Southern California
Michael Jerrett (USA)

O-OP-154 COVID-19 disease severity in hospitalized patients is associated with short- and long-term exposure to air pollutants
Stijn Vos (Belgium)

O-OP-156 Antibody Response after COVID-19 Vaccination in Healthy Adults Exposed to Perfluoroalkyl Substances in Ronneby, Sweden
Axel Andersson (Sweden)

Francesco Sera (Italy)

Hall Multipurpose

16:15-17:45 ORAL PRESENTATIONS SESSION 30: Child health, air pollution exposure and greenspace
Chairs: Ulrike Gehring (Netherlands), Hasan Sohail (Finland)

O-OP-158 Air quality and children allergic diseases and neurodevelopmental disorders - A nationwide birth cohort follow-up approach
Shu-Li (Julie) Wang (Taiwan)

O-OP-159 In-utero exposure to air pollution and blood pressure in children from the Rhea birth cohort study, Greece
Theano Roumeliotaki (Greece)

O-OP-160 Short-term air pollution exposure and anxiety symptoms in children from Mexico City
Laura McGuinn (USA)

O-OP-161 Prenatal exposure to residential green space and cord blood DNA methylation: epigenome wide association studies in the ENVIRONAGE cohort
Rossella Alfano (Belgium)

O-OP-277 Characterization of shed baby tooth metal concentrations in Project Viva
Phi Debby Lin (USA)

O-OP-163 Assessment of the joint effects of PM2.5 and pollen on childhood asthma exacerbation in the Philadelphia metropolitan region, 2011-2016
Wanyu Huang (USA)

Hall MC3

16:15-17:45 PECHA KUCHA SESSION 03: Child health
Chair: Dharshani Pearson (USA)

O-PK-17 Associations of prenatal exposure to per- and polyfluoroalkyl substances (PFAS) with measures of cognition in 7.5-month-old infants
Stephanie Eick (USA)

O-PK-18 Effects of Artificial Light at Night on Body Mass Index and Islet Autoimmunity Development in Children in Bavaria, Germany
Mahnaz Badpa (Germany)

O-PK-19 Prenatal Exposure to Ambient Particle Radioactivity and Fetal Growth in Eastern Massachusetts
Veronica Wang (USA)
O-PK-20  The association between ambient temperature exposure during infancy and overweight at age two years  Neora Alterman (Israel)

O-PK-21  Prenatal Exposure to Air Pollution and Childhood Lipid Levels: The Rhea Birth Cohort (Greece)  Marina Vafeiadi (Greece)

O-PK-22  The relationship between pregnancy phthalate exposure and language development at 2 years of age  Megan Woodbury (USA)

O-PK-23  Big Data-Driven Korean Children’s ENvironmental health Study (Ko-CHENS): Big-CHENS  Eunhee Ha (Korea)

O-PK-24  Ambient Air Pollution and Preeclampsia Onset in Massachusetts, United States  Hui Hu (USA)

O-PK-25  Quantification of waste in schools: A case study in Danang City, Vietnam  Hoang Nguyen Nhat Linh (Vietnam)

O-PK-26  Peri-conceptional exposure to ambient air pollution increases risk of gestational diabetes among pregnant participants in the Maternal and Developmental Risks from Environmental and Social Stressors (MADRES) study  Zhongzheng Niu (USA)

O-PK-27  High Ambient Temperatures and Child/Young Adult Injury Emergency Department Visits in NYC  Blean Girma (USA)

O-PK-28  Injury occurrence and gender-related factors among child workers in Nicaragua: a cross-sectional study  Steven Cuadra (Nicaragua)

Hall MC2

16:15-17:45  ORAL PRESENTATIONS SESSION 31: Air pollution, cognitive function and dementia-related health outcomes  Chairs: Zorana Andersen (Denmark), Kouame Kouadio (Cote d’Ivoir)

O-OP-164  The 2018 Japan Floods increased prescriptions of anti-dementia drugs among disaster victims: a retrospective cohort study based on a national health insurance database  Saori Kashima (Japan)

O-OP-165  The challenge of pre-enrollment selection bias in estimating the effects of air pollution on cognitive decline and other dementia-related outcomes  Ryan Andrews (USA)

O-OP-166  The impact of long-term exposure to fine particulate matter on incident dementia among U.S. older adults  Tszshan Ma (USA)

O-OP-167  PM2.5 and dementia – APOE-e4 and odor identification ability as moderators  John Andersson (Sweden)

O-OP-168  Association between ambient air pollution exposure and plasma ß-amyloid levels in the French Three-City study: preliminary results  Jeanne Duchesne (France)

O-OP-169  Associations of particulate matter exposures with brain cortical thickness and white matter hyperintensities: effect modification by c-reactive protein  Jaelim Cho (Korea)
### Hall MC3.2

**16:15-17:45 ORAL PRESENTATIONS SESSION 32: Health consequences of meteorological events and precipitation – WITH ETHICS DISCUSSION**  
Chairs: Kai Chen (USA), Pierre Masselot (UK)

**O-OP-170** The influence of rainfall measurement on the associations between rainfall and acute gastro-intestinal illness in North Carolina  
Kristen Downs (USA)

**O-OP-171** Exploring the association between precipitation and mental health hospitalizations in Switzerland  
Sujung Lee (Korea)

**O-OP-172** Sex and Age Characteristics of Thunderstorm Asthma Emergency Department Visits in a Midwest Metropolitan Environment (2007-2018)  
Jesse Berman (USA)

**O-OP-173** Dust Storms and Respiratory Emergency Department Visits in the Southwestern United States  
Stefanie Ebelt (USA)

Ana Maria Vicedo-Cabrera (Switzerland)

### Hall MC3.3

**16:15-17:45 ORAL PRESENTATIONS SESSION 33: Air pollution and emerging health outcomes**  
Chairs: Giota Touloumi (Greece), Chen Chen (USA)

**O-OP-175** A cohort study of the multi-pollutant effects of PM2.5, NO2, and O3 on C-reactive protein levels during pregnancy  
Priyanka Gogna (Canada)

**O-OP-176** Association between environmental air pollution and olfactory functioning among Italian adolescents and young adults in Northern Italy  
Stefano Renzetti (Italy)

**O-OP-177** Air pollution, telomere length, and related health outcomes in the UK Biobank Cohort  
Chia-Ling Kuo (USA)

**O-OP-178** Association of air pollution with incidence of end stage renal disease in two European cohorts and effect modification by chronic conditions  
Gudrun Weinmayr (Germany)

**O-OP-179** Medium- and Long-Term PM2.5 Exposures and Sudden Cardiac Death in a Prospective Cohort of US Women  
William Borchert (USA)

**O-OP-180** Metal Constituents of Fine Particulate Matter Mass and Incident Depression: A Community-based Cohort Study in China  
Xinhan Zhang (China)

### Hall MC3.4

**16:15-17:45 ORAL PRESENTATIONS SESSION 34: Exposure to chemicals and adverse health outcomes**  
Chairs: Hanna-Andrea Rother (South Africa), Linda Macheka (Luxembourg)

**O-OP-181** Exposure To Perfluoroalkyl Substances And Risk Of Hepatocellular Carcinoma In The Multiethnic Cohort  
Jesse Goodrich (USA)

**O-OP-182** Metabolic changes associated with polybrominated biphenyls and polychlorinated biphenyls in the Michigan PBB registry  
Susan Hoffman (USA)
DAY 3  
Tuesday, 20 September 2022  

O-OP-183  Relations between concentrations of perfluoroalkyl substances (PFAS) in drinking water and serum in adults living near PFAS hotspots  
Carolina Vogs (Sweden)  

O-OP-184  Exposure of the Portuguese population to metals and metalloids: results from a national study  
Sónia Namorado (Portugal)  

O-OP-185  Occupational exposure and asbestos related disease in Brazil, 2007 to 2021  
Rafael Buralli (Brazil)  

O-OP-186  Addressing Commercial Determinants of Health in African Pesticide Research  
Hanna-Andrea Rother (South Africa)  

Poster Discussion Area  
16:15-17:45  POSTER DISCUSSION SESSION 06: Chemical Exposures | Occupational Exposures and Health | Water Quality  
Chairs: Heresh Amini (Denmark), Chi-Hsin Sally Chen (Taiwan)  

P-0318  Relationship between cadmium exposure, triglyceride-glucose index and carotid artery atherosclerosis  
Kwanghyun Kim (Korea)  

P-0324  Prenatal Perfluorooctanoic Acid (PFOA) Exposure Significantly Decreases in utero Fetal Head Circumference and Biparietal Diameter Growth Among Women Reporting Higher Levels of Perceived Stress  
Alicia Peterson (USA)  

P-0329  Organophosphate Flame Retardant Exposures and Maternal Depression During Pregnancy in the Maternal and Developmental Risks from Environmental and Social Stressors (MADRES) Pregnancy Cohort  
Ixel Hernandez-Castro (USA)  

P-0352  Exposure to Per- and polyfluoroalkyl substances is associated with altered pancreatic β-cell function  
Jesse Goodrich (USA)  

P-0354  Associations of urinary metabolite concentrations of legacy phthalates and their replacements with body composition from mid-childhood to early adolescence  
Lisa B. Rokoff (USA)  

P-0390  Associations between per- and polyfluoroalkyl substances and liver fibrosis and steatosis in U.S. adolescents and adults  
Yu Zhang (USA)  

P-0400  Control of prenatal exposures to mercury in Europe: harmonized communication of fish-consumption advice to pregnant women combined with human biomonitoring  
Dimosthenis Sarigiannis (Greece)  

P-0402  Allostatic Load as a Modifier of Associations Between Metals and Blood Pressure  
Andrea Chiger (USA)  

P-1115  Cancer risks in the employees working at the Air Transportation Industries in the Republic of Korea  
Kyung-Eun Lee (Korea)  

P-1143  Environmental pollution from nephrite jade mines and lung cancer risk in a nearby community: An age-period-cohort analysis and joinpoint regression analysis in Fengtian, Taiwan  
Hsiao-Yu Yang (Taiwan)  

P-1165  Lung cancer and radon: Pooled analysis of uranium miners hired in 1960 or later  
David Richardson (USA)
P-1175 Establishing heat stress indicators for work in a warming world: multi-country field evaluation and consensus recommendations
Andreas Flouris (Greece)

P-1245 Seasonal Changes in Physicochemical, Chemical and Bacteriological Parameters of Gomti River in Bangladesh
Saif Shahrukh (Bangladesh)

P-1246 Polymers of micro- and nanoplastics in household tap water of Barcelona
Cristina Villanueva (Spain)

P-1256 Abundance, Types, and Polymer Composition of Microplastics Present in a Coastal Region of Cox’s Bazar, Bangladesh
Mohammad Enayet Hossain (Bangladesh)

BLE AZZURE (outside venue)
20:00-00:00 CONFERENCE DINNER
See details on page xxx
DAY 4
Wednesday, 21 September 2022

Hall Skalkotas
07:30-08:30 EARLY MORNING SESSION 07: Actionable insights from Environmental Health Practice: bridging the gap between research to practice
Presenter: Yulia Carroll (USA)

Hall Multipurpose
07:30-08:30 EARLY MORNING SESSION 08: Bridging Implementation Science and Health Equity to Mitigate Climate Change Impacts
Chair: Margaret Handley (USA)
Presenters: Lisa Thompson (USA), Neeta Thakur (USA), Lindsey Ann Martin (USA)

Hall MC3
07:30-08:30 EARLY MORNING SESSION 09: Air Pollution and Health: The Case of Central and Southeast Europe
Chairs: Pallavi Pant (USA), Zorana Andersen (Denmark), Tamara Schikowski (Germany)
Presenters: Nataša Dragić (Serbia), Artur Badyda (Poland), Anna Karakatsani (Greece)

Hall MC2
07:30-08:30 EARLY MORNING SESSION 10: SNRN - Beyond academia: fulfilling and exciting non-academic careers
Chairs: Rachel Shaffer (USA), Yanelli Nunez (USA)
Panelists: Sabah Quraishi (USA), Maria Elisa Quinteros (Chile), Sorina Eftim (USA), Thomas Bateson (USA)

Hall Trianti
08:30-09:00 AWARDS CEREMONY

Hall Trianti
09:00-09:45 KEYNOTE LECTURE 4: Reproducible science for knowledge and decision-making
Chair: Evi Samoli (Greece)
Speaker: John P.A. Ioannidis (USA)

09:45-10:30 KEYNOTE LECTURE 5: Reinforcing democratic structures to protect the environment and health: when science meets democratic structures, re-writing the Chilean constitution
Chair: Evi Samoli (Greece)
Speaker: Maria Elisa Quinteros Cáceres (Chile)

10:30-11:30 KEYNOTE PANEL 3: ARTF Keynote: Race and Racism from a Global Perspective
Chair: Margaret Hicken (USA)
Speakers: Mackda Ghebremariam Tesfau (Italy)
Racism, colorblindness and colonial removal: the Italian case as European paradigm
Jean Beaman (USA)
Race and Racism from a Global Perspective

11:30-12:00 COFFEE BREAK | POSTER VIEWING
Day 4  
Wednesday, 21 September 2022

**Hall Trianti**

12:00-13:30  SYMPOSIUM 20: Epidemiological studies for preparedness and response to public health and environmental crises and disasters  
Chairs: Elisabeth Cardis (Spain), Kurt Straif (Spain)

- **O-SY-094** Lessons learnt from past nuclear accidents  
  Elisabeth Cardis (Spain)

- **O-SY-095** Reflections on the response to the SARS-CoV-2 pandemic in South Africa  
  Cheryl Cohen (South Africa)

- **O-SY-096** Beirut Blast August 2020: lessons learned for environmental epidemiology in low-resource settings  
  Iman Nuwayhid (Lebanon)

- **O-SY-097** Emerging preparedness for major accidents: updates about the 9/11 health consequences and more recent events  
  Roberto Lucchini (USA)

- **O-SY-098** Standardized epidemiological protocols for assessment of health impacts in eruption crises  
  Will Mueller (UK)

**Hall Skalkotas**

12:00-13:30  SYMPOSIUM 21: Is access to environmental public health monitoring and surveillance an equity and justice issue in low- and middle-income countries?  
Chairs: Fuyuen Yip (USA), Helen Crabbe (UK)

- **O-SY-104** International Network for Public Health and Environmental Tracking (INPHET) and its role to Environmental Epidemiology  
  Paolo Lauriola (Italy)

- **O-SY-100** Strengthening environmental health surveillance in low- and middle-income countries  
  Sumi Mehta (USA)

- **O-SY-101** Interventions to reduce lead (Pb) exposure and value of a broad environmental health monitoring capacity  
  Giovanni Leonardi (UK)

- **O-SY-103** Inequalities in environmental public health funding in the European region  
  Helen Crabbe (UK)

- **O-SY-102** The role of field epidemiology in strengthening public health capacity for chemical and environmental hazards in Ghana and Zambia  
  Giovanni Leonardi (United Kingdom)

**Hall Multipurpose**

12:00-13:30  SYMPOSIUM 22: Climate change, heat and maternal health: estimating current and future burdens  
Chairs: Sari Kovats (United Kingdom), Nathalie Roos (Sweden)

- **O-SY-105** Associations between ambient temperature and risk of preterm birth in Sweden: a comparison of analytical approaches  
  Jeroen de Bont (Sweden)

- **O-SY-106** Ambient temperature during pregnancy and risk of maternal hypertensive disorders: a time-to-event study in Johannesburg, South Africa  
  Cherie Part (United Kingdom)

- **O-SY-107** Climate and extreme weather impacts on health service delivery in sub-Saharan Africa: a systematic review  
  Sari Kovats (United Kingdom)

- **O-SY-108** The effect of high and low ambient temperature on infant health: a systematic review  
  Darshnika Pemi Lakhoo (South Africa)

- **O-SY-109** Past and projected climate change impacts on heat-related child mortality in Africa  
  Sarah Chapman (United Kingdom)
## Hall MC3

### ORAL PRESENTATIONS SESSION 35: Occupational exposures and respiratory outcomes
**Chair:** Dimosthenis Sarigiannis (Greece), Leah Moubadder (USA)

| OP-187 | Exposure Trends and Half-lives of Per- and Polyfluoroalkyl Substances (PFAS) in Australian Firefighters | Sandra Nilsson (Australia) |
| OP-188 | Atrazine use and cancer risk within the Agricultural Health Study (AHS) cohort: An update | Richard Remigio (USA) |
| OP-189 | Pesticide exposure, genetic susceptibility, and prostate cancer risk in the Agricultural Health Study | Stella Koutros (USA) |
| OP-190 | Exploration of occupations as risk factors for lung cancer in hierarchical and penalization penalized regression models accounting for multiple known exposures | Calvin Ge (Netherlands) |
| OP-191 | Lung Cancer Risk in Relation to Jobs Held in a Nationwide Case-Control Study in Iran | Bayan Hosseini (France) |
| OP-192 | Study of Parental Occupational Exposures to Solvents and Risk of Autism Spectrum Disorder in Offspring | Aisha Dickerson (USA) |

## Hall MC2

### ORAL PRESENTATIONS SESSION 36: Air pollution: maternal and neonatal health
**Chair:** Yasushi Honda (Japan), Mike He (USA)

| OP-193 | Exposure to ambient fine particulate matter (PM2.5) from local sources during pregnancy may reduce birth weight: An administrative cohort study from southern Sweden | Ebba Malmqvist (Sweden) |
| OP-194 | Air Pollution Exposure during Pregnancy and Childhood, APOE ε4 Status and Polygenic Risk Score for Alzheimer's Disease, and Brain Structural Morphology in Preadolescents | Esmée Essers (Netherlands) |
| OP-195 | A population-based cohort study of traffic congestion and term birth weight using vehicle telematics data | Mary Willis (USA) |
| OP-196 | Geospatial determinants of maternal and child exposure to fine particulate matter in Kintampo, Ghana: Levels within the household and community, by building density and nearby roadways | Danielle Medgyesi (USA) |
| OP-197 | Effects of a liquefied petroleum gas cookstove and fuel intervention on fetal and neonatal outcomes: a multi-country randomized controlled trial conducted by the Household Air Pollution Intervention Network (HAPIN) trial | Ashley Younger (USA) |
| OP-198 | Effect of Ramadan fasting during pregnancy on birth weight of term newborns: Modification by biomass fuel use in Kaduna, Nigeria | Musa Kana (Nigeria) |

## Hall MC3.2

### ORAL PRESENTATIONS SESSION 37: Using metabolomics to understand mechanisms of environmental exposures
**Chair:** Marie Standl (Germany), Luis Diego Palomo Cordero (Costa Rica)

| OP-199 | Agricultural pesticide exposure related to metabolic changes in Parkinson's disease patients | Kimberly Paul (USA) |
DAY 4
Wednesday, 21 September 2022

O-OP-200  Air pollution, proteomics, metabolomics, and cardiometabolic health in the Framingham Heart Study
Laura Corlin (USA)

O-OP-201  Salivary metabolomic signatures and body mass index (BMI) in Italian adolescents: a pilot study
Sandra India-Aldana (USA)

O-OP-202  Using High-Resolution Metabolomics for Identifying Metabolic Profiles Associated with Ambient Air Pollution in the Cancer Prevention Study-II Nutrition Cohort
Donghai Liang (USA)

O-OP-203  Mapping the mechanistic evidence of wood smoke and wildfire studies in humans
Whitney Arroyave (USA)

O-OP-204  Air pollution exposure during pregnancy and placental metabolomics
Lina Mu (USA)

Hall MC3.3

12:00-13:30 ORAL PRESENTATIONS SESSION 38: Greenspace, built environment, and health
Chairs: Matilda van den Bosch (Spain), Antonis Analitis (Greece)

O-OP-205  Neighborhood built environment, psychosocial stressors, and telomere length of birth parents and infants from San Francisco, California
Rachel Morello-Frosch (USA)

O-OP-206  Residential Greenness and Depression in Older U.S. Adults: Evidence from The Health and Retirement Study
Alan Fossa (USA)

O-OP-207  Early Life Exposure to Greenspace and Autism Spectrum Disorder and the Mediating Effects of Air Pollution in Ontario, Canada
Eric Lavigne (Canada)

O-OP-208  Association of Greenspace Exposure at Midlife with Cognitive Decline Later in Life in a Study of US Women
Peter James (USA)

O-OP-209  Residential proximity to greenspace and human birth defects
Kari Weber (USA)

O-OP-210  Air pollution, greenspace and active travel infrastructure impacts on stress while walking, cycling, or in motorized transport
Audrey de Nazelle (UK)

Hall MC3.4

12:00-13:30 ORAL PRESENTATIONS SESSION 39: Reproductive outcomes and exposure to air pollution
Chairs: Beate Ritz (USA), Ivan Gutierrez-Avila (USA)

O-OP-211  Ambient Black Carbon Particles Travel From Mother Into the Fetal Circulation and Organs During Gestation
Eva Bongaerts (Belgium)

O-OP-212  Traffic-Related Air Pollution and DNA Methylation of the Follicular Fluid
Audrey Gaskins (USA)

O-OP-213  Prenatal depression increases susceptibility to periconceptional ambient air pollution exposure in relation to risk of gestational hypertension
Zhongzheng Niu (USA)

O-OP-214  Upstream oil and gas production and risk of spontaneous preterm birth in California: A matched sibling study
David Gonzalez (USA)

O-OP-215  Ambient air pollution concentrations and incidence of spontaneous abortion
Amelia Wesselink (USA)
## DAY 4
Wednesday, 21 September 2022

**Poster Discussion Area**

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<th>Climate change and Health</th>
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<td>Long-term Exposure to Walkable Residential Neighborhoods Reduces the Risk of Obesity-related Cancer in Women</td>
<td>Sandra India-Aldana (USA)</td>
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<td>P-0268</td>
<td>Association between woodsmoke and respiratory health: A Dutch panel study</td>
<td>Fleur Froeling (Netherlands)</td>
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<td>P-0282</td>
<td>The relation of residential greenness with fetal growth and the role of air pollution in Eastern Massachusetts, USA</td>
<td>Michael Leung (USA)</td>
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<td>P-0295</td>
<td>Road traffic noise and incidence of primary hypertension: a prospective analysis in UK Biobank</td>
<td>Samuel Cai (UK)</td>
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<td>P-0298</td>
<td>Association between greenspace exposure and different domains of cognitive function in the French CONSTANCES cohort</td>
<td>Ana Ramos (Spain)</td>
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<td>P-0301</td>
<td>Validation and Improvement of the Dutch Obesogenic Built Environment Characteristics Index</td>
<td>Thao Minh Lam (Netherlands)</td>
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<td>P-0304</td>
<td>Modeling MODIS LST at European scale</td>
<td>Alonso Bussalleu (Switzerland)</td>
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<td>P-0316</td>
<td>Improved Hyperlocal Air Quality Mapping: Can Traditional Deterministic Modelling Leverage Mobile Monitoring via Hybrid Modelling Approaches?</td>
<td>Jibran Khan (Denmark)</td>
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<td>P-0554</td>
<td>The prospective effects of Climate change on Neglected Tropical Diseases in the Eastern Mediterranean region: A review</td>
<td>Ahmed Al-Delaimy (Iraq)</td>
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<td>P-0577</td>
<td>Short-term effects of air temperature on mortality in the Norwegian CONOR cohort – results of the EXHAUSTION project</td>
<td>Shilpa Rao-Skirbekk (Norway)</td>
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<td>P-0580</td>
<td>Ambient heat and emergency department visits for mental health in Canada: assessing temporal variations by greenspace, urbanicity and socioeconomic status</td>
<td>Eric Lavigne (Canada)</td>
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<td>P-0590</td>
<td>Association between high temperature and hospital admissions for kidney diseases: a nationwide study</td>
<td>Elisa Gallo (Italy)</td>
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<td>P-0599</td>
<td>Describing cumulative exposure related to heat stress in France to support adaptation</td>
<td>Lucie Adelaide (France)</td>
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<td>P-0604</td>
<td>Extreme temperatures and cause-specific mortality in a temperate climate zone: a case-crossover study in Central Mexico</td>
<td>Ivan Gutierrez-Avila (USA)</td>
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<td>P-0611</td>
<td>Climate change and cardiovascular disease mortality: exploring the association in Puducherry, India</td>
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### 13:30-14:30 LUNCH BREAK | POSTER VIEWING
DAY 4
Wednesday, 21 September 2022

Hall Multipurpose
13:30-14:30 WOMEN’S SESSION

Hall MC3
13:30-14:30 BRAINSTORMING ON EE CRISIS

Hall MC3.2
13:30-14:30 US-EASTERN MEDITERRANEAN INITIATIVE GROUP MEETING

Hall MC3.3
13:30-14:30 WARTENBERG AWARDEE EVENT

Hall MC3.4
13:30-14:30 MEET THE PRESIDENT

Hall Trianti
14:30-16:00 SYMPOSIUM 23: The use of epidemiology in risk assessment: challenges and innovations in translating human health research
Chairs: Rachel Shaffer (USA), Rebecca Nachman (USA)
O-SY-110 Introduction to applying dose-response modeling from epidemiological data to derive toxicity values
Thomas Bateson (USA)
O-SY-111 Developments in benchmark modeling of epidemiological data
Philippe Grandjean (Denmark)
O-SY-112 Benchmark dose estimation using covariate-controlled epidemiology estimates
Matthew Wheeler (USA)
O-SY-113 Advances in the meta-regression of heterogeneous studies: lessons learned from EPA’s analysis of inorganic arsenic
Alexandra Larsen (USA)
O-SY-114 Estimation of the exposure response relation by combining epidemiological, human biomarker and animal data in a Bayesian meta-regression model
Roel Vermeulen (Netherlands)

Hall Skalkotas
14:30-16:00 SYMPOSIUM 24: Chemical exposures and children’s health in the United States: results from the NIH Environmental influences on Child Health Outcomes (ECHO) Program
Chairs: Jessie Buckley (USA), Deborah Bennett (USA)
O-SY-115 Solution-oriented research for chemical exposures and children’s health: the ECHO Program
Jessie Buckley (USA)
O-SY-116 Organophosphate ester flame retardant exposure and perinatal outcomes
Deborah Bennett (USA)
O-SY-117 Prenatal exposures to bisphenols and phthalates, gestational length and birth weight in the US: a national longitudinal study
Leonardo Trasande (USA)
O-SY-118 Exposures to environmental phenols and asthma risk
Rachel Miller (USA)
**O-SY-119**  
**Associations of gestational perfluoroalkyl substances exposure with early childhood BMI Z-scores and risk of overweight/obesity: results from the ECHO cohorts**  
Jamie Yun Liu (USA)

**O-SY-120**  
**Prenatal exposure to per- and polyfluoroalkyl substances and childhood autism-related outcomes**  
Jennifer Ames (USA)

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**Hall Multipurpose**

14:30-16:00 **ORAL PRESENTATIONS SESSION 40: Child health and exposure to air pollution**  
Chairs: Pau-Chung Chen (Taiwan), Vassiliki Benetou (Greece)

- **O-OP-217** **Accumulation of Black Carbon Particles in Placenta, Cord Blood and Childhood Urine on the Intestinal Microbiome Diversity and Composition in Four-to-Six-Year-Old Children**  
Thessa Van Pee (Belgium)

- **O-OP-218** **Coal ash and depression in children aged 6-14 years old**  
Kristina M Zierold (USA)

- **O-OP-219** **Association of improved air quality with lung development from childhood until young adulthood: The BAMSE study**  
Zhebin Yu (Sweden)

- **O-OP-220** **Air Pollution Exposure during Pregnancy and Childhood, Cognitive Function, and Emotional and Behavioral Problems in Adolescents**  
Michelle Kusters (Netherlands)

- **O-OP-221** **Agricultural burning in Imperial Valley, California and respiratory symptoms in children: a cross-sectional, repeated measures analysis**  
Elizabeth Kamai (USA)

- **O-OP-222** **Exposure to Indoor Particulate Matter is Associated with Gastrointestinal and Respiratory Microbial Communities**  
Maximilian Bailey (USA)

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**Hall MC3**

14:30-16:00 **ORAL PRESENTATIONS SESSION 41: Heat stress, temperature, air pollution and health**  
Chairs: Marc Weisskopf (USA), Diana Varaden (UK)

- **O-OP-223** **The Effects of Co-Exposure to Extremes Heat and Particulate Air Pollution on Mortality in California**  
Md Mostafijur Rahman (USA)

- **O-OP-224** **Projection of combined vulnerability to air pollution and heat stress**  
Sourangsu Chowdhury (Norway)

- **O-OP-225** **Mediation of 8-hour Maximum Concentration of Ozone on Association between Temperature and Daily Mortality and Excess Mortality due to Climate Change in 7 Metropolitan Cities in Korea**  
Sanghyuk Bae (Korea)

- **O-OP-226** **Heat, Fine Particulates, and Diagnosis of Dementia: A Matched Case Control Study in North Carolina from 2003 to 2016**  
Anne Weaver (USA)

- **O-OP-227** **Ambient heat exposure and COPD hospitalisations in England: A nationwide case-crossover study during 2007-2018**  
Garyfallos Konstantinoudis (UK)

- **O-OP-228** **Interactive effects of heat and air pollution on mortality in Europe using small area data - Results of the exhaustion project**  
Francesca De Donato (Italy)
Hall MC2

14:30-16:00 ORAL PRESENTATIONS SESSION 42: Environment and health in low and medium income countries (2)
Chairs: Ahmed Al-Delaimy (Iraq), Diana Marcela Marin Pineda (Colombia)

O-OP-230 The effect of landscape fires on child hospital visits and admissions: a time-series study in southern Mozambique
Ariadna Curto (Spain)

O-OP-231 Effects of a liquefied petroleum gas stove intervention on gestational blood pressure: intention-to-treat and exposure-response findings from the Household Air Pollution Intervention Network (HAPIN) trial
Wenlu Ye (USA)

O-OP-232 Indoor air pollution and diet mediates the effects of social inequality on birth outcomes
Talat Islam (USA)

O-OP-233 Air pollution, physical activity, and incident gestational diabetes mellitus: a prospective cohort study
Wenyu Liu (China)

O-OP-234 Association of Ambient and Household Air Pollution with Lung Function in Young Adults in an Peri-urban Area of South-India: a cross-sectional study
Cathryn Tonne (Spain)

O-SY-128 Using spatial data for sampling prioritization and prediction of PFAS chemicals in fish tissue in the Columbia River Basin
Nicole DeLuca (USA)

Hall MC3.2

14:30-16:00 ORAL PRESENTATIONS SESSION 43: Modelling techniques for exposure assessment
Chairs: Sean Beevers (UK), Konstantina Dimakopoulou (Greece)

O-OP-235 UK hyperlocal air pollution model – Use of inverse modelling to increase the spatial detail of air pollution predictions
Sean Beevers (UK)

O-OP-236 Assessing daily PM2.5 at every square kilometer of India over 2008-2020 using a machine learning framework
Siddhartha Mandal (India)

O-OP-237 Comparison of PM2.5 concentrations estimated using eleven different methods and their associations with cognitive outcomes in the ARIC cohort
Katie Lynch (USA)

O-OP-238 Sources of measurement error for indoor carbon monoxide exposure – A simulation model
Sophie Hamilton (UK)

O-OP-239 Air Pollution Models of High Spatiotemporal Resolution for the State of California to Identify Exposure Disparities of the Disadvantaged Communities
Jason Su (USA)

O-OP-240 Personal exposures to PM2.5 in rural Beijing, China: Spatial-temporal variation patterns and modeling approaches
Xiaoying Li (Canada)

Hall MC3.3

14:30-16:00 ORAL PRESENTATIONS SESSION 44: Risk communication and participatory epidemiology – WITH ETHICS DISCUSSION
Chairs: Francine Laden (USA), Danny Houthuijs (Netherlands)

O-OP-241 PM2.5 attributable health disparities and distributional benefits of alternative National Ambient Air Quality Standards in the continental United States
Ananya Roy (USA)
O-OP-242 Pathway to WHO: Achieving clean air in the UK - Modelling air quality costs and benefits
Heather Walton (UK)

O-OP-243 The impact of alternative fuel vehicles on health: a systematic review
Audrey Pennington (USA)

O-OP-244 Application of co-created citizen science in environmental epidemiology
Fleur Froeling (Netherlands)

O-OP-245 An Evaluation of the Air Quality Warning System for Vulnerable and Susceptible Individuals in South Korea
Youhyun Park (Korea)

Hall MC3.4

14:30-16:00 ORAL PRESENTATIONS SESSION 45: Maternal exposures and neurobehavioural outcomes
Chairs: Benjamin Barratt (UK), Marloes Eeftens (Switzerland)

O-OP-246 Maternal per- and poly-fluoroalkyl substances exposures associated with higher depression scores among immigrant women in the San Francisco Chemicals in Our Bodies cohort
Max Aung (USA)

O-OP-247 Associations of exposure to phenols during pregnancy with non-nutritive suck in full-term infants in two US birth cohorts
Megan Woodbury (USA)

O-OP-248 Prenatal exposure to endocrine disrupting chemicals and the association to behavioural outcomes in children at age seven in the SELMA study
Marlene Stratmann (Sweden)

O-OP-249 Joint Effects of Indoor Air Pollution and Maternal Psychosocial Stress During Pregnancy on Trajectories of Early Childhood Psychopathology
Grace Christensen (USA)

O-OP-250 Air pollution during perinatal period and neurodevelopment in children: a national population study in Taiwan
Ping Shih (Taiwan)

O-OP-251 Prenatal exposure to polycyclic aromatic hydrocarbons and behavioral problems in preschool and early school-aged children
Erin Wallace (USA)

Poster Discussion Area

14:30-16:00 POSTER DISCUSSION SESSION 08: Environment and health in low and medium income areas | Environmental Equity | Ethics
Chairs: Sylvia Takyi (Ghana), Andres Cardenas (USA)

P-0687 Long-term exposure to PM2.5 and avoidable mortality in Colombia 2014-2019
Laura Andrea Rodriguez-Villamizar (Colombia)

P-0694 Long-term ambient air pollution exposure and tuberculosis notification rates during 2005–2017 in Ningxia Hui Autonomous Region, China
Igor Popovic (Australia)

P-0697 Effects of Environmental Pollution from Illegal Mining Activities on Community Health: A community-based study in Kenyasi, Ahafo Region
Prince Owusu Adoma (Ghana)

P-0698 Determinants of clean cooking fuels utilization in three peri-urban communities in Ghana: key lessons to inform national policy
Theresa Tawiah (Ghana)

P-0700 Main and added effects of heatwaves on hospitalizations for Mental and Behavioral Disorders in a tropical megacity of Vietnam
Tran Ngoc Dang (Vietnam)
P-0704  Geospatial modelling of road-traffic noise levels and frequency and the attributable burden of annoyance and sleep disturbance in Accra, Ghana  
Sierra Clark (UK)

P-0729  Use of insecticide-treated nets and other household insecticides for preventing malaria in six-year-old children in Benin, sub-Saharan Africa  
Florence Bodeau-Livinec (France)

P-0755  Investigation on sociodemographic and health inequity of greenspace using different greenspace indicators in 3 US urban communities  
Seulkee Heo (USA)

P-0758  Temperature and cardiovascular hospitalization in persons with and without disabilities: Invisible population in climate change discourse  
Sera Kim (Korea)

P-0760  Historic redlining and the siting of oil and gas wells in the United States  
David Gonzalez (USA)

P-0766  Environmental Exposures in a Cohort of Swedish Women – Are there Inequalities by Socioeconomic Status?  
Lara Stucki (Sweden)

P-0767  Sociodemographic Determinants of PFAS Contamination in United States Community Water Supplies: An Analysis of Sampling Data from 11 States  
Jahred Liddie (USA)

P-0777  Fine particulate matter component air pollution in American Indian vs. Non-American Indian communities  
Maggie Li (USA)

P-0785  Modification by Multiple Social Stressors in Air Pollution-CVD Associations  
Jane Clougherty (USA)

P-0796  Management of the Afghan Refugee Resettlement Crisis and Integration Challenges to Public Health  
Absaar Ateeq (USA)

16:00-16:30 COFFEE BREAK | POSTER VIEWING

Hall Trianti

16:30-18:00 SYMPOSIUM 25: Global perspectives on harmonizing chemical risk assessments: current status and future needs  
Chairs: Rachel Shaffer (USA), Kurt Straif (Spain)

O-SY-121  Towards one substance-one assessment: an analysis of European chemical registration and environmental risk assessment frameworks  
Joanke van Dijk (Netherlands)

O-SY-122  Environmental health assessment in the United States  
Rachel Shaffer (USA)

O-SY-123  Advancing coordination of systematic review  
Kristina Thayer (USA)

O-SY-124  Evaluating chemical hazard on a global scale  
Tracey Woodruff (USA)

Hall Skalkotas

16:30-18:00 ORAL PRESENTATIONS SESSION 46: Environmental health and the COVID pandemic  
Chairs: Barbara Hoffmann (Germany), Marie Pedersen (Denmark)

O-OP-252  Association between long-term exposure to ambient air pollution and COVID-19 severity - A prospective cohort study of confirmed SARS-CoV-2 cases in Ontario, Canada  
Chen Chen (USA)
O-OP-253 Solving the short-term NO2 exposure and mortality dilemma: a natural experiment during the COVID-19 lockdowns
Yiqun Ma (USA)

O-OP-254 COVID-19 national lockdown in Morocco: Impacts on air quality and public health
Kenza Khomsi (Morocco)

O-OP-255 Urban greenspace and risk of mental illness following the COVID-19 lockdown - Results from the COVICAT-study, Spain
Matilda van den Bosch (Spain)

O-OP-256 Changes in health risks of pest control and disinfection workers after the COVID-19 outbreak in South Korea
Yun-Hee Choi (Korea)

Hall Multipurpose
16:30-18:00 ORAL PRESENTATIONS SESSION 47: Water quality and health
Chair: Jörg Schullehner (Denmark)

O-OP-257 Socioeconomic vulnerability and public water arsenic concentrations across the US
Anne Nigra (USA)

O-OP-258 Are current drinking water standards for nitrate sufficient for preventing adverse birth outcomes and childhood cancer? Findings from a cohort of over one million children in Denmark
Leslie Stayner (Denmark)

O-OP-259 Private drinking water wells in Denmark: monitoring and predicting nitrate levels
Jörg Schullehner (Denmark)

O-OP-260 Inorganic arsenic in drinking water and breast cancer risk: a case-control study in Northern Chile
Estela Blanco (Chile)

O-OP-261 Microplastic Pollution in Two Urban Rivers and an Associated Water Treatment Plant in Bangladesh
Mohammad Enayet Hossain (Bangladesh)

O-SY-132 Association of arsenic and uranium concentrations in private wells and community water systems with urinary biomarkers in American Indian adults: The Strong Heart Family Study
Maya Spaur (USA)

Hall MC3
16:30-18:00 ORAL PRESENTATIONS SESSION 48: Health consequences of extreme events
Chairs: Amy Padula (USA), Kate Burrows (USA)

O-OP-263 Heat-related deaths and ambulance transports after typhoon-triggered power outages: a quasi-experimental study in the metropolitan areas of Japan
Lisa Yamasaki (Japan)

O-SY-125 Climate change and health system preparedness: if it never rains but it pours
Valentina Gallo (Netherlands)

O-OP-265 Long-term Drought and Diarrhea among Children under Five and the Role of Water, Sanitation, and Hygiene Practices
Pin Wang (USA)

O-OP-266 Wildfire Smoke Exposure During Pregnancy and Preterm Birth in California
Amy Padula (USA)

O-OP-267 The Effects of Hurricane Matthew on Racial Disparities in Birth Outcomes
Zachary McCann (USA)

O-OP-054 Air Pollution, Climate Conditions and Risk of Psychotic Hospitalization in U.S. Residents
Xinye Qiu (USA)
Hall MC2

16:30-18:00  PECHA KUCHA SESSION 04: Climate change and health
Chairs: Antonis Analitis (Greece), Erasmia Bizani (Greece)

O-PK-29  Premature mortality due to temperature changes by 2050 in Chile
Luis Abdón Cifuentes (Chile)

O-PK-30  Inclement Weather and Risk of Missing Scheduled Hemodialysis Appointments
Hyeonjin Song (USA)

O-PK-31  Wildfire exposure and health care use among people who use durable medical equipment in Southern California
Heather McBrien (USA)

O-PK-32  Effect of different heat wave timing on non-accidental mortality in 20 French cities
Anna Alari (Spain)

O-PK-33  The impact of weather changes on air quality and health in Brazil
Weeberb Réquia (Brazil)

O-PK-34  Associations between short-term ambient temperature exposure and kidney-related diseases in New York State: The influence of exposure spatial resolution and adaptation adjustment
Lingzhi Chu (USA)

O-PK-35  Upstream oil and gas infrastructure and wildfire burn areas in the western U.S.: Assessing current and future risks
Joan Casey (USA)

O-PK-36  Health impact assessment of climate change mitigation and adaptation policies
Dimosthenis Sarigiannis (Greece)

O-PK-37  Long-term exposure to ambient fine particulate elements and leukocyte epigenome-wide DNA Methylation in older men: the Normative Aging Study
Cuicui Wang (USA)

O-PK-38  Outdoor air pollution and risk of incident adult hematologic cancer subtypes in a large US prospective cohort
W. Ryan Diver (USA)

O-PK-39  Mortality and Morbidity Risk and residential exposure to municipal waste landfills in Italy: the ERAS-2 Lazio project
Carla Ancona (Italy)

O-PK-40  Long-term exposure to elemental components of fine particulate matter and natural and cause-specific mortality in a Danish nationwide administrative cohort
Rina So (Denmark)

Hall MC3.2

16:30-18:00  ORAL PRESENTATIONS SESSION 49: Impacts of exposure to chemicals on maternal and child health
Chair: Stephanie Eick (USA)

O-OP-269  Variability of per- and polyfluoroalkyl substances concentrations among pregnant African American women and newborns
Youran Tan (USA)

O-OP-270  Mixtures of persistent and non-persistent chemicals and associations with pregnancy outcomes in the Atlanta African American Maternal Child Cohort
Stephanie Eick (USA)

O-OP-271  Mixture analysis of air pollution and endocrine disrupting chemicals in relation to Vitamin D concentrations in pregnancy
Kimberly Berger (USA)

O-OP-272  Prenatal exposure to triclosan assessed through repeated urine samples and placental DNA methylation in the SEPAGES cohort
Claire Philippat (France)
O-OP-273 Relationships between levels of endocrine-disrupting chemicals and immune markers in maternal circulation during mid-pregnancy
Jennifer Ames (USA)

O-OP-274 Urinary phthalate metabolites and phenolics in women of childbearing age and their association with thyroid hormones: a comparison study of fasting status
Inae Lee (Korea)

Hall MC3.3

16:30-18:00 ORAL PRESENTATIONS SESSION 50: Child health and metals exposure
Chairs: Olda-Ioanna Kalantzi (Greece), Tzu-Hsuen Yuan (Taiwan)

O-OP-275 Prenatal heavy metals exposure and neurodevelopmental disorders in the Boston Birth Cohort: examining risk and protective factors
Giehae Choi (USA)

O-OP-276 Prenatal Trace Metal Exposures and Genetic Variants Inform Birth Weight-related Placental Isoform Expression
Maya Deyssenroth (USA)

O-OP-162 Greenspace, air pollution and asthma exacerbations
Shilu Tong (China)

O-OP-278 Exposure to a metal mixture is associated with decreased tremor in Italian adolescents
Alexa Friedman (USA)

O-OP-279 Associations of Prenatal Metals Exposure with Kidney Injury Biomarkers in Children
Maria D. Politis (USA)

O-OP-280 Early pregnancy metal exposure and epigenetic aging biomarkers at birth and in childhood in a US cohort
Anne Bozack (USA)

Hall MC3.4

16:30-18:00 ORAL PRESENTATIONS SESSION 51: Air pollution, ultrafine particles, radon and various health outcomes
Chairs: Stefania Papatheodorou (USA), Anke Huels (USA)

O-OP-281 Renal function and ambient air pollution at low exposure levels
Karl Kilbo Edlund (Sweden)

O-OP-282 Impact of ultrafine particles and total particle number concentration on natural-, cardiovascular, and respiratory mortality in three German cities
Maximilian Schwarz (Germany)

O-OP-283 Exposure to ultrafine particles and mortality in the Netherlands
Femke Bouma (Netherlands)

O-OP-284 Association between long-term exposure to air pollution and rhinitis and asthma comorbidities in the Constances cohort
Marine Savouré (France)

O-OP-285 A prospective cohort study on the association between residential radon exposure and melanoma incidence in Switzerland
Seçkin Boz (Switzerland)

O-OP-286 The Association of ventilation device in kitchen with the reported respiratory symptoms of adults
Jinliang Zhang (China)
**Poster Discussion Area**

**16:30-18:00**

**POSTER DISCUSSION SESSION 09: Exposome | Health Impact Assessment, Risk communication and Participatory Epidemiology | Mechanisms and Molecular Biomarkers**

*Chair: Lida Chatzi (USA)*

- **P-0797** Per and polyfluoroalkyl substances and psychosocial stressors have a joint effect on adverse pregnancy outcomes in the Atlanta African American Maternal-Child cohort
  
  Stephanie Eick (USA)

- **P-0804** Exposomic Analysis of Organic Pollutants in Seminal Plasma and Male Reproductive Parameters
  
  Haotian Wu (USA)

- **P-0813** A multi-environmental media approach to explore the association between metal exposure and the ability to identify smells among school-age children residing in Northern Italy
  
  Stefano Renzetti (Italy)

- **P-0904** Seasonal and spatial patterns of mortality and socio-economic characteristics associated with exposure to air pollution and a lack of green areas
  
  Bram Vandeninden (Belgium)

- **P-0925** Lanthanum, cerium and praseodymium in urban topsoils, an emerging health concern?
  
  Antonio Peña-Fernández (UK)

- **P-0929** Dwelling mouldy area size and current asthma in adults from the French CONSTANCES cohort
  
  Tajidine Tsiavia (France)

- **P-0945** Occupational exposure to benzene and risk of non-Hodgkin lymphoma in Shanghai: an extended follow-up of two population-based prospective cohorts of Chinese women and men
  
  Nathaniel Rothman (USA)

- **P-0948** Estimating the health burden of ambient fine particulate matter in Korea
  
  Hyun-Joo Bae (Korea)

- **P-0966** DNA methylation and aeroallergen sensitization – The chicken or the egg?
  
  Anna Kilanowski (Germany)

- **P-0967** Contribution of gut bacteria to arsenic metabolism in the first year of life in a prospective birth cohort
  
  Hannah E. Laue (USA)

- **P-0976** Prenatal polycyclic aromatic hydrocarbon (PAH) exposure in relation to placental corticotropin releasing hormone (pCRH) in a sociodemographically diverse U.S. cohort
  
  Emily Barrett (USA)

- **P-0995** Maternal DNA Methylation Signatures of Arsenic Exposure is Associated with Adult Offspring Insulin Resistance in the Strong Heart Study
  
  Christian Dye (USA)

- **P-0996** Establishing a method to isolate blood-borne extracellular vesicles derived from microglia: a critical biomarker source for environmental exposure-linked neurotoxicity
  
  Tanya Butt (USA)

- **P-0997** Epigenetic Modulations with BPA and PFOA Exposure Prior to Pubertal Onset in Growing Up Female
  
  Cecily Fassler (USA)

**Hall Trianti**

**18:00-18:30**

**SNRN AWARDS & CLOSING CEREMONY**
Poster Presentations Catalogue
TOPIC 01. Advances in Epidemiology and Statistical Methods

P-0001 A Machine Learning Exposure Response Analysis of the effect of PM2.5 on Myocardial Infarctions Using Regression Adjustment Causal Modeling
   Joel Schwartz (USA)

P-0002 Effect of pesticides exposure on oxidative stress and epigenetic changes biomarkers in Czech adults and children from the CELSPAC-SPECIMEn cohort
   Tomáš Janoš (Czech Republic)

P-0004 Adjustment for Unmeasured Spatial Confounding in Settings of Continuous Exposure Conditional on the Binary Exposure Status: Conditional Generalized Propensity Score-Based Spatial Matching
   Honghyok Kim (USA)

P-0005 Counternull sets in randomized experiments
   Marie-Abele Bind (USA)

P-0008 Performance of Competing Methods for Quantile Regression with Count Data: A Simulation Study with Applications for Environmental Epidemiology
   Josh Alampi (Canada)

P-0009 Time series clustering using self-organizing maps to identify longitudinal pollutant exposure profiles
   Brittney Marian (USA)

P-0010 Estimating high-dimensional heterogeneous treatment effects in the context of climate and health: a case study exploring the role of effect modification in the relationship between precipitation shocks and diarrheal illness
   Tarik Benmarhnia (USA)

P-0011 Bridging differences across cohorts in the relationship between prenatal secondhand smoke exposure and birth weight: Transportability of effect estimates in the ECHO consortium
   Andreas Neophytou (Canada)

P-0012 Does trajectory of ambient air pollutant (PM2.5, NO2) exposure influence cognitive function? A co-pollutant examination using sequence analysis
   Kristina Dang (USA)

P-0013 Is cadmium a risk factor for breast cancer - results from a Mendelian randomization analysis
   Eva Andersson (Sweden)

P-0014 Using triangulation to assess confounding by co-exposures to multiple per- and polyfluoroalkyl substances (PFAS)
   Elizabeth Radke (USA)

P-0015 Measurement error and Regression Calibration method for multiple exposures: a Simulation study within the EXPANSE project
   Maria-Iosifina Kasdagli (Greece)

P-0016 Exploiting dose-response trends in registry-based studies for regulatory risk assessment: arsenic in drinking water and congenital heart disease
   Christian Ritz (Denmark)

P-0017 Bias amplification and variance inflation in distributed lag models using low spatial resolution data
   Michael Leung (USA)

P-0018 Bayesian Linear Regression with Multivariate Prior for the Coefficients and Practical Imputation of Exposure variables Below the Limit of Detection: An Application to Multiple Metal Exposure and Blood Pressure Throughout Childhood
   Gabriel Riutort-Mayol (Spain)

P-0025 The Long-term Effect of Fine Dust Concentration on Exacerbation of Environmental Diseases for Vulnerable and Susceptible Individuals in South Korea: The Necessity of Personalized Standards on Air Quality Index
   Youhyun Park (Korea)

P-0027 Spatially Stratified Controls: A simulation study of pre-term births
   Ian Tang (USA)

P-0032 Exploring the role of humidity on heat-health impacts using a risk assessment framework
   Sidharth Sivaraj (Switzerland)

P-0033 How well can we estimate causal effects with exposome data in the absence of strong a-prior hypotheses?
   Salome Kakhaia (Netherlands)

P-0034 Principal Component Pursuit for Source Apportionment from Block Missing Data: An Application to NYC PM2.5 Data
   Lawrence Chillrud (USA)

P-0037 Generating daily high-resolution gridded meteorological datasets for New York State from 2017-2018 using two-stage downscaling model
   Shao Lin (USA)
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TOPIC 08. COVID-19 AND THE ENVIRONMENT

P-0637 Attitudes toward COVID-19 vaccination: cross sectional study in Iraq
Ahmed Al-Delaimy (Iraq)

P-0640 Differences in Silicone Wristband Exposure Profiles by COVID School Restrictions in Washington State Children
Drew Day (USA)

P-0641 Association of short-term air pollution exposure with SARS-CoV-2 infection among young adults in Sweden
Zhebin Yu (Sweden)

P-0642 To what extent does exposure to air pollutants is linked with death in lung cancer patients with COVID-19 diagnosis? Primary observations by the Cancer Registry of Crete
Dimitra Sifaki-Pistolla (Greece)

P-0647 Atmospheric particulate matter effects on Sars-Cov-2 infection and its dynamics spreading: a spatio-temporal point process model
Jacopo Dolcini (Italy)

P-0654 Changes in household use of disinfectant and cleaning products during the first lockdown period in France
Emilie Pacheco Da Silva (France)

P-0657 A View at the COVID-19 Pandemic under the Light of Socio-economic Inequalities in Río de Janeiro City, Brazil
Maria de Fatima Ebole Santana (Brazil)

P-0658 Greenness and adolescents ‘mental health after Covid-19 pandemic lockdown: longitudinal perspective
Nerea Lertxundi (Spain)

P-0659 Effects of long-term air pollution exposure on Covid-19 vaccine antibody response and “long-COVID” in a general population cohort (Covicat Study, Catalonia)
Manolis Kogevinas (Spain)

P-0660 Long-term exposure to ambient air pollution and COVID-19 fatality in Italy
Massimo Stafoggia (Italy)

P-0661 Socioenvironmental determinants of maternal mental health during the COVID-19 pandemic: the MOOD-COVID project
Maria Foraster (Spain)

P-0662 Antibody response to COVID-19 vaccines among workers with a wide range of exposure to per- and polyfluoroalkyl substances
Anna Porter (USA)

P-0663 SARS-CoV-2 antibody prevalence and COVID-19 vaccination among industrial livestock operation workers and nearby community residents, North Carolina, USA
Carolyn Gigot (USA)

P-0664 Prevalence and predictors of SARS-CoV-2 seropositivity among volunteer firefighters (October 2020 - August 2021)
Kaleigh Hinton (USA)

P-0665 Association of Outdoor and Indoor Environment with Mental wellbeing of Lebanese Mothers during COVID-19: Findings from the Environmental Exposures for Lebanese Infants (EELI) Study
Georges Abi Tayeh (Lebanon)

P-0666 Relationship between meteorological and air quality parameters and COVID-19 in Casablanca region, Morocco
Mohamed Khaliis (Morocco)

P-0667 New York on PAUSE and traffic-related air pollution: quantifying diurnal changes in NO2 due to COVID-19 stay-at-home orders
Jenni Shearston (USA)

P-0668 Impact of the COVID-19 pandemic on physical and mental health over time in relation to chronic disease status and urbanicity
Warner Van Kersen (Netherlands)

P-0669 Long-term exposure to air pollution and COVID-19 mortality and morbidity in Denmark (AIRCODEN)
Jiawei Zhang (Denmark)

P-0672 Sars-CoV-2 viral load in wastewater and its association with ambient temperature in the Athens, Greece, area
Anna Voulgari (Greece)

P-0673 Covid-19 in Workers of an environmental sanitation company: Overview of cases and impact of a Safety and Health Protocol in a unit with 7,000 Workers. 2020 to 2022
Telma Cassia dos Santos Nery (Brazil)

P-0675 Mitigating Indoor Risk of Airborne Infections: the MIRAI project
Tommaso Filippini (Italy)

P-0676 Investigating links between air pollution, COVID-19 and lower respiratory infectious diseases – A review
Heather Walton (UK)

P-0677 Associations of air pollution with COVID-19 test positivity, hospitalisations, and mortality: observational evidence from UK Biobank
Charlotte Sheridan (UK)
POSTER AREA A

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P-0681 Multi-strain integrated modelling for COVID-19
Dimosthenis Sarigiannis (Greece)

P-0682 Associations of greenspace, including
private residential gardens, with
COVID-19 laboratory-confirmed positive
test, hospitalisation and mortality in UK
Biobank
Charlotte Roscoe (USA)

P-0686 Assessing COVID-19 Outcomes Among
People Living Near Oil and Gas Wells in California
Ioar Rivas (Spain)

P-0835 Horizon Shielding Factor: A Measure
to Assess UV Exposure in Different
Microenvironments
John Bolte (Netherlands)

P-0837 Coordinated Program of Research on
Multi-Pathway Community Exposures
Associated with Unconventional Oil and
Gas Development
Anna Rosofsky (USA)

P-0838 A large-scale personal monitoring of air pollution during pregnancy in the BiSC cohort
Ioar Rivas (Spain)

P-0840 High Resolution and Spatiotemporal
Place-Based Computable Exposures at Scale
Erika Rasnick (USA)

P-0842 Personal exposure to black carbon in Stockholm, Sweden, compared to fixed-site monitoring and dispersion modelling
Tom Bellander (Sweden)

P-0845 Using mobile monitoring to map air pollution: A practical review
Jules Kerckhoffs (Netherlands)

P-0848 Exposure Errors due to Inaccurate Residential Addresses and their Impact on Epidemiological Associations: Evidence from a National Neonate Dataset
Ruthie Harari-Kremer (Israel)

P-0851 Application of hybrid modelling techniques in the assignment of estimates of personal exposure to ambient air pollution: the MELONS study
Dylan Wood (UK)

P-0853 Spatio-temporal Land Use Regression Modelling of PM2.5 Levels in Athens, Greece
Vasiliki Grigoriadou (Greece)

P-0855 Application of low-cost, commercially available, wearable particulate matter sensors: a comparison
John Bolte (Netherlands)

P-0858 2-Dimensional Benchtop X-ray Fluorescence Approaches to Exposure Assessment
Aaron Specht (USA)

P-0859 Measuring the commuter exposure to air pollution in Lyon
Marie Ramel-Delobel (France)

P-0860 Comparing air quality guidelines of fine particulate matter (PM2.5) on excess mortality: a country-wide small-area assessment in Great Britain
Rochelle Schneider (Italy)
P-0861 Acquisition and Analysis of Crowd-Sensed Traffic Data at Multiple Spatial Scales  
Jenni Shearston (USA)

P-0862 Agreement between mothers and sons in early life exposures assessment in a multicentric case-control study investigating risk factors of testicular germ cell tumors in young adults (TESTIS study)  
Astrid Coste (France)

P-0863 Reliability of low-mass toenail samples as biomarkers of chronic metal exposure  
Joyce Lin (USA)

P-0865 Linking subject-specific environmental exposures to individual cohort data: an example with the UK Biobank  
Jacopo Vanoli (UK)

P-0866 Predictors of dietary intake of acrylamide in pregnancy and teenage life - A Danish Birth Cohort Food Frequency Questionnaire Study  
Marie Pedersen (Denmark)

P-0869 Evaluating Predictions of ELAPSE and Google Air View-based Mixed-effects LUR Models for Air Pollution in Copenhagen, Denmark  
Heresh Amini (Denmark)

P-0870 Analysis of chlorinated volatile organic compounds in exhaled breath using Proton Transfer Reaction Time-of-Flight Mass Spectrometry (PTR-TOF-MS)  
Jung Hyun Lee (USA)

P-0871 Vegetation Index Processing and Implications for Calculating Greenness in Population Health Studies  
Kelvin Fong (Canada)

P-0872 Metal contaminants in river water and human urine after an episode of major pollution by mining wastes in the Kasai province of DR Congo  
Rémy Mpulumba Badiambile (Congo-Kinshasa)

P-0873 Children’s exposure to bisphenols, phthalates and non-phthalate plasticizers in Poland  
Mercè Garí (Spain)

P-0875 Review of air pollution monitoring designs in new monitoring paradigms for epidemiology  
Sun-Young Kim (Korea)

P-0876 Representativeness of the 2010 EPA PM Monitoring Site Locations to the US Population  
Meredith Pedde (USA)

P-0878 Effects of exposure to noise, PM2.5 and NO2 on emotional well-being during daily travel  
Huyen Le (USA)

P-0880 Environmental determinants of serum selenoproteins concentrations and composition in the Aragon Workers Health Study - SelenOmics project  
Zulema Rodriguez-Hernandez (Spain)

P-0881 Determinants of agricultural pesticide concentrations in homes located in wine-growing areas  
Raphaëlle Teyssière (France)

P-0882 Aircraft noise and cardiovascular disease hospitalization and mortality near major airports in the United Kingdom  
Anna Hansell (UK)

P-0884 Optimization and Process Design Tools for estimation of weekly exposure to air pollution integrating travel patterns during pregnancy  
Valentin Simoncic (France)

P-0887 Rapid bioanalytical screening for the assessment of internalized exposure to Polycyclic Aromatic Hydrocarbons in clinical samples of Florida Firefighters  
Alexia Lydia Kafkoutsou (USA)

P-0889 Environmental urban exposure to rubidium in a healthy group of Spanish adolescents  
Antonio Peña-Fernández (UK)

P-0890 Estimating spatiotemporally resolved PM2.5 concentration across the contiguous United States using Super learning  
Alexandra Shtein (Denmark)

P-0891 The use of snapshot personal exposure monitoring in estimating annual exposure to air pollutants for epidemiological studies  
Benjamin Barratt (UK)

P-0892 Assessing exposure to pesticides with short biological half-lives: Use of a repeated longitudinal biomonitoring strategy to estimate glyphosate exposure during pregnancy  
Cynthia Curl (USA)

P-0894 Particulate Matter (PM2.5) concentration among hypertensives primary cooks in Obuasi Municipality, Ghana  
Theresa Tawiah (Ghana)

P-0895 Radon Exposure to Community Members Living Near a Uranium Procession Plant  
Susan Pinney (USA)
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<td>The LIFE Index-Air integrated exposure - dose management tool for the reduction of PM pollution and the protection of public health – Development and implementation in 5 European Cities</td>
<td>Evangelia Diapouli (Greece)</td>
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<td>P-1230</td>
<td>Early-life exposure to ambient air pollution and asthma in the children of the Danish National Birth Cohort – Does asthma definition and adjustment for cohort-specific covariates matter?</td>
<td>Marie Pedersen (Denmark)</td>
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<td>Matthew Bozigar (USA)</td>
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<td>Effects of short- and long-term air pollution exposure on the course of idiopathic pulmonary fibrosis</td>
<td>Konstantina Dimakopoulou (Greece)</td>
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<td>Toenail metal concentrations and lung function among residents living near urban oil site</td>
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<td>P-1237</td>
<td>The environmental factors for different seasonal attack patterns in asthmatic children</td>
<td>Yi-Sheng Yang (Taiwan)</td>
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<td>P-1238</td>
<td>Respiratory diseases caused by anthropogenic activities in children and adults of rural communities of Brazil. Review of epidemiological status following fuel policy changes</td>
<td>Claudia Ribeiro Pereira Nunes (Spain)</td>
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**TOPIC 19. REPRODUCTIVE OUTCOMES – PART A**

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