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Fondazione IRCCS Ca' Granda  
Ospedale Maggiore Policlinico

Sistema Socio Sanitario



Regione  
Lombardia



# RESPIRA *Mi*

## Recent Advances on Air pollution and Health

PROGRAM

17<sup>th</sup> - 18<sup>th</sup> June 2022 | Milan, Fondazione Stelline

## **CHAIRS OF THE SEMINAR**

### **Francesco Forastiere**

National Research Council (CNR-IRIB), Palermo (Italy)  
Environmental Research Group Imperial College London (UK), Rome (Italy)

### **Sergio Harari**

Division of Respiratory Disease and Division of Internal Medicine  
Ospedale San Giuseppe MultiMedica IRCSS, University of Milan (Italy)

### **Michal Krzyzanowski**

Environmental Research Group Imperial College London (UK), Warsaw (Poland)

### **Pier Mannuccio Mannucci**

Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico,  
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## **CO-ORGANIZED BY:**

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## RATIONALE

Air pollution is one of the most important risk factors for global morbidity, disability and mortality. Because a huge number of individuals are currently exposed to this risk in high-income as well as in low-income countries, the health care and public health dimensions of its consequences are impressive, considering that, according to global data stemming concordantly from WHO and the Global Burden of Disease epidemiological study, at least 7 million premature deaths are due to ambient and household air pollution. With this background, together with the team of epidemiologists from Lazio (led by Francesco Forastiere and Massimo Stafoggia) plus a former staff member of WHO (Michal Krzyzanowski), first in 2015 we chose to organize every three years an independent international seminar called RespiraMi, with the goal to gather the most distinguished global experts and prompt them to present their recent and mostly unpublished data on the progress of science towards tackling the global issue of outdoor and indoor air pollution.

The fourth 2022 edition and scientific program of the Seminar (RespiraMi 4) enlists a faculty of speakers from four continents (Europe, North America and Asia), who will put special emphasis on the effects of air pollution on the weakest groups of world citizens: the newborn, pregnant women, older and poorest people, as well as on the growing evidence that air pollution is a cause of most common, growing and devastating neurodegenerative diseases such as Parkinson and dementia.

The 2022 International Seminar “Recent Advances on Air Pollution and Health” will be organized as a hybrid event lasting two days in Milan, on June 17 and 18, in order to provide insights not only on the current state of the art but also a look on to the future of air quality and related research efforts.

Session 1 will summarize the new and recent evidence that prompted WHO to release the updated Air Quality Guidelines (AQG), designed to preserve better than the previous guidelines health state of citizens of the whole world on the basis of new evidence on the deleterious effects even of low levels of pollutants.

The session will also offer new evidence on the effects on health of specific pollutants such as NO<sub>2</sub> and biomass burning emissions. Session 2 will deal with new aspects pertaining to several damages of air pollution on human health, with special emphasis on outcomes such as mental health and cognitive development as well as on pregnancy complications. Session 3 will offer a systematic review of selected effects of traffic-related air pollution, with special emphasis on mortality but also on morbidity for cardiovascular and respiratory disease and on birth outcomes. Session 4 will provide new evidence on the beneficial effects of greenness and how to best design the ecosystem service of trees and ornamental potted plants in order to reduce indoor and outdoor pollution. Session 5 deals with the burden of diseases stemming from major air pollution sources, with specific evidence from highly polluted countries from the third world such as India, Nigeria and Ghana. Session 6 will tackle the formidable challenges warranted to achieve a cleaner air and illustrate in this context the European Green Deal program, as well as the ongoing plan to update the European air quality legislation. Session 7 will feature the current burden of air pollution in Italy and the role of Italian researchers from the Network on Environment and Health, and will also feature the impact on ambient air pollution of COVID-19 lockdown restrictions in Milan and Rome. Finally, Session 8 will be based on a panel discussion addressing the questions of future planning of research on air pollution, and we expect to get comments and suggestions by the live but also remote audience to the Seminar. Interested participants, both in presence and at distance, should get registered at Fondazione Menarini, but registration is free of charge.

**Francesco Forastiere**

**Sergio Harari**

**Michal Krzyzanowski**

**Pier Mannuccio Mannucci**

# PROGRAMME

FRIDAY, 17 JUNE 2022

Building the evidence on health effects of air pollution

09.00 a.m.  
09.15 a.m.

**P. M. Mannucci** (Milan, Italy)  
Welcome

## SESSION I – SETTING THE UPDATED WHO AIR QUALITY (AQ) GUIDELINES THEIR SUPPORT BY NEW EVIDENCE

Chairperson:

**P. Mudu** (World Health Organization)

09.15 a.m.  
09.35 a.m.

**M. Krzyzanowski** (London, UK / Warsaw, Poland)  
Formulation of WHO AQG 2021

09.35 a.m.  
09.55 a.m.

**M. Stafoggia** (Rome, Italy)  
New evidence on health effects of low-level PM on mortality from ELAPSE

09.55 a.m.  
10.15 a.m.

**A. Peters** (Munich, Germany)  
Are the NO<sub>2</sub> effects on mortality causal?

10.15 a.m.  
10.35 a.m.

**B. Brunekreef** (Utrecht, Netherlands)  
Estimating risks of PM<sub>2.5</sub> and NO<sub>2</sub> exposure on mortality - an update

10.35 a.m.  
10.55 a.m.

**A. Karanasiou** (Barcelona, Spain)  
Health effects from outdoor exposure to biomass burning emissions

10.55 a.m.  
11.05 a.m.

Discussion

11.05 a.m.  
11.25 a.m.

*Coffee break*

## FRIDAY, 17 JUNE 2022

### SESSION II – HEATH EFFECTS OF AIR POLLUTION, NEW OUTCOMES

Chairperson:	<b>S. Harari</b> (Milan, Italy)
11.25 a.m. 11.45 p.m.	<b>A.C. Binter</b> (Barcelona, Spain) Air pollution and children’s cognitive development and mental health – an update on evidence
11.45 a.m. 12.05 a.m.	<b>I. Bakolis</b> (London, UK) Air pollution exposure and adult mental health
12.05 a.m. 12.25 a.m.	<b>M. Pedersen</b> (Copenhagen, Denmark) Air pollution and pre-eclampsia and complications of pregnancy
12.25 a.m. 12.45 a.m.	<b>I. Annesi-Maesano</b> (Montpellier, France) Assessing the role of air pollution in respiratory allergy and asthma
12.45 a.m. 01.05 p.m.	<b>A. Hansell</b> (Leicester, UK) Air pollution and viral respiratory infections – lessons from the COVID-19 pandemic
01.05 p.m. 01.20 p.m.	Discussion
01.20 p.m. 02.30 p.m.	<i>Lunch</i>

## FRIDAY, 17 JUNE 2022

### SESSION III – SYSTEMATIC REVIEW OF SELECTED HEALTH EFFECTS OF LONG-TERM EXPOSURE TO TRAFFIC-RELATED AIR POLLUTION (TRAP), AN HEI PROJECT

Chairperson:	<b>F. Forastiere</b> (London, UK / Palermo, Rome, Italy)
02.30 p.m. 02.45 p.m.	<b>H. Boogaard</b> (Boston, USA) A bird’s eye overview of the systematic review of selected health effects of long-term exposure to traffic-related air pollution
02.45 p.m. 03.00 p.m.	<b>B. Hoffmann</b> (Düsseldorf, Germany) Cardiovascular diseases
03.00 p.m. 03.15 p.m.	<b>A. Smargiassi</b> (Montreal, Canada) Respiratory diseases
03.15 p.m. 03.30 p.m.	<b>D. Vienneau</b> (Allschwil, Switzerland) Birth outcomes
03.30 p.m. 03.45 p.m.	<b>G. Hoek</b> (Utrecht, Netherlands) Mortality
03.45 p.m. 04.00 p.m.	Discussion

### SESSION IV - GREEN INFRASTRUCTURE AND HEALTH, NEW EVIDENCE

Chairpersons:	<b>P. M. Mannucci</b> (Milan, Italy)
04.00 p.m. 04.15 p.m.	<b>M. Nieuwenhuijsen</b> (Barcelona, Spain) A comprehensive review of the beneficial effects of green
04.15 p.m. 04.30 p.m.	<b>R. Baraldi</b> (Bologna, Italy) Ecosystem services of plants to reduce air pollution
04.30 p.m. 04.45 p.m.	<b>M. Jerrett</b> (Los Angeles, USA) How to study community design, greenness and health
04.45 p.m. 05.00 p.m.	Discussion
05.00 p.m.	<i>Close Day 1</i>

# PROGRAMME

SATURDAY, 18 JUNE 2022

Using the evidence on health effects of air pollution to protect public health

## SESSION V – BURDEN OF DISEASE AND HEALTH IMPACT ASSESSMENT

Chairperson:	<b>M. Krzyzanowski</b> (London, UK / Warsaw, Poland)
09.00 a.m. 09.15 a.m.	<b>S. Gummy</b> (World Health Organization) The WHO air quality database and other WHO activities supporting HIA (Health Impact Assessment)
09.15 a.m. 09.30 a.m.	<b>H. Walton</b> (London, UK) Challenges in assessing impacts of air pollution on morbidity
09.30 a.m. 09.45 a.m.	<b>M. Brauer</b> (Vancouver, Canada) Burden of disease from major air pollution sources – global, national and urban-scale estimates
09.45 a.m. 10.00 a.m.	<b>P. Thunis</b> (Ispra, Italy) Impacts of gaseous pollutant emission reductions on PM2.5 concentration in Europe
10.00 a.m. 10.15 a.m.	<b>K. Balakrishnan</b> (Chennai, India) Creating Seamless Breathing Spaces: the challenge of dual burdens from household and ambient air pollution in India
10.15 a.m. 10.30 a.m.	<b>J. V. Spadaro</b> (Philadelphia, USA) HIA of air pollution in Lagos, Nigeria
10.30 a.m. 10.45 a.m.	<b>P. Mudu</b> (World Health Organization) HIA of air pollution in Accra, Ghana
10.45 a.m. 10.55 a.m.	Discussion
10.55 a.m. 11.15 a.m.	<i>Coffee Break</i>

## SATURDAY, 18 JUNE 2022

### SESSION VI – SETTING NEW AIR QUALITY AND CLIMATE POLICIES BASED ON THE SCIENTIFIC EVIDENCE

Chairperson:	<b>B. Hoffmann</b> (Düsseldorf, Germany)
11.15 a.m. 11.35 a.m.	<b>T. Henrichs</b> (European Commission) European Green Deal and update of European AQ standards
11.35 a.m. 11.55 a.m.	<b>J. Sacks</b> (Research Triangle Park, USA) Overview of the process for reviewing National Ambient Air Quality Standards (NAAQS): ongoing reconsiderations and upcoming reviews
11.55 a.m. 12.15 a.m.	<b>L. Aleluia Reis</b> (Milan, Italy) Internalising health-economic impacts of air pollution into climate policy: a global modelling study
12.15 a.m. 12.35 a.m.	<b>Z.J. Andersen</b> (Copenhagen, Denmark) The position of the scientific societies, ERS and ISEE
12.35 a.m. 12.45 a.m.	Discussion: how to address the challenge of achieving clean air?
12.45 a.m. 01.50 p.m.	<i>Lunch</i>

## SATURDAY, 18 JUNE 2022

### SESSION VII – AIR POLLUTION AND HEALTH RESEARCH IN ITALY

Chairpersons:	<b>S. Harari</b> (Milan, Italy) <b>P. M. Mannucci</b> (Milan, Italy)
01.50 p.m. 02.05 p.m.	<b>C. Ancona</b> (Rome, Italy) The health burden of air pollution in Italy and role of the Italian Network Environment and Health
02.05 p.m. 02.20 p.m.	<b>N. Caranci</b> (Bologna, Italy) <b>M. Stafoggia</b> (Rome, Italy) <b>N. Zengarini</b> (Torino, Italy) Long term effects of air pollution: the main results from the longitudinal study of three major Italian cities
02.20 p.m. 02.35 p.m.	<b>F. Nobile</b> (Rome, Italy) Long-term exposure to air pollution and incidence of psychiatric disorders
02.35 p.m. 02.50 p.m.	<b>M. Carugno</b> (Milan, Italy) Short-term exposure to air pollution and manic episodes among patients with bipolar disorders
02.50 p.m. 03.05 p.m.	<b>A. Ranzi</b> (Modena, Italy) Air pollution and Covid19 in Italy
03.05 p.m. 03.20 p.m.	<b>L. Boniardi</b> (Milan, Italy) The impact of lockdown restrictions in Milan and Rome and the advocacy actions of non-governmental organizations (NGOs)

### SESSION VIII – PANEL DISCUSSION: DO WE KNOW IT ALL? WHAT IS NEXT IN AIR QUALITY AND HEALTH RESEARCH?

Chairpersons:	<b>E. K. Katsouyanni</b> (Athens, Greece / London, UK) <b>F. Kelly</b> (London, UK)
03.20 p.m. 04.00 p.m.	Panelists: <b>Z. J. Andersen</b> (Copenhagen, Denmark) <b>H. Boogaard</b> (Boston, USA) <b>G. Hoek</b> (Utrecht, Netherlands) <b>M. Stafoggia</b> (Rome, Italy)
04.00 p.m. 04.15 p.m.	<b>P. M. Mannucci</b> (Milan, Italy) Meeting summary and closure
04.15 p.m.	Meeting ends

## FACULTY

### **Lara Aleluia Reis**

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## GENERAL INFORMATION

### SEMINAR VENUE

Fondazione Stelline  
Volta Room (1st floor)  
Corso Magenta, 61 – Milan, Italy

### OFFICIAL LANGUAGE

The official language of the Seminar is English

### REGISTRATION HOURS FOR RESIDENTIAL EVENT

Friday, 17 June: 08.00 a.m. – 05.00 p.m.  
Saturday, 18 June: 08.00 a.m. – 04.00 p.m.

### LIVE STREAMING EVENT ONLINE ON:

Friday, 17 June: 09.00 a.m. – 05.00 p.m.  
Saturday, 18 June: 09.00 a.m. – 04.15 p.m.

### FACULTY SLIDE CENTRE OPENING HOURS

Friday, 17 June: 08.00 a.m. – 05.00 p.m.  
Saturday, 18 June: 08.00 a.m. – 04.00 p.m.

### LUNCH AND COFFEE BREAKS

Lunch and coffee breaks will be provided at the Seminar  
in accordance with the current Covid regulations.

*In accordance with the current Covid regulations, we would like to remind you that the number of places reserved is limited to the actual capacity of the venue.*

*We therefore kindly ask you to cancel your registration if you are unable to attend, so that other interested users can participate.*

***Further to specific requests of the hospitality structures you are strongly advised to come equipped with the EU Digital Covid Certificate in order to ensure your participation in all phases of the Congress.***





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