

Summer School: 3-5 July 2019



ENVIRONMENTAL STRESS and CHRONIC DISEASES

Organized by the **Mondor Biomedical Research Institute (IMRB)**

Venue : Headquarters of ANSES, French Agency for Food, Environmental and Occupational Health & Safety, Maisons-Alfort, Paris area, France

The IMRB (<http://www.imrb.inserm.fr/en/>) is a multi-thematic research centre based in Créteil, in the eastern Paris region, under the tutelage of Inserm and the University Paris Est Créteil. Our major focus is on translational research in the context of infectious (HIV, viral hepatitis) and chronic diseases (cancer, cardiovascular, respiratory, musculoskeletal and psychiatric disorders), key pathologies of the aging population. Chronic diseases develop from a combination of genetic and environmental factors. Our teams are particularly interested in environmental stress derived among others, from **pollution, infective agents**, and **overnutrition**, working on several aspects that characterize these diseases, such as inflammation. The general expertise found in our laboratories spans from basic science and preclinical models to patients' studies, investigations on cohorts and new drug treatments.

We are organizing an International Summer School to increase the visibility of IMRB, a centre of scientific excellence that is eager to broaden its reputation at the international level. Our aim is to foster the education of our trainees and to attract dynamic young investigators who will benefit from an exciting program and stimulating interactions. The participation of health agencies and industrial partners is an added value to this initiative allowing students to meet investigators from these sectors.

The first edition of the IMRB International Summer School will take place in July 2019 and will be dedicated to environmental stress in the development of chronic diseases. We will propose four main sessions that will deal with: **1) nutritional stress and infection in the development of diseases; 2) pollution and inflammation in chronic diseases; 3) mechanisms of inflammation and prevention strategies; and 4) impact of environmental agencies and start-ups in alleviating the burden of chronic diseases**. Each session will have interventions by IMRB and foreign investigators that are at the forefront of the scientific topics proposed. A visit to the environmental laboratory at the University of Paris Est, a workshop on project design and short presentations from selected abstracts are integrated in the program, enabling young researchers to work directly with senior investigators to promote their scientific training.

Wednesday 3 July

Morning

11:00-12:00. For students: **Visit to environmental laboratory at the University Paris Est Créteil + transfer to ANSES for lunch (20 students)**

LUNCH

Afternoon

14:00-14:15. **Welcome by Summer School organizers**

Roberta FORESTI and Jorge BOCZKOWSKI (IMRB)

14:15-17:00. **Scientific session 1. ENVIRONMENTAL STRESS and INFLAMMATION IN THE DEVELOPMENT OF DISEASES: focus on nutrition and infection**

Bin GAO (Laboratory of Liver Diseases, NIH, Bethesda, USA) (**Confirmed speaker**)
Alcohol in the development of liver disease

Fatima CLERC (IMRB) (**Confirmed speaker**)
Alcohol and macrophage environment in liver disease

Geneviève DERUMEAUX (IMRB) (**Confirmed speaker**)
Nutritional stress, inflammation and cardiac aging

COFFEE BREAK

Laurent GROC (Institute of Neuroscience, University of Bordeaux, France) (**Confirmed speaker**)
Early risk factors-infection-psychiatric disorders

17:00-18:00. For students: **Visit to ANSES laboratories (chemical and biological contaminants in food)**

Gathering of speakers and students for introductory welcome

18:00-19:00. **Welcome by ANSES (Gerard Lasfargues?)**
Inserm and UPEC president? Presentations of different research programmes on environmental stress and disease

DINNER at Le Charentonneau, Maisons-Alfort

Thursday 4 July

Morning

9:00-12:00. Scientific session 2. ENVIRONMENTAL STRESS and INFLAMMATION IN THE DEVELOPMENT OF DISEASES: focus on pollution

François HUAUX (Louvain Centre for Toxicology and Applied Pharmacology, Université catholique de Louvain, Brussels, Belgium) (**Confirmed speaker**)

How inhaled pollutants are recognized by the innate immune system and induce acute and chronic lung diseases

Sophie LANONE (IMRB) (**Confirmed speaker**)

Pollution/nanoparticles exposure in lung pathologies

Haidong KAN (Department of Environmental Health, School of Public Health, Fudan University, Shanghai, China) (**Confirmed speaker**)

Air pollution, inflammation and cardiovascular disease

COFFEE BREAK

Roberto MOTTERLINI (IMRB) (**Confirmed speaker**)

Carbon monoxide: from environmental pollutant to modulator of inflammation and metabolism

12:00-12:30. Three-minute presentations of young investigators (selected from abstracts, max 5)

LUNCH

Afternoon

14:00-15:45. Workshop on design and implementation of research projects

Speakers and young investigators divided in working groups

16:00-17:00. Discussion and feedback on project workshop

Transfer to Paris centre for social event

18:30-20:00. GUIDED VISIT Musée d'Orsay

20:00. DINNER at Restaurant of Musée d'Orsay- Grande Salle

Friday 5 July

Morning

9:00-12:00. **Scientific session 3. ENVIRONMENTAL STRESS IN THE DEVELOPMENT OF DISEASES: impact of environmental agencies and start-ups in combating the burden of chronic diseases**

Gérard Lasfargues (ANSES, French Agency for Food, Environmental and Occupational Health & Safety) (**Confirmed speaker**)

Diseases and environmental aggressions: a major public health issue

Arnoud Akkermans (National Institute for Public Health and the Environment, Netherlands) (**Confirmed speaker**)

Diseases and environmental aggressions: a Dutch perspective

COFFEE BREAK

Robert BAROUKI (University of Paris Descartes, Paris, France) (**Confirmed speaker**)

How can we protect ourselves from the damages of environmental pollution?

Seminar of Start-Up

Eric Poincelet (Pollutrack start-up, Paris) (**Confirmed speaker**)

The Pollutrack-Enedis project: identifying hot spot polluted areas in Paris using Hot Spot Tracker

LUNCH and NETWORKING with agencies and start-ups representatives

Afternoon

14:00-16:30. **Scientific session 4. ENVIRONMENTAL STRESS and INFLAMMATION IN THE DEVELOPMENT OF DISEASES: focus on molecular mechanisms and prevention**

14:00-14:30. **Three-minute presentations of young investigators (selected from abstracts, max 5)**

Sudha RAO (Faculty of Education, Science, Technology, and Mathematics, University of Canberra, Australia) (**Confirmed speaker**)

Epigenetics in T cells in cancer settings

Jesus ARAUJO (Cardiovascular Center, UCLA, Los Angeles, USA) (**Confirmed speaker**)

Exposure to air particulate, dysfunctional HDL and heart disease

Basile CHAIX (Pierre Louis Institute of Epidemiology and Public Health, Inserm-Sorbonne University, Paris, France) (**Confirmed speaker**)

Air pollution and noise linked to transport habits and effects on health: the Mobilisense project

Concluding remarks+announcement of winner of three-minute presentations

Departure