

## EHB 13

### Early Morning Tutorials

**Thursday, 22 August**

#### **Title: Interpretation of Indoor Air Pollutant Measurement Data**

**Name of the lecturer:** Hal Levin

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**Affiliation incl. country of the lecturer:** Building Ecology Research Group, Santa Cruz, USA

**Summary (max 100 words):** Buildings are ecosystems. Large changes in IAQ (biological, chemical, and physical) occur in short time spans and over short distances. Indoor air quality (IAQ) is strongly influenced by highly variable indoor pollutant sources, by ventilation with outdoor air, and by the moisture and temperature characteristics of air and surfaces. Outdoor air ventilation introduces pollutants and dilutes and/or removes others. Interactions with the structure and with intentional filtration/air cleaning processes modify air during the transport from outdoors to indoors. Therefore, single time point or location samples should be interpreted cautiously within an understanding of a building's dynamic, interdependent and interactive processes.

#### **Title: Pharmacology for non-pharmacologists – an environmental health approach**

**Name of the lecturer:** Yehoshua Maor

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**Affiliation incl. country of the lecturer:** University of Jerusalem, Israel

**Summary (max 100 words):** Pharmacology and toxicology are fields that provide critical capacities for conducting environmental health studies involving many environmental contaminants. In the case of pharmaceutical residues and personal care products (PPCPs) that have recently emerged as cause for concern, applying the tools of pharmacology and toxicology are essential first steps to understanding potential human health impacts of exposure to these compounds.

This tutorial introduces scientists from non-pharmacological background to the fundamental concepts of pharmacology/toxicology and to its use in interdisciplinary and translational research.

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#### **Title: Influence of uncertainties and variabilities on exposure and risk evaluation**

**Name of the lecturer:** Alain-Claude Roudot

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**Affiliation incl. country of the lecturer:** University of Brest, France

**Summary (max 100 words):** During all the calculation procedure in exposure and risk analysis, numerous parameters are only known with uncertainties. These ones can be real uncertainties (epistemic, linked to the lack of knowledge) or ontic (ie. variabilities, linked to real natural variations). Classical deterministic evaluation do not take into account these elements and then final calculated exposure could be really different from measured ones (when possibility of measuring exists). One solution could be probabilistic evaluation. Then the problem will be how to use such probabilistic results in risk managing? This lecture will expose and will attempt to give solutions to such critical problems.

#### **Title: Epidemiology for Employers: a cost benefit projection tool for employee health programmes**

**Name of the lecturer:** Patrick Hanlon

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**Affiliation incl. country of the lecturer:** Swiss Tropical- and Public Health- Institute, Basel Switzerland

**Summary (max 100 words):** Employers in low and middle-income countries have been investing in the health and wellbeing of their employees as a way to dampen the productivity losses caused by the double burden of disease.

Tools for enabling these non-healthcare specialists to make evidence-based investment decisions to safeguard and improve the health of their staff have been few. The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH commissioned a cost benefit analysis tool to explore the profitability of existing employee health programmes (EHP) for use by employers which integrates epidemiological information for analysing existing and potential interventions in employee health.