

# PTIM'19

POLLUTANT TOXIC IONS & MOLECULES

## BOOK OF ABSTRACTS

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## Endocrine Disrupting Chemicals in Patients with Chronic Obstructive Pulmonary Diseases

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The study of indoor environmental quality as well as the development and progression of chronic respiratory diseases have received a great deal of attention in the past few years. However, most of those surveys focus on the effects of particulate matter (PM) and biological contaminants (fungi and bacteria) and evidences on the effects of endocrine disrupting chemicals (EDCs) in these pathologies are limited. Hence, RESPIRA project aims to contribute towards a better understanding of the role of multiple stressors in respiratory diseases by providing data on the levels and effects of EDCs in patients with Chronic Obstructive Pulmonary Disease (COPD) and control individuals from Estarreja region (NW Portugal). Here we will summarize the results obtained for phenolic compounds (parabens, triclosan and triclocarban) in matched human and indoor environmental samples (house dust) from COPD patients. Overall, the concentrations in dust samples are one to two orders of magnitude higher than the concentrations in human urine. Triclosan was detected in all the dust samples, triclocarban was detected in 82% of the dust samples and parabens in 90% to 100% of the samples. In urine samples, triclosan was detected in 56% of the samples, triclocarban was always below detection limit (0.25 ng/mL) and parabens detection frequency varied widely (23-84%). Interestingly, the highest level reported in dust for triclosan (1200 ng/g) corresponded to the house of the patient with the highest triclosan concentration in urine (140 ng/mL).

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