



Distinguished Lecture Series

Biomonitoring of Human Exposure to Environmental Chemicals in the Context of Exposome



18 May 2021 (Tuesday)

9:00-10:00 a.m. GMT+8 (Hong Kong Time)



Online via Zoom

(Meeting ID: 984 7232 6481)



ABSTRACT

Long term, low-level exposure to a variety of toxic environmental chemicals present in the environment can interfere with hormone function and contribute to the development of a variety of diseases and health problems. To address the exposure to toxic chemicals to which people are exposed, and the amounts of chemicals in people's bodies, many developed nations have implemented nation-wide biomonitoring programs. Biomonitoring is the direct measurement of people's exposure to toxic substances by measuring the substances or their metabolites in human specimens, such as blood or urine. The biomonitoring programs have been successful in informing the regulatory agencies on the health and nutritional status of populations along with a variety of toxic chemical exposures. Biomonitoring is one of the important tools in the study of exposome, which is the totality of human environmental exposures from conception onwards. Exposome complements genome and exposomics is the study of exposome. Several components of exposome including external exposure and internal exposure will be discussed.

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Professor Kurunthachalam Kannan has published over 750 research articles in peer-reviewed journals, 25 book chapters and co-edited a book. Professor Kannan is the top 5 most highly cited researchers (ISI) in Ecology/Environment globally with an H-index of 135 (google scholar) or 114 (scopus). He is known for his work on the discovery of perfluorochemicals in the global environment, among several others. Currently his research is focused on biomonitoring of human exposure to organic pollutants. He is one of the top leaders in the field of human biomonitoring and his laboratory is well funded by the U.S. federal government agencies such as the National Institutes of Health (NIH).