

HSCI SPECIAL SEMINAR SCHOOL OF HEALTH SCIENCES

“Mitochondrial Systems Toxicology in Risk Assessment”

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and

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9:00 – 10:00 a.m.

We are exposed to a variety of environmental pollutants – often simultaneously and in combination – throughout our lives. One important target of environmental pollutants is mitochondria, which are essential organelles that produce the majority of energy and support various functions in the cell. In this seminar, Dr. Maxwell Leung will talk about mitochondrial toxicity as a common phenomenon across the chemical landscape of environmental exposure and how it interferes with cell-to-cell signaling in complex developmental systems. He will discuss how to apply multiscale systems modeling and network visualization to study mitochondrial toxicity and male reproductive tract development. He will also discuss the implication of mitochondrial toxicity in the context of pesticide cumulative risk assessment.