

## **Singapore Stanford Partnership Programme**

### **MS Project MS08-12**

#### **Analysis of Emerging Organic Contaminants in Surface Waters of Urban Catchments**

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In recent years, there has been increasing public concern over the levels of endocrine disrupting chemicals (EDCs) and other organic contaminants detected in aquatic environments. These emerging organic contaminants include surfactants, hormones, pharmaceuticals, plasticizers, disinfection by-products and perfluorinated compounds. In this project, a target organic contaminant will be selected and water samples from the Marina Bay will be analysed for the presence of the compound. The study will entail the use of liquid chromatography with mass spectrometry in tandem (LC-MS/MS) and rigorous sample preparation techniques to detect trace levels of these compounds in environmental waters. Laboratory microcosm studies will also be conducted to analyze the chemical's fate kinetics in tropical waters, including sorption-desorption, biodegradation and the effect of light.