“Detection of PLA2 Using Solid Supported Lipid Bilayers in a Microfluidic Channel”

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Abstract: Phospholipase A2 is a known biomarker for several types of cancer and some other diseases. It hydrolyzes the sn-2 position of the ester bond of phospholipids. Recently lipid bilayers immobilized on silica microspheres (lipo-beads) have been utilized to detect PLA2 at very low concentrations. Lipo-beads offer stability and easy modification that allows them to be used in flow cytometry based detection. However, this method uses bulky and expensive equipment. Microfluidics has become at the forefront of chemical assays because they offer a portable and easy-to-use method. They use very small samples and also can have an integrated detection system. In this presentation I will talk about our recent progress in developing a microfluidic bioanalytical device to detect PLA2 enzyme using phospholipid bilayers supported on a microfluidic channel.

Friday,
September 17, 2021

12.10-1.00 PM (MST)

Zoom Link
https://zoom.us/j/93622297036
Meeting ID: 936 2229 7036

Note: Presentation will be projected on Lopez 106 screen, interested faculty members and students are welcome to convene in Lopez 106.

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Department of Chemistry
Graduate Seminar
Host: Piyasena Lab