



Mahidol University
Faculty of Science

DEPARTMENT OF BIOTECHNOLOGY SEMINAR 2016

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13:30 Room : L04

A multi-Angular Mass Spectrometric View at cAMP Signaling in the Heart

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Mass spectrometry-based proteomics has become an indispensable tool in cell signaling study. Here, we describe the proteomics approach that combines cAMP-based affinity chromatography, affinity purification, phosphopeptide enrichment with quantitative mass spectrometry to investigate cAMP signaling in the heart. Tight spatial control of the cAMP signaling cascade is a key mechanism to regulate cAMP outcomes in cardiac physiology and alterations in the spatial control of the signaling cascade have been shown to associate with heart pathology. However, most of the details of the molecular organization and regulation of individual cAMP signalling compartments are still to be elucidated. With this technology, several novel aspects of the cardiac cAMP signaling complexity have been resolved.

