Peptide Innovation: From Identification to Omics

Host: 1. Merck Corp., Waters Corp., CNS-SCMU, CIF-SCMU

Type: Hybrid (onsite/online)

Location: K102 (Morning 29 Sep), K642 and K619 (Afternoon 29-30 September 2022)

Agenda: Day 1

Time	Type	Topic
09:00-09:20		Registration
09:20-09:30		Opening by
09:30-09.45	Lecture	Column chemistry for peptide analysis **By Wattanapong Sittisaree, Product Marketing Specialist, Science and Lab Solution, Life Science, Thailand, and Indochina**
09.45-10.30	Lecture	Using the BioAccord LC-MS system testing: Alternates for Alternative Meats **By Sarida Klinkesorn, Country Development Manager, Waters, Thailand**
10.30-11.00	Break	
11.00-12.00	Forum talk	1. Topic: Towards plant-based innovation using metabolomics **By: Assoc.Prof. Supaart Sirikantaramas, Ph.D. (Dept. Biochemistry, Faculty of Science, Chulalongkorn University)** 2. Topic: Enzyme engineering x Glycoproteomics: Engineered OGT for protein O-GlcNAcylation in cells **By: Lect. Chanat Aonbangkhen, Ph.D. (Dept. Chemistry, Faculty of Science, Chulalongkorn University)** 2. Topic: Application of proteomics and peptidomics in foods **By: Yodying Yingchutrakul (National Omics Center, NSTDA)**
12-13	Lunch	
13:00-13:30	Lecture	MS1 and MS2 spectra in high peptide identification confidence for absolute quantification analysis

		By: Sucheewin Krobthong, Ph.D. (Faculty of science, Mahidol University)
13:30-14:00	Brief lab	Absolute quantification of the peptide in food hydrolysate
14-14:20	break	
14:20-15:20	Lab (3 small groups)	Absolute quantification of targeted peptides in food products. **By: Sucheewin Krobthong, Ph.D., Yodying Yingchutrakul and Wattapong Sittisaree**
15:20-16:00	Lab	LC-MS/MS calibration, column setting, LC and MS condition, and controller software for absolute quantification of targeted peptides in food products. **By: Sucheewin Krobthong, Ph.D.**

Day 2

Time	Type	Topic
09:00-09:30	Brief lab	Peptidomics profiling **By: Sucheewin Krobthong, Ph.D.**
09:30-10:00	Lab	Column setting, LC and MS condition, and controller software for Peptidomics profiling **By: Sucheewin Krobthong, Ph.D.**
10-10:20	Break	
10:20-11:45	Data interpretation	Peptide absolute quantification **By: Sucheewin Krobthong, Ph.D.**
11:45-13:00	Lunch	
13:00-14:00	Lecture	Column setting, LC and MS condition, and controller software
14:00-14:30	Lab (3 small groups)	Sample preparation from commercialized milk for peptidomics profiling **By: Sucheewin Krobthong, Ph.D., Yodying Yingchutrakul, and Wattapong Sittisaree**
14:30-15:00	Break	
15:00-16:00	Data interpretation	Peptidomics profiling analysis using licensed software **By: Sucheewin Krobthong, Ph.D.**