

SELEX Technology : Aptamer Selection Workshop

16 – 18 October 2018

INFORMMM USM Health Campus, Kelantan

Course Description

With the support from Higher Institution Centre of Excellent (HICoE) program, this three-day workshop is organized to provide the researcher a knowledge transfer on preparation and isolation of ssDNA aptamer using SELEX (Systematic Evolution of Ligands by Exponential enrichment). Participants will learn the theoretical and practical aspects of SELEX technology through this integrated hands-on workshop. This workshop is suitable for researchers and students at all levels of expertise. The participants will be able to apply knowledge learned in the workshop into applications in their own research.

Speakers and Trainers

1. **Dr. Khairul Mohd Fadzli Mustaffa**
INFORMMM,
Universiti Sains Malaysia
SELEX Technology
2. **Ms. Helen Lim**
Chemopharm Sdn. Bhd.
*Aptamer binding affinity using
Surface Plasmon Resonance
(SPR)*
3. **Mr. LJ Ong**
Nano Life Quest Sdn Bhd
*The World's Top Rated 1ul
Spectrophotometer*

Registration

Dateline 08 Oct 2018

[Click to Register](#)

Fees

Full Course | RM 600

Seat Limit

15 participants

Contacts

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Registration

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This hands-on course is organised by the Institute for Research in Molecular Medicine (INFORMMM), Universiti Sains Malaysia with the support from Ministry of Education Malaysia under the HICoE program and our proud co-organizer :

Course Programme: SELEX Technology: Aptamer Selection Workshop

Day	Time	Activity
16 Oct 2018 (Seminar)	08:30 – 09:00 am	Registration
	09:00 – 09:30 am	Opening remark
	09:30 – 10:30 am	Lecture 1: An overview of SELEX technology Dr. Khairul Mohd Fadzli Mustaffa (<i>INFORMMM, USM</i>)
	10:30 – 11:00 am	Tea break
	11:00 – 12:00 pm	Lecture 2: Aptamer Technology
	12:00 – 01:00 pm	Lecture 3: Aptamer binding affinity using Surface Plasmon Resonance (SPR) Ms. Helen Lim (<i>Chemopharm Sdn. Bhd.</i>)
	01:00 – 01:30 pm	Lunch Talk : The World's Top Rated 1ul Spectrophotometer Mr. LJ Ong (<i>Nano Life Quest Sdn Bhd</i>)
	01:30 – 02:00 pm	Lunch
Hands-on	02:00 – 05:00 pm	Lab 1: Introduction of SELEX experiment - SELEX experiment using NHS activated agarose resin and demonstration on preparation of selection matrix.
17 Oct 2018 (Hands-on)	09:00 – 1:00 pm	Lab 2: Production of ssDNA (SELEX cycle) ▪ Amplification of bound aptamer ▪ Generation of ssDNA
	1:00 – 02:00 pm	Lunch
	02:00 – 05:00 pm	Lab 3: Check on aptamer binding using FAM-labeled aptamer - Post-SELEX experiment using selected SELEX cycle of labeled aptamer pool (NHS activated agarose resin) - Measurement of bound aptamer using DeNovix.
18 Oct 2018 (Hands-on)	09:00 – 12:30 pm	Lab 4: Measurement of aptamer binding affinity using FAM-labeled aptamer (NHS-activated agarose resin)
	12:30 – 02:00 pm	Lunch
	02:00 – 04:00 pm	Lab 5: Characterisation of aptamer binding - Cloning (show result - demonstration) - Prediction of secondary structure of aptamer using mfold program
	04:00 – 04:15 pm	Discussion and closing remarks

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