

# Computational Structural Bioinformatics

Series I – *Learning by doing!*

26 & 27 June 2018 | USM Health Campus, Kelantan

## Course Description

This comprehensive hands-on course will cover the essentials protein modelling and molecular docking simulation for **beginners**. Due to the limitation of the experimental methods, molecular modelling approaches have been applied to elucidate proteins structures. In addition, advances in computational resources have enable the interactions of protein-protein or protein-ligand to be predicted. The structural analysis could the inform structure-function relationship and the design of new inhibitors. In this workshop, you will learn to built the three dimensional structure of a protein, predict the conformation of a ligand or inhibitor in the binding site of the protein and analyse the results using your own laptop.

## Speakers and Trainers

Assoc Prof Dr Choong Yee Siew

Dr Choi Sy Bing

Ms. Lim Yee Ying

USM Student- RM250\*\*/RM300

USM Staff - RM300\*\*/RM350

Others - RM400\*\*/RM450

\*\*Early bird rate (till 15th May 2018)

**All participants need to bring along their own laptop (at least Windows 7 as the operating system).**

## Registration

Dateline 25 Jun 2018

Seat Limit  
**25 participants**

## Contacts

*Technical*

Assoc Prof Dr Choong Yee Siew

yeesiew@usm.my

04-6534837

*Registration*

Ham Siew Ling

siewling@usainsgroup.com

012-928 9664

Mohamad Marzuqi Haziq Bin Jaafar

marzuqihaziq@yahoo.com

019-436 0727

[Click to Register](#)

This hands-on course is organised by the Institute for Research in Molecular Medicine (INFORMMM), Universiti Sains Malaysia.



MyCPD points for USM staff.  
Fees shown include 6% GST.

### Course Programme: Computational Structural Bioinformatics- Series I

Day 1	26 June 2018
0900	Registration for Participants
0930	Welcome Notes and Workshop Introduction
0945	Lecture 1: Introduction to Protein Modelling
1045	Tea Break
1100	Practical 1: Basic Modelling
1300	Lunch
1400	Practical 2: Advanced Modelling
1600	Tea Break
1615	Practical 2: Advanced Modelling (Continued)
1700	End of Day 1
Day 2	27 June 2018
0900	Lecture 2: Molecular Docking Simulation
1000	Tea Break
1015	Practical 3: Docking Simulation
1300	Lunch
1400	Practical 4: Analysis - Docking Results
1500	Tea Break
1515	Practical 5: Analysis - Interactions
1645	Closing Remarks
1700	End of workshop

### Trainers' Biodata

**Assoc Prof Dr Choong Yee Siew** joined Universiti Sains Malaysia as a lecturer and researcher upon received her Ph.D. Her primary field is structural bioinformatics with research emphasis on the modeling and structural studies of biomarkers from enteric and parasite diseases from the developing and under-developed countries. She is also looking into *de novo* antibody design, specifically scFv, against the biomarkers that she is working on. Besides that, she is also working on *in silico* antibody optimization from the experimental data obtained from collaborators.

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