



MHRD's Global Initiative of Academic Network (GIAN)

## INVENTING NEW CHEMICAL ENTITIES FROM TRADITIONAL MEDICINES

60+ hours of academic interaction and mentoring by

Professor **Mukund S Chorghade** (PhD)

Affiliation: Harvard and Princeton Universities

### **Broad Area:**

Drug Discovery, Development, Translational Research, Synthetic Chemistry



### **Objectives:**

1. Develop insights into the process of drug discovery and development
2. Learn reverse pharmacology, observational therapeutics and informational flow analysis.
3. Train the participants for using traditional knowledge for inventing new chemical entities of certain properties
4. Comparative study of medicines (Diabetes, Oncology, HIV and Malaria)
5. Brainstorming on developing newer alternative medicines

### **Guest Faculty:**

Professor Mukund Chorghade

### **Hosts:**

Dr Ambuja Salgaonkar  
Dr Varsha Kelkar-Mane

### **Duration:**

October 9 to 18, 2019 (10 days),  
Everyday 5 hours  
(9:30 to 12:00 noon and 2:00 to 4:30 pm)



### **Who can attend**

Executives and researchers from pharmaceutical companies.

Students of graduation and master's degree programmes in biological and life sciences including Biotech, Biochem, Bio-analyticals, Chemistry and, Computational sciences.

Teachers from Universities, Colleges and reputed Academic and Technical Institutions.

### **Registration fees:**

Representatives from corporate houses and NGO: ₹ 7000

Professionals from research and academic institutions: ₹ 2000

Bona-fide students of colleges and universities: ₹ 1000

(DD to be drawn in the name of 'Finance and Accounts Officer, University of Mumbai'. Candidates name and contact number to be mentioned behind DD)

The registration fees include charges for instructional kit, use of computer labs for tutorials and assignments, 24 hr wi-fi facility and a working lunch for overseas and industry participants. Accommodation and dinner can be arranged for overseas participants and outstation participants on payment basis.

- The content is equivalent of 4 credits; A certificate of credits earned could be availed for the qualified participants who wish to get examined by paying the Examination fees of ₹ 1000/- per person.
- The Course is available in the flipped class-room mode for those who wish to attend it online. Please write to [ambujas@udcs.mu.ac.in](mailto:ambujas@udcs.mu.ac.in) for knowing the modalities.

## LECTURE SCHEDULE

DAY	DATE	LECTURE 9:30 to 12:00 am		TUTORIALS (2:00 p.m. onwards)
		Lecture 1	Lecture 2	
Day 1	09/10/2019 Wednesday	Keynote - What this course entails? Key steps in Drug Discovery and Development?	Introduction - Basic principles. Small molecules, Biomolecules, Polymer therapeutics	Historical development of drug discovery and its relevance to contemporary approaches. Discovery of Olaparib or Aliskiren or alike.
Day 2	10/10/2019 Thursday	Essential medicines the question of access.	Evaluation of pharmacology and toxicology of bioactives	Evaluation of pharmacology and toxicology of bioactives Fundamental regulations
Day 3	11/10/2019 Friday	Polymer therapeutics. Lead optimization in drug discovery. Unusual experiences with discovery		
Day 4	12/10/2019 Saturday	Reverse Pharmacology, Observational Therapeutics and Informational Flow Analysis		Detailing of the cases selected by the participants; Recap, Q and A
Day 5	14/10/2019 Monday	Process development / route selection		Case studies: Gabitril, HIV protease drugs, Renagel.
Day 6	15/10/2019 Tuesday	Reverse pharmacology / observational therapeutics for drug discovery Guest Lectures Ashok Vaidya, Rama Vaidya, Vidita Vaidya, Chaya Godse		Reverse pharmacology / observational therapeutics for drug discovery
Day 7	16/10/2019 Wednesday	Drug metabolism	New technologies for assessment of ADME	Drug substance / Drug product regulations; EU directives FDA's guidelines and ICH regulations for stability testing, control of drug substance and drug product; Confirm manufacturing consistency and product quality. Q and A recap
Day 8	17/10/2019 Thursday	Designing and validating stability indicating analytical test methods. Establishing successful stability data management. importance of quality control. Introduction to method validation review necessary test methods for release of drug.		Overview of biologics: differences with small molecules. Biopharmaceuticals: what makes them different from small molecules? Basics of biopharmaceutical drug substance and drug product manufacturing.
Day 9	18/10/2019 Friday	Clinical Medicine Guest lectures from King Li, Dean University of Illinois		Integration of solutions of the assignment problems, compilation of project, documentation etc.
Day 10	18/10/2019 Saturday	Individual Discussions		

# INVENTING NEW CHEMICAL ENTITIES FROM TRADITIONAL MEDICINES

9<sup>th</sup> to 18<sup>th</sup> October 2019

An event under

Global Initiative of Academic Network (GIAN)

UNIVERSITY OF MUMBAI

Registration Form

1. Name: Prof/Dr/Mr/Ms:

2. Designation (Student/Faculty):

3. Complete postal address:

4. Telephone/Mobile No.

5.

E.mail:

6. Registration Fee (Rs)

7. Accommodation required (Yes/No)

8. Accommodation required for number of days and date:

9. Accommodation Fee = (Rs 200/Day): To be paid to the hostel at the time of arrival.

Breakfast, dinner not included. Food is available across 3 canteens in the University premises as well as number of restaurants near the University

10. Registration cum accommodation fee details

DDNo.: \_\_\_\_\_ Amount: \_\_\_\_\_

Bank: \_\_\_\_\_

Date:

Signature of Participant

## Registration fee:

Participants from corporate houses and NGOs: Rs 7000/-

Research/Academic Institutions: Rs 2000/-.

Bonafide students of college and University: Rs 1000/-

(Kindly attach proof: ID card/ Bonafied certificate)

Note: DD to be drawn in favor of "Finance and Accounts Officer University of Mumbai" payable at Mumbai. Candidates name and number should be mentioned behind the DD. Also mention the name of the Course as GIAN OCT 2019 behind the DD.

Kindly fill this form, scan and e-mail to: [ambujas@udcs.mu.ac.in](mailto:ambujas@udcs.mu.ac.in)