

THE 3rd RCB BIOIMAGING SCHOOL
March 16-21, 2020
RCB, NCR Biotech Science Cluster
Faridabad, Haryana, India

Schedule

March 16, Monday

09:30 –10:15: Registration (auditorium complex)
10:15 –10:45: Inauguration, introductions
10:45 – 11:30: **Dr. Nikki, Horiba Scientific: “Applications of Raman spectroscopy in the field of Biology”**
11:30 – 12:00: Tea
12:00 –13:00: **Technical lecture I: Dr. Manjula Kalia, RCB: Brightfield, DIC and fluorescence microscopy**
13:00 –14:00: Lunch, group photographs
14:00 –16:00: Sample preparation for fluorescence and confocal microscopy (3 groups)
16:00 – 17:00: Hands-on demo for brightfield, DIC, stereo-zoom microscopes
17:00 –17:30: Discussion over tea
17:30 –19:30: Sample preparation for fluorescence and confocal microscopy (3 groups)

March 17, Tuesday

9:30 –10:30 am: **Technical lecture II: Dr. Manoj Manna, Leica Microsystems: Basics and Applications of Laser Scanning Confocal microscopy**
10:30 –11:30: Hands-on demo for brightfield, DIC, stereo-zoom microscopes and fluorescence (3 groups)
11:30 –11:45: Tea
11:45 –13:00: Hands-on demo for brightfield, DIC, stereo-zoom microscopes and fluorescence (3 groups)
13:00 –14:00: Lunch
14:00 –15:00: **Academic lecture I: Dr. Sourav Banerjee, National Brain Research Centre**
15:00 –17:00: Hands-on for confocal microscopy (3 groups)
17:00 –17:30: Discussion over tea
17:30 –19:30: Hands-on for confocal microscopy continued (3 groups)

March 18, Wednesday

9:30 – 10:30: **Technical lecture III: M S Tanwar, Towa Optics (Nikon) India. Basics and Applications of Spinning Disc Confocal Microscopy.**
10:30 – 11:30: Hands-on for confocal microscopy continued (3 groups on 3 microscopes)
11:30 – 11:45: Tea
11:45 – 13:00: Hands-on for confocal microscopy continued (3 groups on 3 microscopes) continued
13:00 – 14:00: Lunch with RCB faculty, group photographs
14:00 –16:00: **Research poster session for participants**

16:00 – 17:00: **Academic lecture II: Dr. Sivaram Mylavarapu, RCB. Understanding cell division through quantitative imaging and complementary approaches”.**

17:00 – 17:30: Discussion over tea

17:30 – 19:30: Setting up live-cell, time lapse imaging on the confocal microscopes

March 19, Thursday

9:30 – 10:30: **Academic lecture III: Dr. Tushar K Maiti, RCB: “Atomic Force Microscopy and its Applications in Biology”**

10:30 – 11:00: Tea

11:00 – 13:00: Hands-on for Atomic Force Microscopy (all participants)

13:00 – 14:00: Lunch

14:00 – 15:00: **Technical lecture IV: Mr. Rishi Kant, Zeiss India on super resolution microscopy**

15:00 – 17:00: Hands-on image acquisition and analysis for SIM, group 1 (with Rishi Kant), analysis of confocal fixed and live data (group 2)

17:00 – 17:30: Discussion over tea

17:30 – 19:30: Hands-on image acquisition and analysis for SIM continued, group 2 (with Rishi Kant), analysis of confocal fixed and live data (group 1)

March 20, Friday

9:30 – 10:30: **Academic lecture IV: Dr. Nitin Mohan, IIT Kanpur**

10:30 – 11:00: Tea

11:00 – 13:00: Sample preparation for PALM/STORM, all participants (with Dr. Nitin Mohan)

13:00 – 14:00: Lunch

14:00 – 16:00: Data acquisition for PALM/STORM, group 1 (with Dr. Nitin Mohan)

16:00 – 16:30 pm: Discussion over tea

16:30 – 18:30: Data acquisition for PALM/STORM, group 2 (with Dr. Nitin Mohan)

18:30 – 20:00: **Data analysis for PALM/STORM** (with Dr. Nitin Mohan/ Rishi Kant/ Dr. Amarnath)

March 21, Saturday

9:30 – 10:30: **Academic Lecture V: Dr. Deepak Nair, IISc Bengaluru “Super-resolution imaging in neurobiology”**

10:30 – 10:45: Tea, group photographs

10:45 – 11:45: **Academic Lecture VIII: Dr. Prem Kaushal, RCB. “An Introduction to Electron Microscopy in Biology”**

11:45 – 12:30: **Panel discussion: “The do’s and don’ts of image processing”.**

12:30 – 13:00: Concluding session, poster prizes, certificates, receipts, feedback, photographs, vote of thanks

13:00 – 14:00: Lunch and disperse