

# Workshop on “Integrated OMICS II” (Genomics, Proteomics, Metabolomics and Bioinformatics)

16-20 December, 2019

## Workshop Scheduler

### Day 1 (16/12/2019)

Timings	Type	Title	Venue	Speaker
9.00 to 9.15	Registration	Registration		
9.15 to 10.15	Lecture	An integrated OMICS based approach to understand evolution of crop plants	LH2	<a href="#">Shivaprasad P V</a>
10.15 to 10.30	Break	Tea break	LH2	
10.30 to 11.15	Lecture	Introduction to Next generation Sequencing technologies	LH2	<a href="#">Awadhesh P</a>
11.15 to 12.00	Lecture	Introduction to Proteomics technologies	LH2	<a href="#">Chhaya P</a>
12.00 to 12.45	Lecture	Chromatography and Metabolomics technologies	LH2	<a href="#">Padma R</a>
12.45 to 13.30	Lunch	Lunch canteen (1st Floor)		
13.30 to 18.00	Practical	<b>Group Ia &amp; Ib</b> (Genomics): Sample QC and library preparation-RNA Seq	NGGF	<a href="#">Awadhesh P</a>
		<b>Group IIa</b> (Metabolomics) Sample preparation and Data Acquisition	MS Facility, CCAMP	<a href="#">Padma R</a>
		<b>Group IIb</b> (Proteomics) Sample preparation	MS Facility, NCBS	<a href="#">Chhaya P</a>

(LH2: Lecture Hall 2)

### Day 2 (17/12/2019)

Timings	Type	Title	Venue	Speaker
9.30 to 12.30	Practical	<b>Group Ia &amp; Ib</b> (Genomics): Library QC, Sequencing run setup and data-demultiplexing	NGGF	<a href="#">Awadhesh P</a>
		<b>Group IIa</b> (Metabolomics) Data analysis	MS Facility, CCAMP	<a href="#">Padma R</a>
		<b>Group IIb</b> (Proteomics) data acquisition and data analysis	MS Facility, NCBS	<a href="#">Chhaya P</a>

12.30 to 13.30	Lunch	Lunch canteen (1st Floor)		
12.30 to 17.00	Practical	<b>Group Ia &amp; Ib</b> (Genomics): Library QC, Sequencing run setup and data-demultiplexing	NGGF	<a href="#">Awadhesh P</a>
		<b>Group IIa</b> (Metabolomics) Data analysis	MS Facility, CCAMP	<a href="#">Padma R</a>
		<b>Group IIb</b> (Proteomics) data acquisition and data analysis	MS Facility, NCBS	<a href="#">Chhaya P</a>
17.00 to 18.00	Facility Visit	CryoEM and CIFF		Awadhesh and Chhaya

### Day 3 (18/12/2019)

Timings	Type	Title	Venue	Speaker
8.30 to 10.30	Lecture	High Resolution Biology with 10x Genomics - Multi-omics data analysis from single cells - Sample prep through data analysis	LH2	Joseph Aman 10X Genomics, Singapore
10.30 to 10.50	Break	Tea break		
10.50 to 11.40	Lecture	Proteomics	LH2	<a href="#">Prof. Utpal Tatu, IISC</a>
11.40 to 12.30	Lecture	Basics of mass spectrometry-based proteomics and its clinical application	LH2	Dr. Gajanan Sathe IOB, Bangalore
12.30 to 13.30	Lunch	Lunch canteen (1st Floor)		
13.30 to 18.00	Practical	<b>Group IIa &amp; IIb</b> (Genomics): Sample QC and library preparation-RNA Seq	NGGF	<a href="#">Awadhesh P</a>
		<b>Group Ia</b> ( Metabolomics) Sample preparation and data acquisition	MS Facility, CCAMP	<a href="#">Padma R</a>
		<b>Group Ib</b> (Proteomics) Sample preparation	MS Facility, NCBS	<a href="#">Chhaya P</a>

**Day 4 (19/12/2019)**

Timings	Type	Title	Venue	Speaker
9.30 to 12.30	Practical	<b>Group IIa &amp; IIb</b> Genomics): Library QC, Sequencing run setup and data-demultiplexing	NGGF	<a href="#">Awadhesh P</a>
		<b>Group Ia</b> (Metabolomics) data analysis	MS Facility, CCAMP	<a href="#">Padma R</a>
		<b>Group Ib</b> (Proteomics) data acquisition and data analysis	MS Facility, NCBS	<a href="#">Chhaya P</a>
12.30 to 13.30	Lunch	Lunch canteen (1st Floor)		
13.30 to 16.00	Practical	<b>Group IIa &amp; IIb</b> Genomics): Library QC, Sequencing run setup and data-demultiplexing	NGGF	<a href="#">Awadhesh P</a>
		<b>Group Ia</b> (Metabolomics) data analysis	MS Facility, CCAMP	<a href="#">Padma R</a>
		<b>Group Ib</b> (Proteomics) data acquisition and data analysis	MS Facility, NCBS	<a href="#">Chhaya P</a>
16.00 to 18.00		Introduction to NGS data analysis	Raspuri	Mohak and Nitish

**Day 5 (20/12/2019)**

Timings	Type	Title	Venue	Speaker
9.30 to 10.30	Practical	Hands on NGS data analysis	Raspuri	Mohak and Nitish
10.30 to 10.45	Break	Tea break	Main Canteen	
10.45 to 12.30	Practical	Hands on NGS data analysis (Continue)	Raspuri	Mohak and Nitish
12.30 to 13.30	Lunch	Lunch Admin canteen (2nd Floor)		
13.30 to 15.30	Practical	Hands on NGS data analysis (Continue)	Raspuri	Mohak and Nitish
15.30 to 16.00	Break	Tea break	Main canteen	
16.00 to 16.30		Participants test/ feedback	Raspuri	
16.30 to 17.00		Closing remarks and Certification Best Participant Prize	Raspuri	

### Group-Wise Details of the Hands-on session

#	Group	16th Dec	17th Dec	18th Dec	19th Dec	20th Dec
1	<b>Ia</b>	NGS	NGS	MS (Metabolomics)	MS (Metabolomics)	<b>Bioinformatics</b>
2	<b>Ib</b>	NGS	NGS	MS (Proteomics)	MS (Proteomics)	
3	<b>IIa</b>	MS (Metabolomics)	MS (Metabolomics)	NGS	NGS	
4	<b>IIb</b>	MS (Proteomics)	MS (Proteomics)	NGS	NGS	

