Hands on workshop on "Integrated OMICS III" (Genomics, Proteomics and Bioinformatics)

19-23 September, 2022

Workshop Scheduler

Day 1 (19/09/2022)

| Timings | Type | Title Venue | | Speaker |
|----------------|--------------|--|--|---------------------------|
| 9.00 to 9.15 | Registration | Registration Golgi | | |
| 9.15 to 10.15 | Lecture | Effectively integrating genomic and metabolomic data to understand regulation of cell growth | | <u>Sunil</u> |
| 10.15 to 10.30 | Break | Tea break | Golgi | |
| 10.30 to 11.15 | Lecture | Introduction to Next generation Sequencing technologies | Golgi | Awadhesh |
| 11.15 to 12.00 | Lecture | Introduction to Proteomics technologies | C | |
| 12.00 to 12.45 | Lecture | Introduction to NGS Golgi data analysis | | <u>Nitish</u> |
| 12.45 to 13.30 | Lunch | Canteen (First Floor) | | |
| 13.30 to 18.00 | Hands-on | Group I (Genomics): Sample QC and library preparation-RNA Seq | Next Generation Genomics Facility (NGGF) | Narayanan and Awadhesh |
| | | Group II (Proteomics) Sample preparation | MS Facility | <u>Nirpendra</u> |

Day 2 (20/09/2022)

| Timings | Type | Title | Venue | Speaker |
|---------------|----------|--|-------|------------------------------|
| 9.30 to 12.30 | Hands-on | Group I (Genomics): Library Preparation continue, Library QC-RNA Seq | NGGF | Narayanan and Awadhesh |

| | | Group II (Proteomics) data | MS Facility | <u>Nirpendra</u> |
|----------------|-------------------|--|-----------------|------------------------------|
| | | acquisition | | |
| 12.30 to 13.30 | Lunch | Canteen (First Floor) | | |
| 12.30 to 18.00 | Hands-on | Group I (Genomics): Sequencing run setup and data-demultiplexing | NGGF | Narayanan and Awadhesh |
| | | Group II (Proteomics) data acquisition | MS Facility | <u>Nirpendra</u> |
| 19.00 to 20.00 | Special dinner | With all the invitees and speakers, Group discussion | Main Canteen | |

Day 3 (21/09/2022)

| Timings | Type | Title Venu | | Speaker |
|----------------|----------|--|------------------------|---|
| 9.00 to 10.00 | Lecture | Biology at True Resolution: Resolving complex biology at Single cell level | Virtual | Dr. Ivonne from 10x Genomics |
| 10.00 to 11.00 | Lecture | AP-MALDI Imaging of Tissue and cells | Virtual | Dr. Nivedita from Masstech |
| 11.00 to 11.30 | Break | Tea break | | |
| 11.30 to 12.15 | Lecture | Droplet Digital PCR driving new discoveries in Life Science & Diagnostics | InStem lecture hall | Kompelli Sai Kumar from Bio-Rad |
| 12.15 to 13.00 | Lecture | Label free Quantiation work using SWATH work flow | InStem lecture hall | Dr.Shadab Ahmad, CCAMP, Biopharma lab |
| 13.00 to 13.45 | Lunch | Canteen (First Floor) | | |
| 13.45 to 18.00 | Hands-on | Group II (Genomics): Sample QC and library preparation- RNA Seq | NGGF | Narayanan and Awadhesh |
| | | Group I (Proteomics) Sample preparation | MS Facility | <u>Nirpendra</u> |

Day 4 (22/09/2022)

| Timings | Туре | Title | Venue | Speaker |
|----------------|----------|---|-------------|------------------------------|
| | | | | |
| 9.30 to 12.30 | Hands-on | Group II (Genomics): Library Preparation continue, Library QC-RNA Seq | NGGF | Narayanan and Awadhesh |
| | | Group I (Proteomics) data acquisition | MS Facility | Nirpendra |
| 12.30 to 13.30 | Lunch | Canteen (First Floor) | | |
| 12.30 to 18.00 | Hands-on | Group II (Genomics): Sequencing run setup and datademultiplexing | NGGF | Narayanan and Awadhesh |
| | | Group I (Proteomics) data acquisition | MS Facility | <u>Nirpendra</u> |

Day 5 (23/09/2022)

| Timings | Type | Title | Venue | Speaker |
|----------------|----------|---|--------------|-----------------------|
| 9.00 to 11.00 | Hands-on | Hands on RNA Seq data analysis Raspuri | | Nitish and Akshara |
| 11.00 to 11.15 | Break | Tea break Main Canteen | | |
| 11.15 to 13.00 | Hands-on | Hands on RNA Seq data analysis Raspuri (Continue) | | Nitish and Akshara |
| 13.00 to 13.45 | Lunch | Canteen (First Floor) | | |
| 13.45 to 15.30 | Hands-on | Hands on RNA Seq data analysis (Continue) | Raspuri | Nitish and Akshara |
| 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 | 19th Sept. | 20th Sept. | 21th Sept. | 22th Sept. | 23 rd Sept. |
|-------|------------|------------|------------|------------|----------------------------|
| I | Genomics | Genomics | Proteomics | Proteomics | Bioinformatics (RNA Seq |
| II | Proteomics | Proteomics | Genomics | Genomics | Analysis) |