HANDS ON TRAINING ON

RNA-Sequencing & Metagenome data analysis

22 August 2022 to 25 August 2022

Venue: **CSIR-Indian Institute of Integrative Medicine**, Canal Road, Jammu

Program Schedule

DAY1 (22 – Aug – 2022)

09:00 – 09:30 AM	Registration
09:30 – 10:00 AM	Inauguration ceremony & Introductions
10:00 – 11:00 AM	Comparative transcriptomics to identify candidate genes for climate-resilience in foxtail millet - **Dr. Manoj Prasad**
11:00 – 11:30 AM	Tea Break
11:30 AM – 12:45 PM	Nanostring nCounter: Digital Gene Expression – Lecture -**Dr. Divyank Mahajan**
12:45 – 2:00 PM	RNA Seq (Reference-based) – Lecture - **Dr. Suyash Agarwal**
2:00 – 3:00 PM	LUNCH
3:00 – 4:00 PM	RNA Seq (*de-novo* based) – Lecture - **Dr. Navajeet Chakravartty**
4:00 – 4:15 PM	Tea Break
4:15 – 5:45 PM	Linux Introduction (Theory and Practical) - **Dr. Suyash Agarwal**

DAY2 (23 – Aug – 2022)

09:30 – 10:00 AM	Discussion / Recap- previous day's lectures
10:00 – 11:00 AM	Discovery and analysis of long non coding RNAs from transcriptome sequences Lecture -**Dr. Kashmir Singh**
11:00- 11:30 AM	Tea Break
11:30 AM – 2:00 PM	PRACTICAL I (RNA Seq Reference based analysis) - **Dr. Suyash Agarwal**
2:00 – 3:00 PM	LUNCH
3:00 –4:00 PM	PRACTICAL II (RNA Seq *de-novo* assembly)**- Dr.Navajeet Chakravartty**
4:00 – 4:15 PM	Tea Break
4:15 – 6:30 PM	PRACTICAL III (Annotation, DGE analysis)**- Dr.Navajeet Chakravartty**

DAY3 (24 – Aug – 2022)

09:30 – 10:00 AM	Discussion / Recap - previous day's lectures
10:00 – 11:00 AM	Transcriptome assisted discovery of genetic markers and their applications in crop improvement Lecture -**Dr. Ram K Sharma**
11:00- 11:15 AM	Tea Break
11:15 AM – 12:15 PM	Metagenome (16S, Shotgun Metagenome Seq) - Lecture -**Dr. Suyash Agarwal&Dr.Navajeet Chakravartty**
12:15 – 2:00 PM	PRACTICAL IV (16S Metagenome Seq analysis) - **Dr. Suyash Agarwal**
2:00 – 3:00 PM	LUNCH
3:00 – 4:00 PM	PRACTICAL V (Shotgun Metagenome Seq – Assembly)**- Dr.Navajeet Chakravartty**
4:00 – 4:15 PM	Tea Break
4:15 - 6:00 PM	PRACTICALVI (Shotgun Metagenome Seq – Annotation)**- Dr.Navajeet Chakravartty**

DAY 4 **(25 – Aug – 2022)**

09:30 – 10:00 AM	Discussion / Recap - previous day's lectures
10:00 – 11:00 AM	Analysis of microbial genome sequences for understanding plant-pathogen interactions Lecture by **Dr. Prabhu Patil**
11:00- 11:15 AM	Tea Break
11:15 AM – 12:30 PM	Discussion and Q/A on all practical sessions
12:30 – 01:00 PM	Valedictory ceremony, Certificate distribution
1:00 – 1:30 PM	Research @ CSIR-IIIM – Lecture – **Dr. Sumit Gandhi**
1:30 – 2:00 PM	Bio-Incubators & Atal Innovation Centre – Lecture – **Dr. Saurabh Saran**
2:00 – 3:00 PM	LUNCH
3:00 – 5:30 PM	Visit to IIIM Labs & Farms (includes tea break during visit)