



Birla Institute of Scientific Research

National Workshop
on
“Big Data Analytics for Whole Exome Sequencing”
22 – 28 June 2017

Program

June 22

09:30 - 10 AM: Welcome

10- 11 AM: Next generation Sequencing(NGS):Challenges and Prospects (Krishna Mohan)

11 -1115 AM: Coffee/Tea break

1115-12 PM: Whole Exome Sequencing (WES): Need, Prospects and Unsolved Challenges (Prash)

12-1215 PM: Preevaluation questionnaire

1215-1245 PM: Comparison of WES with other NGS methods: Emphasis on Data Analysis (Prash)

1245-1 PM: Visits to the Lab/ Group Photo

1-2 PM : Lunch

2- 215 PM: Compression Methods for NGS (Prash)

215- 245PM: Programming R for NGS (Shailesh Kumar)

245-6PM : Hands -on with intermittent tea break (Prash/Shailesh)

June 23

09:30 - 1015 AM: Steps in Variant Calling/Annotation and curation (Prash)

1015-1045AM: Sequence Alignment for NGS (Pooran Singh)

1045:11 AM: Perl wrappers and Standards for NGS (Narendra Meena)

11 -1115 AM: Coffee/Tea break

1115-1215 PM: Introduction to NGSEasy and the GATK for WES (Narendra Meena)

1215-1 PM: The pipeline/workflow for WES (Prash)

1-2 PM : Lunch

2: 6 PM: Hands -on with intermittent tea break (Prash/Narendra Meena)

June 26

09:30 - 1015 AM: Introduction to Big Data: Challenges and Myths (Sundar)

1015-1045 AM: Big Data Challenges in Krishna Tulasi Transcriptome : A case study (Raghavender)

1045-11 AM: What is Big Data for Biologists? (Prash)

11 -1115 AM: Coffee/Tea break

1115-1145 AM: Big Data Challenges: A case study (Manish/Swagata)

1145-12 PM: An Overview of Big Data Challenges for Peptidome Studies (Raghavender)

12-1PM: Introduction to R Studio for Big Data (Sundar)

1-2 PM : Lunch

2: 6 PM: Hands -on with intermittent tea break (Sundar)

June 27

09:30 - 1015 AM: Big Data Standards/Frameworks for Genetic Analysis: WES as a focus (Prash)

1015-1045 AM: Variant Prioritization for WES Big Data (Prash)

1045-11 AM: Discussions (Prash/Sundar)

11 -1115 AM: Coffee/Tea break

1115-1 PM: Hands-on Big Data with Mapreduce and Hadoop (Sundar)

1145-12 PM: Big Data Analytics and Exemplars (Sundar/Prash)

12-1 PM: Hands-on Big Data (Sundar)

1-2 PM : Lunch

2: 6 PM: Hands -on with intermittent tea break (Sundar)

June 28

09:30 - 1015 AM: Conclusions, Take Home and Overview of the Workshop (Sundar/Prash)

1015-11 AM: Discussions/Post evaluation (All)

11 -1115 AM: Coffee/Tea break

1115-1230 PM: Hands-on (Sundar)

1230-1PM: Good-bye/Lunch