



November 14-16, 2022
Cold Spring Harbor Laboratory

Schedule

Day 1 (Monday)

7:00 pm – 9:00 pm: Introduction and Next Generation Sequence Data Analysis

- Course Introduction (King) (7:00-7:30)
- Introduction to Next Generation Sequence Data Analysis (King) (7:30-9:00)

Day 2 (Tuesday)

9:00 – 12:00: Browsing Genome Resources

- NCBI and Model Organism Database Resources (King) (9:00-10:00)
- Break (10:00-10:15)
- UCSC Genome Browser (Hodges) (10:15-11:15)
- Ensembl (Munger) (11:15-12:00)

12:00 - 1:00 - Lunch

1:00 – 2:00: Review of Genome Resources

- Quiz (King) (1:00-2:00)

2:00 – 5:00: DNA Sequence Analyses

- Introduction to Galaxy – SNP Calling (Fagegaltier) (2:00-3:00)
- Break (3:00-3:15)
- Sequence Polymorphisms (Hodges) (3:30-4:30)
- Workshop (4:30-5:00)
 - Start RNA-Seq alignments

6:00 – 8:00: Cocktail Reception and Dinner
 in Clarkson Dining Room (Blackford Hall)

8:00 - 9:00: Research Seminar

- **Dr. Emily Hodges, Vanderbilt**

Day 3 (Wednesday)

9:00 - 12:30: RNA Sequencing (RNA-Seq)

- RNA-Seq Analysis (Munger) (9:00-10:15)
- Break (10:15-10:30)
- RNA-Seq Analysis Using Galaxy (Fagegaltier) (10:30-11:45)

11:45 – 12:30 - Lunch

12:30 - 5:00: RNA-Seq (Continued)

- Introduction to the R Statistical Computing Environment (King) (12:30-1:15)
- RNA-Seq Analysis Using R (King) (1:15-2:15)
- Break (2:15-2:30)
- Gene Set Enrichment and Pathway Analysis (Munger) (2:30-3:30)
- Functional Genomic Elements and ENCODE (Hodges) (3:30-4:15)
- Workshop and Course Summary (King) (4:15-5:00)