

MGC course ' Next Generation Sequencing data analysis ' 2023

Date: Monday 28 August - Wednesday 30 August, LUMC – Building 1

DAY 1 - 28 August (lecture room 4 – route 762/K-01-084)

Chair: Wilfred van IJcken

9:30-10:00 Welcome & Introduction to NGS - Susan Kloet (LUMC)
10:00-10:30 Think before you start - Judith Boer (Princess Maxima Centrum)
10:30-10:45 Break - Locatie K-00-165B | Boerhaave plein B
10:45-11:15 Sample prep methods - Susan Kloet (LUMC)
11:15-11:45 Short-read sequencing technologies - Wilfred van IJcken (Erasmus MC)
11:45-12:15 Long-read sequencing technologies - Miaomiao Zhou (Avans)
12:15-13:30 lunch break - Locatie K-00-165B | Boerhaave plein B
13:30-14:00 Long read data analysis - Miaomiao Zhou (Avans)
14:00-14:30 De novo assembly - Erwin Datema (KeyGene)
14:30-14:45 Break – Locatie K-00-165B | Boerhaave plein B
14:45-15:15 QC issues - Gerben Voshol (GenomeScan)
15:15-15:45 Data visualization – Mirjam van den Hout (Erasmus MC)
15:45-16:00 Conclusion

DAY 2 - 29 August (lecture room 3 – route 764/ K-01-084)

Chair: Susan Kloet

9:30-10:00 Statistics for NGS – Renee de Menezes (NKI)
10:00-10:30 Building pipelines - Ruben Vorderman (LUMC)
10:30-10:45 Break - Locatie K-00-165B | Boerhaave plein B
10:45-11:15 Alignment methods - Ruben Vorderman (LUMC)
11:15-12:15 Genomic Profiling of Tumors: Somatic and Structural Variant Calling - Dina Ruano (LUMC)
12:15-13:30 lunch break - Locatie K-00-165B | Boerhaave plein B
13:30-14:30 Galaxy tutorials - Introduction to Galaxy (Leon Mei, Ruben, Miaomiao's team)
14:30-14:45 Break - Locatie K-00-165B | Boerhaave plein B
14:45-15:45 Galaxy tutorials (Leon Mei, Ruben, Miaomiao's team)
15:45-16:00 Conclusion

DAY 3 - 30 August (lecture room 3 – route 764/ K-01-084)

Chair: Leon Mei

9:30-10:00 Single cell expression analysis - Tamim Abdelaal (Genmab, Utrecht)
10:00-10:30 RNA expression profiling - Leon Mei (LUMC)
10:30-10:45 Break - Locatie K-00-165B | Boerhaave plein B
10:45-11:15 DNA methylation - Saskia Wilting (Erasmus MC)
11:15-11:45 ChIP-Seq - Hendrik Marks (RU Nijmegen)
11:45-12:15 Metagenomics - Victor Carrion Bravo (UL) **presentation online**
12:15-13:30 lunch break - Locatie K-00-165B | Boerhaave plein B
13:30-14:30 Galaxy tutorials (Leon Mei, Ruben, Miaomiao's team)
14:30-14:45 Break - Locatie K-00-165B | Boerhaave plein B
14:45-15:45 Galaxy tutorials (Leon, Ruben, Miaomiao's team)
15:45-16:00 Conclusion