

MGC course ' Next Generation Sequencing data analysis ' 2022

Date: Monday 29 August - Wednesday 31 August 2022

DAY 1 - 29 August

Chair:

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
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 - Floyd Wiltink (Hogeschool Leiden) -
12:15-13:30	lunch break
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
14:45-15:15	QC issues - Gerben Voshol (GenomeScan)
15:15-15:45	RNA expression profiling - Leon Mei (LUMC)
15:45-16:00	Conclusion

DAY 2 - 30 August

Chair: TBA

9:30-10:00	Building pipelines - Ruben Vorderman (LUMC)
10:00-10:30	Alignment methods - Ruben Vorderman (LUMC)
10:30-10:45	Break
10:45-11:15	Statistics for NGS – Renee de Menezes (NKI)
11:15-11:45	Data visualization – Mirjam van den Hout
11:45-12:15	Variant calling and tumor-specific mutations – Dina Ruano (LUMC)
12:15-13:30	lunch break
13:30-14:30	Galaxy tutorials (Willem de Koning and Dennis Dollee)
14:30-14:45	Break
14:45-15:45	Galaxy tutorials (Willem de Koning and Dennis Dollee)
15:45-16:00	Conclusion

DAY 3 - 31 August

Chair: TBA

9:30-10:00	Single cell expression analysis - Tamim Abdelaal (LUMC/TU Delft)
10:00-10:30	Structural variation analysis – Victor Guryev (UMCG)
10:30-10:45	Break
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) t.b.c.
12:15-13:30	lunch break
13:30-14:30	Galaxy tutorials (Willem de Koning and Dennis Dollee)
14:30-14:45	Break
14:45-15:45	Galaxy tutorials (Willem de Koning and Dennis Dollee)
15:45-16:00	Conclusion