

## Programme

| Day/Time                                 | Topic   | Instructor                            |
|--|---|---------------------------------------|
| <b>Day one – Monday 20 May 2024</b>      |   |                                       |
| 09:00 – 09:30                            | Arrival and registration  |                                       |
| 09:30 – 09:45                            | Welcome   | Jose P. Lopez-Atalaya                 |
| 09:45 – 10:45                            | Course introduction   | Jose P. Lopez-Atalaya                 |
| 10:45 – 11:00                            | Break   |                                       |
| 11:00 – 12:30                            | Lecture: Basics of RNA-seq  | Jose P. Lopez-Atalaya                 |
| 12:30 – 13:30                            | Lunch   |                                       |
| 13:30 – 16:30                            | Practical: End-to-end RNA-Seq workflow  | Jose P. Lopez-Atalaya / Angel Marquez |
| <b>Day two – Tuesday 21 May 2024</b>     |   |                                       |
| 09:30 – 10:15                            | Lecture: Basics of ChIP-seq and CUT&Tag   | Sergio Niñerola                       |
| 10:15 – 10:30                            | Break   |                                       |
| 10:30 – 11:15                            | Lecture: Basics of ATAC-seq   | Marina Guillot                        |
| 11:15 – 11:30                            | Break   |                                       |
| 11:30 – 12:30                            | Practical: End-to-end ChIP-seq / ATAC-seq workflow (I)  | Sergio Niñerola / Marina Guillot      |
| 12:30 – 13:30                            | Lunch   |                                       |
| 13:30 – 15:30                            | Practical: End-to-end ChIP-seq / ATAC-seq workflow (II)   | Sergio Niñerola / Marina Guillot      |
| <b>Day three – Wednesday 22 May 2024</b> |   |                                       |
| 09:30 – 10:15                            | Lecture: Basics of scRNAseq (I)   | Jose P. Lopez-Atalaya                 |
| 10:15 – 10:30                            | Break   |                                       |
| 10:30 – 11:30                            | Keynote Lecture: Neurogenomics  | Gabriel Santpere                      |
| 11:30 – 11:45                            | Break   |                                       |
| 11:30 – 12:30                            | Lecture: Basics of scRNAseq (II)  | Angel Marquez                         |
| 12:30 – 13:30                            | Lunch   |                                       |
| 13:30 – 16:30                            | Practical: scRNAseq data analysis in R using Seurat   | Angel Marquez / Nitin Narwade         |
| <b>Day four – Thursday 23 May 2024</b>   |   |                                       |
| 09:30 – 10:15                            | Lecture: Basics of scRNAseq (III)   | Juan M. Barba                         |
| 10:15 – 10:30                            | Break   |                                       |
| 10:30 – 11:30                            | Keynote Lecture: Spatial Transcriptomics  | Anna Pascual                          |
| 11:30 – 11:45                            | Break   |                                       |
| 11:30 – 12:30                            | Lecture: Basics of scRNAseq (IV)  | Nitin Narwade                         |
| 12:30 – 13:30                            | Lunch   |                                       |
| 13:30 – 16:30                            | Practical: scRNAseq data analysis in Python using Scanpy  | Juan M. Barba / Nitin Narwade         |
| <b>Day five – Friday 24 May 2024</b>     |   |                                       |
| 09:30 – 10:15                            | Lecture: Single cell multiome gene expression and chromatin accessibility data                        | Lorenzo Puche                         |
| 10:15 – 10:30                            | Break   |                                       |
| 10:30 – 13:00                            | Practical: Single cell multiome gene expression and chromatin accessibility data analysis with Signac | Lorenzo Puche / Jose P. Lopez-Atalaya |
| 13:00 – 13:30                            | Course wrap-up and feedback   | Jose P. Lopez-Atalaya                 |
| 13:30                                    | End of the course   |                                       |