

**Programme – Bioinformatics for Immunologists**

<b>Day 1 – Monday 27<sup>th</sup> September</b>		
08:30- 09:30	Keynote lecture 1 (pre-recorded)	TBD
09:30 - 9:45	Break	
09:45 - 10:30	Welcome & introductions	Dayane Araujo
10:30 - 11:00	Keynote lecture 1 – live Q&A	TBD
11:00 - 12:00	R for immunology bioinformatics	Anna Lorenc
12:00 - 13:00	Lunch Break	
13:00 - 14:00	R for immunology bioinformatics	Anna Lorenc
14:00 - 15:00	Bulk RNA-seq lecture (pre-recorded)	Marta Perez-Alcantara
15:00 - 15:30	Break	
15:00 - 17:00	Practical on Bulk RNA-seq	Marta Perez-Alcantara
17:00 - 17:30	Lightning talk - group A	Delegates

<b>Day 2 – Tuesday 28<sup>th</sup> September</b>		
08:00 - 09:00	Single-cell RNA seq lecture (pre-recorded)	Marta Perez-Alcantara
09:15 - 09:30	Morning challenge	Dayane Araujo
09:30 - 10:00	Break	
10:00 - 12:00	Practical on Single-cell RNA seq	Marta Perez-Alcantara
12:00 - 13:00	Lunch Break	

13:00 - 14:00	Practical on Single-cell RNA seq	Marta Perez-Alcantara
14:00 – 15:00	Lecture Integrating multi-omics and biological knowledge for QSP (pre-recorded)	Julio Saez-Rodriguez
15:00 - 15:30	Break	
15:30 – 17:00	Practical - Integrating multi-omics and biological knowledge for QSP	Aurelien Dugourd
17:00 - 17:30	Lightning talks - group B	Delegates

### Day 3 – Wednesday 29<sup>th</sup> September

08:00 - 09:00	Pre-recorded on Fundamentals of flow cytometry data analysis	Christopher Hall
09:00 - 09:30	Lightning talks	Delegates
09:30 - 10:00	Break	
10:00 - 12:00	Practical - Fundamentals of flow cytometry analysis	Christopher Hall
12:00 - 13:00	Lunch Break	
13:00 - 14:00	Pre-recorded lecture - Data visualization and cell identification in cytometry data	Jonathan Irish/Sierra Barone
14:00 - 14:30	Q&A session with Jonathan Irish/Sierra Barone	Jonathan Irish/Sierra Barone
14:30 - 16:00	Practical - Data visualization and cell identification in cytometry data	Jonathan Irish/Sierra Barone
16:00 - 16:30	Break	
16:30 - 17:30	Practical - Data visualization and cell identification in cytometry data	Jonathan Irish/Sierra Barone

### Day 4 – Thursday 30<sup>th</sup> September

08:30 - 09:30	Keynote lecture (pre-recorded) Multi-omics pathway analyses for immunologic research	Johannes Griss
09:30 - 10:00	Break	

10:00 - 11:00	Q&A with Johannes	Johannes Griss
11:00 - 12:00	B/T cell receptor analysis (pre-recorded)	Anna Lorenc
12:00 - 13:00	Lunch Break	
13:00 - 14:30	B/T cell receptor analysis	Anna Lorenc
14:30 - 15:45	Ensembl regulation	Aleena Mushtaq
15:45 - 16:15	Break	
16:15 - 17:30	Protein interactions	Birgit Meldal and Kalpana

**Day 5 – Friday 1<sup>st</sup> October**

09:00 - 10:15	Identifier mapping	Birgit Meldal and Kalpana
10:15 - 10:30	Break	
10:30 - 12:00	Tools for pathway analysis	Thawfeek Varusai
12:00 - 13:00	Lunch Break	
13:00 - 14:30	Locating models for biological processes	Rahuman Sheriff
14:30 - 15:30	Talk to the trainers	All trainers
15:30 - 15:40	Wrap up and survey	Dayane Araujo