



Glycotwinning
Building Networks to
Excel in Glycoscience

Emerging technologies towards understanding the human glycome

Scientific Networking Meeting

03rd September '24

International leaders in glycoscience will address the current challenges and opportunities in the field, exploring the integration of emerging technologies.

Summer School

04th—06th September '24

Theoretical and hands-on course in emerging technologies: Glycan microarrays, Mass spectrometry-based glycomics and glycoproteomics, Glycobioinformatics



NOVA NOVA SCHOOL OF
SCIENCE & TECHNOLOGY

UCIBIO
Applied Molecular Biosciences Unit

 Funded by
the European Union

 UK Research
and Innovation

Time	Tue 3/9	Wed 4/9	Thu 5/9	Fri 6/9
08:30	Registration (Agora Room)			
09:00	Scientific Network Meeting (Library Auditorium, Floor -1) Welcome by GLYCOTwinning Coordinators	SUMMER SCHOOL <i>Emerging technologies towards understanding the human glycome</i>	2. Session on Glycomics and glycoproteomics & hands-on in data analysis (Library auditorium)	3. Session on Glycobioinformatics & hands-on in tools, databases and resources (Library auditorium)
09:10	Lectins as tools for deciphering and targeting the human glycome - Anne Imberty	Asynchronous sessions Preparation of work assignments - Case studies showcasing the technologies	Mass spectrometry for glycosylation analysis - Manfred Wuhrer	Structural Glycobioinformatics - Serge Perez
09:40	Cellular glycomics by mass spectrometry - Noortje de Haan Exploring cellular glycomes by glycan microarrays - Yan Liu Unveiling siglec interactions: insights into glycan and antibody binding mechanisms - June Ereño Orbea		Glycomics and glycoproteomics solutions - Noortje de Haan MIRAGE guidelines for glycan microarray and mass spectrometry data - Rene Ranzinger	Merging machine learning and Glycobiology - Daniel Bojar
10:30	Coffee-break		Coffee-break (Agora Room)	Coffee-break (Agora Room)
11:00	Uncovering the bacterial protein toolbox targeting the human glycome - Angelina Palma		Glycomics in immunology - Manfred Wuhrer	Hands on: Databases & resources - Serge Perez & Anne Imberty
11:30	talks <i>tbd</i> - NOVA Researchers (Filipa Marcelo, Ana Rita Grosso, Paula Videira)	1. Session on Glycan Microarrays & hands-on in data analysis (Agora Room)	Clinical glycomics by mass spectrometry - Noortje de Haan	Hands on: LectinOracle - predict interactions between proteins and glycans - Daniel Bojar
12:00			Group work	
12:30	Lunch & Poster session *	Registration (Agora Room)	Lunch (Library bar)	Lunch (Library bar)*
14:00	Hyphenated IM-MS methods for carbohydrate sequencing: a fragment-based approach - Sabine Flitsch	Welcome by SS Chairs Angelina Palma & Paula Videira (Library auditorium)	Practical assignment for hands-on data interpretation - Manfred Wuhrer, Noortje de Haan, Wengang Chai	GlyGen resource overview - Rene Ranzinger (Agora room)
14:30	Flash presentations (Round 2)	Introduction to glycan microarrays - Yan Liu		Hands on: exploration of GlyGen - Rene Ranzinger
15:15	Round Table Discussion: <i>The impact of Glycoscience across different disciplines</i> Panel: GlycoTwinning partners & invited speakers Moderator: Filipa Marcelo	Glycan microarray approaches for exploring glycomes - <i>Beam search arrays</i> - Jin Yu Glycan microarray analysis of whole bacterial cells - Virginia Tajadura-Ortega	Coffee-Break Negative-ion ESI-CID-MS/MS based sequencing of neutral glycans - Wengang Chai	Round discussion of the work groups
16:00	Coffee-Break	Coffee-Break		
16:30		CarbArrayART software - from raw data to processed data - Yukie Akune (online)		Drinks and snacks
17:00			Social programme: <i>Lisbon at a glance</i>	Reflection & Closure
17:30		Symbol nomenclature for glycans (SNFG) and glycan drawing with hands on in GRITS/GWB and GlyTouCan ID's - Rene Ranzinger		
18:00		Practical aspects of glycan microarrays - from array construction, experimental design to data analysis - Antonio di Maio/Yan Liu/Angelina Palma/ Filipa Trovão Organization of groups and work assignments		
19:00			SS Dinner (@ Lisbon Center)	

* Group photo in front of the Library building - 14h15.