



Glycotwinning
Building Networks to
Excel in Glycoscience

Summer School

25th—28th September '23
**Scientific Hands-on course
in protein/glycan interactions:
a structural perspective.**
NMR, X-ray crystallography,
cryoEM and molecular modelling.

Workshop on Transferable Skills

28th—29th September '23
**Building resilience
and Career planning.**
Workshop with tutor
Inês Perpétuo co-organised
with Imperial College
and the Works4U team.

NOVA NOVA SCHOOL OF
SCIENCE & TECHNOLOGY

UCIBIO
Applied Molecular Biosciences Unit

 **Funded by
the European Union**

 **UK Research
and Innovation**

Summer School

Scientific Hands-on course in protein/glycan interactions: a structural perspective

This summer school will cover challenges, state of the art and/or advanced methodologies **with a strong hands-on approach** sessions with tutorials and talks by external leaders. It will comprise integrative experimental and theoretical structural biology tools for the study of glycan-protein interactions as NMR, X-ray crystallography, cryoEM and molecular modelling.

Workshop on Transferable Skills

Building resilience and Career planning

Workshop with tutor **Inês Perpétuo** co-organised with Imperial College and the Works4U team.

The sessions on transferable skills will be interactive and with small group work.

Time	Mon 25/9	Tue 26/9	Wed 27/9	Thu 28/9	Time	Sex 29/9
08:30	Registration (hall 2.17D)					
09:00	Welcome by Filipa Marcelo & Ana Luisa Carvalho NMR General Lesson by Eurico Cabrita (2.17D)	Integrative Structural Chemical Glycobiology by Filipa Marcelo (2.17D)	X-ray Crystallography (Overview and case studies by Maria João Romão (2.17D)	Hands-on: MR structure solution and model building by Ana Luisa Carvalho (room 2.04)	09:00	WTS - Confidence, Wellbeing and Resilience in Research (Ágora room)
10:30	Coffee-break (2.17D)				10:00	Coffee-break
11:00	Glycan-protein interactions by NMR glycan viewpoint by Helena Coelho (2.17D)	Hands-on: Training session on NMR (the glycan viewpoint) Ardá, H. Coelho, Jorge Dias e Filipa Marcelo - Group 1 and 2 NMR (Lab 106 and room 204)	Hands-on: Protein crystallization by Benedita Pinheiro (Lab 6.23)	Hands-on: Refinement and validation of protein-glycan complexes by June Ereño-Orbea (room 5.25)	10:15	WTS Confidence, Wellbeing and Resilience in Research (cont.)
12:00	Glycan-protein interactions by GBPviewpoint by Ana Ardá (2.17D)		Hands-on: X-ray diffraction, indexing, data integration and scaling by Ana Luisa Carvalho (Lab 1.12)		11:30	Coffee-break
13:00	Lunch	*			11:45	WTS Confidence, Wellbeing and Resilience in Research (cont.)
14:30	Molecular Modeling applied to Glyco-chemistry & Glyco-biology by Gonzalo Jiménez-Osés (online) (Ágora room)	Breaking the limits in Glycan recognition by NMR by Jesús Jiménez-Barbero (Ágora room)	Drug discovery with Cryo EM: targeting <i>Helicobacter pylori</i> by Hartmut Luecke (Ágora room)	WTS Time management (Ágora room)	13:00	Lunch
15:30	Break				14:00	WTS Career Goals & Action Planning (Ágora room)
16:00	Hands-On: Training session on NMR (sample preparation, acquisition and basic processing) - Group 1 and 2 (NMR Lab 106 & room 204) Aldino Viegas, Helena Coelho, Filipa Marcelo e Ana Sofia Ferreira	Hands-On: Training session on NMR (the protein viewpoint) - Group 1 and 2 (NMR Lab 106 & room 204) Aldino Viegas e Filipa Marcelo e Jorge Dias	CryoEM case-study applied to Glycochemistry & Glycobiology by Nicola Abrescia (online) (Ágora room)	WTS Crafting your professional narrative & raising your visibility (Ágora room)	15:30	Break
17:00		RoundTable, Poster sessions & Discussion, with appetizers and drinks (Ágora room)			16:00	WTS Skills Analysis & Concrete Steps (Ágora room)
19:00					17:00	
20:00			Social Dinner		19:00	
					20:00	

WTS - Workshop with tutor **Inês Perpétuo** co-organised with Imperial College and the Works4U team.

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

Summer School Tutors



Filipa Marcelo
BioNMR, NOVA



Eurico Cabrita
BioNMR, NOVA



Helena Coelho
BioNMR, NOVA



Gonzalo Jiménez-Osés
SCBVL, CICbioGUNE



Aldino Viegas
BioNMR, NOVA



Ana Ferreira
BioNMR, NOVA



Ana Ardá
CGL, CICbioGUNE



Jesús Jiménez-Barbero
CGL, CICbioGUNE



Jorge Dias
BioNMR, NOVA



Maria João Romão
XTAL, NOVA



Benedita Pinheiro
XTAL & GlycoLab, NOVA



Ana Luísa Carvalho
XTAL, NOVA



Hartmut Luecke
CryoEM, NOVA



Nicola Abrescia
CCL, CICbioGUNE



June Ereño Orbea
CGL, CICbioGUNE

NOVA

(Bio)Molecular Structure & Interactions by NMR;
XTAL - Macromolecular Crystallography;
CryoEM; GLYCOLAB- Functional Glycobiology.

CICbioGUNE

Chemical Glycobiology Lab (CGL);
Computational Chemistry Lab (CCL);
Structure & Cell Biology of Viruses Lab (SCBVL).

Workshop



Inês Perpétuo, PHD
Consultant, Postdoc and
Fellows Development
Centre

Workshop co-organised with:

**Imperial College
London**

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