

WEEK 1					
Time	Monday, July 15, 2024	Tuesday, July 16, 2024	Wednesday, July 17, 2024	Thursday, July 18, 2024	Friday, July 19, 2024
Lecturer	Kamil Godula & Philip Gordts	Kamil Godula	Philip Gordts	Philip Gordts	Kayvon Pedram
Topic	OVERVIEW & GYCOLIPIDS	N-LINKED GLYCANS	O-LINKED GLYCANS	GAGs	VISUALIZING GLYCANS (virtual)
8:30 - 9:20	Lecture & Breakfast Overview (PG) BRF 1102 (Conference Room)	Lecture & Breakfast BRF 5A03 (Conference Room)	Lecture & Breakfast BRF 1104 (Conference Room)	Lecture & Breakfast BRF 4103 (Conference Room)	Thermo Fisher Pitch & Breakfast 8:30-9:00am BRF 1104 (Conference Room)
					Lab Orientation (BC,MP) 9:00-9:20am BRF 1104 (Conference room)
9:20 - 9:30	Break	Break	Break	Break	Break
9:30 - 10:30	Lecture Overview of the experiments, Glycolipids (KG) 9:30-10:15am BRF 1102 (Conference Room)	Lab Orientation (BC,MP) 9:30-9:45am BRF 5A03 (Conference Room)	Lab Orientation (BC,MP) 9:30-9:45am BRF 1104 (Conference Room)	Lab Orientation (BC,MP) 9:30-9:45am BRF 4103 (conference room)	DMB Tagging of N-Glycan (Liver) (BC,MP) 9:30-10:00am BRF 4217 Bay MM (Lab)
	Lab Orientation (BC, MP, NL) 10:15-10:20am BRF 1102 (Conference Room)	O-Glycan Workup (Liver) Neutralization, Dowex treatment & lyophilization (BC,MP) 9:45-11:00am BRF 4217 Bay MM (Lab)	Hydrolysis for Sia. Drying for procainamide tagging (Plasma N-Glycan) (BC,MP) 9:45-10:15am BRF 4217 Bay MM (Lab)	Hydrolysis for Sialic Acid Analysis (Liver N-/O-glycan) Drying samples for PM Maldi (Liver N-/O-Glycan) (BC,MP) 9:45-10:00am BRF 4217 Bay MM (Lab)	PM of LCNH2 Bound O-Glycan (Liver) (BC, MP) 10:00-11:30am BRF 4217 Bay MM (Lab)
	Lab Safety Training (Patrick) 10:20-10:30am BRF 4217 (Lab)		LCNH2 Purification (Liver N-Glycan) (BC,MP) 10:15-10:30am BRF 4217 Bay MM (Lab)	Digestion of HS & CS (Adipose & Liver) (BC,MP) 10:00-10:30am BRF 4217 Bay MM (Lab)	
10:30 - 12:30	Ganglioside Extraction (NL) BRF 4217 Bay MM (lab)	Purification of GAG (adipose & liver) (BC,MP) 11:00-12:30pm BRF 4217 Bay MM (Lab) [To be continued after lunch if necessary]	O-Glycan Workup (Liver), C18 and LCNH2 purification (BC,MP) BRF2 4217 Bay MM (Lab)	DMB Tagging of N-Glycan (Plasma) (BC,MP) 10:30-10:45am BRF 4217 Bay MM (Lab)	
				Instrumental set up for DMB Sialic Acid Analysis (BC,MP) 11:30-12:30pm BRF 4243 Bay P (Lab)	PAGE-PNGaseF Analysis (SW) 11:30-12:00pm BRF 4217 Bay MM (Lab)
					Lecture, Kayvon Pedram Lunch 12:00-1:30pm BRF 4103 (conference room)
12:30 - 1:30	Lunch BRF Patio Floor 2A	Lunch BRF Patio Floor 2A	Lunch BRF Patio Floor 2A	Lunch BRF Patio Floor 2A	
1:30 - 2:15	N-glycan release (Liver & Plasma) (BC,MP) BRF 4217 Bay MM (Lab)	N-Glycan purification (Liver & Plasma) (BC,MP) BRF 4217 Bay MM (Lab)	Sialic Acid Workup (Plasma N-Glycan) (BC,MP) BRF 4217 Bay MM (Lab)	Sialic Acid Workup (Liver N-/O-Glycan) (BC,MP) BRF 4243 Bay R (Lab)	DMB Sialic Acid UPLC-FL Running (Liver N-glycan) (BC, MP) 1:30-3:00pm BRF 4243 Bay P (Lab)
2:15 - 3:00	GAG Release (Adipose & Liver) (BC,MP) BRF 4217 Bay MM (Lab)			DMB Sialic Acid UPLC-FL Running (Plasma N-Glycan) (BC,MP) BRF 4243 Bay P (Lab)	
3:00 - 3:15	Break BRF 4th Flr, South Patio	Break BRF 4th Flr, South Patio	Break BRF 4th Flr, South Patio	Break BRF 4th Flr, South Patio	Break BRF 4th Flr, South Patio
3:15 - 4:00	O-Glycan Release (Liver) (BC,MP) BRF 4217 Bay MM (Lab)	N-Glycan purification contd. (BC,MP) BRF 4217 Bay MM (Lab)	PNGaseF Digestion (SW) BRF 4217 Bay MM (Lab)	Permethylatation of N-Glycan for Maldi (Liver) (BC,MP) BRF 4217 Bay MM (Lab)	Aniline Tagging of HS & CS (Adipose & Liver) (BC,MP) BRF 4217 Bay MM (Lab)
4:00 - 5:30	Ganglioside Analysis (Brain) (NL) BRF 4243 (Lab)		PAGE-PNGaseF (SW) BRF 4217 Bay MM (Lab)		Happy Hour 4:00pm Viewpoint Brewing, Del Mar
COLOR LEGEND	Ganglioside Analysis	O-Glycan Analysis	Glycan Array	Modeling	Data Analysis / Presentation Prep
	N-Glycan Analysis	GAG Analysis	Histology	Sialic Acid Analysis	Happy Hour

WEEK 2					
Time	Monday, July 22, 2024	Tuesday, July 23, 2024	Wednesday, July 24, 2024	Thursday, July 25, 2024	Friday, July 26, 2024
Lecturer	Kamil Godula	Sam Myers	Kamil Godula/ Glycan Therapeutics	Nathan Lewis	Lorenzo Casalino
Topic	GLYCAN ENGINEERING	GLYCOPROTEONOMICS	LECTINS & MICROARRAYS	BIOINFORMATICS	MODELING
8:30 - 9:20	Lecture & Breakfast BRF 1104 (Conference Room)	Lecture & Breakfast BRF 5A03 (Conference Room)	Lecture & Breakfast BRF 1104 (Conference Room)	Lecture & Breakfast BRF 4103 (Conference Room)	Lecture & Breakfast BRF 5A03 (Conference Room)
9:20 - 9:30	Break	Break	Break	Break	Break
9:30 - 9:45	Lab Orientation Histology Primer BRF 1104 (Conference Room)	Lab Orientation BRF 5A03 (Conference Room)	Lab Orientation BRF 1104(Conference Room)	Data Analysis and Presentation Prep BRF 4103 (Conference Room)	Practical Training on Glycan Modeling BRF 5A03 (Conference Room)
9:45 - 10:30	Histology 9:45-10:00am BRF 4217, Bay MM (Lab) Digestion and Block (15 mins)	Data Analysis (BC, MP) 10:15-11:15am BRF 4243 (Lab)	Glycan Array 9:45-10:15am BRF 4243 (Lab)		
	Procainamide Tagging of N-Glycan (Plasma) (BC,MP) 10:00-10:30am BRF 4217 Bay MM (Lab)		Data Analysis for N-/O-glycan, GAG & Ganglioside (BC, MP) 10:15-11:30am BRF 1104 (Conference Room)		
10:30 - 12:00	Spotting of Ganglioside for Maldi (BC,MP) 10:30-11:00am BRF 4217 Bay MM (Lab)				
	Spotting of O-Glycan (Liver) for Maldi (BC,MP) 11:00-11:20am BRF 4217 Bay MM (Lab)				
	GRIL-LC-MS HS & CS Sample Prep and Running on Mass Spec (BC, MP) 11:20-12:00pm BRF 4217 Bay MM & 4242 (Lab)				
12:00 - 1:00	Lunch BRF Patio Floor 2A	Lunch BRF Patio Floor 2A	Lunch BRF Patio Floor 2A	Lunch BRF Patio Floor 2A	Lunch BRF Patio Floor 2A
1:00 - 2:00	Histology: Treatments (JH) 1:00-3:00pm BRF 4217, Bay MM (Lab) Peroxidase and Avidin/Biotin Block	Histology 1:00-3:00pm BRF 4217, Bay MM (Lab) Washes, Development, Coverslip	Glycan Array BRF 4243 (Lab)	Data Analysis and Presentation Prep BRF 4103 (Conference Room)	Final Presentation (6) BRF 5A03 (Conference Room)
2:00 - 3:15	Histology: Primary Abs (JH) 3:00-3:15pm BRF 4217, Bay MM (Lab) Add Primary Abs (15 mins)	Break 3:00-3:15pm BRF 4th Flr, South Patio	Nanozoomer Histology Slide Scanner BRF 1104(conference room, Zoom)		
3:15 - 3:30	Break BRF 4th Flr, South Patio	Glycan Array BRF 4243 (Lab)			
3:30 - 3:45	Glycan Array (SW) BRF 4243 (Lab)	UPLC-FL Running of Sialic Acid O-Glycan (Liver) (BC,MP) BRF 4243 Bay P (Lab)			
3:45 - 4:15	UPLC-FL Running of N-Glycan (Plasma) (BC,MP) BRF 4243 Bay P (Lab)	Data Analysis for N-/O-glycan, GAG and Ganglioside (BC, MP) BRF 4243 (Lab)	Data Analysis and Presentation Prep BRF 1104(Conference Room)	Data Analysis and Presentation Prep <i>contd.</i> BRF 4103 (Conference Room)	
4:15 - 4:45	Data Analysis and Presentation Prep: Label PNGase Gel and Ganglioside TLCs BRF 5A03 (Conference Room)				
4:45 - 5:30	Data Analysis and Presentation Primer BRF 5A03 (Conference Room)			Glycan Array BRF 4243 (Lab)	
5:30 +					
COLOR LEGEND	Ganglioside Analysis	O-Glycan Analysis	Glycan Array	Modeling	Data Analysis / Presentation Prep
	N-Glycan Analysis	GAG Analysis	Histology	Sialic Acid Analysis	Happy Hour