

Program for Glyco-Bioinformatics satellite meeting

2018 Society for Glycobiology Annual Meeting

Monday, November 5th

Location: Hilton New Orleans Riverside Hotel, New Orleans, Louisiana, USA

Glycomics research has gained significant impact over the past decade due, in part, to technical advances that allow data to be generated with greater accuracy and throughput. However, computational methods for the analysis and interpretation of glycomics data have not kept pace with these advances in data generation. As a consequence, manual processing and interpretation of glycoanalytic data is still common practice, in spite of the recent development of many software programs and databases that provide tools and information that can significantly reduce data processing and interpretation time. The satellite meeting on Glyco-Bioinformatics brings software developers and database providers together with biological and biomedical scientists who can benefit from these informatics resources. The aim of the meeting is to provide these scientists with an overview of currently available tools and illustrate how these tools can benefit their research. The meeting consists of two parts: In the first part software developers and database providers will introduce their databases and software tools by a short presentation followed by a brief discussion. In the second part of the satellite a live demonstration session will allow attendees to get more insight into the presented software tool and have individual discussions with the developers.

Session 1: Databases and information standards

Session Chair: René Ranzinger

09:00am – 09:05am	Welcome <i>René Ranzinger</i>
09:05am – 09:20am	GlyGen – Glycomics and Glycoproteomics data integration and presentation <i>Will York, Raja Mazumder</i>
09:20am – 09:35am	TBA <i>Kiyoko Aoki-Kinoshita</i>
09:35am – 09:50am	UniCarbKB and GlyGen: From curation to data sharing <i>Matthew Campbell</i>
09:50am – 10:05am	TBA <i>Issaku Yamada</i>
10:05am – 10:20am	MIRAGE – Minimum Information for A Glycomics Experiment

Will York

Morning Break (10:20am – 10:35am)

Session 2: Processing and annotating analytical data

Session Chair: Kiyoko Aoki-Kinoshita

10:35am – 10:50am GRITS Toolbox – An extensible software platform for the interpretation of glycomics MS data

René Ranzinger

10:50am – 11:05am SimGlycan: Speeding up LCMS data processing - molecular feature finding, precursor peak picking, and MS/MS spectra annotation - of multiplexed glycomics experiments using Orbitrap based mass spectrometers

Sanjib Meitei

11:05am – 11:20am TBA

Masaaki Matsubara

11:20am – 11:35am A Feature Driven Approach To Identification of Glycopeptides From Complex Samples

Joe Zaia

11:35am – 11:50am Progress in the New Carbohydrate Microarray Analysis and Reporting Tool: CarbArrayART

Yukie Akune

Lunch Break (11:50am – 1:20pm)

Session 3: Tools

Session Chair: René Ranzinger

01:20pm – 01:35pm Tools to enable non-specialists to model glycoconjugates and glycan-protein interactions

Rob Woods

01:35pm – 01:50pm TBA

Sriram Neelamegham

01:50pm – 02:05pm TBA

Julien Mariethoz

02:05pm – 02:20pm TBA

Shinichiro Tsuchiya

02:20pm – 02:30pm Things everybody should know about and announcements

Sriram Neelamegham, Kiyoko Aoki-Kinoshita and René Ranzinger

Session 3: Hands-on demo session (02:30pm – 04:00pm)

Software developers and presenters from session 1, 2 and 3 will give parallel live demonstrations to interested individuals.

Name	Software, Database
Kiyoko Aoki-Kinoshita	
Matthew Campbell	GlycoStore
Issaku Yamada	
Rob Woods	Computational Glycoscience Portal
Sriram Neelamegham	
Wangshu Hong	
Joseph Zaia	
Sanjib Meitei	SimGlycan®
Rene Ranzinger	GRITS Toolbox
Masaaki Matsubara	GRITS Toolbox “Dango”
Akune Yukie	GRITS Toolbox “CarbArrayArt”
Julien Mariethoz	
Raja Mazumder, Will York	GlyGen
Shinichiro Tsuchiya	GlycanBuilder, GlycanFormatConverter

Presenters

Name	Email	Affiliation
Kiyoko Aoki-Kinoshita	kkiyoko@soka.ac.jp	Soka University
Matthew Campbell	m.campbell2@griffith.edu.au	Griffith University
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