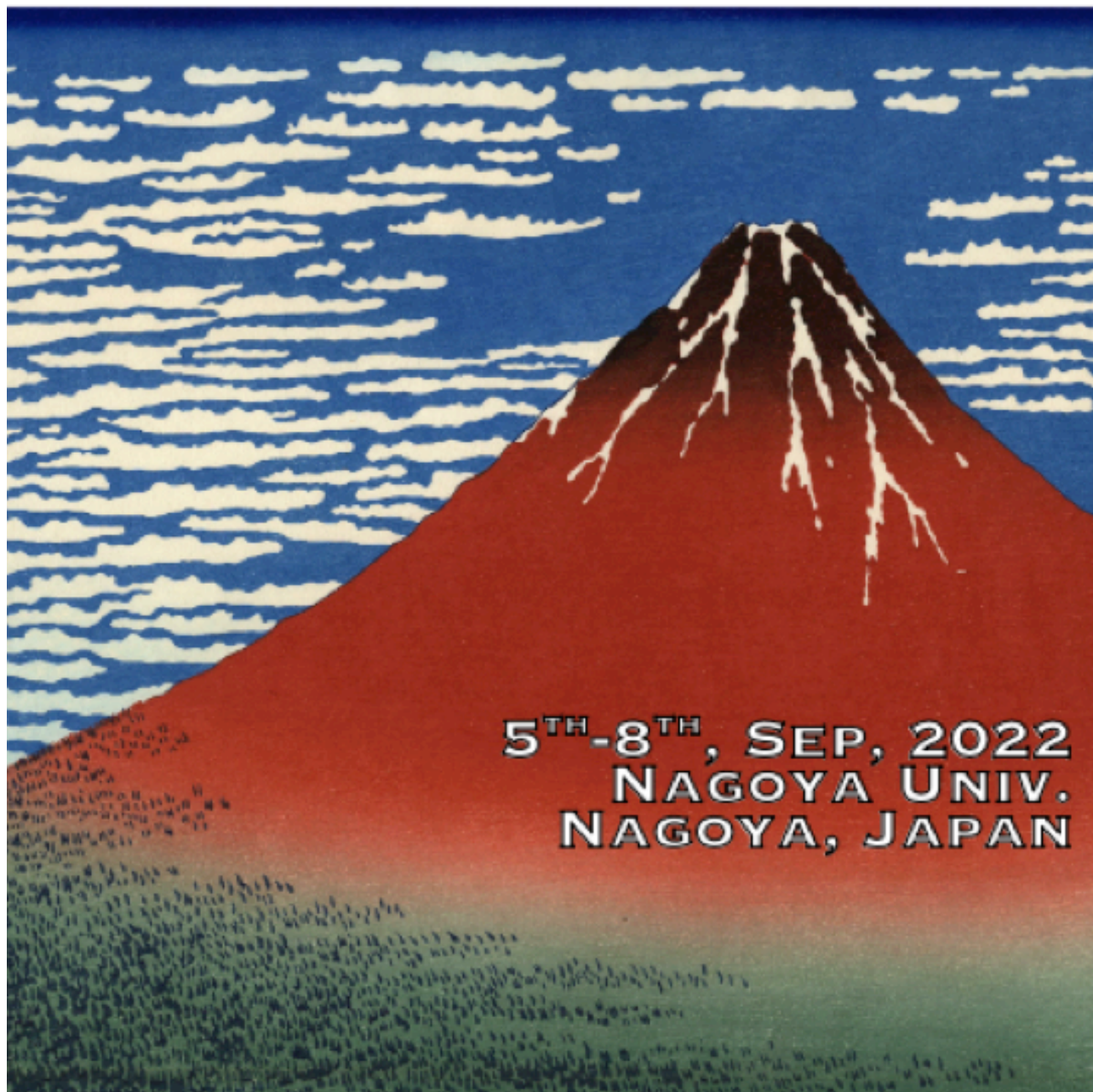


SIALOGLYCO2022



PROGRAM BOOK

Sialoglyco2022

Organizers

Ken Kitajima (Nagoya University)
Hideharu Ishida (Gifu University)

Co-organizers

The Japanese Society of Carbohydrate Research (JSCR)
Institute for Glyco-core Research (iGCORE)
Bioscience and Biotechnology Center, Nagoya University
MEXT Core-to-Core Program

Support Organizers

The Japan Consortium for Glycobiology and Glycotechnology (JCGG)
The Sialic Acids Society

Period

From 5th to 8th September, 2022

Place

Toyoda Auditorium & Sympoion at Nagoya University

Address

Nagoya University
Furo-cho, Chikusa, Nagoya 464-8601, Japan

Fee

Regular persons	55,000 yen (65,000 yen)
Accompanying persons	20,000 yen (30,000 yen)
Students	20,000 yen (30,000 yen)

() after early birds up to 1st August

Internet

Free Wi-Fi is available. Connect “nuwnet x1-guest”. PW is on your name card.
Please ask at the registration desk.

Welcome reception

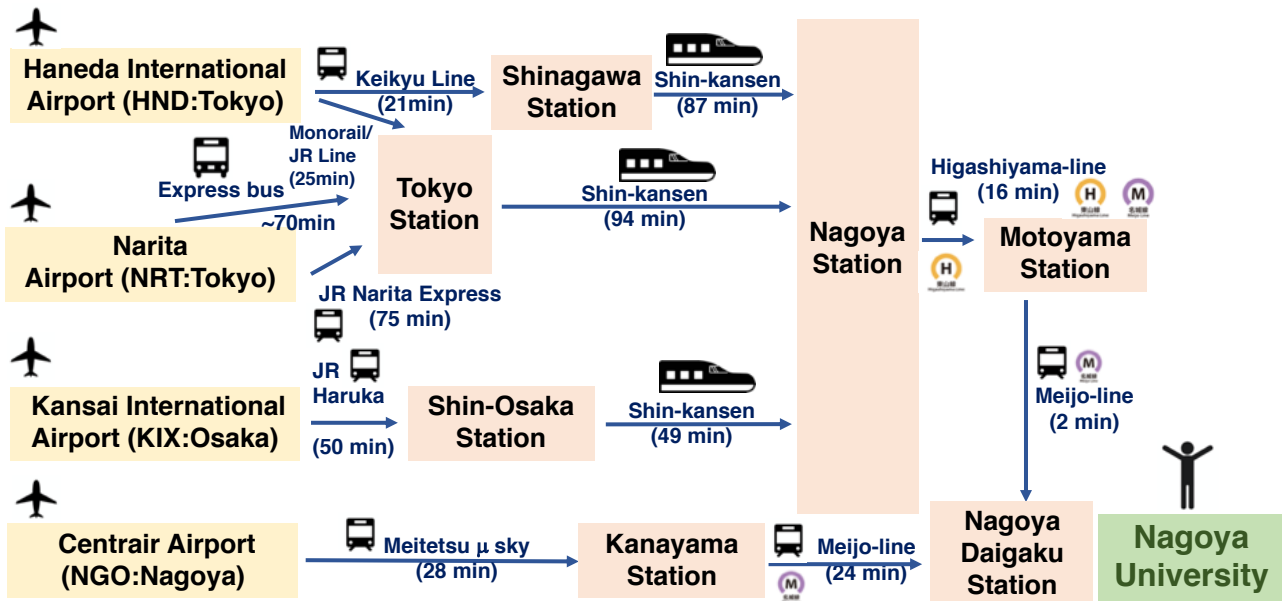
5th September, 2022; 18:30-20:00 at Toyoda Auditorium

Banquet

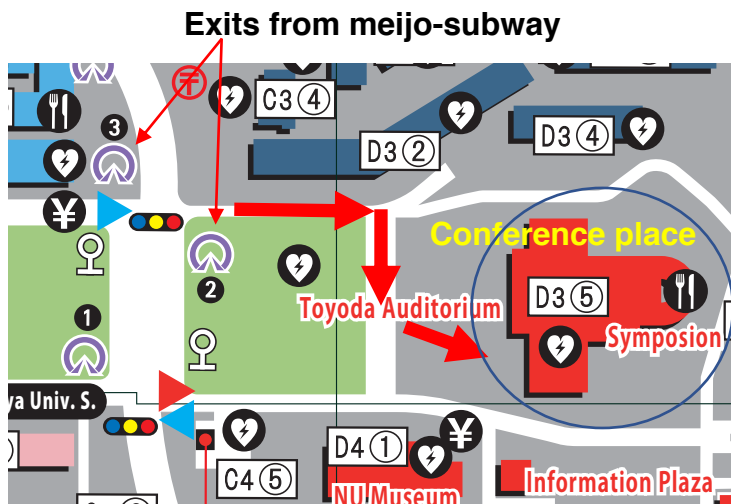
8th September, 2022; 19:00-21:00 at COURTYARD by MARRIOTT NAGOYA
(1-17-6 Sakae, Naka-ku, Nagoya 460-0008, Japan; Tel: +81-52-228-2220)
Cost: 10,000 JPY/person
Bus transportation from Nagoya University to the place.

Access to Nagoya University

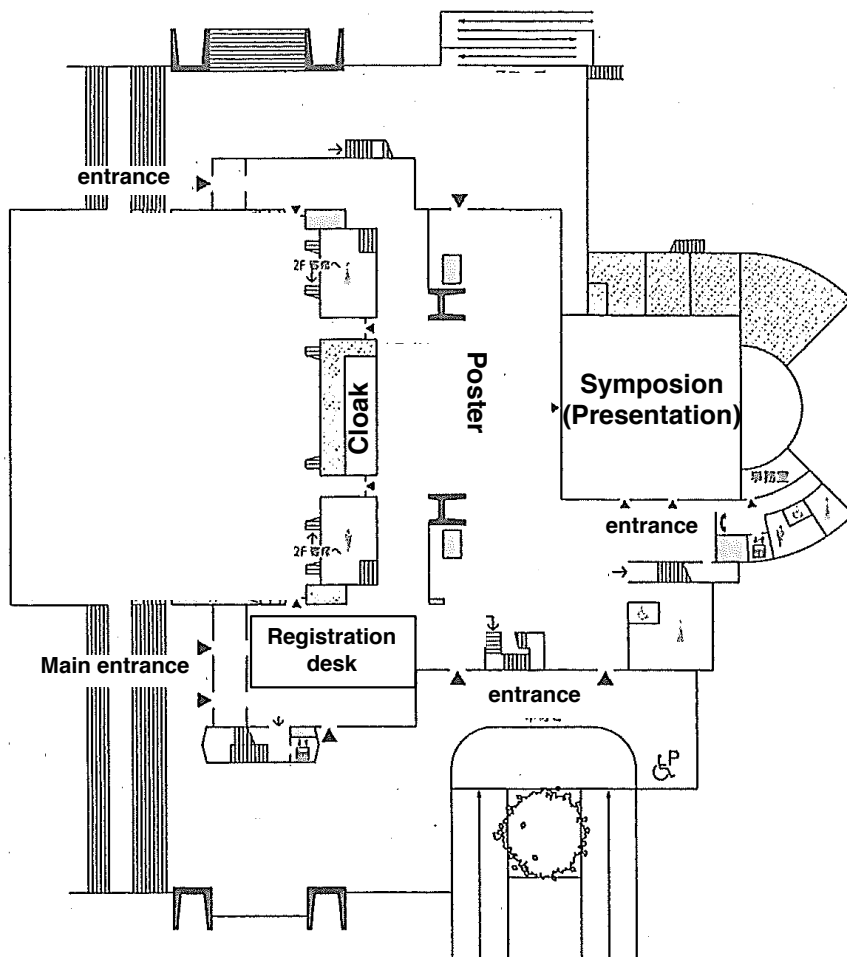
From Abroad



From Nagoya-Daigaku-station



Toyoda Auditorium



Information for Oral Presenters

Presentation time

- Plenary Lecture: 50 min Talk, 10 min Discussion
- Invited Lecture: 15 min Talk, 5 min Discussion
- Oral Presentation: 10 min Talk, 2 min Discussion
- Young scientist presentation: 6 min Talk, 2 min Discussion (Please **bring your poster** as well for poster session)

Oral presentations: Three-types

Type1: In person, Presenters are on-site

Type2: Presenters are on-line and live performing

Type3: Presenters are on-line, but in video. If possible, participating in live discussion only

For Type 1 presenters, please use your own PC for presentation. Please save your file in USB and bring it to the conference just in case for some PC troubles. Please connect to ZOOM during your session via Wi-Fi.

For Type2 or Type3 presenters, the video should be sent to the organizers beforehand. The video preparation for Type2 is just in case for some troubles.

See the website in detail: <https://www.agr.nagoya-u.ac.jp/~sialogly/>

For all oral presenters in person

Please come to the PC-desk in the conference room before your session during break time. You can check if you come earlier.

Information for Poster Presenters

Poster Display

From 6th to 8th September, 2022 (For 3 days)

You can put your poster from 5th September, 2022.

Poster presentation

We provide poster number on the board.

The board size is 180 cm (H) x 120 cm (W).

Please use the double-sided tape provided by the Sialoglyo2022 Office.

Discussion time

- | | |
|-------|---------------------------|
| Odd: | Session I (14:00-14:30) |
| | Session II (17:15-17:45) |
| | Session III (13:30-14:00) |
| Even: | Session I (14:30-15:00) |
| | Session II (17:45-18:15) |
| | Session III (14:00-14:30) |

Scientific Advisory Board

Andrew J Bennet, Burnaby, Canada
Nicolai Bovin, Moscow, Russia
Paul Crocker, Dundee, UK
Philippe Delannoy, Lille, France
Jukka Finne, Helsinki, Finland
Rita Gerardy-Schahn, Hannover, Germany
Hideharu Ishida, Gifu, Japan
Mark von Itzstein, Gold Coast, Australia
Kay-Hooi Khoo, Taipei, Taiwan
Ken Kitajima, Nagoya, Japan
Jamey Marth, Santa Barbara, USA
James C Paulson, San Diego, USA
Yasuo Suzuki, Aichi, Japan
Sandro Sonnino, Milan, Italy
Garry Taylor, St Andrews, UK
Ajit Varki, San Diego, USA

Domestic Board Member, Sialoglyco 2022

Ken Kitajima (Nagoya University)
Chihiro Sato (Nagoya University)
Masaya Hane (Nagoya University)
Di Wu (Nagoya University)
Hideharu Ishida (Gifu University)
Hiromune Ando (Gifu University)
Akihiro Imamura (Gifu University)
Hidenori Tanaka (Gifu University)
Naoko Komura (Gifu University)
Tadanobu Takahashi (University of Shizuoka)
Akira Minami (University of Shizuoka)
Yuki Kurebayashi (University of Shizuoka)
Koichi Furukawa (Chubu University)

Sialoglyco 2022 Organizer

Ken Kitajima, Nagoya University
Hideharu Ishida, Gifu University

Sialoglyco 2022 Office

Chihiro Sato, Di Wu, Masaya Hane, Chikara Abe, and
Yoshiko Shibagaki (Secretary)
Bioscience and Biotechnology Center, Nagoya University
Chikusa, Nagoya 464-8601, Japan
Tel: +81-52-789-4297, FAX: +81-52-789-5228
E-mail: sialogly@agr.nagoya-u.ac.jp

Program at a glance

September 5, 2022 (Monday)		
Oral		Poster
<div>Core to Core meeting (9:00-13:00)</div>		<div>Poster display</div>
13:00	Registration	
Opening Remarks		
14:00-14:15	Ken kitajima (Nagoya Univ)	
14:00-14:30	Kenji Kadomatsu (Nagoya Univ)	
Plenary Lecture 1		
Chair: Rita Gerardy-Schahn (Hanover Med Sch)		
14:30-15:30	Ajit Varki (Univ of California, San Diego)	PL-1
15:30-15:40	Coffee Break	
Plenary Lecture 2		
Chair: Hiromune Ando (Gifu Univ)		
15:40-16:40	David Crich (Univ of Georgia)	PL-2
16:40-17:00	Coffee Break	
Commemorative event in memory of Profs. Roland Schauer, Tamio Yamakawa, and Fredrick A Troy II		
Chair: Ken Kitajima (Nagoya Univ)		
17:00-18:30	Vered Padler-Karavani (Tel Aviv Univ), Ken Kitajima (Nagoya Univ), Chihiro Sato (Nagoya Univ)	
18:30-20:00	Welcome Reception	

Poster display

September 6, 2022 (Tuesday)

Oral			Poster
Session: A-1 Sialic Acids in Infection			Poster display
Chair: Tadanobu Takahashi (Univ of Shizuoka) & Victor Nizet (UCSD)			
9:00-9:20	Victor Nizet (Univ of California, San Diego)	IL-1	
9:20-9:40	Takao Hashiguchi (Kyoto Univ)	IL-2	
9:40-10:00	Yoichiro Fujioka (Hokkaido Univ)	IL-3	
10:00-10:20	Tadanobu Takahashi (Univ of Shizuoka)	IL-4	
10:20-10:32	Robert P. de Vries (Utrecht Univ)	O-1	
10:32-10:44	Yasuo Suzuki (Univ of Shizuoka)	O-2	
10:44-11:10	Coffee Break		
Session: A-2 Sialic Acids in Immunity			
Chair: Takashi Angata (Academia Sinica) & Matthew Macauley (Univ of Alberta)			
11:10-11:30	Matthew Macauley (Univ of Alberta)	IL-5	
11:30-11:50	Herbert Hildebrandt (Hanover Med Sch)	IL-6	
11:50-12:10	Takashi Angata (Academia Siica)	IL-7	
12:10-12:22	Simon Wisnovsky (Univ of British Columbia)	O-3	
12:22-12:34	Alba Silipo (Univ of Naples Federico II)	O-4	
12:34-12:46	Peng Wu (The Scripps Research Inst)	O-5	
12:46-12:58	Yuko Naito-Matsui (Fujita Health Univ)	O-6	
12:58-14:00	Lunch		
14:00-15:00	Poster Session I		
Session: A-3 Chemistry and New Technology 1			
Chair: Hideharu Ishida (Gifu Univ) & Mark von Itzstein (Griffith Univ)			
15:00-15:20	Elisa Fadda (Maynooth Univ)	IL-8	
15:20-15:40	Go Hirai (Kyusyu Univ)	IL-9	
15:40-15:52	Emiel Rossing (Radboud Univ)	O-7	
15:52-16:04	Akira Minami (Univ of Shizuoka)	O-8	
16:04-16:16	Noriko Suzuki (Nagoya City Univ)	O-9	
16:16-16:45	Coffee Break		
Session: A-4 Sialic Acids in Gangliosides I			
Chair: Koichi Furukawa (Chubu Univ), Philippe Delannoy (Univ of Lille)			
16:45-17:05	Richard Jennemann (German Cancer Res Ctr)	IL-10	
17:05-17:25	Sophie Groux-Degroote (Univ of Lille)	IL-11	
17:25-17:37	Kei Kaneko (Chubu Univ)	O-10	
17:37-17:57	V. Lokesh Battula (MD Anderson Cancer Ctr)	IL-12	
17:57-18:17	Alice Yu (Chang Gung Univ)	IL-13	

September 7, 2022 (Wednesday)

Oral			Poster
Session: B-1 Metabolism and Diseases I			Poster display
Chair: Yann Guérardel (Univ of Lille) & Ken Kitajima (Nagoya Univ)			
9:00-9:20	Amanda Lewis (Univ of California, San Diego)	IL-14	
9:20-9:40	Jamey D. Marth (SBP Medical Discovery Institute)	IL-15	
9:40-10:00	Arun Everest-Dass (Griffith Univ)	IL-16	
10:00-10:12	Shinobu Kitazume (Fukushima Med Univ)	O-11	
10:12-10:24	Jun Tsukimoto (Tokushima Univ)	O-12	
10:24-11:00	Coffee Break		
Session: B-2 Sialic Acids in Gangliosides II			
Chair: Koichi Furukawa (Chubu Univ.) & Philippe Delannoy (Univ of Lille)			
11:00-11:20	Simonetta Sipione (Univ of Alberta)	IL-17	
11:20-11:40	Yusuke Ohmi (Chubu Univ)	IL-18	
11:40-12:00	John S. Klassen (Univ of Alberta)	IL-19	
12:00-12:20	Martina Muhlenhoff (Hanover Med Sch)	IL-20	
12:20-12:32	Jin-ichi Inokuchi (Tohoku Med Pharm Univ)	O-13	
12:32-13:30	Lunch		
Session B-3: Metabolism and Diseases II			
Chair: Yann Guérardel (Univ of Lille) & Ken Kitajima (Nagoya Univ)			
13:30-13:50	Kay-Hooi Khoo (Academia Sinica)	IL-21	
13:50-14:10	Dirk J. Lefeber (Radboud UMC)	IL-22	
14:10-14:30	Lucy K. Shewell (Griffith Univ)	IL-23	
14:30-14:42	Chengcheng Huang (RIKEN)	O-14	
14:42-14:54	Yuemei Lin (Delft Univ of Technology)	O-15	
14:54-15:30	Coffee Break		
Session: B-4 Young Researcher's Topics			
Chair: Naoko Komura (Gifu Univ), Di Wu (Nagoya Univ), & Masaya Hane (Nagoya Univ)			
15:30-15:38	Arno Fenske (Hanover Med Sch)	Y-1	
15:38-15:46	Jiangming Zhong (Univ of Hong Kong)	Y-2	
15:46-15:52	Jing Wang (Griffith Univ)	Y-3	
15:52-16:02	Rina Hatanaka (Nagoya Univ)	Y-4	
16:02-16:10	Sepideh Soukhtehzari (Univ of British Columbia)	Y-5	
16:10-16:18	Larissa Schröter (Hanover Med Sch)	Y-6	
16:18-16:26	Lareno L. Villones Jr. (Hokkaido Univ)	Y-7	
16:26-16:34	Md Amran Howlader (Univ of Alberta)	Y-8	
16:34-16:42	Dani Zalem (Univ of Gothenburg)	Y-9	
16:42-16:50	Cristina Di Carluccio (Univ of Federico)	Y-10	
16:50-16:58	Jitske van Ede (Delft Univ of Technology)	Y-11	
16:58-17:06	Daiki Kobayashi (Hokkaido Univ)	Y-12	
17:15-19:00	Poster Session II & Mixer		

September 8, 2022 (Thursday)			
Oral		Poster	
Session: C-1 Chemistry and New technology 2		Poster display	
Chair: Hideharu Ishida (Gifu Univ), Mark von Itzstein (Griffith Univ)			
9:00-9:20	Hiroshi Tanaka (Tokyo Inst Tech)		IL-24
9:20-9:40	Xuechen Li (Univ of Hong Kong)		IL25
9:40-10:00	Christopher W. Cairo (Univ of Alberta)		IL-26
10:00-10:12	Michel Gilbert (HHTRC)		O-16
10:12-10:24	Yuta Maki (Osaka Univ)		O-17
10:24-10:36	Ryo Okamoto (Osaka Univ)		O-18
10:36-10:48	Thomas Rexer (Max Planck Inst)		O-19
10:48-11:20	Coffee Break		
Session C-2: Sialyltransferases in Diseases			
Chair: Rita Gerardy-Schahn (Hanover Med Sch), Chihiro Sato (Nagoya Univ)			
11:20-11:40	Yijuan Chern (Academia Sinica)		IL-27
11:40-12:00	Chihiro Sato (Nagoya Univ)		IL-28
12:00-12:12	Jianguo Gu (Tohoku Med Pharm Univ)		O-20
12:12-12:24	John Yu (Chang Gung Univ)	O-21	
12:24-12:36	Kunio Kawanishi (Univ of Tsukuba)	O-22	
12:36-13:30	Lunch		
13:30-14:30	Poster Session III		
Session C-3: Glyco-genomics and Informatics			
Chair: Kiyoko F. Aoki-Kinoshita (Soka Univ), Anne Harduin-Lepers (Univ of Lille)			
14:40-15:00	Toshiyuki Hayakawa (Kyushu Univ)		IL-29
15:00-15:20	Kiyoko F. Aoki-Kinoshita (Soka Univ)		IL-30
15:20-15:40	Anne Harduin-Lepers (Univ of Lille)		IL-31
15:40-16:00	Hiren Joshi (Univ of Copenhagen)		IL-32
16:00-16:12	Hiroaki Tateno (AIST)		O-23
16:12-16:45	Coffee Break		
Plenary Lecture 3			
Chair: Ken Kitajima (Nagoya Univ)			
16:45-17:45	James C. Paulson (The Scripps Research Institute)	PL-3	
17:45-18:00	Closing Remarks		
19:00-21:00	Banquet		

#Unauthorized photography and audio/video recording are NOT permitted.

Program

**September 5, 2022
(Day 1)**

Opening Remarks

14:00-14:30

Opening remark 1

Ken Kitajima (Nagoya University)

Opening remark 2

Kenji Kadomatsu (Nagoya University)

Plenary Lecture 1

14:30-15:30

Chair : Rita Gerardy-Schahn (Hannover Medical School)

14:30 PL-01 "Serendipity in the Discovery of Vertebrate Sialoglycan-Recognizing Proteins: The Tip of an Iceberg?"

Ajit Varki

University of California, San Diego, USA

[15:30-15:40 Break]

Plenary Lecture 2

15:40-16:40

Chair : Hiromune Ando (Gifu University)

15:40 PL-02 Recent advances in the chemistry of sialic acids and sialyl donors

David Crich

University of Georgia, USA

[16:40-17:00 Coffee Break]

**Commemorative event in memory of
Dr. Tamio Yamakawa, Dr. Roland Schauer, and
Dr. Frederic A. Troy II**

17:00-18:30

Chair : Ken Kitajima (Nagoya University)

Vered Padler-Karavani (Tel Aviv University)

Ken Kitajima (Nagoya University)

Chihiro Sato (Nagoya University)

Welcome Reception

18:30-

**September 6, 2022
(Day 2)**

A-1: Sialic Acids in Infection

9:00-

Chair : Tadanobu Takahashi (University of Shizuoka) & Victor Nizet (University of California, San Diego)

9:00 IL-01 Sialobiology of platelet-bacterial interactions in infection

Victor Nizet
University of California, San Diego, USA

9:20 IL-02 Glycan receptor and entry mechanism of mumps virus

Takao Hashiguchi
Kyoto University, Japan

9:40 IL-03 Mechanism of influenza A virus entry via calcium signaling-mediated endocytosis

Yoichiro Fujioka
Hokkaido University, Japan

10:00 IL-04 Fluorescence imaging of viral sialidase activity by using a new probe

Tadanobu Takahashi
University of Shizuoka, Japan

10:20 O-01 Sialyl-LewisX presented on N-glycans are conserved receptors for influenza A viruses on the avian-mammalian interface

Robert P. de Vries
Utrecht University, The Netherlands

10:32 O-02 Significant role of host sialylated glycans in the infection and spread of SARS-CoV-2

Yasuo Suzuki
University of Shizuoka, Japan

[10:44-11:10 Coffee Break]

A-2: Sialic acids in Immunity

11:10-

Chair : Takashi Angata (Academia Sinica) & Matthew Macauley (University of Alberta)

11:10 **IL-05** **Probing Siglec-glycolipid interactions**

Matthew S. Macauley
University of Alberta, Canada

11:30 **IL-06** **Regulation of microglia and macrophage activity by the polysialic acid-Siglec-16 axis is linked to survival of glioblastoma patients**

Herbert Hildebrandt
Hannover Medical School, Germany

11:50 **IL-07** **Molecular basis and role of Siglec-7 ligand expression on chronic lymphocytic leukemia B cells**

Takashi Angata
Academia Sinica, Taiwan

12:10 **O-03** **Identification and functional characterization of ligands for the Siglec family of glycan-binding immune receptors**

Simon Wisnovsky
University of British Columbia, Canada

12:22 **O-04** ***Fusobacterium* LPS recognition of Siglec-7: a molecular view**

Alba Silipo
University of Naples Federico II, Italy

12:34 **O-05** **Enhancing the anti-tumor efficacy of Bispecific T cell engagers via cell surface sialoglycan editing**

Peng Wu
The Scripps Research Institute, USA

12:46 **O-06** **Modulation of B cell receptor signaling in germinal center B cells by PNA epitope**

Yuko Naito-Matsui
Fujita Health University, Japan

[12:58-14:00 Lunch]

Poster session I

14:00-15:00

Odd: 14:00-14:30, Even: 14:30-15:00

A-3: Chemistry and New Technology 1

15:00-

Chair : Hideharu Ishida (Gifu University) & Mark von Itzstein (Griffith University)

- 15:00 **IL-08** **Fine-tuning the spike: How the nature and topology of the glycan shield affect the SARS-CoV-2 S mechanism and viral infection**
- Elisa Fadda
Maynooth University, Ireland
- 15:20 **IL-09** **3-Exomethylene sialic acid disaccharides as substrate-type sialidase inhibitors**
- Go Hirai
Kyusyu University, Japan
- 15:40 **O-07** **Improving the potency and selectivity of metabolic inhibition of sialylation**
- Emiel Rossing
Radboud University Nijmegen, The Netherlands
- 15:52 **O-08** **The function of sialidase revealed by sialidase activity imaging probe**
- Akira Minami
University of Shizuoka, Japan
- 16:04 **O-09** **N-Glycan structures of chicken trachea, lung, and colon**
- Noriko Suzuki
Nagoya City University, Japan

[16:16-16:45 Coffee Break]

A-4: Sialic acids in Gangliosides I

16:45-

Chair : Koichi Furukawa (Chubu University) & Philippe Delannoy (University of Lille)

16:45 **IL-10** **Interrupting macrophage GSL metabolism triggers liver inflammation and hepatocellular cancer growth *in vivo***

Richard Jennemann
German Cancer Research Center, Germany

17:05 **IL-11** **Deciphering and targeting GD2 ganglioside O-acetylation pathways in neuroectoderm-derived cancers**

Sophie Groux-Degroote
University of Lille, France

17:25 **O-10** **Roles of disialyl ganglioside-containing extracellular vesicles in melanomas**

Kei Kaneko
Chubu University, Japan

17:37 **IL-12** **Targeting ganglioside GD2 in breast cancer stem-like cells**

V. Lokesh Battula
MD Anderson Cancer Center, USA

17:57 **IL-13** **GD2-targeted immunotherapy of cancer**

Alice Yu
Chang Gung Memorial Hospital & Chang Gung University, Taiwan

**September 7, 2022
(Day 3)**

B-1: Metabolism and Diseases I

9:00-

Chair : Yann Guérardel (University of Lille) & Ken Kitajima (Nagoya University)

9:00 IL-14 Digestion of epithelial sialoglycans in the bacterial vaginosis microbiome

Amanda Lewis
University of California, San Diego, USA

9:20 IL-15 Sialyltransferase and sialidase enzymes in the onset and progression of colitis

Jamey D. Marth
SBP Medical Discovery Institute, La Jolla, California, USA

9:40 IL-16 Glycosphingolipids are mediators of cancer plasticity through independent signalling pathways

Arun Everest-Dass
Griffith University, Australia

10:00 O-11 Non-classical glycosylation determines intracellular trafficking

Shinobu Kitazume
Fukushima Medical University, Japan

10:12 O-12 Inhibition of in cellulo crystallization of human neuraminidase 1 and application for gene therapy of lysosomal storage disease

Jun Tsukimoto
Tokushima University, Japan

[10:24-11:00 Coffee Break]

B-2: Sialic acids in Gangliosides II

11:00-

Chair : Koichi Furukawa (Chubu University) & Philippe Delannoy (University of Lille)

11:00 IL-17 **Novel roles for gangliosides in neurodegeneration and neuroinflammation**

Simonetta Sipione
University of Alberta, Canada

11:20 IL-18 **Analysis of proteins interacting with gangliosides in the lipid rafts**

Yusuke Ohmi
Chubu University, Japan

11:40 IL-19 **Advances in mass spectrometry-based shotgun glycomics and applications to sialic acid-binding lectins**

John S. Klassen
University of Alberta, Canada

12:00 IL-20 **Biosynthesis and pan-specific detection of 9-*O*-acetylated gangliosides**

Martina Mühlenhoff
Hannover Medical School, Germany

12:20 O-13 **Regulation of innate immune receptors by ganglioside GM3**

Jin-ichi Inokuchi
Tohoku Medical and Pharmaceutical University, Japan

[12:32-13:30 Lunch]

B-3: Metabolism and Diseases II

13:30-

Chair: Ken Kitajima (Nagoya University) & Yann Guérardel (University of Lille)

13:30 IL-21 Distinct O-GalNAc and O-Man glycomic landscapes of mouse brain carrying myriad sulfated sialylated glycotopes?

Kay-Hooi Khoo
Academia Sinica, Taiwan

13:50 IL-22 A tissue-specific view on sialic acid metabolism

Dirk J. Lefeber
Radboud University Medical Center, The Netherlands

14:10 IL-23 Serum Neu5Gc-glycoconjugates in diagnosis and monitoring of breast and ovarian cancer

Lucy K. Shewell
Griffith University, Australia

**14:30 O-14 "Can hepatocytes secrete free oligosaccharides?
-Possible mechanism for the occurrence of serum free oligosaccharides-"**

Chengcheng Huang
RIKEN, Japan

14:42 O-15 The biosynthesis and catabolism of sialic acids in non-pathogenic microbial community cultivated in the bioreactor under environmental conditions

Yuemei Lin
Delft University of Technology, The Netherlands

[14:54-15:30 Coffee Break]

B-4: Session for Young Researcher

15:30-

**Chair: Naoko Komura (Gifu University), Di Wu (Nagoya University) &
Masaya Hane (Nagoya University)**

15:30 Y-1 Complement activation in asialo pregnancies

Arno Fenske
Hannover Medical School, Germany

15:38 Y-2 Regulation of uterine gland secretome sialylation and its implications in the pathogenesis of preeclampsia

Jiangming Zhong
The University of Hong Kong, Hong Kong

15:46 Y-3 Multiple human cancer cell lines produce Neu5Gc de novo when cultured in serum-free, Neu5Gc-free media

Jing Wang
Griffith University, Australia

15:54 Y-4 Effects of a sialyltransferase ST8Sia6 in endoplasmic reticulum on malignant features

Rina Hatanaka
Nagoya University, Japan

16:02 Y-5 The different prognostic significance of polysialic acid, sialyltransferases and cd56 expression in tumor cells and lymphocytes identified in breast cancer

Sepideh Soukhtehzari
The University of British Columbia, Canada

16:10 Y-6 CASD1 and α 2,8-sialyltransferases drive the formation of 9-O-acetylated sialoglycans

Larissa Schröter
Hannover Medical School, Germany

16:18 Y-7 **α 2,3-Sialylation of α -dystroglycan O-mannosylated core M1 glycopeptides fine tunes its interaction with human adhesion/growth regulatory Galectins**

Lareno L. Villones Jr.
Hokkaido University, Japan

16:26 Y-8 **Selective inhibitors of human neuraminidase enzymes in cell migration, inflammation, and proliferation**

Md Amran Howlader
University of Alberta, Canada

16:34 Y-9 **Ganglioside recognition profile of the heat-labile enterotoxins LT-IIB and LT-IIC from enterotoxigenic *Escherichia coli***

Dani Zalem
University of Gothenburg, Sweden

16:42 Y-10 **Molecular details of *N*- and *O*-glycans recognition by Siglec-like adhesins from *Streptococcus gordonii* and *mitis***

Cristina Di Carluccio
University Federico II, Italy

16:50 Y-11 **The chemical diversity of the nonulosonic acids of a clinical *C. jejuni* isolate and a related Δ Cas9 mutant strain**

Jitske van Ede
Delft University of Technology, The Netherlands

16:58 Y-12 **Glycoscientific approaches to understand the ecology of avian influenza viruses**

Daiki Kobayashi
Hokkaido University, Japan

Poster session II & Mixer

17:15-19:00

Odd: 17:15-17:45, Even: 17:45-18:15

**September 8, 2022
(Day 4)**

C-1: Chemistry and New Technology 2

9:00-

Chair : Hideharu Ishida (Gifu University) & Mark von Itzstein (Griffith University)

9:00 IL-24 Toward to chemical synthesis of polysialic acids

Hiroshi Tanaka
Tokyo Institute of Technology, Japan

9:20 IL-25 Chemical Biology Studies on Bacterial Pseudaminic Acid

Xuechen Li
The University of Hong Kong, Hong Kong

9:40 IL-26 Inhibitors of the human neuraminidase enzymes as probes for glycobiology

Christopher W. Cairo
University of Alberta, Canada

10:00 O-16 Single-domain antibodies with engineered O-glycosylation sequons for site-specific conjugation through 9-azido-N-acetylneuraminic acid

Michel Gilbert
Human Health Therapeutics Research Centre, Canada

10:12 O-17 Chemical synthesis of an erythropoietin glycoform having a semisynthesized complex-type triantennary N-glycan and its biological evaluation

Yuta Maki
Osaka University, Japan

10:24 O-18 Study of the hydration property of sialyloligosaccharides on proteins using homogeneous glycoproteins prepared by total chemical synthesis

Ryo Okamoto
Osaka University, Japan

10:36 O-19 Synthesis of cytidine 5'-monophospho-N-acetylneuraminic acid

Thomas Rexer
Max Planck Institute for Dynamics of Complex Technical Systems, Germany

[10:48-11:20 Coffee Break]

C-2: Sialyltransferases in diseases

11:20-

Chair : Rita Gerardy-Schahn (Hannover Medical School) & Chihiro Sato (Nagoya University)

11:20 IL-27 **Downregulation of ST8SIA3 in Huntington's disease**

Yijuang Chern
Academia Sinica, Taiwan

11:40 IL-28 **Polysialyltransferases in diseases**

Chihiro Sato
Nagoya University, Japan

12:00 O-20 **A novel regulatory mechanism for sialylation via the integrin-FAK-PI4K-GOLPH3-ST axis**

Jianguo Gu
Tohoku Medical and Pharmaceutical University, Japan

12:12 O-21 **Identification of substrates of ST3GAL1 and the biological impacts of their sialylation in cancer**

John Yu
Chang Gung Memorial Hospital & Chang Gung University, Taiwan

12:24 O-22 **Identification of sialic acid-containing molecules to establish a new sialoglyco-biomarker for acquired cystic disease associated renal cell carcinoma (ACD-RCC)**

Kunio Kawanishi
Tsukuba University, Japan

[12:36-13:30 Lunch]

Poster session III

13:30-14:30

Odd: 13:30-14:00, Even: 14:00-14:30

(Poster Off: 14:30-14:40)

C-3 : Glyco-genomics and Informatics

14:40-

**Chair : Kiyoko F. Aoki-Kinoshita (Soka University) & Anne Harduin-Lepers
(University of Lille)**

14:40 IL-29 Adaptive evolution of the ST8SIA2 gene in anatomically modern humans

Toshiyuki Hayakawa
Kyushu University, Japan

15:00 IL-30 Integration of data surrounding sialic acids through the GlyCosmos Portal

Kiyoko F. Aoki-Kinoshita
Soka University, Japan

15:20 IL-31 Molecular and functional evolution of vertebrate alpha2,8-sialyltransferases

Anne Harduin-Lepers
University of Lille, France

15:40 IL-32 Bioinformatic tools to dissect and simplify the informational content of the glycome

Hiren Joshi
University of Copenhagen, Denmark

16:00 O-23 Integrated analysis of glycan and RNA in single cells

Hiroaki Tateno
National Institute of Advanced Industrial Science and Technology, Japan

[16:12-16:45 Coffee Break]

Plenary Lecture 3

16:45-17:45

Chair : Ken Kitajima (Nagoya University)

16:45 PL-03 Exploiting Siglecs to suppress unwanted immune responses

James C. Paulson
The Scripps Research Institute, USA

Concluding Remarks

17:45-

Ken Kitajima (Nagoya University) & Yann Guérardel (University of Lille)

Poster Presentation

(Display : September 6-8)

Poster session I, II, III

- P-01 (Y-7)** **α 2,3-Sialylation of α -dystroglycan O-mannosylated core M1 glycopeptides fine tunes its interaction with human adhesion/growth regulatory Galectins**
Larena L. Villones Jr.^a, Anna-Kristin Ludwig^b, Hiroyuki Kumeta^a, Seiya Kikuchi^a, Rika Ochi^a, Tomoyasu Aizawa^a, Shin-Ichiro Nishimura^a, Hans-Joachim Gabius^{b,†}, Hiroshi Hinou^a
(^aGraduate School of Life Science and Faculty of Advanced Life Science, Frontier Research Center for Advanced Material & Life Science, Hokkaido University, Japan; ^bPhysiological Chemistry, Department of Veterinary Sciences, Faculty of Veterinary Medicine, Ludwig-Maximilians-University Munich, Germany; [†]Died on August 2, 2021)
- P-02** **Aging and sialylation changes in fibroblasts derived from various tissues**
Yoko Itakura, Norihiko Sasaki, Masashi Toyoda
(Tokyo Metropolitan Institute of Gerontology, Japan)
- P-03** **Quantitative analysis of the polySia expression in brain during aging**
Ayane Naramura^{1,2}, Hirotake Nihei^{1,2}, Masaya Hane^{1,2,3}, Di Wu^{1,2,3}, Ken Kitajima^{1,2,3}, Chihiro Sato^{1,2,3}
(¹Biosci. Biotech. Center, Nagoya Univ., ²Grad. Sch. Bioagr. Sci., Nagoya Univ., ³iGCORE, Nagoya Univ., Japan)
- P-04** **Analysis of free N-glycans in fish serum**
Akinobu Honda, Junichi Seino, Tadashi Suzuki
(Glycometabolic Biochemistry Lab., CPR, RIKEN, Japan)
- P-05** **Symbiotic Sialic Acid : An actor in symbiosis between anemonefish and its host**
Clément Delannoy¹, Natacha Roux¹, Chihiro Sato², Ken Kitajima², Yann Guerardel^{1,3}, Vincent Laudet^{1,4}
(¹UGSF UMR CNRS 8576, Université de Lille, France; ²iGCORE, Nagoya University, Japan; ³iGCORE, Gifu University, Japan; Marine Eco-Evo-Devo Unit, OIST, Japan)
- P-06** **Expression of the human ST6GalNAc I to VI in *Komagataella phaffii* to elucidate their role in the synthesis of human milk oligosaccharides (HMOs)**
Romane Breysse^{1,2}, Tom Verhaeghe¹, Dries Van Herpe¹, Michael Muylaert¹, Joeri Beauprez¹, Wim Soetaert^{1,2}
(¹Inbiose N.V. ²University of Ghent, Belgium)
- P-07 (Y-11)** **The chemical diversity of the nonulosonic acids of a clinical *C. jejuni* isolate and a related Δ Cas9 mutant strain**
Jitske van Ede¹, Chinmoy Saha², Mark van Loosdrecht¹, Rogier Louwen² and Martin Pabst¹
(¹Department of Biotechnology, Delft University of Technology, 2629 HZ Delft, The Netherlands; ²Department of Medical Microbiology and Infectious Diseases, University Medical Center Rotterdam, Rotterdam, The Netherlands)

- P-08 Bifunctional sialidase/ β -N-acetylgalactosaminidase from bifidobacteria acting on Sd^a antigen/GM2**
Shogo Kataoka¹, Junya Kawasaki¹, Keijiro Kamio², Toshihiko Katoh³, Takane Katayama³, Hisashi Ashida^{1,2}
 (¹Graduate School of Biology-Oriented Science and Technology, Kindai University; ²Faculty of Biology-Oriented Science and Technology, Kindai University; ³Graduate School of Biostudies, Kyoto University, Japan)
- P-09 Transglycosylation activity of *Bifidobacterium dentium* amylosucrase**
Te-Sheng Chang
 (Department of Biological Sciences and Technology, National University of Tainan, Taiwan)
- P-10 Glycomic profiling of the gut microbiota of depressive mice by Glycan-seq**
Sunanda Keisham¹, Lalhaba Oinam², Fumi Minoshima², Hirotaka Yamagata³, Hiroaki Tateno^{1,2}
 (¹University of Tsukuba; ²National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba; ³Yamaguchi University, Japan)
- P-11 Elucidating the mechanism of N-linked glycosylation in human malaria parasites**
Lola Fagbami, Vasant Muralidharan
 (Center for Tropical and Emerging Global Diseases, Athens, Georgia, USA)
- P-12 (Y-12) Glycoscientific approaches to understand the ecology of avian influenza viruses**
Daiki Kobayashi¹, Yuto Kikutani¹, Rio Harada¹, Masatoshi Okamatsu¹, Norikazu Isoda^{1,2}, Yoshihiro Sakoda^{1,2}, Takahiro Hiono^{1,2}
 (¹Laboratory of Microbiology, Department of Disease Control, Faculty of Veterinary Medicine, Hokkaido University, Sapporo, Hokkaido, Japan; ²International Collaboration Unit, International Institute for Zoonosis Control, Hokkaido University, Sapporo, Hokkaido, Japan)
- P-13 Ezo red foxes and tanukis were naturally susceptible for the infection of highly pathogenic avian influenza viruses**
Takahiro Hiono^{1,2}, Daiki Kobayashi¹, Rio Harada¹, Atsushi Kobayashi^{3,4}, Tamami Suzuki³, Yuki Satake³, Keita Matsuno^{2,4}, Mariko Sashika⁵, Hinako Ban¹, Maya Kobayashi¹, Keisuke Aoshima³, Fumihito Takaya⁶, Hiroko Fujita⁶, Norikazu Isoda^{1,2,4}, Takashi Kimura³, Yoshihiro Sakoda^{1,2,4}
 (¹Laboratory of Microbiology, Faculty of Veterinary Medicine, Hokkaido University; ²International Institute for Zoonosis Control, Hokkaido University; ³Laboratory of Comparative Pathology, Faculty of Veterinary Medicine, Hokkaido University; ⁴One Health Research Center (OHRC), Hokkaido University; ⁵Laboratory of Wildlife Biology and Medicine, Faculty of Veterinary Medicine, Hokkaido University; ⁶Field Science Center for Northern Biosphere (FSC), Hokkaido University)
- P-14 Receptor structures that contribute to the propagation of human H1N1 influenza A viruses in embryonated chicken eggs**
Sayaka Takase-Yoden^{1,2}, Tomomi Ichimiya², Masatoshi Okamatsu³, Takaaki Kinoshita^{2,4}, Daiki Kobayashi³, Osamu Ichii³, Naoki Yamamoto^{3,5}, Yoshihiro Sakoda^{3,6}, Hiroshi Kida⁶, Hiroto Kawashima⁷, Kazuo Yamamoto⁸, Shoko Nishihara^{1,2}
 (¹Glycan and Life Systems Integration Center (GaLSIC), Soka University, Japan; ²Graduate School of Science and Engineering, Soka University, Japan; ³Faculty of Veterinary Medicine, Hokkaido University, Japan; ⁴Institute of Tropical Medicine,

Nagasaki University, Japan; ⁵Tokyo Metropolitan Institute of Medical Science, Japan; ⁶International Institute for Zoonosis Control, Hokkaido University, Japan; ⁷Graduate School of Pharmaceutical Sciences, Chiba University, Japan; ⁸Graduate School of Medicine, Chiba University, Japan)

- P-15 Development of MDCK cell lines expressing sialylated extended N-glycan receptors for recent H3N2 influenza viruses**
Chika Kikuchi¹, Aristotelis Antonopoulos², Andrew J. Thompson¹, Stuart M. Haslam², and James C. Paulson¹
 (¹Departments of Molecular Medicine & Immunology and Microbiology, The Scripps Research Institute, La Jolla, California, USA, ² Department of Life Sciences, Imperial College London, London, United Kingdom)
- P-16 The SARS-CoV-2 N-terminal spike domain is primed to engage 9-O-acetylated 2-8-linked sialic acids**
 Ilhan Tomris¹, Luca Unione², Linh Nguyen³, Pouya Zaree¹, Kim M. Bouwman¹, Lin Liu⁴, Zeshi Li¹, María Ríos Carrasco¹, Roosmarijn van der Woude¹, Anne Kimpel¹, Mirte Linthorst¹, Enrico Verpalen¹, Jelle A. Fok¹, Tom Caniels⁵, Rogier W. Sanders^{5,6}, Balthasar A. Heesters¹, Roland J. Pieters¹, Jesus Jimenez-Barbero², John Klassen³, Geert-Jan Boons^{1,4} and Robert P. de Vries^{1*}
 (¹Department of Chemical Biology & Drug Discovery, Utrecht Institute for Pharmaceutical Sciences, Utrecht University, Utrecht, The Netherlands; ²CICbioGUNE, Basque Research & Technology Alliance (BRTA), Bizkaia, Spain; ³Department of Chemistry, University of Alberta, Edmonton, Canada; ⁴Complex Carbohydrate Research Center, University of Georgia, Athens, USA. ⁵Department of Medical Microbiology and Infection Prevention, Amsterdam University Medical Centers, Location AMC, University of Amsterdam, Amsterdam, The Netherlands; ⁶Department of Microbiology and Immunology, Weill Medical Center of Cornell University, New York, USA)
- P-17 Sialylated free-glycans in urine and their alterations in cancer**
Ken Hanzawa^{1,2}, Miki Tanaka-Okamoto^{2,3}, Hiroko Murakami^{2,3}, Yasuhide Miyamoto^{2,4}
 (¹iGCORE, Gifu Univ, ²Dept Mol Biol, OICI, ³Dept Glyco-Oncol, OICI, ⁴Endocrin Metab, Clin Lab OICI)
- P-18 Gangliosides are novel modulators of extracellular vesicle secretion: Dissecting structural requirements and glycan specificity**
John Monyror^{1,2}, Vaibhavi Kadam², Luis C. Morales¹, Diego Ordóñez¹, Elena Posse de Chaves^{1,2}, Simonetta Sipione^{1,2}
 (¹Department of Pharmacology, ²Neuroscience and Mental Health Institute, University of Alberta, Edmonton, AB., Canada)
- P-19 GD3/GD2-positive glioma cell-derived exosomes enhance cancer phenotypes**
Mohammad A. Hasnat¹, Qi Li¹, Yuhsuke Ohmi², Yukika Sugiura², Farhana Yesmin^{1,3}, Robiul H. Bhuiyan¹, Momoka Mizutani¹, Yoshiyuki Kawamoto¹, Keiko Furukawa¹, Koichi Furukawa^{1,3}
 (¹Department of Biomedical Sciences, Chubu University college of Life and Health Sciences, Kasugai, 487-8501, Japan; ²Department of Clinical Engineering, Chubu University college of Life and Health Sciences, Kasugai, 487-8501, Japan; ³Department of Molecular Biochemistry, Nagoya University Graduate School of Medicine, Nagoya 466-0065, Japan)
- P-20 Co-operation of ganglioside GD2 and integrins enhances in lipid rafts malignant properties and signals in melanoma cells**
Farhana Yesmin^{1,3*}, Robiul H. Bhuiyan¹, Yuhsuke Ohmi², Orié Tajima¹,

Kei Kaneko¹, Tetsuya Okajima³, Keiko Furukawa¹, Koichi Furukawa^{1,3}
 (¹Department of Biomedical Sciences, Chubu University College of Life and Health Sciences, ²Department of Clinical Engineering, Chubu University College of Life and Health Sciences ³Department of Molecular Biochemistry, Nagoya University Graduate School of Medicine, Japan)

- P-21 Analysis and prediction of sialoglycoconjugates in cancer cells**
Masaya Hane^{1,2,3}, Ken Kitajima^{1,2,3}, Chihiro Sato^{1,2,3}
 (¹iGCORE, ²Grad. Sch. Bioagr. Sci, ³Biosci. Biotech. Center, Nagoya Univ., Japan)
- P-22 Multiple human cancer cell lines produce Neu5Gc de novo when cultured in serum-free, Neu5Gc-free media**
 (Y-3) Jing Wang¹, Lucy K. Shewell¹, Christopher J. Day¹, Tiago Oliveira¹, Daniel Kolarich¹ and Michael P. Jennings^{1*}
 (¹Institute for Glycomics, Griffith University, Gold Coast, Australia)
- P-23 Identification of sulfated sialic acid-bearing glycoconjugates in cultured cells expressing the sialate:O-sulfotransferases 1 and 2 genes**
Sota Yamashita^{1,2}, Di Wu^{1,2,3}, Masaya Hane^{1,2,3}, Chihiro Sato^{1,2,3}, Ken Kitajima^{1,2,3}
 (¹Grad. Sch. Bioagr. Sci, Nagoya Univ.; ²Biosci. Biotech. Center, Nagoya Univ.; ³iGCORE, Nagoya Univ., Japan)
- P-24 CASD1 and α 2,8-sialyltransferases drive the formation of 9-O-acetylated sialoglycans**
 (Y-6) Larissa Schröter, Malena Albers, Melanie Grove, Maike Hartmann, and Martina Mühlenhoff
 (Institute of Clinical Biochemistry, Hannover Medical School, Hannover, Germany)
- P-25 Effects of a sialyltransferase ST8Sia6 in endoplasmic reticulum on malignant features**
 (Y-4) Rina Hatanaka^{1,2}, Masaya Hane^{1,2,3}, Di Wu^{1,2,3}, Ken Kitajima^{1,2,3}, Chihiro Sato^{1,2,3}
 (¹Bioscience and Biotechnology Center, Nagoya University; ²Graduate School of Bioagricultural Sciences, Nagoya University; ³iGMED and iGCORE, Nagoya University, Japan)
- P-26 The different prognostic significance of polysialic acid, sialyltransferases and cd56 expression in tumor cells and lymphocytes identified in breast cancer**
 (Y-5) Sepideh Soukhthezari¹, Richard B. Berish¹, Ladan Fazli², Peter H. Watson³, and Karla C. Williams^{1*}
 (¹Faculty of Pharmaceutical Sciences, The University of British Columbia, Vancouver, Canada; ²Pathology, Vancouver Prostate Centre, Vancouver, British Columbia, Canada; ³BC Cancer, Victoria Centre, Victoria, British Columbia, Canada)
- P-27 Effect of the lysosomal inhibitors and the proteasome inhibitor on the activity of the polysialyltransferases**
Miho Ishikawa^{1,2}, Masaya Hane^{1,2,3}, Di Wu^{1,2,3}, Ken Kitajima^{1,2,3}, Chihiro Sato^{1,2,3}
 (¹Biosci. Biotech. Center, Nagoya Univ., ²Bioagr. Sci. Nagoya Univ., ³iGCORE, Nagoya Univ., Japan)
- P-28 Promotion of sialylation of recombinant glycoprotein by tagging it with a specific sequence recognized by a cargo receptor complex**
Hirokazu Yagi^{1,2}, Rino Yamada¹, Shungo Adachi³, Jun-ichi Furukawa⁴, Taiki Saito^{1,5}, Kengo Inutsuka¹, Rio Nakano¹, Saeko Yanaka^{1,2,5}, Rena Honda^{2,5},

Kazuhiro Aoki^{2,6}, Takuro Tojima⁷, Maho Yagi-Utsumi^{1,2,5}, and Koichi Kato^{1,2,5}
 (1Graduate School of Pharmaceutical Sciences, Nagoya City University, 2Exploratory Research Center on Life and Living Systems (ExCELLS), National Institutes of Natural Sciences, 3National Institute of Advanced Industrial Science and Technology (AIST), 4Institute for Glyco-core Research (iGCORE), Nagoya University, 5Institute for Molecular Science, National Institutes of Natural Sciences, 6National Institute for Basic Biology, National Institutes of Natural Sciences, 7 RIKEN Center for Advanced Photonics)

- P-29 Biological significance of α 2,6-sialylation in early development of medaka fish**
Takayuki Omoto^{1,2}, Di Wu^{1,2,3}, Hisashi Hashimoto⁴, Masahiko Hibi⁴, Masaya Hane^{1,2,3}, Chihiro Sato^{1,2,3}, Ken Kitajima^{1,2,3}
 (1Grad. Sch. Bioagr. Sci., Nagoya Univ.; 2Biosci. Biotech. Center, Nagoya Univ.; 3iGCORE, Nagoya Univ.; 4Grad. Sch. Sci., Nagoya Univ., Japan)
- P-30 Effects of acute stress on the polysialylated neural cell adhesion molecule (polySia-NCAM) expression in mouse brain**
Chikara Abe^{1,2}, Yang Yi^{1,2}, Masaya Hane^{1,2,3}, Ken Kitajima^{1,2,3}, Chihiro Sato^{1,2,3}
 (1Biosci. Biotech. Center, Nagoya Univ.; 2Grad. Sch. Bioagr. Sci., Nagoya Univ. 3iGCORE, Nagoya Univ.)
- P-31 Biological significance of the polysialyltransferase *St8sia2* in medaka, *Oryzias latipes***
Tan Poh Ling^{1,2}, Di Wu^{1,2,3}, Masaya Hane^{1,2}, Ken Kitajima^{1,2,3}, Chihiro Sato^{1,2,3}
 (1Biosci. Biotech. Center, Nagoya Univ, 2Grad. Sch. Bioagr. Sci., Nagoya Univ., 3iGCORE, Nagoya Univ., Japan)
- P-32 Significance of sialic acid 9-phosphate synthase (SPS) and sialate-pyruvate synthase (SPL)**
Takahiro Nakagawa^{1,2}, Di Wu^{1,2,3}, Masaya Hane^{1,2,3}, Chihiro Sato^{1,2,3}, Ken Kitajima^{1,2,3}
 (1Biosci. Biotech. Center, Nagoya Univ., 2Grad. Sch. Bioagr. Sci., Nagoya Univ., 3iGCORE, Nagoya Univ., Japan)
- P-33 Substrate specificity and intracellular localization of the deuterostome CMP-sialic acid synthetases**
Misato Bessho^{1,2}, Di Wu^{1,2,3}, Masaya Hane^{1,2,3}, Chihiro Sato^{1,2,3}, Ken Kitajima^{1,2,3}
 (1Biosci. Biotech. Center, Nagoya Univ.; 2Grad. Sch. Bioagr. Sci., Nagoya Univ.; 3iGCORE, Nagoya Univ., Japan)
- P-34 Study on the dynamic localization of the mouse CMP-sialic acid synthetase**
Mizuno Hidenori^{1,2,*}, Hiromu Arakawa^{1,2,*}, Di Wu^{1,2,3}, Masaya Hane^{1,2,3}, Chihiro Sato^{1,2,3}, Ken Kitajima^{1,2,3}
 (1Grad. Sch. Bioagr. Sci, Nagoya Univ.; 2Biosci. Biotech. Center, Nagoya Univ.; 3iGCORE, Nagoya Univ. , Japan. *Equally contributed.)
- P-35 Functional elucidation of the C-domain of vertebrate CMP-sialic acid synthetase (CSS)**
Sakura Toda^{1,2}, Di Wu^{1,2,3}, Masaya Hane^{1,2,3}, Chihiro Sato^{1,2,3}, Ken Kitajima^{1,2,3}
 (1Grad. Sch. Bioagr. Sci.Nagoya Univ., 2Biosci. Biotech. Center, Nagoya Univ., 3iGCORE, Nagoya Univ., Japan)
- P-36 The novel functions of N-domain and C-domain of CMP-sialic acid synthetase at organism level**

Di Wu^{1,2,3}, Hisashi Hashimoto⁴, Masahiko Hibi⁴, Yasuhiro Kamei⁵, Kiyoshi Naruse⁵, Chihiro Sato^{1,2,3}, Ken Kitajima^{1,2,3}
(¹Biosci. Biotech. Center, ²Grad. Sch. Bioagr. Sci., Nagoya Univ.; ³iGCORE, Nagoya Univ.; ⁴Grad. Sch. Sci., Nagoya Univ.; ⁵Nat. Inst. Basic Biol.)

- P-37 (Y-1) Complement activation in asialo pregnancies**
Arno Fenske¹, Henri Wedekind¹, Andreas Tiede², Anja Münster-Kühnel¹, Birgit Weinhold¹, Markus Abeln¹
(¹Institute for Clinical Biochemistry, Hannover Medical School. ²Department of Hematology, Hemostasis, Oncology, and Stem Cell Transplantation, Hannover Medical School)
- P-38 Complementary role of GlcNAc6ST2 and GlcNAc6ST3 in synthesis of CL40-reactive sialylated and sulfated glycans in the pleural mesothelium**
Yoshiko Takeda-Uchimura¹, Midori Ikezaki², Tomoya O. Akama³, Kaho Nishioka⁴, Yoshito Ihara², Fabrice Allain¹, Kazuchika Nishitsuji² and Kenji Uchimura^{1*}
(¹Univ. Lille, CNRS, UMR 8576 - UGSF - Unité de Glycobiologie Structurale et Fonctionnelle, Lille, France; ²Department of Biochemistry, ⁴Department of Obstetrics and Gynecology, School of Medicine, Wakayama Medical University, Wakayama, Japan; ³Department of Pharmacology, Kansai Medical University, Osaka, Japan)
- P-39 Expression and function of sialyl Lewis X glycans on mouse regulatory T cells**
Kanae Ohishi, Shogo Nshida, Asaki Ishikura, Hirohito Abo, Hiroto Kawashima
(Laboratory of Microbiology and Immunology, Graduate School of Pharmaceutical Sciences, Chiba University)
- P-40 Targeting Sialoglycans to Augment Immune Therapies**
Mikaela Ribí, Peter Szijj, Melissa Gray, Vijay Chudasama, Carolyn Bertozzi
(Stanford University, University College London)
- P-41 Siglecs in the porcine oviduct and sialylated ligands on sperm: potential role in sperm reservoir formation**
Leonardo M. Molina¹; Lauren E. Pepi²; Asif Shajahan²; Parastoo Azadi²; Daniel B. McKim¹; David J. Miller¹
(¹Department of Animal Sciences, University of Illinois at Urbana-Champaign, ²Complex Carbohydrate Research Center, University of Georgia, USA)
- P-42 The impact of sialylated glycocalyx of brain metastatic tumors on immunosuppressive myeloid cells**
Chin-Shan Fang, Tai-Yang Chen, Wen-Chin Yang, Hui-Ming Chen^{*}
(Agricultural Biotechnology Research Center, Academia Sinica, Taiwan)
- P-43 (Y-2) Regulation of uterine gland secretome sialylation and its implications in the pathogenesis of preeclampsia**
Jiangming Zhong, Cheuk-Lun Lee, Philip C.N. Chiu
(Department of Obstetrics and Gynecology, LKS Faculty of Medicine, The University of Hong Kong, Hong Kong SAR)
- P-44 Interactions between the sialic acid-specific lectin Siglec-7 and acidic polysaccharides**
Sayo Morishita^{1,2}, Masaya Hane^{1,2,3}, Hinano Komura^{1,2}, Di Wu^{1,2,3}, Ken Kitajima^{1,2,3}, Chihiro Sato^{1,2,3}
(¹Biosci. Biotech. Center, Nagoya Univ., ²Grad. Sch. Bioagr. Sci., Nagoya Univ., ³iGCORE, Nagoya Univ., Japan)

- P-45 Disruption of Muc5b sialylation and Siglec-F signaling prevents bleomycin-induced lung fibrosis**
Naoko Hara, William J. Janssen, Christopher M. Evans
(University of Colorado School of Medicine)
- P-46 Carbohydrate-binding properties of a novel sialic acid binding site on Siglec-9**
Hinano Komura^{1,2}, Yuki Asahina^{1,2}, Atsushi Yoshimura^{1,2}, Masaya Hane^{1,2,3}, Di Wu^{1,2,3}, Ken Kitajima^{1,2,3}, Chihiro Sato^{1,2,3}
(¹Biosci. Biotech. Center, Nagoya Univ., ²Grad. Sch. Bioagr. Sci., Nagoya Univ., ³iGCORE, Nagoya Univ., Japan)
- P-47 (Y-10) Molecular details of N- and O-glycans recognition by Siglec-like adhesins from *Streptococcus gordonii* and *mitis***
Cristina Di Carluccio¹, Linda Cerofolini², Antonio Molinaro¹, Marco Fragai², Barbara A. Bensing³, Roberta Marchetti¹, Alba Silipo¹
(¹University Federico II, Department of Chemical Sciences, Via Cintia 4I, Naples, Italy; ²Magnetic Resonance Center (CERM), Via L. Sacconi 6, 50019 Sesto Fiorentino, Italy; ³San Francisco Veterans Affairs Medical Center, San Francisco, USA)
- P-48 (Y-9) Ganglioside recognition profile of the heat-labile enterotoxins LT-IIb and LT-IIc from enterotoxigenic escherichia coli**
Dani Zalem¹, Martin Juhas^{1,5}, João P. Ribeiro⁴, Manuela Terrinoni², Natalie King-Lyons³, Michael Lebens², Annabelle Varrot⁴, Anne Imberty⁴, Terry D. Connell³, Susann Teneberg¹
(¹Department of Medical Biochemistry and Cell Biology, Sahlgrenska Academy, Institute of Biomedicine, University of Gothenburg, Gothenburg, Sweden; ²Department of Microbiology and Immunology, Sahlgrenska Academy, Institute of Biomedicine, University of Gothenburg, Gothenburg, Sweden; ³Department of Microbiology & Immunology and The Witebsky Center for Microbial Pathogenesis and Immunology, The Jacobs School of Medicine and Biomedical Sciences, The University at Buffalo, State University of New York, Buffalo, USA; ⁴University Grenoble Alpes, CNRS, CERMAV, Grenoble, France; ⁵Department of Pharmaceutical Chemistry and Pharmaceutical Analysis, Charles University, Faculty of Pharmacy in Hradec Králové, Akademika Heyrovského 1203, Hradec Králové, Czech Republic)
- P-49 Ganglioside binding beta-trefoil lectin and its dual cellular function**
Yuki Fujii¹, Jun Koseki², Kenichi Kamata³, Fujita Hideaki¹, Ryuya Ishiwata⁴, Ryuhei Hayashi⁴, Yasuhiro Ozeki⁴
(¹Nagasaki Int Univ, ²Nagoya Univ, ³KU Leuven Univ, ⁴Yokohama City Univ, Japan)
- P-50 Evaluation of binding affinity of anti-glycan antibodies using the biomolecular interaction analysis system**
Kaito Hayakawa^{1,2}, Masaya Hane^{1,2,3}, Di Wu^{1,2,3}, Ken Kitajima^{1,2,3}, Chihiro Sato^{1,2,3}
(¹Grad. Sch. Bioagr. Sci, Nagoya Univ.; ²Biosci. Biotech. Center, Nagoya Univ.; ³iGCORE, Nagoya Univ., Japan)
- P-51 Binding analysis of pradimicin A with oligosaccharide motifs from N-linked glycans**
Masato Fujii¹, Makoto Ojika¹, Dai Akase², Misako Aida², Yasuhiro Igarashi³, Yukishige Ito^{4,5}, Yu Nakagawa^{1,5,6}
(¹Nagoya Univ., ²Hiroshima Univ., ³Toyama Prefectural Univ., ⁴Osaka Univ., ⁵RIKEN, ⁶iGCORE, Japan)
- P-52 Development of antibody-recruiting strategy using metabolic glycan labeling to enhance immune responses**

Hersa Milawati, Yoshiyuki Manabe, Kazuya Kabayama, Koichi Fukase
(Department of Chemistry, Graduate School of Science, Osaka University, Japan)

P-53 Investigation of the reactivities of halogen-substituted bicyclic sialic acid donors

Sakuma Yasutake¹, Naoko Komura², Taro Udagawa³, Hide-Nori Tanaka², Akihiro Imamura^{1,2}, Hideharu Ishida^{1,2}, Hiromune Ando²
(¹Dept. of Applied Bioorganic Chemistry, Gifu Univ., Japan, ²iGCORE, Gifu Univ., Japan, ³Faculty of Engineering, Gifu Univ., Japan)

P-54 Development of a fluorescent GD2 analog for single molecule imaging

Eriko Yamaguchi¹, Naoko Komura¹, Hide-Nori Tanaka^{1,2}, Akihiro Imamura^{1,2}, Hideharu Ishida^{1,2}, Sophie Groux-Degroote³, Martina Mühlenhoff⁴, Hiromune Ando^{1,2}
(¹Institute for Glyco-core Research (iGCORE), Gifu Univ., Japan, ²Depart. of Applied Bioorganic Chemistry, Gifu Univ., Japan, ³Univ. Lille, CNRS, France, ⁴Institute of Clinical Biochemistry, Hannover Medical School, Germany)

P-55 Development of a fluorescent ganglioside probe for single-molecule imaging via late-stage sialylation

Maina Takahashi², Naoko Komura¹, Hide-Nori Tanaka^{1,2}, Akihiro Imamura^{1,2}, Hideharu Ishida^{1,2}, Kenichi G. N. Suzuki^{1,2} and Hiromune Ando^{1,2}
(¹Institute for Glyco-core Research (iGCORE), Gifu University, Japan
²The United Graduate School of Agricultural Science, Gifu University, Japan)

P-56 Synthetic study of sialyl N-glycan: efficient glycosylation by controlling the molecular aggregation

Kumpei Yano, Yoshiyuki Manabe, Asuka Shirakawa, Koichi Fukase
(Department of Chemistry, Graduate School of Science, Osaka University)

P-57 Synthetic study of sialic acid-containing glycans derived from *Nisseria meningitidis* W135

Hiro Yamamoto¹, Naoko Komura², Masahiro Kato¹, Hide-Nori Tanaka², Akihiro Imamura^{1,2}, Hideharu Ishida^{1,2}, Hiromune Ando²
(¹Dept of Applied Bioorganic Chemistry, Gifu Univ., Japan, ² iGCORE, Gifu Univ., Japan)

P-58 Efficient synthetic method for C3-modified sialoglycans and their inhibitory activity for sialidases

Keiya Uezono, Risa Maeda, Hiroaki Matoba, Makoto Yoritake, Go Hirai
(Graduate School of Pharmaceutical Sciences, Kyushu University)

P-59 Sialylgalactose analogue with exomethylene group acts as a substrate but inhibits sialidase activity

Risa Maeda, Keiya Uezono, Ryo Fukazawa, Hiroaki Matoba, Makoto Yoritake, Mikiko Sodeoka, Go Hirai
(Graduate School of Pharmaceutical Sciences, Kyushu University, Japan)

P-60 (Y-8) Selective inhibitors of human neuraminidase enzymes in cell migration, inflammation, and proliferation

Md Amran Howlader, Christopher W. Cairo
(University of Alberta, Alberta, Canada)

SIALOGLYCO2022

PUBLISHING SIALOGLYCO2022 OFFICE

**NAGOYA UNIVERSITY
CHIKUSA, NAGOYA 464-8601, JAPAN
TEL : 81-52-789-4297
FAX : 81-52-789-5228
SEPTEMBER 2022**