The 1st International Conference on the Glycobiology of nervous System was held in Seoul, South Korea, from September 2nd to September 5th. The conference has been organized in Seoul, taking advantage by the fact that several glycoscientists were in the island of Jeju, South Korea, attending in the previous week the 24th International Symposium on Glycoconjugates. Great help for the conference organization has been given by the Asian Pacific Society for Neurochemistry President, Secretary and Associated.

78 participants from China, Taiwan, Japan, Korea, India, Canada, USA, Australia, Israel and Italy attended the Conference. 39 were young scientists as advance-graduated students, PhD students and postdoctoral fellows.

The Conference venue was the fantastic conference area of the Korea University, in Hana square, Seoul. The conference hall, the adjoining rooms, the lobby with many armchairs and sofa, and the dining room allowed a great scientific and social atmosphere.

In the closing remarks it has been expressed the will and the wish that the 2nd International Conference can be organized as pre- or post-meeting of the 25th International Glycoconjugate Symposium, August 25th-31st, 2019, Milano, Italy.

The magnificent venue, the Korea University in Hana square, Seoul, South Koera.
CONFERENCE PARTICIPANTS

1- Abe Chikara,
2- An, Minae
3- Anu
4- Aureli Massimo
5- Campbell Edward M.,
6- Cappai Roberto,
7- Chan Ying Shing,
8- Chiricozzi Elena
9- Choi, Keunyul
10- Choi, Seungin
11- Chu-Wei Kuo
12- Chu-Wei Kuo,
13- Daisy Kwok-Yan Shum
14- de Britto Pará de Aragão Camila
15- Dong-Hoon Kim
16- Ekaterina Demina,
17- Garozzo Domenico,
18- Goldman Radoslav,
19- Grassi Sara
20- Hart Gerald W.,
21- Hirabayashi Yoshio,
22- Hirokazu Yagi,
23- Inokuchi Jin-ichi,
24- Iwaki Yuya
25- Kadomatsu Kenji,
26- Kamimura Keisuke,
27- Kang Kyungtae,
28- Kato Koichi,
29- Kazuhisa Iwabuchi
30- Khoo Kay-Hooi,
31- Kim, Donghui
32- Kim, Dongsoon
33- Kim, Minsuk
34- Kitazume Shinobu
35- Kohji Itoh
36- Laura Mauri
37- Ledeen Robert
38- Lee Kiyoun
39- Lee, Eunsoo
40- Lee, Hyejin
41- Lee, Juhyun
42- Li Su-Chen
43- Li Yu-Teh,
44- Lim, Jiyeon
45- Loberto Nicoletta
Maura Samarani
Mehra Surabhi,
Mori Airi,
Mutoh Tatsuro,
Nishitsuji Kazuchika
Park, Keyhwa
Park, Mirae
Prinetti Alessandro
Pshezhetsky Alexey V.,
Russo Laura,
Saito Taiki,
Sato Chihiro,
Schiumarini Domitilla
Segal Daniel,
Seo, Kubin
Shintaro Michael Uno,
Son, Jongwan
Son, Yejin
Song, Moonkyu
Sonnino Sandro
Tanaka Hiroki,
Taniguchi Naoyuki
Tsuji Daisuke,
Tsukimoto Jun,
Uchimura Kenji
Wanaka Akio,
Wang Bing,
Wang Pao-Yuan,
Woong Sun
Yijuang Chern
Yoon So-young
Yoshimura Atsushi,
Yutaka Itokazu

REGISTRATION FEE
Registration fee was fixed at US$ 200.
PROGRAM OF THE CONFERENCE

September 2nd

14.00-14.30
Opening remarks

Im Joo Rhyu, Dean of BK21 program, Korea University, Seoul, Korea
Sandro Sonnino, Conference Chair, University of Milano, Italy
Akio Wanaka, Conference Chair and President of APSN, University of Nara, Japan

14.30-18.30
Session 1 - Glycosylation and energy metabolism in brain

14.30-15.00
The Nutrient Sensor, O-GlcNAc, Regulates Appetite and Synapse Maturation in Hypothalamic Neurons
Gerald W. Hart, Baltimore, USA

15.00-15.30
O-GlcNAc cycling maintains Brain Proteostasis and Metabolism
John A. Hanover, Bethesda, USA

15.30-16.00
Special KU/APSN lecture: Spexin is a potential regulator of energy and glucose homeostasis
Dong-Hoon Kim, Seoul, Korea

16.00-16.30
Coffee and tea

Session 2 - Functional glycomics

16.30-17.00
Metabolic Labeling of Polysialic Acids in Rat Primary Neurons
Kyungtae Kang, Seoul, Korea

17.00-17.30
Dissecting the sulfated glycotopes of mouse brain via advanced mass spectrometry-based glycomics.
Kay-Hooi Khoo, Taipei, Taiwan

17.30-18.00
The characterization of the laminin-binding glycans on alpha-dystroglycan catalyzed by several causative gene products of dystroglycanopathy.
Hirokazu Yagi, Nagoya, Japan

18.00-18.30
Alterations of global protein glycosylation in Alzheimer’s disease – causal and potentially theranostic
Daniel Segal, Tel-Aviv University, Israel

18.30-19.00
General Discussion

19.00 - 21.00
Welcome Dinner

September 3rd

9.00-16.30
Session 3 – Amyloid diseases

9.00-9.30
New Thinking about Parkinson’s Disease: GM1 Deficiency as Cause; GM1 Analogs as Cure
Robert Ledeen, Newark, USA.

9.30-10.00
The role of galectin proteins in the host cell response to amyloid fibril invasion
Edward M. Campbell, Maywood, USA

10.00-10.30
How glycosylation affects amyloid beta production
Shinobu Kitazume, Wako, Japan

10.30-11.00
Coffee and tea

11.00-11.30
Glycan modification of BACE1 regulates its localization and accelerates Alzheimer's disease
Naoyuki Taniguchi, Wako, Japan

11.30-12.00
Neural N-glycans in Alzheimer's and other diseases
Domenico Garozzo, Catania, Italy

12.00-12.30
Glycosaminoglycans in protein aggregation diseases
Kazuchika Nishitsuji, Tokushima, Japan

12.30-13.00
Diverse Mechanism of Glycosaminoglycans Mediated α-synuclein Fibrillation.
Surabhi Mehra Mumbay, India

13.00-14.30
Lunch time

14.30-15.00
Deficiency of a sulfotransferase for sialic acid-modified keratan sulfate in microglia mitigates Alzheimer's pathology
Kenji Uchimura, Nagoya, Japan

15.00-16.30
Round table on the role of glycans in the amyloidogenic processes.
Roberto Cappai, Melbourne, Australia

16.30-17.00
Coffee and tea

17.00-19.00
Session 4 – Membrane organization and cell signaling

17.00-17.30
Glia-Neuron interaction based upon novel glycolipid in lipid rafts
Yoshio Hirabayashi Wako, Japan

17.30-18.00
Lipid-driven membrane organization and signaling in myelin repair
Alessandro Prinetti, Milano, Italy

18.00-18.30
Properties and functions of anti-glycosphingolipid antibodies are highly depend on the organization of glycosphingolipid-enriched domains.
Kazuhsa Iwabuchi, Tokyo, Japan

18.30-19.00
General discussion

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September 4th

9.00-13.00
Session 5 – Neuronal regeneration and synaptic plasticity

9.00-9.30
Glycosaminoglycans in axon regeneration and neural plasticity.
Kenji Kadomatsu, Nagoya Japan

9.30-10.00
Glypcan regulates synaptic plasticity at the Drosophila neuromuscular junction
Keisuke Kamimura, Tokyo, Japan

10.00-10.30
The neurotrophic properties of GM1 ganglioside: a new study.
Elena Chiricozzi, Milano, Italy
10.30-11.00
Coffee and tea

11.00-11.30
Neuronal and astrocytic proheparanase: Roles in regulating synaptic strength in the rat
Daisy Kwok-Yan Shum, Hong Kong, China

11.30-12.00
Role of sialic acid glycans and sialylated glycoprotein lactoferrin as key molecular players in enhancing neurodevelopment and cognition in piglets
Bing Wang, Locked Bag, Australia

12.00-12.30
Neoglycosylated collagen for neuronal regeneration
Laura Russo, Milano, Italy

12.30-13.00
Gangliosides in Neural Stem Cells
Itokazu Yutaka, Augusta, USA

14.30-15.00
Special KU/APSN lecture: Specific patterns of chondroitin sulfate proteoglycan expression in the adult CNS
Akio Wanaka, Nara, Japan

15.00-15.30
Special KU/APSN lecture: Emerging role of perineuronal chondroitin sulfates and semaphorin 3A on the developing vestibular circuitry
Ying Shing Chan, Hong Kong, China

15.30-16.00
General discussion

16.00-18.00
Session 7 – Poster session

18.30-20.30
Farewell Party

September 5th

9.00-11.30
Session 8 - Presentations Selected from Posters

9.00-9.15
Incorporation mechanism of deaminoneuraminic acid (KDN) in mammalian cells
Yuya Iwaki, Nagoya, Japan

9.15-9.30
Synaptic Dysfunction in Sanfilippo Type C Syndrome
Camila de Britto Pará de Aragão, Montreal, Canada

9.30-9.45
Mechanisms underlying the carrier protein-specific Lewis X modification catalyzed by fucosyltransferase IX
Taiki Saito, Nagoya, Japan

9.45-10.00
Persistent activation of cerebral neuraminidases following post-natal inflammatory exposure
Ekaterina Demina, Montreal, Canada

10.00-10.15
Discovery of exosomal glycosidases in microglia and macrophage cells
Atsushi Yoshimura, Nagoya, Japan

10.15-10.30
Impairment of autophagosome-lysosome fusion in lysosomal storage disorders
Hiroki Tanaka, Tokushima, Japan

10.30-11.00
Coffee and tea

11.00-11.15
Lysosomal impairment causes the onset of neurodegeneration in mouse granule neurons: the side effect of glycosphingolipid metabolism
Maura Samarani, Milano, Italy

11.15-11.30
A new in vitro model to study Niemann-Pick Type A disease
Nicoletta Loberto, Milano, Italy

11.30-16.30
Session 9 - Glycohydrolases and glycosyl transferases

11.30-12.00
Cerebellar accumulation of GM2 and regional variation of glycosphingolipid expression in a variant B1 Tay-Sachs brain
Yu-Teh Li, New Orleans, USA

12.00-12.30
Neuropathogenesis of murine disease model with combined deficiencies of lysosomal cathepsin A (Ctsa) and neuraminidase-1 (Neu1) and therapeutic approach.
Kohji Itoh, Tokushima, Japan

12.30-13.00
Roles of neuraminidases in CNS function
Alexey V. Pshezhetsky, Montreal,

13.00-14.30
Lunch Time

14.30-15.00
Biochemical analyses of polysialic acid synthesized by the polysialyltransferase ST8SIA2 found in psychiatric disorder patients.
Chihiro Sato, Nagoya, Japan

15.00-15.30
ST8 α-N-acetyl-neuraminide α-2,8-sialyltransferase 3 (ST8SIA3) functions as a signal coordinator in the striatum
Yijuang Chern, Taipei, Taiwan.

15.30-16.00
The GM3 synthase deficiency in human and mice
Jin-ichi Inokuchi, Sendai, Japan

16.00-16.30
Anti-neutral lycolipids antibodies-mediated whole nervous systems impairment: A new disorder, EMRN
Tatsuro Mutoh, Toyoake, Japan

16.30-17.00
General discussion

17.00
Final Remarks
ISN YOUNG SCIENTIST AWARDS.
Awarded young scientists were covered for travel, registration fee and local expenses.

Ekaterina Demina, Postdoctoral fellow
Sainte-Justine University Hospital Research Center, University of Montreal. Montreal, Canada
Oral presentation:
Persistent activation of cerebral neuraminidases following post-natal inflammatory exposure

Laura Russo, Postdoctoral fellow
Department of Biotechnology and Bioscience, University of Milano-Bicocca, Milano, Italy
Oral presentation:
Neoglycosylated collagen for neuronal regeneration

Surabhi Mehra, PhD student
Department of Biosciences and Bioengineering, IIT Bombay, Mumbay, India
Oral presentation
Diverse Mechanism of Glycosaminoglycans Mediated α-synuclein Fibrillation

Taiki Saito, PhD student
Faculty of Pharmaceutical Sciences, Nagoya City University, Nagoya, Japan
Oral presentation:
Mechanisms underlying the carrier protein-specific Lewis X modification catalyzed by fucosyltransferase IX

Camila de Britto Pará de Aragão, Postdoctoral fellow
CHU Sainte-Justine Research Center, University of Montreal, Montreal, Canada
Oral presentation:
Synaptic Dysfunction in Sanfilippo Type C Syndrome

Elena Chiricozzi, Postdoctoral fellow
Department of Medical Biotechnology and Translational Medicine, University of Milan, Segrate, Italy
Oral presentation:
The neurotrophic properties of GM1 ganglioside: a new study
ACCOUNT OF THE EXPENSES FOR THE US$ 20,000 ISN-CC SUPPORT
(received US$ 16000)

1-Expenses for the ISN Young Scientist awards

<table>
<thead>
<tr>
<th>Name</th>
<th>Air ticket</th>
<th>5 nights Hotel stay</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ekaterina Demina</td>
<td>1203</td>
<td>600</td>
<td>1803</td>
</tr>
<tr>
<td>Laura Russo</td>
<td>1689</td>
<td>600</td>
<td>2289</td>
</tr>
<tr>
<td>Surabhi Mehra</td>
<td>562</td>
<td>600</td>
<td>1162</td>
</tr>
<tr>
<td>Taiki Saito</td>
<td>323</td>
<td>600</td>
<td>923</td>
</tr>
<tr>
<td>Camila de Britto Pará de Aragão</td>
<td>1151</td>
<td>600</td>
<td>1751</td>
</tr>
<tr>
<td>Elena Chiricozzi</td>
<td>1137</td>
<td>600</td>
<td>1737</td>
</tr>
</tbody>
</table>

Total expenses for ISN Young Scientist awards: US$ 9665

2-Expenses for registration fee of both awarded ISN Young Scientists and young Scientists

1. Chu-Wei Kuo, PhD student
2. Pao-Yuan Wang, PhD student
3. Laura Russo, Postdoctoral fellow, ISN Young Scientist award
4. Massimo Aureli, Postdoctoral fellow
5. Nicoletta Loberto, Postdoctoral fellow
6. Maura Samarani, Postdoctoral fellow
7. Domitilla Schiumarini, Postdoctoral fellow
8. Sara Grassi, Postdoctoral fellow
9. Elena Chiricozzi, Postdoctoral fellow, ISN Young Scientist award
10. Camila de Britto Pará de Aragão, Postdoctoral fellow, ISN Young Scientist award
11- **Ekaterina Demona**, Postdoctoral fellow, ISN Young Scientist award
12- **Surabhi Mehra**, PhD student, ISN Young Scientist award
13- **Taiki Saito**, PhD student, ISN Young Scientist award
14- **Yejin Son**, advance-graduated students
15- **Kubin Seo**, advance-graduated students
16- **Minae An**, advance-graduated students
17- **Juhyun Lee**, advance-graduated students
18- **Minsuk Kim**, advance-graduated students
19- **Hyejin Lee**, PhD student
20- **Mirae Park**, PhD student
21- **Donghui Kim**, PhD student
22- **Anu**, PhD student
23- **Keunyul Choi**, PhD student
24- **Jiyeon Lim**, PhD student
25- **Moonkyu Song**, PhD student
26- **Choi Seungin**, PhD student
27- **Jongwan Son**, postdoctoral fellow
28- **Eunsoo Lee**, postdoctoral fellow
29- **Soyeong Yoon**, postdoctoral fellow
30- **Keyhwa Park**, postdoctoral fellow
31- **Kim Dongsoo**, postdoctoral fellow
32- **Kay-Hooi Khoo**, postdoctoral fellow
33- **Chikara Abe**, PhD student
34- **Yuka Iwaki**, PhD student
35- **Atsushi Yoshimura**, PhD student
36- **Jun Tukimoto**, PhD student
37- **Daisuke Tsji**, PhD student
38- **Airi Mori**, PhD student
39- **Hiroki Tanaka**, PhD student

**Total expenses for the registration fee of young Scientists 39xUS$200=US$ 7800**

**Total expenses for young scientists, 1+2:** US$ 17465

3- **Conference chair expenses**

**Sandro Sonnino**
Air ticket: 1137
Registration fee: 200
5 nights Hotel stay: 600
Total: US$ 1937

**Akio Wanaka**
Air ticket: 340
Registration fee: 200
5 nights Hotel stay: 600
Total: US$ 1140
Total expenses of Conference Chairs: US$ 3077

Gran total US$ 20542
The difference from US$ 20000 has been covered by the sponsor support and income from registration fee.
Dear Sandro

Thank you for the message. As I told you, I was really impressed by the quality of the talks throughout the meeting. Woong provided us with such a very beautiful and comfortable environment and So-Young did great job in managing the events.

All in all, the meeting was very successful and I hope Glyconeurobiology meeting and APSN, ISN would continue collaborating for future opportunities.

With best regards,

Akio

*******************************************************************
Akio Wanaka, M.D., Ph.D.
Department of Anatomy and Neuroscience
Nara Medical University Faculty of Medicine
840 Shijo-cho, Kashihara City, Nara 634-8521, Japan
Tel: +81-744-22-3051
Fax: +81-744-29-8825
e-mail: akiow@naramed-u.ac.jp

*******************************************************************

2017-09-12 22:10 GMT+09:00 Alessandro Prinetti <alessandro.prinetti@unimi.it>: Dear Sandro and Akio,

Please allow me to formally congratulate for the great success of the Seoul meeting. Comments from participant were enthusiastic and definitely they felt the meeting above expectations. You have set an important standard and now the community knows that a meeting of this kind can be successfully organized, so I hope we can continue for the future. I also think that it was an excellent example of cooperation between different groups and hope that APSN can benefit from it.

I would like to acknowledge the important role of KU the local organization, Woong and his staff did a great job- with some help from the Italian-Korean staff. And a special is owed to So-young: always a step ahead of our needs and requests, always efficiently, always with a smile!

감사합니다

Alex
Alessandro Prinetti
Professor of Biochemistry
University of Milano
Dear Dr. Sonnino,

Thank you for the opportunity to participate at the 1st International Conference on the Glycobiology of Nervous System. The program and organizations were outstanding.

Yours sincerely,

Ekaterina Demina

Dear Drs Sandro and Akio,

Congratulations for great success! It was my pleasure to serve as LOC for the GlycoNeuro meeting. Also I learned a lot from this event in many aspects: how to lead many different groups into one, how to organize international meeting efficiently, and of course what the future direction of glyconeurobiology is. I hope and believe that we could meet/collaborate again.

Best,

Woong
Dear Sandro:

It was so nice to see both of you in Seoul. The Conference on the Glycobiology of Nervous System was a great success. Su-Chen and I enjoyed the meeting so much. We were happy to have the opportunity to learn many new functional aspects of glycoconjugates on the nervous system. We appreciate the time and efforts two of you devoted in organizing this meeting. Truly, the glycoconjugate field needs the capable and enthusiastic persons like two of you. We are also happy to see the involvement of more young researchers in the glycobiology research.

We returned home safely at midnight on Sept 8th. We had Saturday and Sunday to recover from the jet lag. Being in Seoul, was our first Korean experience. We curiously enjoyed Korean foods for the first time. We also would like to mention that the Holiday Inn Seoul Seonbuck was an excellent hotel. Their services and room facilities were all first class. The same kind of hotel in the US would charge much more.

Su-Chen joins me in thanking you for including us in this meeting.

Best regards,

Y.-T.

Yu-Teh Li, Ph.D.
Professor
Department of Biochemistry and Molecular Biology  SL8643
Tulane University School of Medicine
1430 Tulane Avenue
New Orleans, La 70112-2699
Phone: (504) 988-2451
Fax: (504) 988-2739
E-Mail: yli1@tulane.edu
Dear Professor Sandro Sonnino,

The conference have granted me a great discussion with distinguished researchers. I am pleased that I could deliver our work orally in front of distinguished scientists. And especially, I really appreciate you for having given me time for listening to my poster presentation right before the farewell party. I have been so motivated by this conference to research more and study neurology. Let me say again, Thank you for organizing.

Buona jornata!

Sincerely,
Taiki Saito

Faculty of Pharmaceutical Sciences
Nagoya City University
Tanabe-dori 3-1, Mizuhoku
Nagoya 467-8603, Japan
TEL & FAX: +81-52-836-3450
E-mail:c142524@ed.nagoya-cu.ac.jp