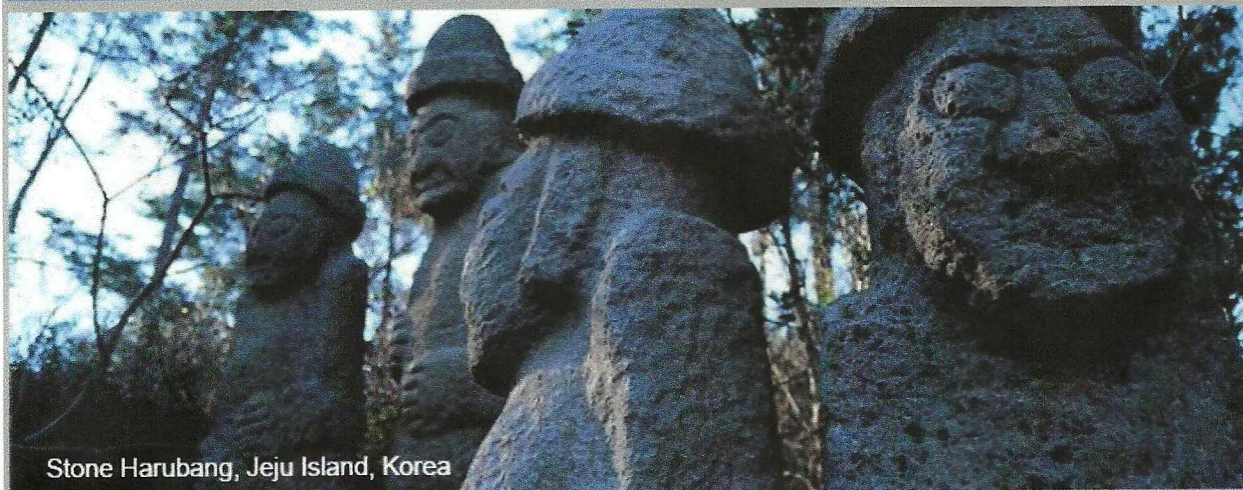


# ACGG 2012 Conference

4<sup>th</sup> Asian Communications  
of Glycobiology and Glycotechnology

ICC JEJU, Jeju Island, Korea



Stone Harubang, Jeju Island, Korea



Mountain Hala, Jeju Island, Korea



October 28-31, 2012  
ICC JEJU, Jeju Island  
Korea

Hosted by the Korean Society for Glycoscience **KSG** 한국당괴학회

Supported by Kyung Ahm Education & Culture Foundation





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**경암교육문화재단**

*Kyung-Ahm Education & Culture Foundation*

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- Shih-Hsiung Wu (Academia Sinica, Taiwan)
- Sopit Wongkham (Khon Kaen University, Thailand)
- Chaisiri Wongkham (Khon Kaen University, Thailand)

## **Welcome message**

We welcome all participants of the 4th Asian Communication for Glycobiology and Glycotechnology held on 28th to 31st of October 2012, in Jeju Island, South Korea.

Japan, China, Taiwan, India, Hong Kong, Singapore, Thailand and South Korea are member nations of the ACGG; the AGCC was first initiated in 2008, during the Annual Symposium on Korean Society for Glycoscience, by the representatives of Japan, Taiwan and South Korea to foster development of the Glycobiology and Glycotechnology through cooperation among Asian Countries.

It is a great pleasure to be hosting the ACGG in the wonderful Jeju Island, which has recently been announced as one of the New7 Wonders of Nature. We hope that the symposium will provide an opportunity for many discussions, and that you enjoy the beautiful scenery of Jeju Island.

Jin Won Cho

Organizer

2012, 4<sup>th</sup> ACGG



## Program schedule

	Oct 28, Sunday	Oct 29, Monday	Oct 30, Tuesday	Oct 31, Wednesday	Nov 1 <sup>st</sup> , Thursday
8:30 AM		Registration	Poster viewing and Registration		JeJu Tour
9:00 AM		Opening Remarks ACGG address	Plenary Lecture I	Plenary Lecture II	
9:30 AM		Glycobiology I	Glycochemistry I	Glycobiotechnology I	
10:30 AM	10:00 - 15:00 ACGG-DB meeting	Coffee Break			
10:50 AM		Glycobiology II	Glycochemistry II	Glycobiotechnology II	
12:10 AM		12:10-12:20 Group Photo  12:20-13:10 Lunch and Poster viewing  13:10-13:30 Presentation “Dong- Il Shimadzu”	12:10 - 13:10 Lunch and Poster viewing	12:10 - 13:20 Lunch and Poster viewing	
13:10 PM		13:30-15:20 Poster Presentation I	Free afternoon JeJu Olle Tour	13:20-15:10 Poster Presentation II	
15:20 PM		Poster session I		Poster session II	
16:40 PM	15:00 - 17:00 Resistration ACGG steering meeting	16:40-18:00 Glycobiology III		16:40-17:40 Glycobiotechnology III	
19:00 PM	18:00 -20:30 Welcome Dinner at ICC	19:00 - 20:30 Invited Dinner (Committee Members, Speakers and Chairs)	18:00 – 18:10 Public information  19:00 - 20:30 Symposium Banquet		

## General Information

### 1. Venue (Yeongju Hall, ICC Jeju : <http://www.iccjeju.co.kr>)

2700 Jungmun, Seowipo, Jeju Special Self-Governing Province, Korea, 697-12

#### ■ From Jeju International Airport

From Jeju International Airport, you will reach ICC Jeju in approximately 40-50 minutes by car through Pyeonghwa-Ro Road.

Limousine buses are also available every 15 minutes at the airport.

#### ■ Guide to the airport limousines (Jeju International Airport ↔ Jeju ICC)

**Place:** Limousine bus stop at the left side of the front gate (Samyoung Traffic No. 600).

**First departure:** 6:20 at the airport; last departure: after the arrival of the last airplane.

**Service route:** Airport → Crown Plaza Hotel → Entrance to the Yeomiji Botanical Garden → Hyatt Hotel → Shilla Hotel → Lotte Hotel → Hankook Condominium → Jeju International Convention Center → New Gyeongnam Hotel → Seogwipo KAL Hotel

#### ■ Taxi guide (Jungmun - Jeju International Airport)

Select the distance (long-distance or short-distance) at the taxi stop.

When you go to the Center, it is all right to take a taxi at the long-distance stop.

Since the taxi fare is fixed, please confirm the distance before taking a taxi.

**Fare** (Korean won): About 30,000 won; **Distance:** 40km; **Duration:** 40-45 minutes

### 2. Registration and Information Desk

Registration and Information Desk open on the following days:

Oct. 28<sup>th</sup>: 13:00 – 18:00 at ICC Yeongju Hall (1<sup>st</sup> floor)

Oct. 29<sup>th</sup>: 08:30 – 18:00 at ICC Yeongju Hall (1<sup>st</sup> floor)

Oct. 30<sup>th</sup>: 08:30 – 13:00 at ICC Yeongju Hall (1<sup>st</sup> floor)

Oct. 31<sup>th</sup>: 08:30 – 12:00 at ICC Yeongju Hall (1<sup>st</sup> floor)

#### Registration Fee:

KW 60,000 including welcoming dinner at ICC, lunches for 3 days, coffee break

#### Extras:

KW 60,000 for Symposium Banquet

#### Please Note:

All payments by cash (Korean Won) only and will be collected on site.

### 3. Name Card

All participants including accompanying persons are required to carry their own name card at all times while at the JeJu ICC.

### 4. Symposium Events

#### 1) Welcome Dinner

Date and time: Oct. 28<sup>th</sup> (Sun) from 18:00 – 20:00

Place: JeJu ICC 3rd floor (Delizia Restaurant)

2) Invited Dinner (Committee Members, Speakers and Chairs)  
Date and time: Oct. 29<sup>th</sup> (Mon) from 19:00 – 20:30  
Place: DeomJang Restaurant (<http://www.deomjang.co.kr/>)

3) Symposium Banquet  
Date and time: Oct. 31<sup>th</sup> (Wed) from 19:00 – 20:30  
Place: ICC 5<sup>th</sup> floor (Ocean View)

4) Lunch  
Date and time: Oct. 29<sup>th</sup> (Mon) to Oct 31<sup>th</sup> (Wed) from 12:10 – 13:20  
Place: JeJu ICC 1<sup>st</sup> floor (Cafeteria)

## 5. Poster Presentation

Posters should be placed on the assigned board in ICC Yeongju Hall (1<sup>st</sup> floor).  
Place set up and remove posters as follows:  
Set up: 8:30 on Oct. 29<sup>th</sup> (Mon)  
Remove: 18:10~19:00 on Oct. 31<sup>th</sup> (Wed)

Presenters are required to attend their posters during the poster session.  
Date and time: Oct. 29<sup>th</sup> 15:20-16:40 and Oct. 31<sup>th</sup> 15:20-16:40.

## 6. Group Photo

Date and time: Oct. 29<sup>th</sup> 12:10-12:20  
Place: ICC 3<sup>rd</sup> floor

## 7. Free and optional tour

### ■ Free afternoon excursion

#### Foreign participants only

On the 30th October 2012 after lunch, foreign participants wishing to take part in an excursion will have the chance to take a walk along the Olle trail of Jeju Island. Applications for the tour will be accepted until the 20th of August 2012, and should be done along with registrations.

#### Information on Olle route 7:

[http://english.jeju.go.kr/index.php/contents/travel/activities/jeju-olle?olle\\_num=7](http://english.jeju.go.kr/index.php/contents/travel/activities/jeju-olle?olle_num=7)

If you choose not to go on the excursion, you will have free time that afternoon. Recommended area of visit is Jungmun resort which has a wonderful beach, a botanical garden, Chunjeyeun waterfall, and many other theme parks.

### ■ Optional tour

The schedule described above may change depending on local conditions. Minimum number of participants is 20, in which case individual fees are approximately KW 69,000. If there are more than 20 participants, the individual fee may be lowered. This fee includes English tour guide, admission fees, and lunch.

Date: Nov 1, 2012

Tour Schedule: Departure (following roll call)

- EcoLand Train Tour
- Mongolian Horseback Show
- Seopjikoji, shooting location for the TV series 'All-in'
- Seongsan UNESCO World Heritage Site
- Jeju Folk Village Museum



# 2012 ACGG Program

## October 29 (Monday)

09:20 - 09:25	Opening Remark	Jin Won Cho (Organizer 2012 ACGG)
09:25 - 09:30	Opening Remark	Biao Yu (Chairman of ACGG Steering Committee)

### Session 1: Glycobiology I

Chairperson: Hisashi Narimatsu/Young-Sun Kang

09:30 - 09:50	OR-1: Fucosylated glycan association with hepatocellular carcinoma cell migration <b>Xing Zhong Wu (China)</b>
09:50 - 10:10	OR-2: A glycosyltransferase-related gene, <i>Galnt15</i> , has a role specific to functionally mature sperm formation in mammals <b>Nobuyoshi Takasaki (Japan)</b>
10:10 - 10:30	OR-3: Roles of galectin-3 in immune regulation of infectious diseases <b>Huan-Yuan Chen (Taiwan)</b>
10:30 - 10:50	<b>Coffee Break</b>

### Session 2: Glycobiology II

Chairperson: Jin Won Cho/Ken Kitajima

10:50 - 11:10	OR-4: Aberration of O-GlcNAcylation in cholangiocarcinoma <b>Chatchai Phoomak (Thailand)</b>
11:10 - 11:30	OR-5: O-GlcNAcase inhibitor attenuates beta-amyloid plaque and rescues memory impairment <b>Inhee Mook-Jung (Korea)</b>
11:30 - 11:50	OR-6: Role of O-GlcNAcylation in cholangiocarcinoma <b>Atit Silsirivanit (Thailand)</b>
11:50 - 12:10	OR-7: Abnormal expression of O-GlcNAcylated proteins associated with breast cancer <b>Vorarat Champattanachai (Thailand)</b>
12:10 - 12:20	<b>Group Photo</b>
12:20 - 13:10	<b>Lunch and Poster viewing</b>
13:10 - 13:30	<b>Noriyuki Ojima (Dong-II Shimadzu) "Presentation of Shimadzu Instrument"</b>
13:30 - 15:20	<b>Poster presentation I</b>
Chairperson: Chun-Hung Lin/Sopit Wongkham	
13:30 - 13:40	PP-1: Site-specific N-glycosylation identification of recombinant human lectin-like oxidized low density lipoprotein receptor-1 (LOX-1) <b>Shifang Ren (China)</b>
13:40 - 13:50	PP-2: Synthesis of <i>Nisseria meningitidis</i> W135 capsular oligosaccharide with various lengths for immunogenicity <b>Chia-Hung Wang (Taiwan)</b>
13:50 - 14:00	PP-3: Marine invertebrate Sialyltransferase: Identification and functional characterization of a $\beta$ -galactoside $\alpha$ 2,3-sialyltransferase, Csav-ST3Gal I/II, from the sea squirt <i>Ciona savignyi</i> <b>Seonghun Kim (Korea)</b>
14:00 - 14:10	PP-4: NMR analyses of the conformational transition of the antibacterial peptide Sarcotoxin IA interacting with lipid A <b>Maho Yagi-Utsumi (Japan)</b>
14:10 - 14:20	PP-5: Biosynthesis of 3-O-xylosyl quercetin in <i>Escherichia coli</i> <b>Ramesh Prasad Pandey (Korea)</b>
14:20 - 14:30	PP-6: Modular synthesis of heparanase substrates <b>Biao Yu (China)</b>
14:30 - 14:40	PP-7: Cell surface sialylation mediates the binding of enterovirus 71 to host cells <b>Pei-Yi Su (Taiwan)</b>
14:40 - 14:50	PP-8: Anti-inflammatory effects of low-molecular weight chitosan oligosaccharides in IgE-antigen complex-stimulated RBL-2H3 cells and asthma model mice

- 14:50 - 15:00      **Mi Ja Chung (Korea)**  
PP-9: Paramagnetic-assisted NMR analyses of conformational dynamics of gangliosides
- 15:00 - 15:10      **Ying Zhang (Japan)**  
PP-10: The functional study of O-GlcNAc modification on transcription factor for myogenin during differentiation from myoblast to myocyte
- 15:10 - 15:20      **Hanbyeol Kim (Korea)**  
PP-11: Development of ganglioside probes for live imaging of lipid rafts
- 15:20 - 16:40      **Naoko Komura (Japan)**
- 15:20 - 16:40      **Poster session I**

### **Session 3: Glycobiology III**

- Chairperson: Akemi Suzuki/Jeon Heon Ko
- 16:40 - 17:00      OR-8: Succinylated-wheat germ agglutinin indicates aberrant glycosylation in cholangiocarcinoma  
**Somsiri Indramanee (Thailand)**
- 17:00 - 17:20      OR-9: Unique evolution of the unfolded protein response and glycosylation pathways in the human pathogenic yeast *Cryptococcus neoformans*  
**Hyun Ah Kang (Korea)**
- 17:20 - 17:40      OR-10: Anti-proliferative effect of triazole glycosides on cholangiocarcinoma cell lines  
**Sopit Wongkham (Thailand)**
- 17:40 - 18:00      OR-11: Modulation of growth factor receptors in membrane microdomains  
**Kazuya Kabayama (Japan)**
- 19:00 - 20:30      **Inviting Dinner (Committee Members, Speaker and Chairs)**

## **October 30 (Tuesday)**

- 08:30 - 09:00      **Poster viewing**

Chairperson: Biao Yu

- Plenary Lecture PL-1**  
09:00 - 09:30      Opening the gate of glycobiology of N-linked sugar chain  
**Akira Kobata (The Noguchi Institute)**

### **Session 4: Glycochemistry I**

- Chairperson: Yukishige Ito/Kisung Ko
- 09:30 - 09:50      OR-12: Syntheses of some iminosugar derivatives and their biological activities  
**Xin-Shan Ye (China)**
- 09:50 - 10:10      OR-13: Advances in glycan and glycopeptide synthesis  
**Xuechen Li (Hong Kong)**
- 10:10 - 10:30      OR-14: Synthetic glycolipids as inhibitors of mycobacterial growth and as ligands for surfactant protein A  
**N. Jayaraman (India)**
- 10:30 - 10:50      **Coffee Break**

### **Session 5: Glycochemistry II**

- Chairperson: Jae Kyung Sohng/Moonjae Cho
- 10:50 - 11:10      OR-15: Synthesis and biofunctions of Nod1/Nod2 ligands from peptidoglycan, innate immunostimulatory glycoconjugates of bacteria  
**Yukari Fujimoto (Japan)**
- 11:10 - 11:30      OR-16: Identification of tumor markers in oral cancer by glycoproteomic analysis  
**Chuan-Fa Chang (Taiwan)**
- 11:30 - 11:50      OR-17: Mapping of cancer glycosphingolipidomes: Implications for cancer diagnosis and therapy

11:50 - 12:10	<b>Yunsen Li (China)</b> OR-18: Overcoming axon-restrictive chondroitin sulfates with use of chondroitin sulphate lyases <b>Daisy KY Shum (Hong Kong)</b>
12:10 - 13:10	<b>Lunch</b>
13:10-	<b>Free afternoon Jeju Tour</b>

## **October 31 (Wednesday)**

08:30 - 09:00 **Poster viewing**

Chairperson: Jin Won Cho

**Plenary Lecture PL-2**

09:00 - 09:30 EDEM1 – A multifaceted machinery protein of endoplasmic reticulum- associated protein degradation  
**Jurgen Roth (Switzerland))**

### **Session 6: Glycobiotechnology I**

Chairperson: Yong Il Park

09:30 - 09:50	OR-19: Endowing metabolic glycan labeling with specificity <b>Xing Chen (China)</b>
09:50 - 10:10	OR-20: Stereoselective construction of complex bacterial glycans <b>Akihiro Ishiwata (Japan)</b>
10:10 - 10:30	OR-21: Interactive analyses for carbohydrate-protein interaction through nano-bio analytical tools <b>Hyung Joon Cha (Korea)</b>
10:30 - 10:50	<b>Coffee Break</b>

### **Session 7: Glycobiotechnology II**

Chairperson: Hyung Joon Cha/Shih-Hsiung Wu

10:50 - 11:10	OR-22: Targeted mass spectrometric approach for cancer diagnosis from glycoproteins in human plasma <b>Jong Shin Yoo (Korea)</b>
11:10 - 11:30	OR-23: <i>N</i> -Acetylglucosaminyltransferase (GnT-V) regulates TGFβ signaling in hepatic stellate cells and the progression of steatohepatitis <b>Eiji Miyoshi (Japan)</b>
11:30 - 11:50	OR-24: Recombinant glycoprotein therapeutics preparation and characterization of phosphomannan oligosaccharide and lysosomal enzyme nanoparticles – Possible therapeutic tools for lysosomal storage disorders <b>Nadimpalli Siva Kumar (India)</b>
11:50 - 12:10	OR-25: Regulation of the intracellular Ca <sup>2+</sup> by a highly glycosylated protein on sperm microdomains <b>Ken Kitajima (Japan)</b>
12:10 - 13:20	<b>Lunch and Poster viewing</b>
13:20 - 15:10	<b>Poster presentation II</b> Chairperson: Eiji Miyoshi/ Chaisiri Wongkham
13:20 - 13:30	PP-12: A biomimetic chitosan composite with improved mechanical properties in wet <b>Dong Soo Hwang (Korea)</b>
13:30 - 13:40	PP-13: A potential role of ppGalNAc-T13 in neural differentiation <b>Yingjiao Xu (China)</b>



- 13:40 - 13:50 PP-14: Towards the development of a disease-in-a-dish: Generation of glycosyltransferase knockout cell lines using TALENs  
**Gabbine Wee (Korea)**
- 13:50 - 14:00 PP-15: Using high performance liquid chromatography on a microfluidic chip and Time-of-Flight Mass Spectrometry for identification of native N-linked glycan structures from monoclonal Antibody  
**Jong-Moon Park (Korea)**
- 14:00 - 14:10 PP-16: Chemical synthesis of intentionally misfolded homogeneous glycoprotein: A unique approach for the study of glycoprotein quality control  
**Masayuki Izumi (Japan)**
- 14:10 - 14:20 PP-17: ConA-binding glycoprotein as a potential serum marker for screening of benign  
**Chaisiri Wongkham (Thailand)**
- 14:20 - 14:30 PP-18: Verification of *Wisteria floribunda* agglutinin-positive glycoproteins as a cholangiocarcinoma marker  
**Atsushi Matsuda (Japan)**
- 14:30 - 14:40 PP-19: Chemoenzymatic synthesis of GDP-L-fucose derivatives as potent and selective alpha-1,3-fucosyltransferase inhibitors  
**Wei-Che Hsieh (Taiwan)**
- 14:40 - 14:50 PP-20: Expression patterns of gangliosides in lipopolysaccharide-stimulated normal PK-15 cells and gangliosides knock-down PK15 cells  
**Ju-Taek Lee (Korea)**
- 14:50 - 15:00 PP-21: Ficolin2 defends against virulent *Mycobacteria tuberculosis* infections *in vivo* and its insufficiency is associated with infections in human  
**Xiao-Lian Zhang (China)**
- 15:00 - 15:10 PP-22: X-ray Crystallographic Studies on Binding Specificity of Norovirus to Lewis Antigens  
**Tomomi Kubota (Japan)**
- 15:10 - 16:40 **Poster session II**

### **Session 8: Glycobiotechnology III**

Chairperson: Hyun Ah Kang/Kyun Oh Lee

- 16:40 - 17:00 OR-26: Gold catalysed synthesis of oligoarabinofuranosides  
**Srinivas Hotha (India)**
- 17:00 - 17:20 OR-27: Development and Application of a Mouse Serum N-glycan Library for Automated Glycan Profiling and Biomarker Discovery  
**Serenus Hua (Korea)**
- 17:20 - 17:40 OR-28: Direct highly stereoselective preactivated glycosylations of 2-deoxy- and 2,6-dideoxythioglycosides via their glycosylchloride intermediates  
**Cheng-Chung Wang (Taiwan)**
- 18:00 - 18:10 Public information "22nd International Symposium on Glycoconjugates in China, Dailian"  
**Dr. Ren Shifang (China)**
- 19:00 - 20:30 **Symposium Banquet**