

WELCOME



Dear esteemed colleagues and excellencies,
It is indeed an honor and privilege for me to invite you to the 2012 Inter-Academy Seoul Science Forum to be hosted by the Korean Academy of Science and Technology (hereinafter referred to as "KAST"). KAST has exerted its endeavor since its establishment in 1994 to expand multilateral academic exchanges and to strengthen international networks in close coordination with a number of scientific academies across the world.
Since the dawn of human civilization, science has always been a true guiding light which discovered truth about nature and man, thus gradually liberating humanity from false beliefs and physical pain.
It enabled us to envision the better world without oppression, hunger, and disease. The very apple of Issac Newton, which has also been an ancient symbol of intellectuality from the time of Bible, brought tremendous benefits to mankind in every field imaginable in the name of science and technology. Science holds the key to our survival, security, and prosperity more than ever.

This explains why this science forum is organized. We scientists are asked once again to find the answers to numerous dire problems of this era which require our concerted efforts such as sustainable economic development and growth, food supply, energy security, environmental conservation, and climate change effects.

Innovation in science and technology will be crucial to resolving the problems our world is facing; it is the only way to the future that can lead us to workable solutions to develop healthier crops, to create lifesaving medicines, to generate clean sources of energy and water, and to enjoy the fruits of economic development together with the less rich part of the world.

The scale of challenges being discussed here today forces us to combine our efforts in order to mitigate the impact of global issues. In this context, the Inter-Academy Seoul Science Forum is a particularly exciting opportunity to advance international coalition for solving various problems with the most brilliant scientific brains. We will share the understanding of the state-of-the-art issues of science and technology to build an international, interdisciplinary science network for active conversations bridging cultures and generations and to consolidate the ideas of the participants into a prudent strategy for sustainable development and growth.

I am confident that this forum will be a small but meaningful first step in sharing scientific benefits of our time and solidifying our science and technology cooperation. I hope this occasion to serve as a lead up to more proactive exchanges and successful outcomes. I am pleased that we have started to move forward. We look forward to seeing you at the 2012 IASSF in November and wish you a productive meeting and memorable moments in Korea.

Sincerely yours,

Kil Saeng Chung

President, The Korean Academy of Science & Technology



IASSF

2012 INTER-ACADEMY SEOUL SCIENCE FORUM

INNOVATION & SUSTAINABILITY

2012 세계 과학한림원 서울포럼

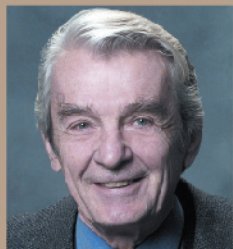
NOVEMBER 1-2, 2012

WESTIN CHOSUN HOTEL, SEOUL, KOREA

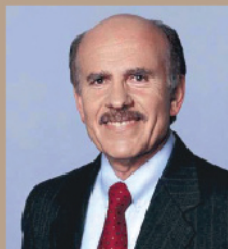
Hosted by **KAST** 한국과학기술한림원
The Korean Academy of Science and Technology

SPEAKERS

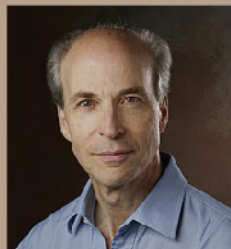
FEATURED SPEAKERS



IVAR GIAEVER
Professor Emeritus,
Rensselaer Polytechnic Institute
1973 Nobel Prize in Physics



LOUIS IGNARRO
Professor
Dept. of Pharmacology UCLA
School of Medicine
1998 Nobel Prize in Medicine



ROGER KORNBORG
Professor
School of Medicine,
Stanford University
2006 Nobel Prize in Chemistry



DAN SHECHTMAN
Philip Tobias Professor
of Materials Science
The Technion Israel Institute of Technology
2011 Nobel Prize in Chemistry

PHYSICS

Moo Young Choi	Seoul National University
Tord Claesson	Chalmers University of Technology
Astrid Graslund	Stockholm University
Börje Johansson	Uppsala University / KTH - Royal Institute of Technology
Antoine Kahn	Princeton University
Feodor V. Kusmartsev	Loughborough University
Kyoung Jin Lee	Korea University
Eugene Mele	University of Pennsylvania
Hong Kun Park	Harvard University
Yung Woo Park	Seoul National University
Soo Young Park	Seoul National University
Han Woong Yeom	POSTECH
Kyung Hwa Yoo	Yonsei University

CHEMISTRY

Jinwoo Cheon	Yonsei University
Insung S. Choi	KAIST
Hee Cheul Choi	POSTECH
Byunghee Hong	Seoul National University
Taeg Hwan Hyeon	Seoul National University
Jwa-Min Nam	Seoul National University
Jiwoong Park	Cornell University
Dmitri Talapin	The University of Chicago
Peidong Yang	University of California, Berkeley

MEDICINE & LIFE TECHNOLOGY

Yongwon Choi	University of Pennsylvania
Michael Clegg	University of California, Irvine
Eric Honore	Institut de Pharmacologie Moléculaire et Cellulaire CNRS
Chil-Yong Kang	The University of Western Ontario
Kwang-Soo Kim	Harvard Medical School
Sunghoon Kim	Seoul National University
Sung Hou Kim	University of California, Berkeley
Changjoon Justin Lee	KIST
Hong Gil Nam	Daegu Gyeongbuk Institute of Science and Technology
Uhtaek Oh	Seoul National University
Woong-Yang Park	Seoul National University
Hee-Sup Shin	Institute for Basic Science
John Wood	University College London

INTER-ACADEMY ROUNDTABLE DISCUSSION

It is indeed a great honor for KAST to hold the Roundtable Discussion with Academy Representatives at the IASSF. As the first Inter-Academy Seoul Science Forum, the representatives will discuss "The Role of Academies for future Science & Technology" under the theme "The Role of Academies for Science Innovation." It will serve as a cornerstone to further share the experiences and visions of national academies around the world for science innovations and thus present the right direction of our concerted efforts for years to come.

Date & Time : November 2, Friday, 08:30 -10:30

Place : Lilac & Tulip (2F)

Event	
Opening	Prof. Hyun-Ku Rhee, Special Advisor to the President for Science and Technology
Welcome remarks	Kil-Saeng Chung, President, The Korea Academy of Science and Technology
Presentation	Germany : Ursula M. Staudinger, Vice President and Foreign Secretary, German National Academy of Sciences Leopoldina Title : "National Academies and the Demand for Science-Based Advice in Knowledge Societies"
	USA : Michael Clegg, Foreign Secretary, National Academy of Sciences, USA Title : TBA
	Korea : Won-Hoon Park, President, The Association of Academies and Societies of Sciences in Asia Title : "The Role of Academies of Sciences in Fostering Global Cooperation and Sharing Development of Science and Technology"
Discussion	Chairperson : Prof. Hyun-Ku Rhee, Special Advisor to the President for Science and Technology

ACADEMY REPRESENTATIVES



HYUN-KU RHEE
Special Advisor
to the President for
Science and Technology



WON-HOON PARK
President,
The Association of Academies and
Societies of Sciences in Asia



MARIE D'ORIO
President of Royal
Society of Canada
Academy of Science



CATHERINE BRÉCHIGNAC
Permanent secretary
of the French
Academy of Sciences



URSULA M. STAUDINGER
Vice President and Foreign Secretary,
German National Academy of
Sciences Leopoldina



KRISHAN LAL
President,
Indian National
Science Academy



KIL SAENG CHUNG
President,
The Korean Academy of
Science & Technology



BRITT-MARIE SJÖBERG
Vice-president,
The Royal Swedish Academy
of Sciences



MICHAEL T. CLEGG
Foreign Secretary,
National Academy of Sciences,
USA

PROGRAM AT A GLANCE

DAY 1

DAY 2

TIME	November 1	November 2
08:00-08:30		Registration
08:30-09:00	Registration	Inter-Academy Roundtable Discussion
09:00-09:30		
09:30-10:00	Opening Ceremony	Plenary Lecture I
10:00-10:30	Plenary Lecture I	
10:30-11:00		Plenary Lecture I
11:00-11:30	Plenary Lecture I	
11:30-12:00		Luncheon
12:00-12:30	Luncheon	
12:30-13:00		Luncheon
13:00-13:30	Luncheon	
13:30-14:00		Physics (1A)
14:00-14:30	Chemistry (1B)	Medicine & Life Technology (2C)
14:30-15:30	Medicine & Life Technology (1C)	Medicine & Life Technology (2C)
15:30-16:00	Coffee Break	Coffee Break
16:00-16:30	Physics (1A)	Physics (2A)
16:30-17:00		
17:00-17:30	Medicine & Life Technology (1C)	Medicine & Life Technology (2C)
17:30-18:00		
18:00-18:30	Inter-Academy Roundtable Wrap-up	Farewell Dinner
18:30-19:00	Welcome Dinner	
19:00-19:30		Welcome Dinner
19:30-20:00	Welcome Dinner	



INTER-ACADEMY SEOUL SCIENCE FORUM

INNOVATION & SUSTAINABILITY

NOV 1. THU

08:30 - 09:30	Registration	GrandBallroom Foyer (1F)
09:30 - 10:00	Opening Ceremony	GrandBallroom (1F)
	Opening Remarks Welcoming Remarks Congratulatory Remarks	
10:00 - 12:00	Plenary Lecture I	GrandBallroom (1F)
	Moderators : Pres. Sung-Chul Shin (DGIST) Prof. Hun-Taeg Chung (Ulsan University)	
	- Physics : Prof. Ivar Giaever (Rensselaer Polytechnic Institute) - Chemistry : Prof. Roger Kornberg (Stanford University) - Medicine & Life Technology : Prof. Louis Ignarro (UCLA School of Medicine)	
12:00 - 13:30	Luncheon	GrandBallroom (1F)
13:30 - 18:00	Session 1	
	Physics (1A) : Nano Bio Information and Cognitive (NBIC) Sciences	Lilac & Tulip (2F)
SESSION 1A-1	Chairperson : Prof. Yung Woo Park (Seoul National University) Prof. Tord Claeson (Chalmers University of Technology) Prof. Astrid Graslund (Stockholm University) Prof. Kyoung Jin Lee (Korea University)	
SESSION 1A-2	Chairperson : Prof. Hong Kun Park (Harvard University) Prof. Antoine Kahn (Princeton University) Prof. Eugene Mele (University of Pennsylvania) Prof. Soo Young Park (Seoul National University)	
	Chemistry (1B) : Materials Chemistry and Nanoscience	Cosmos & Violet (2F)
SESSION 1B-1	Chairperson : Prof. Jinwoo Cheon (Yonsei University) Prof. Dmitri Talapin (The University of Chicago) Prof. Taeg Hwan Hyeon (Seoul National University)	
SESSION 1B-2	Chairperson : Prof. Jwa-Min Nam (Seoul National University) Prof. Byunghee Hong (Seoul National University) Prof. Hee Cheul Choi (POSTECH)	
	Medicine & Life Technology (1C) : Recent Advances in Medicine and Life Science	Orchid (2F)
SESSION 1C-1	Chairperson : Prof. Inhee Mook-Jung (Seoul National University) Prof. John Wood (University College London) Dr. Hee-Sup Shin (Institute for Basic Science) Prof. Kwang-Soo Kim (Harvard Medical School)	
SESSION 1C-2	Chairperson : TBD Prof. Changjoon Justin Lee (KIST) Dr. Eric Honore (Institut de Pharmacologie Moléculaire et Cellulaire CNRS) Prof. Sunghoon Kim (Seoul National University)	
18:00 -	Welcome Dinner	GrandBallroom (1F)

NOV 2. FRI

08:30 - 10:20	Registration	GrandBallroom Foyer (1F)
08:30 - 10:30	Inter-Academy Roundtable Discussion	Lilac & Tulip (2F)
	Chairperson : Prof. Hyun-Ku Rhee(Special Advisor to the President for Science and Technology) Theme : "The Role of Academies for Science Innovation"	
10:00 - 12:00	Plenary Lecture II	GrandBallroom (1F)
	Chairperson : TBD - Chemistry : Prof. Dan Shechtman (The Technion Israel Institute of Technology) - Physics : Prof. Börje Johansson (Uppsala University / KTH - Royal Institute of Technology) - Medicine & Life Technology : Prof. Sung Hou Kim (University of California, Berkeley)	
12:00 - 13:40	Luncheon	GrandBallroom (1F)
13:40 - 18:00	Session 2	
	Physics (2A) : Nano Bio Information and Cognitive (NBIC) Sciences	Lilac & Tulip (2F)
SESSION 2A-1	Chairperson : Prof. Soo Young Park (Seoul National University) Prof. Feodor Kusmartsev (Loughborough University) Prof. Hong Kun Park (Harvard University) Prof. Moo Young Choi (Seoul National University)	
SESSION 2A-2	Chairperson : Prof. Kyoung Jin Lee (Korea University) Prof. Han Woong Yeom (POSTECH) Prof. Kyung Hwa Yoo (Yonsei University)	
	Chemistry (2B) : Materials Chemistry and Nanoscience	Cosmos & Violet (2F)
SESSION 2B-1	Chairperson : Prof. Taeg Hwan Hyeon (Seoul National University) Prof. Peidong Yang (University of California, Berkeley) Prof. Jinwoo Cheon (Yonsei University) Prof. Jwa-Min Nam (Seoul National University)	
SESSION 2B-2	Chairperson : Prof. Hee Cheul Choi (POSTECH) Prof. Jiwoong Park (Cornell University) Prof. Insung S. Choi (KAIST)	
	Medicine & Life Technology (2C) : Genome, Evolution and Diseases	Orchid (2F)
SESSION 2C-1	Chairperson : Prof. Chil-Yong Kang (The University of Western Ontario) Prof. Hong Gil Nam (Daegu Gyeongbuk Institute of Science and Technology) Prof. Michael Clegg (University of California, Irvine)	
SESSION 2C-2	Chairperson : Prof. Uhtaek Oh (Seoul National University) Prof. Chil-Yong Kang (The University of Western Ontario) Prof. Yongwon Choi (University of Pennsylvania) Prof. Woong-Yang Park (Seoul National University)	
18:00 - 18:20	Inter-Academy Roundtable Wrap-up	GrandBallroom (1F)
18:20 -	Farewell dinner	GrandBallroom (1F)

2012 INTER-ACADEMY SEOUL SCIENCE FORUM

Date	November 1(Thu) ~ 2(Fri), 2012
Venue	The Westin Chosun Seoul, Korea
Main Theme	Innovation & Sustainability
Official Language	English
Website	http://www.iasf.or.kr
Hosted by	The Korean Academy of Science and Technology

IASSF ORGANIZING COMMITTEE

Organizing Committee	Chairman	Prof. Sung-Hou Kim University of California, Berkeley
Steering Committee	Chairman	Dr. Yoo Hang Kim Executive Vice President, KAST
Members	Physics	Prof. Yung Woo Park, Seoul National University
		Prof. Changhee Lee, Seoul National University
	Chemistry	Prof. Taeghwan Hyeon, Seoul National University
		Prof. Jwa-Min Nam, Seoul National University
	Medicine & Life Technology	Prof. Jeong-Sun Seo, Seoul National University
		Prof. Jongil Kim, Seoul National University
Prof. Uhtaek Oh, Seoul National University		
		Prof. Jongkyeong Chung, Seoul National University

REGISTRATION

On-line registration is highly recommended through the official website at www.iasf.or.kr from September 20.

If on-line registration is unavailable, please download the registration form through the website and send it to the secretariat via e-mail(iasf@aim-korea.com).

CONTACT

IASSF Secretariat at KAST
Contact Ms Lisa Kwon
Tel +82-31-710-4610
Fax +82-31-726-7909
Email iasf@kast.or.kr

IASSF Secretariat
Contact Ms Alicia Baek
Tel +82-2-3452-1855
Fax +82-2-2192-3955
Email iasf@aim-korea.com