

KSPST-CRS Korea Chapter & Global Pharma Sessions



Michael J. Mitchell
University of Pennsylvania, USA
Editorial board of J Control Release
Lipid nanoparticles for overcoming biological barriers to mRNA delivery



Fumiyoshi Yamashita
Kyoto University, Japan
Editor of Int J Pharmaceutics
Applications of organs-on-a-chip in pharmacokinetics & drug delivery research



Ana Belouqui Garcia
UCLouvain, Belgium
Associate editor of J Control Release
Gut hormone stimulation as therapeutic approach in the treatment of gastrointestinal disorders



Zhen Gu
Zhejiang University, China
Associate editor of Sci Advances
Bioresponsive bioinspired drug delivery



Dan Peer
Tel Aviv University, Israel
Associate editor of J Control Release
Targeted nanoparticles with RNAs are going beyond the liver: from vaccines to genome editing



Zhiyuan Zhong
Soochow University, China
Associate editor of J Control Release
Smart polymersomes enable targeted tumor therapy & immunotherapy



Jun Wang
South China University of Technology, China
Editorial board of J Control Release
Nano-adaptor for antibody delivery



Chen Mao
Genentech, USA
Distinguished scientist
Modeling tablet disintegration and dissolution - focusing on predictability & insights enhancement



Maria J. Alonso
University of Santiago de Compostela, Spain
Plenary lecture
Impact of pharmaceutical nanotechnology in the development of new vaccines & advanced therapies



Adam J. Gormley
Rutgers University, USA
Executive editor of Adv Drug Deliv Rev
Biologic formulation in a self-driving biomaterials lab



Yunching (Becky) Chen
National Tsing Hua University, Taiwan
Associate editor of J Control Release
Breaking through barriers: next-generation drug delivery systems for cancer therapy



Katja Schenke-Layland
University of Tübingen, Germany
Executive editor of Adv Drug Deliv Rev
Raman microspectroscopy & Raman imaging for drug efficacy testing & disease monitoring



Christoph Heuberger
Lipoid AG, Switzerland
Product manager
Phospholipids in liposomal formulations & modern vaccines

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The Korean Society
of Pharmaceutical Sciences
and Technology (KSPST)

2023 International Conference of the Korean Society of Pharmaceutical Sciences and Technology

Advanced Bio-Pharmaceutical & Drug Delivery Technologies for Drug Development

Physical pharmacy & Formulation Design
Pharmaceutics, Pharmacokinetics & Metabolism
Polymer Science & Materials
Biotechnology & Drug Delivery
Pharmaceutical Quality & Analysis
Regulatory Science & Policy

November 30 (Thu) ~ December 1 (Fri), 2023

The-K Hotel Seoul, Seoul, Republic of Korea



Hosted by

- The Korean Society of Pharmaceutical Sciences and Technology

Co-organized by

- National Institute of Food and Drug Safety Evaluation
- Controlled Release Society Korea Chapter

Supported by

- The Korean Federation of Science and Technology Societies
- Korea Pharmaceutical and Bio-Pharma Manufacturers Association
- Hanmi Pharm. Co., Ltd.
- Daewoong Pharmaceutical Co., Ltd.

WELCOME MESSAGE

Dear all KSPST members and participants,

On behalf of the Korean Society of Pharmaceutical Sciences and Technology (KSPST), it is my distinct pleasure to extend a warm welcome to the **2023 International Conference of the KSPST**, themed **“Advanced Bio-Pharmaceutical & Drug Delivery Technologies for Drug Development”** held on November 30th and December 1st at the K-Hotel Seoul, Korea.

The KSPST Organizing Committee has dedicated extensive efforts to prepare a conference program covering post-pandemic global innovations and advancements in biopharmaceutics and drug delivery technologies. This program includes two enlightening plenary lectures, an educational session, and ten scientific sessions featuring a remarkable lineup of invited speakers from countries: Spain, USA, Israel, Japan, China, Taiwan, Belgium, Germany, Switzerland, and Korea.

We believe this conference will afford you a remarkable opportunity to exchange ideas, share the latest research findings, explore industrial trends, and stay updated on regulatory developments in drug development and pharmaceutical technology.

I extend my heartfelt gratitude for your active participation in this year’s KSPST conference and wholeheartedly wish you a truly enriching and enjoyable experience throughout the event.

Sincerely yours,

Kwon-yeon

Kwon-Yeon Weon, Ph. D.
President
Korean Society of Pharmaceutical Sciences and Technology



REGISTRATION FEES

	Early Registration	On-Site Registration	Banquet Ticket
Member	200,000 KRW	230,000 KRW	20,000 KRW (Limited to the first 200 people)
Non-member	250,000 KRW	300,000 KRW	
Student	100,000 KRW	120,000 KRW	

CONFERENCE LOCATION



- **Subway**
 - ① Exit 5 of Shinbundang Line Yangjae Citizen's Forest Station (5 min walk)
 - ② Exit 9, Seoul Subway Line 3 Yangjae Station (Take a shuttle bus in front of the Seocho Culture & Arts Center)
 - ③ Exit 10 and 11, Line 3 Yangjae Station (Take a green bus 08, 20 ⇒ disembark at hotel rear gate)
- **Bus**
 - ① Blue Bus (Standard) 405, 421, 140, 470, 441 ⇒ Disembark at Yangjae Flower Market station (10 min walk)
 - ② Green Bus (08, 20), at Exit 10 and 11, Line 3 Yangjae Station ⇒ Disembark at hotel rear gate
- **Airport Bus**
 - ① From Incheon International Airport
 - Bus from Terminal 1 (Floors 1, 4A, 4B)
 - Bus from Terminal 2 (Floors 1, 14, 15, 16) ⇒ Disembark at Exit 5, Yangjae Station ⇒ take a shuttle bus in front of the Seocho Culture & Arts Center (Yangjae Station Exit 9)
 - ② Service Hours
 - To Airport: Terminals 1 and 2 (03:20–19:10)
 - To City: Terminal 2 (05:30–22:40), Terminal 1 (05:50–23:00)

<https://www.thek-hotel.co.kr/skmh/en/company/locationGuide.do>

1st Day Program

November 30 (Thursday)					
Time	Ballroom I (Gayageum A)		Ballroom II (Gayageum B)		Lobby
09:00-10:30	Registration				
10:30-12:00	Annual Members' Meeting		Educational Session	Won-Young Cho (Software Policy & Research Institute) How to use artificial intelligence in the pharmaceutical field	
				Hyun Soo Ahn (R&BD Partners) Smart research methodology using AI and ChatGPT	
12:00-13:00	Lunch				
13:00-14:00	Plenary Lecture I (Gayageum A/B Hall) Maria J. Alonso (University of Santiago de Compostela, Spain) Impact of pharmaceutical nanotechnology in the development of new vaccines and advanced therapies				
14:00-14:10	Coffee Break				
14:10-14:50	BDD I (CRS Korea Chapter Joint Session I)	Michael J. Mitchell (University of Pennsylvania, USA) Lipid nanoparticles for overcoming biological barriers to mRNA delivery	BPM	Soyoung Shin (Wonkwang University) Novel model-based approach to predict pharmacokinetics of GLP-1 analogs	Poster Session I (15:00-18:00)
14:50-15:30		Dan Peer (Tel Aviv University, Israel) Targeted nanoparticles with RNAs are going beyond the liver: from vaccines to genome editing		Fumiyoshi Yamashita (Kyoto University, Japan) Applications of organs-on-a-chip in pharmacokinetics and drug delivery research	
15:30-16:10		Adam J. Gormley (Rutgers University, USA) Biologic formulation in a self-driving biomaterials lab		Jae Kyoung Kim (KAIST) Beyond FDA guidance for accurate drug-drug interaction prediction	
16:10-16:20	Coffee Break				
16:20-17:00	PSM	Yong Taik Lim (Sungkyunkwan University) Materials for kinetic immune modulation reshape immunity	BDD II (CRS Korea Chapter Joint Session II)	Zhiyuan Zhong (Soochow University, China) Smart polymersomes enable targeted tumor therapy and immunotherapy	Standing (16:00-17:00)
17:00-17:40		Sejin Son (Inha University) Cancer nano-vaccine and immunoadjuvant for precision cancer medicine		Yunching (Becky) Chen (National Tsing Hua University, Taiwan) Breaking through barriers: next-generation drug delivery systems for cancer therapy	
17:40-18:20		Kyung Taek Oh (Chung-Ang University) Treatment of MDR cancer with a triple combination nanocluster guided by RNA-sequencing		Ana Beloqui Garcia (UCLouvain, Belgium) Gut hormone stimulation as therapeutic approach in the treatment of gastrointestinal disorders	
18:30-20:00	Banquet				

Sections

- **BDD** (Biotechnology & Drug Delivery)
- **PSM** (Polymer Science & Materials)
- **MSE** (Manufacturing Science & Engineering)
- **RSP** (Regulatory Science & Policy)
- **BPM** (Biopharmaceutics, Pharmacokinetics & Metabolism)
- **PFD** (Physical Pharmacy & Formulation Design)
- **DDD** (Drug Design & Development)

2nd Day Program

December 1 (Friday)				
Time	Ballroom I (Gayageum A)		Ballroom II (Gayageum B)	Lobby
09:00-09:20	Registration			Poster Session II [09:00-12:00] Standing [10:00-11:00]
09:20-10:10	KSPST Award Lectures (Gayageum A Hall)			
10:10-10:50	BDD III [CRS Korea Chapter Joint Session III]	Jun Wang [South China University of Technology, China] Nano-adaptor for antibody delivery	Kyuonghwan Roh [Kangstern Biotech] Development of stem cell therapy products (FURESTEM): immunomodulation and regeneration	
10:50-11:30		Katja Schenke-Layland [University of Tübingen, Germany] Raman microspectroscopy and Raman imaging for drug efficacy testing and disease monitoring	Cheong-Weon Cho [Chungnam National University] Development and evaluation of mannose grafted copolymer-modified mesoporous silica nanoparticles for chemotherapy	
11:30-12:10		Zhen Gu [Zhejiang University, China] Bioresponsive bioinspired drug delivery	Min-Soo Kim [Pusan National University] Applications of supercritical carbon dioxide on the particle formation of poorly water-soluble drugs for enhanced bioavailability	
12:10-13:00	Lunch			
13:00-14:00	Plenary Lecture II (Gayageum A Hall) Dae-Duk Kim (Seoul National University) Challenges and perspectives of nanocarriers for targeted drug delivery			
14:00-14:40	DDD [Electronic Drugs Session]	Sungjin Kim [Ybrain] Recent understanding of electroceuticals development and the future	Chen Mao [Genentech, USA] Modeling tablet disintegration and dissolution - focusing on predictability and insights enhancement	Poster Session III [13:00-16:00] Standing [14:00-15:00]
14:40-15:20		Donghee Son [Sungkyunkwan University] Soft tissue-interfacing bioelectronics	Christoph Heuberger [Lipoid AG, Switzerland] Phospholipids in liposomal formulations and modern vaccines	
15:20-16:00		Dohyoung Kim [Nu Eyne] Digital healthcare & electroceuticals: the third generation medicine	Yong Ho Kim [JIMNEWRUN/Sungkyunkwan University] Super-selective brain delivery of a therapeutic antibody and its application in Alzheimer's disease	
16:00-16:10	Coffee Break			
16:10-16:40	DDD / BDD [Biologics Session]	Sue Kim [Brexogen] Non-clinical and clinical development of therapeutic exosomes based on the BG-Platform	Jung Yun Chang [NIFDS] Trends in the development of nanomaterial-containing drugs in Korea and the regulatory perspective of MFDS	
16:40-17:10		Sang Gyu Park [Novelty Nobility/Ajou University] Development of antibody-drug conjugate for SCLC and GIST	Younghwan Park [SN BioScience] Nanotechnologies in clinical trials	
17:10-17:40		Dong Hee Na [Chung-Ang University] Advances in GLP-1-based multifunctional peptide drug development	Hyukjin Lee [Ewha Womans University] Development of mRNA/LNP platform technology for vaccines and therapeutics	
17:40-17:50	Poster / Presentation Award (Gayageum A Hall)			
17:50-18:00	Closing Remark (President of KSPST; Gayageum A Hall)			

Special Session for Students

14:00-16:00	Young Scientist Session (YSS) (Oral Presentation; Bipa Hall)
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