

KSPST-CRS KOREA CHAPTER JOINT SESSION



Stefaan De Smedt
Ghent University, Belgium
Deputy Editors-in-Chief of J Control Release
Beyond nucleic acids as vaccines:
curing ocular diseases with
nucleic acids?



Helder Almeida Santos
University of Groningen, Netherlands
Editorial board of J Control Release
Design of nanoparticles for cancer
immunotherapy and cardiac repair



Avi Schroeder
Technion-Israel Institute of Technology, Israel
Tumor neurons and patient' gender
affect the personalized activity
of nanomedicines



Amirali Popat
University of Queensland, Australia
Associate editor of J Control Release
Stimuli responsive nanoparticles
for modulating biological barriers



Kanjiro Miyata
University of Tokyo, Japan
Associate editor of J Control Release
Polymeric nanomedicines for
advanced nucleic acid delivery



Paolo Decuzzi
Italian Institute of Technology, Italy
Editorial board of J Control Release
Design and preclinical validation of
hierarchically-organized polymeric
devices for chemo-immunotherapy



Devika Soundara Manickam
Duquesne University, USA
Editorial board of J Control Release
Delivery of cellular overlord a.k.a
mitochondria using extracellular
vesicles to treat CNS diseases



Xing Bengang
Nanyang Technological University, Singapore
Advanced and perspective orthogonal
bioconjugation for cutting-edge
NIR fluorescent imaging and
therapeutic development



Alexander V. Kabanov
University of North Carolina at Chapel Hill, USA
Plenary Lecture
High-capacity polymeric micelles for
chemo/immunotherapy of cancer



Maria Jesus Vicent
Prince Felipe Research Center, Spain
Editorial board of J Control Release
Polypeptide-based conjugates as
versatile therapeutics



Abdul Basit
University College London, UK
Fabrication and clinical translation
of 3D printed oral medicines



Bruno Sarmento
University of Porto, Portugal
Editorial board of J Control Release
Multifunctional approaches to treat
glioblastoma using bioengineering
nanomedicine



Chun Gwon Park
Sungkyunkwan University, Korea
Modulating neutrophils for
the treatment of severe diseases
using biomaterials

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The Korean Society
of Pharmaceutical Sciences
and Technology (KSPST)

2022 International Conference of the Korean Society of Pharmaceutical Sciences and Technology

Comprehensive Approach for Post-pandemic Drug Development using Bio-pharmaceutical Technology

Physical pharmacy & Formulation Design

Pharmaceutics, Pharmacokinetics & Metabolism

Polymer Science & Materials Biotechnology & Drug Delivery

Pharmaceutical Quality & Analysis

Policy Science & Policy

December 1 (Thu) ~ 2 (Fri), 2022
The-K Hotel, Seoul, Korea



Hosted by

The Korean Society of Pharmaceutical Sciences and
Technology

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WELCOME MESSAGE

Dear all KSPST members and participants,

On behalf of the Korean Society of Pharmaceutical Sciences and Technology (KSPST), it is my great pleasure to welcome you to the **2022 International Conference of the KSPST** under the theme of **“Comprehensive Approach for Post-pandemic Drug Development using Bio-pharmaceutical Technology”**. After a long tunnel of the COVID-19 pandemic that has forced us to meet on-line, this year’s conference will be held “face-to-face” on December 1st and 2nd at The-K Hotel Seoul, Korea.



All the KSPST Organizing Committee has put their utmost efforts in preparing the conference program to reflect the post-pandemic global innovations and progresses in Bio, Pharmaceutics and DDS fields, including 2 plenary lectures, 1 educational session and 10 scientific sessions with 35 invited speakers. Most of all, we provide the honorable plenary lecture by Alexander V. Kabanov and four special joint sessions of the KSPST and the Controlled Release Society (CRS) Korea Chapter, consisting of great talks by world-renowned researchers from 12 countries: USA, Belgium, Japan, Spain, Netherlands, Italy, United Kingdom, Israel, Portugal, Australia, Singapore and Korea. I strongly believe that this conference will provide you with a great opportunity to share and discuss the most up-to-date research findings, industrial trends, and regulatory updates in drug development and pharmaceutical technology.

I would like to express my deep gratitude for your participation in this year’s KSPST conference and sincerely hope that all of you have a wonderful time during the conference.

Warmest regard,

Jin S. Kim

Jin-Seok Kim, 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
Non-member	250,000 KRW	300,000 KRW	
Student	80,000 KRW	100,000 KRW	

CONFERENCE LOCATION



- **Subway**
 - ① Exit 5 from Yangjae Citizen's Forest Station, Shinbundang Line (5 min walk)
 - ② Exit 9 from Yangjae Station, Line 3 (Take a shuttle bus in front of the Seocho Culture & Arts Center)
 - ③ Exit 11 from Yangjae Station, Line 3 (Take a Green bus (08, 20) and get off at the hotel rear gate)
- **Bus**
 - ① Blue Bus (Standard) 405, 421, 140, 470, 441
 - Get off at Yangjae Flower Market station (10 min walk)
 - ② Green Bus (08, 20), at Exit 11, Yangjae Station on Line 3
 - Get off at the hotel rear gate
- **Airport Bus**
 - ① From Incheon International Airport
 - Bus from Terminal 1 (Floors 1, 4A, 4B)
 - Bus from Terminal 2 (Underground Floors 1, 14, 15, 16)
 - Get off at Exit 5, Yangjae Station, and 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 (04:00-20:30)
 - To City: Terminal 2 (05:20-22:45), Terminal 1 (05:40-23:06)

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

1st Day Program

December 1 (Thursday)						
Time	Ballroom I (Gayageum A)		Ballroom II (Gayageum B)		Lobby	
09:00	Registration					
10:30-12:00	Annual Members' Meeting		Educational Session	Noeul Jo (MBN/IVY SPEECH) How to attract the interviewer		
				Jin Ki Baik (Handok) Image of qualified researcher in pharma research institute		
				Sangbae Yoon (Huons) My personal formula for pharma leader		
12:00-13:00	Lunch					
13:00-14:00	Plenary Lecture I (Gayageum A/B Hall) Alexander V. Kabanov (University of North Carolina at Chapel Hill, USA) High-capacity polymeric micelles for chemo/immunotherapy of cancer					
14:00-14:10	Coffee Break					
14:10-14:50	BDD I (CRS Korea Chapter Joint Session I)	Stefaan De Smedt (Ghent University, Belgium) Beyond nucleic acids as vaccines: curing ocular diseases with nucleic acids?	BPM	Hyun A Lee (Samsung Bioepis) Design of dosing regimen for new drug: Exploring modeling and simulation-based approach	Poster Session [15:00-18:00]	
14:50-15:30		Kanjiro Miyata (University of Tokyo, Japan) Polymeric nanomedicines for advanced nucleic acid delivery		Ping Zhao (Gates Foundation, USA) Unleashing the potential of PBPK to address complex drug-drug interactions		
15:30-16:10		Maria Jesus Vicent (Prince Felipe Research Center, Spain) Polypeptide-based conjugates as versatile therapeutics		WooIn Lee (Seoul National University) Prediction of in vivo target occupancy via PBPK modeling: Cases of small-molecule drugs with high-affinity targets		
16:10-16:20	Coffee Break					
16:20-17:00	PSM	Tae-Don Kim (KRIBB) Platform development for CAR gene therapy in cancer treatments	BDD II (CRS Korea Chapter Joint Session II)	Helder Almeida Santos (University of Groningen, Netherlands) Design of nanoparticles for cancer immunotherapy and cardiac repair		Standing [16:00-17:00]
17:00-17:40		Sun Hwa Kim (KIST) Extracellular vesicle-guided direct cell reprogramming technology		Paolo Decuzzi (Italian Institute of Technology, Italy) Design and preclinical validation of hierarchically-organized polymeric devices for chemo-immunotherapy		
17:40-18:20		Suk Ho Bhang (Sungkyunkwan University) OLED-based photobiomodulation for eliciting angiogenic efficacy of stem cells		Abdul Basit (University College London, UK) Fabrication and clinical translation of 3D printed oral medicines		
18:30-20:00	Banquet					

Sections

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

2nd Day Program

December 2 (Friday)					
Time	Ballroom I [Gayageum A]		Ballroom II [Gayageum B]		Lobby
09:00	Registration				<div>Poster Session II</div> <div>[09:00-12:00]</div> <div>Standing</div> <div>[10:00-11:00]</div>
09:20-10:10	KSPST Award Lectures [Gayageum A Hall]				
10:10-10:50	BDD III <div>[CRS Korea Chapter Joint Session III]</div>	Avi Schroeder <div>[Technion-Israel Institute of Technology, Israel]</div> <div>Tumor neurons and patient' gender affect the personalized activity of nanomedicines</div>	MSE / PFD	JoonHo Bae <div>[OliPass Corporation]</div> <div>Novel cell penetrating peptide nucleic acid and its application</div>	
10:50-11:30		Devika Soundara Manickam <div>[Duchesne University, USA]</div> <div>Delivery of cellular overlords a.k.a mitochondria using extracellular vesicles to treat CNS diseases</div>		Sungmin Bae <div>[Hanmi Pharm.]</div> <div>LAPSCOVERY platform-based protein/peptide drug delivery for activity extension</div>	
11:30-12:10		Bruno Sarmiento <div>[University of Porto, Portugal]</div> <div>Multifunctional approaches to treat glioblastoma using bioengineering nanomedicine</div>		Jeung Sang Go <div>[Pusan National University/enParticle]</div> <div>Microfluidics: Innovation for the preparation of drug and gene delivery systems</div>	
12:10-13:00	Lunch				
13:00-14:00	Plenary Lecture II [Gayageum A Hall] Sung-Joo Hwang [Yonsei University] Pharmaceutical applications and prospects of supercritical fluid technology				<div>Poster Session III</div> <div>[13:00-16:00]</div> <div>Standing</div> <div>[14:00-15:00]</div>
14:00-14:40	DDD / PFD	Wanky Kim <div>[Ewha Womans University/KaiPharm]</div> <div>Data-driven approaches for efficient drug discovery</div>	BDD IV <div>[CRS Korea Chapter Joint Session IV]</div>	Amirali Popat <div>[University of Queensland, Australia]</div> <div>Stimuli responsive nanoparticles for modulating biological barriers</div>	
14:40-15:20		Woo Youn Kim <div>[KAIST]</div> <div>Intelligent molecular design with deep learning</div>		Xing Bengang <div>[Nanyang Technological University, Singapore]</div> <div>Advanced and perspective orthogonal bioconjugation for cutting-edge NIR fluorescent imaging and therapeutic development</div>	
15:20-16:00		Eun Hee Lee <div>[Korea University]</div> <div>Predictive preformulation - from ab initio calculation to artificial intelligence</div>		Chun Gwon Park <div>[Sungkyunkwan University]</div> <div>Modulating neutrophils for the treatment of severe diseases using biomaterials</div>	
16:00-16:10	Coffee Break				
16:10-16:40	DDD / PFD <div>[Pharmaceutical Industry Joint Session]</div>	WonTae Jung <div>[Korea United Pharm. Inc.]</div> <div>R&D of incrementally modified drugs and globalization</div>	RSP <div>[MFDS Joint Session]</div>	Naroo Kang <div>[Ministry of Food and Drug Safety]</div> <div>Quality considerations for microneedling products</div>	
16:40-17:10		Jung Hyun Cho <div>[Hanmi Pharm.]</div> <div>Introduction of Hanmi pharmaceutical research center's IMD and FDC formulation development</div>		Jin Wook Kang <div>[Ministry of Food and Drug Safety]</div> <div>Current regulatory trends of mRNA based therapeutics</div>	
17:10-17:40		Sunbae Lee <div>[Alteogen Inc.]</div> <div>Development of ALT-B4, a novel excipient for subcutaneous administration of biotherapeutics</div>		Juyeop Shin <div>[Raphas Co.,Ltd]</div> <div>Introduction of DEN microneedle manufacturing technology and pharmaceutical applications</div>	
17:40-17:50	Poster / Presentation Award [Gayageum A Hall]				
17:50-18:00	Closing Remark [President of KSPST, Gayageum A Hall]				

Special session

14:00-16:00	Young Scientist Session (Haegeum B Hall)
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