

GENERAL INFORMATION

POSTECH was established to conduct in-depth research on profound theories and applications in science and engineering that are necessary for the advancement of nation and humanity, and to cultivate global leaders equipped with knowledge and intellect. Carrying on the late founding chairman Tae-joon Park's legacy on educational patriotism, POSTECH is leading the progress on education and science in Korea by taking on great challenges.

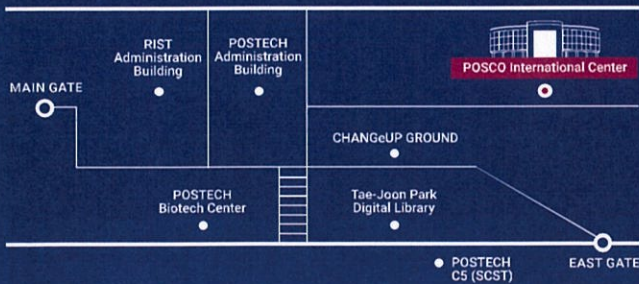
Transportation

BY TRAIN

- 1 Incheon International Airport to Seoul Station (Airport Railroad Express, 45 min)
Seoul Station to Pohang Station (KTX, 160 min)
- 2 Gimpo International Airport to Seoul Station (Airport Railroad Express, 22 min)
Seoul Station to Pohang Station (KTX, 160 min)
- 3 Pohang Station to POSTECH (Taxi, 15 min)

BY AIRPORT

- 1 Incheon International Airport to Gimpo International Airport (Airport Railroad Express, 60 min)
Gimpo International Airport to Pohang Airport (Domestic Airline, 50 min)
- 2 Pohang Airport to POSTECH (Taxi, 20 min)



POSTECH SIGNATURE CONFERENCE 2022

The 1st International Conference on Futuristic Medical Science and Engineering

OCTOBER 11-12, 2022 (Tue. - Wed.)

VENUE

Off-line : POSCO International Center, International Conference Hall (1F)

On-line : The live broadcast link will be shared only for online live broadcast participants

PRE-REGISTRATION

September 7, 2022. (Wed.) 09:00 ~
October 5, 2022. (Wed.) 24:00



REGISTRATION

<https://pco.postech.ac.kr/>

REGISTRATION FEE

Off-line Participants : 200,000KRW

Off-line POSTECH Members : 100,000 KRW

On-line Participants : 100,000KRW

Conference Office

Before & after the meeting

SCHOOL OF CONVERGENCE SCIENCE AND TECHNOLOGY, POSTECH
80 Jigok-ro, Nam-gu, Pohang, Gyeongbuk 37666, Korea

Heeyeong JEONG

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On-site

POSCO INTERNATIONAL CENTER

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Co-management

POSTECH School of Convergence Science and Technology
Innovative Program for Graduate School Development
POSTECH School of Molecular Science (Chemistry)
Next-Generation Bio-Leaders (Life Sciences)
Education and Research Center for Future Materials (Materials Science & Engineering)
Education Program for Frontier Leadership in Advanced Machinery Technology (Mechanical Engineering)
Education Program for Innovative Chemical Engineering Leaders (Chemical Engineering)
Industrial and Management Engineering
Medical Device Innovation Center

Sponsor



Hosting



Welcome and Opening Remarks

On behalf of the organizing committees, I would like to welcome you to Pohang, Korea, for the first POSTECH Signature Conference 2022. The POSTECH Signature Conference is a newly designed international conference by POSTECH to promote innovations and collaborations in science and engineering.

Under the theme of the conference "Futuristic Medical Science and Engineering", the POSTECH Signature Conference 2022 provides a rich program, including plenary speeches by Prof. Wayne Yokoyama and Prof. Jonathan Sessler in immunology and drug discovery and Prof. Zhenan Bao, Prof. Kam Leong, and Prof. Taeghwan Hyeon in biomaterials, drug delivery, and regenerative medicine. We offer a unique opportunity to bring together world-leading researchers and serve as a platform to deliver innovative research and the latest trends and facilitate discussions, networking, and collaboration.

This year, POSTECH has launched a new graduate program, Medical Science and Engineering, to foster next-generation physician-scientists and have a solid plan to establish a research-oriented medical school and affiliated hospital. We will lead the future of medicine by focusing on drug discovery, precision, and regenerative medicine. We hope to have an opportunity for potential collaborations and partnerships with the world's leading research institutes through this conference.

Before closing, I would like to thank all members of the organizing committees, collaborating partners, companies, and volunteers for their tremendous efforts to organize this conference successfully. The committee has scheduled a vibrant scientific program and invited highly respected and world-renowned speakers. I hope you have a productive meeting with exciting and encouraging discussions and an exchange of knowledge so that we together can anticipate a future of groundbreaking innovations in medicine and healthcare.

I look forward to a successful conference and wish you all delightful and stimulating days.

Best regards,

Changill BAN
Conference Chair

OCTOBER 11, 2022 Tue.

TIME	TITLE
08:00 ~ 08:40	Registration
08:40 ~ 08:44	Opening Remarks President. Moo Hwan KIM POSTECH, KR
08:44 ~ 08:47	Congratulatory Remarks Chcol Woo LEE Governor of Gyeongbuk Province, KR
08:47 ~ 08:50	Congratulatory Remarks Kang-deok LEE Mayor of Pohang City, KR
08:50 ~ 09:00	Futuristic medical technology and industry for human welfare Minister. Yu-Kyoung OH Minister of Food and Drug Safety, KR
SESSION I	Plenary Session / Session Chair / Prof. Jongshin KIM, Unyong JEONG
09:00 ~ 09:40	Control of viral infections by natural killer cell inhibitory receptors Prof. Wayne M. YOKOYAMA Washington University in St. Louis, US
09:40 ~ 10:20	Skin-inspired electronics for bioelectronics applications Prof. Zhenan BAO Stanford University, US
10:20 ~ 10:40	Coffee Break
10:40 ~ 11:20	Texas-inspired drug discovery efforts Prof. Jonathan L. SESSLER University of Texas at Austin, US
11:20 ~ 12:00	Unexpected applications of cationic biomaterials Prof. Kam W. LEONG Columbia University, US
12:00 ~ 12:40	Designed synthesis and assembly of inorganic nanomaterials for medical and healthcare applications Prof. Taeghwan HYEON Seoul National University/IBS, KR
12:40 ~ 13:30	Lunch
13:30 ~ 15:00	Poster Session / Session Chair / Prof. Sekyu CHOI
SESSION II	Drug Discovery Session / Session Chair / Prof. Jie-Oh LEE, Sang Ki PARK
15:00 ~ 15:30	Ligand-directed chemistry of protein in live cells and brain Prof. Itaru HAMACHI Kyoto University, JP
15:30 ~ 16:00	The AUTOTAC chemical platform : targeted protein degradation via the autophagy-lysosome system Prof. Yong Tae KWON Seoul National University, KR
16:00 ~ 16:20	Coffee Break
16:20 ~ 16:50	T cell immune responses against SARS-CoV-2 Prof. Eui-Cheol SHIN KAIST/IBS, KR
16:50 ~ 17:20	Microbiome therapeutics to enhance anti-cancer immunity Prof. Sin-Hyog IM POSTECH, KR
16:20 ~ 17:50	Make invisible target cells visible by magic bullet probe Prof. Young-Tae CHANG POSTECH/IBS, KR
18:30 ~ 20:00	Dinner

OCTOBER 12, 2022 Wed.

TIME	TITLE
SESSION III	Medical Engineering Session / Session Chair / Prof. Sungjee KIM, Junmin LEE
09:00 ~ 09:30	Laser particles for single cell analysis Prof. Seok Hyun (Andy) YUN Harvard Medical School, US
09:30 ~ 10:00	Pollen-based materials innovation for sustainable technologies Prof. Nam-Joon CHO Nanyang Technological University, SG
10:00 ~ 10:30	Bioprinting for fabrication of structurally and functionally relevant tissues Prof. Y. Shrike ZHANG Harvard Medical School, US
10:30 ~ 10:50	Coffee Break
10:50 ~ 11:20	Smart photonic nanomedicines for on-demand healthcare applications Prof. Sei Kwang HAHN POSTECH, KR
11:20 ~ 11:50	Multi-modal imaging: photoacoustic imaging plus more Prof. Chulhong KIM POSTECH, KR
11:50 ~ 12:20	Recapitulating human physiological system using 3D bioprinting technology Prof. Jinah JANG POSTECH, KR
12:20 ~ 14:00	Lunch
SESSION IV	Regenerative Medicine Session / Session Chair / Prof. Yong Joo AHN, Jinah JANG
14:00 ~ 14:30	Bioconvergence: Harnessing Cell-instructive Materials and Regenerative Engineering Technologies for Biofabrication of Functional Tissues Prof. Tim B. F. WOODFIELD University of Otago, NZ
14:30 ~ 15:00	Precision targeting tumor cells using cancer-specific InDel mutations with CRISPR-Cas9 Prof. Kyungjae MYUNG UNIST/IBS, KR
15:00 ~ 15:20	Coffee Break
15:20 ~ 15:50	Dynamics of stem cells and niches during lung regeneration and disease Prof. Joo-Hyeon LEE University of Cambridge, UK
15:50 ~ 16:20	Innovative adhesive biomaterials for regenerative medicine and drug delivery Prof. Hyung Joon CHA POSTECH, KR
16:20 ~ 16:50	A hair-raising tale: stress and tissue regeneration Prof. Sekyu CHOI POSTECH, KR
16:50 ~ 17:00	Closing Remarks Dean. Changill BAN POSTECH, KR