

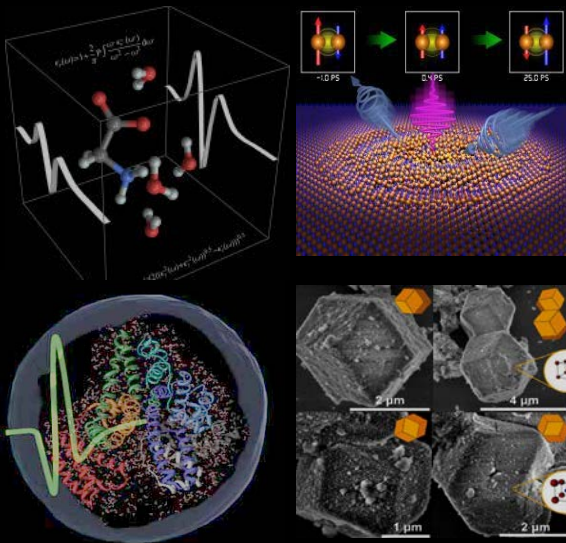


Nano-Bio Photonics 2017
September 28-29, 2017
SUNY Korea, Incheon, Korea



The 2nd International Workshop on
Nano-Bio Photonics
UV, VIS, IR, and THz Waves

Chair **Haewook Han**, POSTECH, Korea
Co-Chair **Jin-Woo Kim**, University of Arkansas, USA
Program Chair **Hyejeong Hwang**, SUNY Korea, Korea

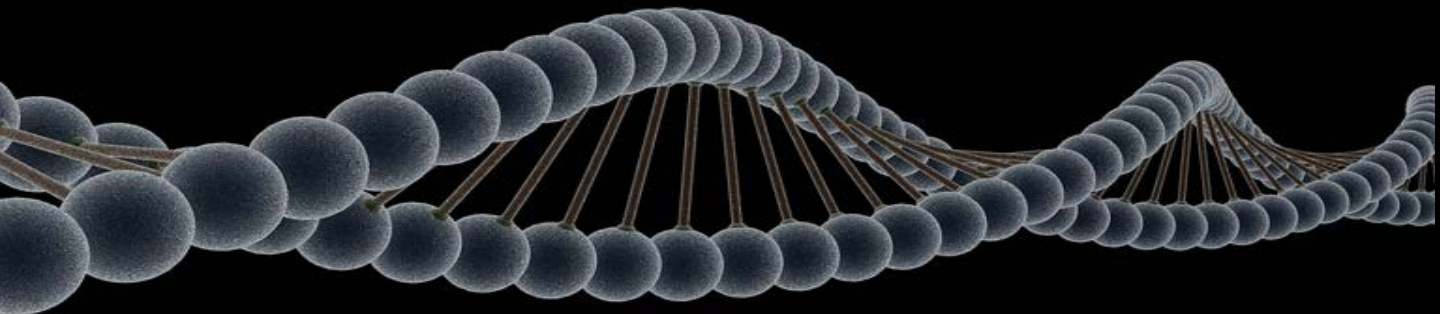


INVITED SPEAKERS

Jin-Woo Kim, University of Arkansas, USA
Haewook Han, POSTECH, Korea
Kwangyong Park, Chung-Ang Univ., Korea
Hyeon-Cheol Shin, SUNY Korea, Korea
Gyoo Yeol Jung, POSTECH, Korea
Kee-Su Park, Sungkyunkwan Univ., Korea
Jung-Goo Lee, SUNY Korea, Korea
Hyun Ho Lee, Myongji Univ., Korea

STEERING COMMITTEE

Haewook Han, POSTECH, Korea
Jin-Woo Kim, University of Arkansas, USA
Hyeon-Cheol Shin, SUNY Korea, Korea
Gyoo Yeol Jung, POSTECH, Korea



Organized by THz-Bio Quantum Forum
Sponsored by SUNY Korea and Botamedi Inc.

Welcome to Nano-Bio Photonics 2017

It is a great pleasure to welcome all our colleagues to the 2nd International Workshop on Nano-Bio Photonics. On behalf of the steering committee, we invite you to participate in this workshop, which will be held at SUNY Korea, Incheon, Korea, from September 28 to 29, 2017.

Nano-Bio Photonics 2017 is organized by the THz-Bio Quantum Forum, and sponsored by SUNY Korea and Botamedi Inc.

Scope

The workshop will cover a wide range of research topics in nano-bio photonics over ultrabroadband electromagnetic spectra, including UV, VIS, IR, and THz waves, and discuss the recent advances and future directions. The topics include all areas of nano-bio photonics including:

- Spectroscopy of biomolecules and hydration dynamics
- Nanoimaging techniques for biomolecular systems
- Organic and Bio materials, nanostructures, and their fabrication methods
- Biosensing techniques and their applications
- Modeling, simulation, and analysis techniques
- New science and applications of nano-bio photonics

THz-Bio Quantum Forum



The THz-Bio Quantum Forum was founded in 2011 to promote international interdisciplinary collaborations on nano-bio photonics with a special emphasis on THz-bio photonics. The members' expertise covers both science (physics, chemistry, and biology) and technology (electrical, computer, chemical, and biological engineering).

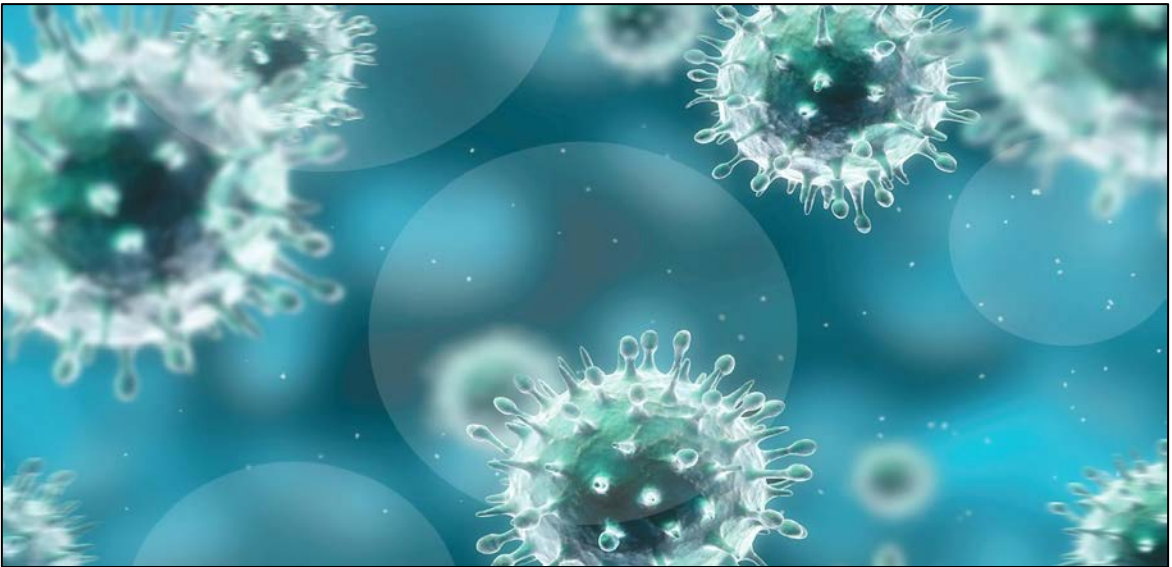
Venue: SUNY Korea

The workshop will be held in Rm B-317 on the 3rd floor, SUNY Korea.

Accommodations will be provided for all the invited speakers by the workshop organizers. The rooms are reserved at the IGC Guest House, SUNY Korea (**check-in on Sept 28, check-out on Sept 29**).

For more information: Prof. Hyeon-Cheol Shin (010-9262-3910)

Center for Molecular Intelligence (CMI)



Schedule

September 28 (Thursday)

12:45 – 13:15	Registration
13:15 – 13:30	Welcome & Opening Remarks

Session 1 (Jin-Woo Kim, Chair)

13:30 – 14:00	Haewook Han THz spectroscopy for nano-bio photonics
14:00 – 14:30	Hyun Ho Lee Chemiresistive and memristive sensor for cortisol detection
14:30 – 15:00	Kee-Su Park Deep learning of memory function formulation with artificial neural networks in programmable DNA
15:00 – 15:30	Poster / Coffee Break

Session 2 (Haewook Han, Chair)

15:30 – 16:00	Jin-Woo Kim Programmable molecular/nanoscale building blocks for epitaxial Self-assembly of bio-hybrid materials
16:00 – 16:30	Hyeon-Cheol Shin Therapeutic potentials of eckols and current applications
16:30 – 17:00	Kwangyong Park Synthesis of bioactive compounds derived from natural products
17:00 – 17:30	Poster / Coffee Break

Session 3 (Hyeon-Cheol Shin, Chair)

17:30 – 18:00	Gyoo Yeol Jung Strain improvement by novel synthetic biology tools for rational and evolutionary engineering
18:00 – 18:30	Jung-Goo Lee Structure prediction of plant CESA
18:30 – 19:00	Hyeon-Cheol Shin Introduction to Center for Molecular Intelligence at SUNY Korea
19:00 – 21:00	Workshop Dinner

September 29 (Friday)

Special Session for THz-Bio Quantum Forum (Haewook Han, Chair)

10:00 – 10:10	Haewook Han Introduction to THz-Bio Quantum Forum
10:10 – 12:00	Open Discussion: Future Collaborations
12:00 – 13:00	Lunch

Invited Speakers



Prof. Gyoo Yeol Jung

Molecular Diagnosis and Synthetic Biology Laboratory

Department of Chemical Engineering

School of Interdisciplinary Bioscience and Bioengineering (I-Bio)

POSTECH, Pohang, Korea

Ph.D. in Biochemical Engineering, Seoul National University

gyjung@postech.ac.kr



Prof. Haewook Han

Nano-Bio THz Photonics Laboratory

Department of Electrical Engineering

School of Interdisciplinary Bioscience and Bioengineering (I-Bio)

POSTECH, Pohang, Korea

Ph.D. in Electrical Engineering, Univ. of Illinois at Urbana-Champaign

hhan@postech.ac.kr



Prof. Jin-Woo Kim

Bio/Nano Technology Laboratory

Department of Biological and Agricultural Engr./Biomedical Engr.

Institute for Nanoscience & Engineering

University of Arkansas, Fayetteville, AR 72701, USA

Ph.D. in Biological and Agricultural Engineering, Texas A&M Univ.

jwkim@uark.edu



Prof. Hyun Ho Lee

Nano Process and Device Lab

Department of Chemical Engineering

Myongji University, Korea

Ph.D. in Chemical Engineering, Texas A&M University

hyunho@mju.ac.kr

Invited Speakers



Prof. Jung-Goo Lee

Center for Molecular Intelligence

State University of New York, Korea

Ph.D. in Chemistry, University of Texas at Austin

jmglee@gmail.com



Prof. Kee-Su Park

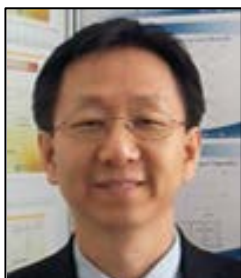
Center for Quantum Materials and Superconductivity

Department of Physics

Sungkyunkwan University, Korea

Ph.D. in Physics, University of Illinois at Urbana-Champaign

pmpark@skku.edu



Prof. Kwangyong Park

Organic Materials Lab

School of Chemical Engineering and Material Science

Chung-Ang University, Korea

Ph.D. in Chemical Engineering, University of Iowa

kypark@cau.ac.kr



Prof. Hyeon-Cheol Shin

Center for Molecular Intelligence

State University of New York, Korea

Ph.D. in Chemistry, University of Iowa

gerudah@gmail.com