

Korea-Japan Joint Workshop of Bottom-up Synthetic Biology

2023.

9. 6 [Wed]

13:00–18:00

Hybrid Event

**Mishima hall, ELSI,
Tokyo Tech** (Ookayama
Campus, Ishikawadai Bldg. 7)
+ Zoom

Registration

To attend online and/or join a networking reception with presenters after the seminar (18:00–20:00), please register using the provided link. [The registration deadline for the networking reception is 8/28 \(Mon\).](#)



13:00–13:45 Prof. Akira Kakugo (Kyoto University)

“Molecular swarm robot emerged from the collaboration of chemistry and biotechnology”

13:45–14:30 Prof. Kwanwoo Shin (Sogang University)

“Challenges and Perspectives for Building a cell de novo : From energy harvesting organelles to self-regenerative cell structures”

14:30–14:45 Dr. Richard J. Archer (Tohoku University)

“Self-assembly of lipid-based multicellular-like structures”

14:45–15:00 Nanami Takeuchi (Tokyo University of Agriculture and Technology)

“Nucleic acid detection at femtomolar levels: Exploring probe-based nanopore technique”

15:00–15:15 Kanji Tomohara (The University of Tokyo)

“Liquid-liquid phase separation for artificial cells and artificial organelles”

15:15–15:30 Coffee break

15:30–16:15 Prof. Jeong Wook Lee (Pohang University of Science and Technology)

“Cell-free Transcription Systems for Molecular Diagnostics and Genetic Parts Prototyping”

16:15–17:00 Prof. Masayuki Suetsugu (Rikkyo University)

“Reconstituted Replication Cycle System of Escherichia coli Genome for Cell Synthesis”

17:00–17:15 Dr. Alexandre Baccouche (JAMSTEC)

“Microfluidic tools for artificial cells production”

17:15–17:30 Shunnosuke Ban (The University of Tokyo)

“Updating parameters of in silico PURE system model (ePURE) based on experimental observations”

17:30–17:45 Katsumi Hagino (The University of Tokyo)

“Construction of in vitro 20 Aminoacyl-tRNA Synthetases regeneration system coupled with DNA replication”



Hosted by: Transformative Research Area “Bottom-up Biotech”
Earth-Life Science Institute, Tokyo Institute of Technology
“A-cell and Molbot” subgroup (The Biophysical Society of Japan)

Contact Information: [hideaki.matsubayashi.e1\[at\]tohoku.ac.jp](mailto:hideaki.matsubayashi.e1[at]tohoku.ac.jp)