The 1st International Symposium on Molecular Engine
8th January, 2020
Keyaki-Hall, Chiba University

9:20 **Opening Remarks**
Prof. Kazushi Kinbara (Tokyo Tech.)

Chairs: Kazushi Kinbara, Takafumi Ueno

9:30-9:50 **Invited Lecture 1**
Prof. Kenji Matsuda (Kyoto Univ.)
"Photoinduced Macroscopic Motion of Diarylethene Assembly by Combination of Photochromism and Lower Critical Solution Temperature (LCST) Behavior"

9:50-10:50 **Invited Lecture 2**
Prof. Gwénaël Rapenne (NAIST)
"From Molecular Motors to Molecular Gears"

10:50-11:30 **Keynote Lecture 1**
Prof. Nathalie Katsonis (Univ. Twente)
"Cooperative action of molecular motors in mechanically active soft materials"

11:30-11:40 **Photo**

11:40-12:40 **Lunch**

12:40-14:00 **Poster Session**
12:40-13:20 Odd Numbers (P-1, P-3…)
13:20-14:00 Even Numbers (P-2, P-4,…)

Chairs: Ken'ya Furuta, Yoshiyuki Kageyama

14:00-14:40 **Keynote Lecture 2**
Prof. Weihong Qiu (Oregon Univ.)
"New Insights and Functionalities from Engineered Kinesin-14 Motors"

14:40-15:00 **Invited Lecture 3**
Prof. Ryota Iino (IMS)
"Visualizing Dynamic Motions of Protein Molecular Motors with Plasmonic

Nanoprobes”

15:00-15:20 **Invited Lecture 4**
Prof. Yuki Sudo (Okayama Univ.)
“Rhodopsin-driven Optical Control of Biological Activities”

15:20-16:00 **Keynote Lecture 3**
Prof. Raymond Astumian (Univ. Maine)
"Why catalysis driven motors cannot operate by a power-stroke mechanism"

16:00-16:20 Coffee Break

Chairs: Mitsunori Ikeguchi, Takeshi Murata

16:20-16:40 **Invited Lecture 5**
Prof. Takayuki Ariga (Yamaguchi Univ.)
"Measuring Dissipation of a Molecular Motor, Kinesin-1, and the Mathematical Model Analysis"

16:40-17:00 **Invited Lecture 6**
Prof. Yutaka Sumino (Tokyo Univ. Science)
“Multiphase behavior of diffusion interacting active particles-two particle behavior”

17:00-17:20 **Invited Lecture 7**
Prof. Yusuke Maeda (Kyushu Univ.)
" Chiral vortex formation in active matter as collective effect"

17:20-18:00 **Keynote Lecture 4**
Dr. Yuji Sugita (RIKEN)
“Machine Learning Approach to Link MD Simulations with Single Molecule Experiments”

18:00 **Closing Remarks**
Prof. Ryota Iino (IMS)

19:00 **Banquet**