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Expertise : Molecular Robotics, Biophysics

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Reserch Theme in This Project :

Amoeboid robot driven by biomolecular motors

Main Research Results, Publications :

- (1) Daisuke Inoue, Arif Md. Rashedul Kabir, Hiroyuki Mayama, Jian Ping Gong, Kazuki Sada and Akira Kakugo "Growth of Ring Shaped Microtubule Assemblies through Stepwise Active Self-Organisation" *Soft-Matter*, 9, 7061-7068 (2013) (Emerging Investigators Issue)
- (2) Masaki Ito, Arif Md Rashedul Kabir, Daisuke Inoue, Takayuki Torisawa, Yoko Toyoshima, Kazuki Sada, Akira Kakugo "Formation of Ring-Shaped Microtubule Assemblies through Active Self-Organization on Dynein" *Polymer Journal*, (2013) doi:10.1038/pj.2013.89 (Corresponding).
- (3) Shoki Wada, Arif Kabir, Ryuzo Kawamura, Masaki Ito, Daisuke Inoue, Kazuki Sada, *Akira Kakugo, "Controlling the Bias of Rotational Motion of Ring-Shaped Microtubule Assembly" *Biomacromolecules* 12;16(1):374-8 (2015) (Corresponding).
- (4) Shoki Wada, Arif Kabir, Masaki Ito, Daisuke Inoue, Kazuki Sada, *Akira Kakugo, "Effect of length and rigidity of microtubules on the size of ring-shaped assemblies obtained through active self-organization" *Soft matter* 11, 1151-1157 (2015) (Corresponding).
- (5) Arif Md. Rashedul Kabir, Daisuke Inoue, Yuri Kishimoto, Jun-ichi Hotta, Keiji Sasaki, Noboru Kitamura, Jian Ping Gong, Hiroyuki Mayama, and Akira Kakugo*; "Drag force of μ m-sized objects with different surface morphologies in flow with small Reynolds number" *Polymer Journal* (Corresponding) accepted.
- (6) Daisuke Inoue, Bulbul Mahmot, Arif Md. Rashedul Kabir, Tamanna Ishrat Farhana, Kiyotaka Tokuraku, Kazuki Sada, Akihiko Konagaya, and Akira Kakugo* "Depletion Force Induced Collective Motion of Microtubules Driven by Kinesin" *Nanoscale* accepted. (Corresponding)

Recent Activities (hobbies, etc.):