

CURRICULUM VITAE  
**Kosuke KIKUCHI, M.S.**



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### Education

- 2021 – Present    Ph.D. candidate  
in School of Life Science and Technology, Tokyo Institute of Technology, Japan  
Supervisor: Prof. Takafumi Ueno
- 2019 – 2021      M.S.  
in School of Life Science and Technology, Tokyo Institute of Technology, Japan  
Supervisor: Prof. Takafumi Ueno
- 2015 –2019      B.S.  
in School of Life Science and Technology, Tokyo Institute of Technology, Japan  
Supervisor: Prof. Takafumi Ueno

### Research Interests

Protein Engineering, Protein Self-assembly, Biophysics, Biomaterial engineering, High-speed Atomic Force Microscopy (HS-AFM)

### Fellowships

- Apr 2022          Junior Research Fellow (DC2),  
– Present          Japan Society for the Promotion of Science (JSPS)
- Apr 2021          Life Science and Technology Research Fellow,  
– Mar 2022        Tokyo Institute of Technology

### Awards

- Jan 2022          15th Ohsumi Journal Award  
Tokyo Institute of Technology [[Tokyo Tech News](#)]
- Dec 2019          Interim Poster Presentation Award  
Tokyo Institute of Technology
- Nov 2019          CSJ Poster Presentation Award  
The 9th CSJ Chemistry Festa, Japan (2019) [[Tokyo Tech News](#)]
- Jun 2019          MRS Best Poster Award  
The 10th International Conference on Materials for Advanced Technologies,  
Singapore [[Tokyo Tech News](#)]

## Publications

1. **Kikuchi, K.**, Fukuyama, T., Uchihashi, T., Furuta, T., Maeda, Y. T., Ueno, T. Protein Needles Designed to Self-Assemble through Needle Tip Engineering. *Small* **18**, e2106401, doi:[10.1002/sml.202106401](https://doi.org/10.1002/sml.202106401) (2022).  
 Appeared in *Science Japan*, 客観日本, 科学新聞 (1/28号) etc.  
[\[Tokyo Tech News\]](#) [\[Tokyo Tech YouTube\]](#)
2. Nguyen, Q. D., **Kikuchi, K.**, Kojima, M. & Ueno, T. Dynamic Behavior of Cargo Proteins Regulated by Linker Peptides on a Protein Needle Scaffold. *Chemistry Letters* **51**, 73-76, doi:[10.1246/cl.210599](https://doi.org/10.1246/cl.210599) (2022).
3. Nguyen, Q. D., **Kikuchi, K.**, Maity, B. & Ueno, T. The Versatile Manipulations of Self-Assembled Proteins in Vaccine Design. *Int J Mol Sci* **22**, 1-21, doi:[10.3390/ijms22041934](https://doi.org/10.3390/ijms22041934) (2021).
4. Ueno, T., Niwase, K., Tsubokawa, D., **Kikuchi, K.**, Takai, N., Furuta, T., Kawano, R. & Uchihashi, T. Dynamic behavior of an artificial protein needle contacting a membrane observed by high-speed atomic force microscopy. *Nanoscale* **12**, 8166-8173, doi:[10.1039/d0nr01121e](https://doi.org/10.1039/d0nr01121e) (2020).

## Presentations

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| Mar 2022 | The 102nd CSJ Annual Meeting (Online, Japan)<br>“Design of the heteroepitaxial vertical assembly of asymmetric protein needles.”  |
| Sep 2021 | The 15th Symposium on Biorelevant Chemistry (Online, Japan)<br>“Controlling the two-dimensional assembly of $\beta$ -helical protein needles by engineering the distal ends.”   |
| Sep 2021 | The 70th Symposium on Macromolecules (Online, Japan)<br>“Modulation of two-dimensional assembly patterns of protein needles by engineering the distal ends.”  |
| Jul 2021 | 生体機能関連化学部会 若手の会 第32回サマースクール (Online, Japan)<br>“タンパク質分子針の末端デザインによる二次元集合パターン構築.”   |
| Jun 2021 | 第1回発動分子科学研究会 (Online, Japan)<br>“タンパク質分子針の末端設計による二次元集合パターン制御.”  |
| Mar 2021 | The 101st CSJ Annual Meeting (Online, Japan)<br>“Design of the dynamic assembly behaviors of artificial $\beta$ -helical protein needles.”  |
| Sep 2020 | The 69th Symposium on Macromolecules (Online, Japan)<br>“Design of the two-dimensional protein assembly patterns by $\beta$ -helical protein needle.”   |
| Mar 2020 | The 100th CSJ Annual Meeting (Chiba, Japan)<br>“Design of the Two-dimensional Protein Assembly Patterns by Modifying the Tip of $\beta$ -helical Protein Needle.”   |
| Oct 2019 | The 9th CSJ Chemistry Festa (Tokyo, Japan)<br>“Analysis of the Assembly Structures of Needle-like Protein by High-speed Atomic Force Microscopy.” <b>(CSJ Poster Presentation Award)</b>  |
| Sep 2019 | The 68th Symposium on Macromolecules (Fukui, Japan)<br>“Direct Observation of the Assembly Structures of Needle-Shaped Proteins by High Speed Atomic Force Microscopy.”   |
| Jun 2019 | The 10th International Conference on Materials for Advanced Technologies (Singapore, Singapore)<br>“Assembly Formation of Needle-Like Protein from Bacteriophage T4 Observed by High Speed Atomic Force Microscopy.” <b>(MRS Best Poster Award)</b> |
| Mar 2019 | The 99th CSJ Annual Meeting (Hyogo, Japan)<br>“Analysis of the assembly formation of needle-like protein from bacteriophage T4 by using high speed atomic force microscopy.”  |