

# 11th nanobiofluids seminar

2025 March 7th, 10:30-11:30

Conference Room (Room 134), 1<sup>st</sup> Floor, Bldg. No.1

<https://www.infront.kyoto-u.ac.jp/en/access/>

Zoom registration

[https://kyoto-u-edu.zoom.us/meeting/register/tmg2i8WCQiSPgbpy\\_n2X9Q](https://kyoto-u-edu.zoom.us/meeting/register/tmg2i8WCQiSPgbpy_n2X9Q)

## Manipulating Single Cells and Single Molecules by Nano-Micro Structures



Kyohei Terao, Ph.D.  
Professor  
Nano-Micro Structure Device Integrated Research  
Center  
Faculty of Engineering and Design  
Kagawa University

### Abstract

Recent advancements in semiconductor microfabrication and 3D printing technologies have led to the development of a variety of nano- and micro-scale devices, which are becoming increasingly integrated as powerful tools in medical and biological research. Particularly, the ability to fabricate structures at scales comparable to individual cells or molecules has spurred the creation of innovative technologies aimed at targeting these biological objects. In this seminar, we will present the devices and tools being developed in our laboratory, which are designed to manipulate single cells and molecules. Furthermore, we aim to discuss their potential applications in the biomedical and life sciences.

### Biography

Kyohei Terao received a B.E. degree from Kyoto University, and a M.E. and a Ph.D. degrees in mechanical engineering from The University of Tokyo, in 2002, 2004, and 2007 respectively. He was a postdoc researcher at Kyoto University (2007–2009), an assistant professor (2009–2013), an associate professor (2013–2024) at Kagawa University, and a JST-PRESTO researcher (2014–2018), and is a deputy director of Nano-Micro Structure Device Integrated Research Center (2015–), and a professor (2025–) at Kagawa University. His current research focuses on the development of micro/nanodevices for single cell and single molecule analysis.

Host: Hirofumi Shintaku, [shintaku@infront.kyoto-u.ac.jp](mailto:shintaku@infront.kyoto-u.ac.jp)