

# フロンティア frontiers2026 symposium

January 14-16, 2026

'frontiers2026' Symposium on NanoBioEngineering - EPFL, Lausanne, Switzerland



Institute of  
SCIENCE TOKYO

Wed, January 14, 2026		venue: EPFL room SV1717 & SV building lobby	time	duration	cumul.
<b>Welcome, Opening Words</b>	<b>Aleksandra Radenovic</b> , Professor and Vice-Dean for Research, EPFL School of Engineering		09.00 h	00:10	
<b>Opening Session</b>					
<b>Yasuteru Urano</b> , UTokyo	<i>Development of Novel Small-Molecule Based Theranostics Technologies for Cancer</i>		09.10 h	00:25	
<b>Akira Matsumoto</b> , ISCT	<i>Crafting Molecular Precision: Designer Boronolactams in Polymer Bioengineering</i>		09.35 h	00:25	
<b>Nako Nakatsuka</b> , EPFL	<i>Chemical Nanotechnologies for Human Health</i>		10.00 h	00:25	01:25
break			10.25 h	00:30	
<b>Session A - Biomaterials &amp; Drug Discovery-Design-Delivery</b>					
<b>Christoph Merten</b> , EPFL	<i>Microfluidics in Drug Discovery and Personalized Cancer Therapy</i>		10.55 h	00:25	
<b>Sascha Keller</b> , UTokyo	<i>Development of Novel (Aza)Quinone Methide-Based Small-Molecule Anticancer Prodrugs</i>		11.20 h	00:25	
<b>Mitsuki Nagaura</b> , UTokyo	<i>Longitudinal Wave Emission During Crack Propagation in Hydrogels</i>		11.45 h	00:15	01:05
buffet lunch			12.00 h	01:30	
<b>Tsukuru Masuda</b> , UTokyo	<i>Analysis of Wetting in Structure Controlled Polymer Brushes: Machine Learning Modeling &amp; Spreading Dynamics</i>		13.30 h	00:25	
<b>Ruka Ito</b> , UTokyo	<i>Quantification of Polymer Gel Inhomogeneity Based on Osmotic Pressure Toward Homogeneous Network Structure</i>		13.55 h	00:15	
<b>Kazuya Kanemoto</b> , ISCT	<i>Development of a Novel Disulfurating Reagent</i>		14.10 h	00:25	01:05
short break			14.35 h	00:20	
<b>Hiroaki Itoh</b> , UTokyo	<i>Exploring Functions of Peptidic Natural Products Through Total Synthesis</i>		14.55 h	00:25	
<b>Mao Hori</b> , ISCT	<i>Enzyme-Triggered Assembly of Artificial Nucleocapsids</i>		15.20 h	00:15	
<b>Hirokazu Tamamura</b> , ISCT	<i>Prevention of the Spread of Virus Infection in Global Societies: Antiviral Agents From HIV to SARS-CoV-2</i>		15.35 h	00:25	
<b>Ryunosuke Chiba</b> , UTokyo	<i>Betta splendens: A Novel Fish Vertebrate Model for Exploring Sleep Function and Regulation</i>		16.00 h	00:15	01:20
<b>Poster Session in SV building lobby</b> (with drinks & snacks)			16.15 h	01:45	
End (Day One)			18.00 h		

Thur, January 15, 2026		venue: EPFL room SV1717 & SV building lobby	time	duration	cumul.
<b>Session B - Molecular Engineering</b>					
<b>Hiroyuki Kagechika</b> , ISCT	<i>Development of Novel Vitamin D Derivatives and Their Application as Rodenticides</i>		09.00 h	00:25	
<b>Sahand Rahi</b> , EPFL	<i>Light-Directed Evolution of Dynamic, Multi-State Proteins</i>		09.25 h	00:25	
<b>Kenichi Yamamoto</b> , ISCT	<i>Synthesis of Peptidomimetics Based on a Chloroalkene Structure and Their Application to Amyloid-Beta Aggregation Inhibitors</i>		09.50 h	00:15	
<b>Makoto Nakakido</b> , UTokyo	<i>Generation and Engineering of Single Domain Antibodies</i>		10.05 h	00:25	01:30
short break			10.30 h	00:20	
<b>Yutaro Miura</b> , ISCT	<i>Development of Antibody-Drug Conjugates (ADCs) as HIV Entry Inhibitors</i>		10.50 h	00:15	
<b>Kotaro Ochiai</b> , ISCT	<i>Development of Ferrocene-Based Steroid Hormone Receptor Antagonists</i>		11.05 h	00:15	
<b>Parth Bibekar</b> , EPFL	<i>A Structure Transformer for Molecular Engineering</i>		11.20 h	00:15	
<b>Markus Jeschek</b> , EPFL	<i>DNA Recorders for Data-Driven Engineering of New Enzymes and Biosensors</i>		11.35 h	00:25	01:10
group picture			12.00 h	00:15	
buffet lunch + posters			12.15 h	01:45	
			14.00 h		
<b>Session C - Medical Systems &amp; Device Engineering</b>					
<b>Masashi Ikeuchi</b> , ISCT	<i>Precision Mechanical Medicine - From the Bench to the Clinic</i>		14.00 h	00:25	
<b>Kenji Shimazoe</b> , UTokyo	<i>Recent Development and Prospects of Nuclear Medical Quantum Imaging</i>		14.25 h	00:25	
<b>Hirokazu Kaji</b> , ISCT	<i>Development of Microphysiological Systems for Human Placental Modeling</i>		14.50 h	00:25	
<b>Yoshikazu Nakajima</b> , ISCT	<i>Multi-Agent Orchestration Framework for Next Generation AI</i>		15.15 h	00:25	01:40
<b>Lab Visits</b>			16.00 h	02:00	
End (Day Two)			18.00 h		

Friday, January 16, 2026		venue: EPFL room SV1717	time	duration	cumul.
<b>Session D - Biosensing &amp; Bioimaging</b>					
<b>Yujia Zhang</b> , EPFL	<i>'Swiss Army Knife' Droplets for Iontronic Biointerfaces</i>		09.00 h	00:25	
<b>Sumire Kaimori</b> , UTokyo	<i>Characterisation of Multi-Specific Molecular Recognition by SLRP Proteins</i>		09.25 h	00:15	
<b>Hiroki Tsuchiya</b> , UTokyo	<i>Development of a Highly Multiplexed Immunoassay Using Nanoparticle Size and Fluorescent Color as Identification Labels</i>		09.40 h	00:15	
<b>Florian Schueder</b> , EPFL	<i>Development of Smart DNA Probes for Multiplexed Super-Resolution Microscopy</i>		09.55 h	00:25	01:20
break			10.20 h	00:30	
<b>Kenta Iitani</b> , ISCT	<i>Biofluorometric Sensing and Imaging of Human-Borne Gaseous Chemicals for Non-Invasive Metabolism Monitoring</i>		10.50 h	00:15	
<b>Marcos Penedo</b> , EPFL	<i>OpenSPM: A Modular Framework for Smart and Adaptive Microscopy</i>		11.05 h	00:15	
<b>Seiichi Ohta</b> , UTokyo	<i>Diagnostic Imaging/Sensing Platform Based on Size- And Surface-Controlled Conjugated Polymer Nanoparticles</i>		11.20 h	00:25	
<b>Poster Award Announcement</b>			11.45 h	00:05	
<b>Closing Remarks &amp; Farewell</b>	<b>Hiroyuki Kagechika</b> , Professor and Director of Laboratory for Biomaterials and Bioengineering, ISCT		11.50 h	00:05	01:05
End of Symposium			11.55 h		