

## General Information

- ◆ Approved in FY 2018
- ◆ Established in April 2020
- ◆ Established by the Graduate School of Medicine
- ◆ Partner institution: The AIRC Institute of Molecular Oncology (IFOM ETS), Italy
- ◆ Location: Kyoto University, Kyoto, Japan (inbound)
- ◆ Purposes: Promotion of international research collaboration through the establishment of an international joint laboratory on the campus of the KU Graduate School of Medicine, co-funded by IFOM ETS and Kyoto University.
- ◆ Functions: Advanced cancer biology research and training of graduate students and early-career researchers.

## Positive ripple effects on the university's activities

- Boost research activity by bringing together the knowledge and expertise of both institutions.
  - Foster global human resources by internationalizing the research environment.
  - Create innovation through interdisciplinary academic collaboration.
- 【FY 2026】
- Promotion of research collaboration and publication of internationally co-authored academic papers.
  - Development of international joint research through the hosting of multiple international researchers including IFOM ETS-employed postdocs and JSPS Research Fellowship for Young Scientists recipients.
  - Hosting of multiple international students, including MEXT scholarship students, to contribute to the university's internationalization efforts.
  - Deepening of international exchange through short-term hosting at IFOM ETS.

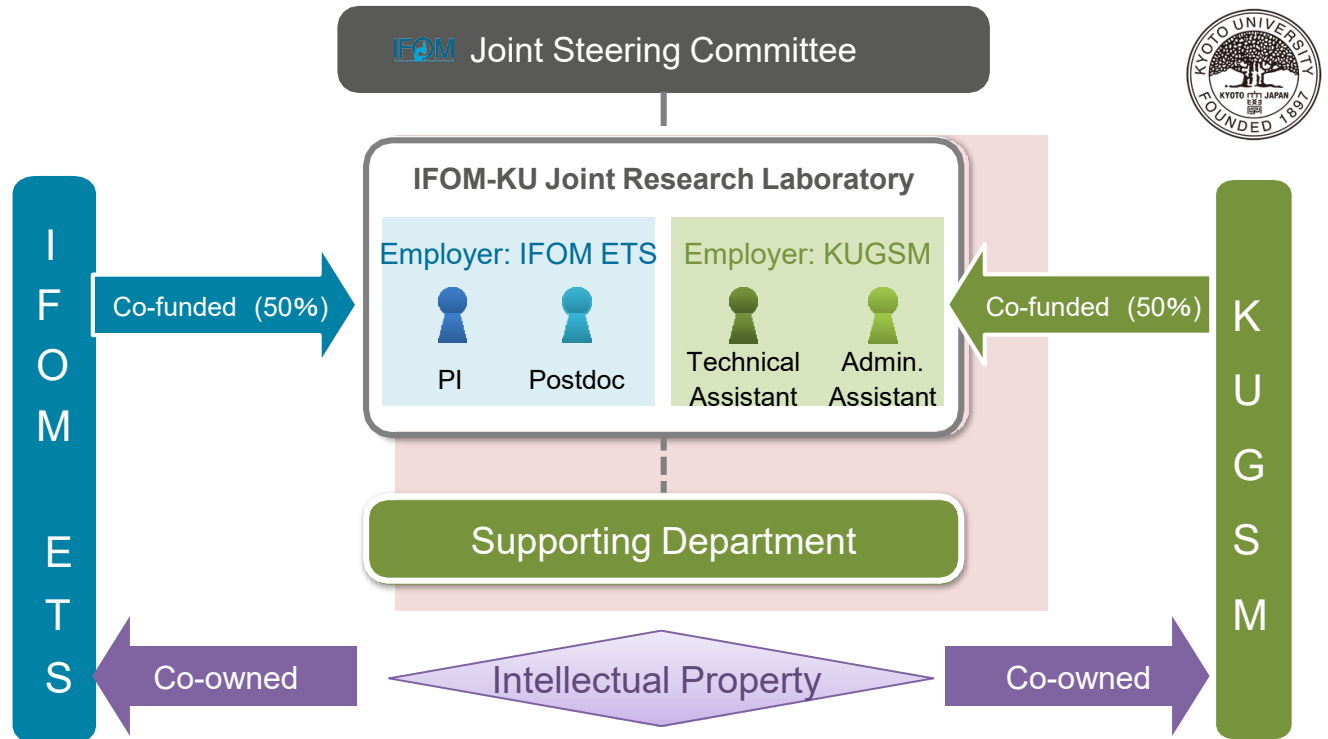
## Activity Overview

### About IFOM



IFOM ETS is an institution dedicated to the study of the molecular processes of cancer. It was established by the Italian Foundation for Cancer Research (FIRC) and boasts the largest-scale and best facilities in Europe. Numerous high-quality research projects are being conducted there.

KU's Graduate School of Medicine has an ongoing relationship with IFOM ETS. Since the conclusion of departmental academic and student exchange agreements in 2010, the two institutions have been implementing research and student exchange actively through holding joint symposiums, etc.



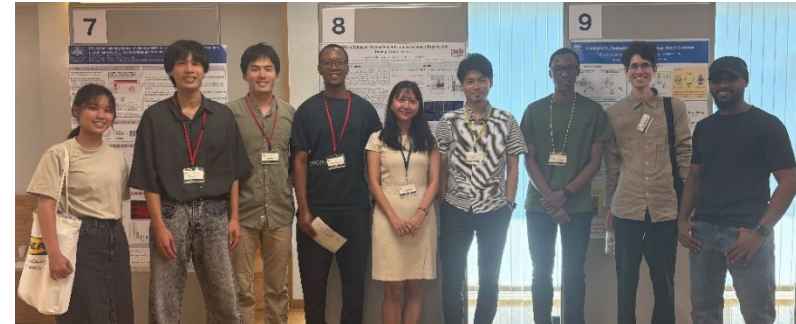
## Main Activities in FY 2025

### ① Research outcomes

- Reviews

**Makoto T. Hayashi**\* and Anthony J. Cesare\*, T-loop dynamics: telomere structure shapes cell fate decisions, *Trends in Cell Biology*, 2026, March 20, doi:10.1016/j.tcb.2026.01.001. \*Co-corresponding authors
- Conference presentations
  - Shunya Kosaka, Diana Romero-Zamora and **Makoto T. Hayashi**, TRF1 Promotes Mitotic Telomere Deprotection by Transporting AURKB Activity, CSHL Meeting Telomeres & Telomerase 2025, NY, USA, April 29–May 3, 2025
  - Diana Romero-Zamora, Placide Niyonshuti, Samuel Rogers, Anthony J Cesare, **Makoto T. Hayashi**, Regulatory mechanism of M-phase telomere deprotection by RECQ factors (invited lecture), 97<sup>th</sup> Annual Meeting of the Genetics Society of Japan, Kobe, September 10–12, 2025
  - Herve Dushimiyenze, Jiawei Cai, **Makoto T. Hayashi**, Analysis of the cGAS/STING innate immune signaling pathway using a novel extrachromosomal circular DNA reporter system, the 43<sup>rd</sup> Chromosome Workshop, the 24<sup>th</sup> Nuclear Dynamics Workshop, Sendai, February 18–20, 2026
- Invited Seminars
  - RIKEN Seminar, Kobe, July 28, 2025
  - CSI Research Seminar Series, Cancer Science Institute of Singapore, NUS, Singapore, Aug 27, 2025
- Acquisition of external funding

Grant-in-Aid for Scientific Research (B), Grant-in-Aid for JSPS Fellows, Takeda Research Continuation Grant (Cancer Category), Enzyme Research Grant FY 2025



2025 AMGEN Scholars Program Research Presentation and On-site Lab Members

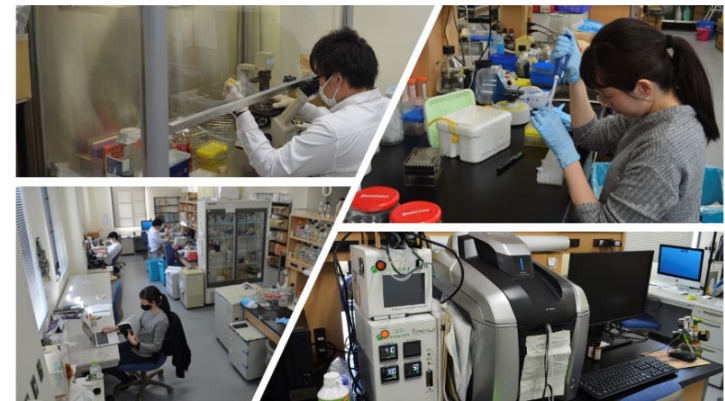
### ② Education, internationalization, and outreach

- Education and internationalization

The laboratory hosted:  
IFOM ETS postdocs: 1 (Nigerian)  
Researchers/doctoral students: 3 (2 Rwandan, 1 Japanese)  
Short-term international students: 2 (1 Burmese (AMGEN Scholars Program), 1 Armenian)  
Special Research Students: 1 (Chinese)

Meetings with IFOM ETS  
PI chalk-talk meetings (online, once per month), PI meetings (online, once per month), PI retreat (Italy, May 27–29, 2025)
- Education and outreach

JSPS Science Dialogue (Fukui Prefectural Fujishima High School, January 28, 2026)



The IFOM-KU Joint Research Laboratory