

General Information

Department: Institute for the Advanced Study of Human Biology (ASHBi), Kyoto Univ. Institute for Advanced Study (KUIAS)

Partner Institution: McGill Univ. (Montreal, Canada)

Establishment: October 2018

Location: Institute for the Advanced Study of Human Biology (ASHBi), Kyoto Univ. Institute for Advanced Study (KUIAS) / Inbound Type

Purpose: Strengthening research capabilities in human biology through collaborative research with McGill Univ., and educational collaboration through the Joint PhD Program

Activities: Collaborative research with McGill Univ. and mutual hosting of Joint PhD students

Positive Ripple Effects on the University's Activities

Establishing a new framework to invite senior international researchers as PIs:

By having Co-PIs provide management support, we will establish a framework that enables international PIs to run their laboratories remotely from abroad, serving as a model to advance university-wide internationalization. Furthermore, because this system allows early-career researchers serving as Co-PIs to learn lab management directly from international PIs, it serves as an effective new model for fostering the next generation of researchers.

Establishing a support system for international researchers utilizing professional staff:

Establishment of a support framework in which experts provide problem-solving support to international researchers, and the dissemination of this system both within and beyond the university.

Activity Overview

<Management Structure of the OSL>

- **Inbound OSL led by overseas-based PIs and on-campus Co-PIs:** To enable senior researchers affiliated with overseas institutions to participate as PIs (Overseas PIs) at Kyoto Univ. without bearing an excessive administrative burden, Co-PIs residing in Kyoto support daily laboratory management. Overseas PIs are appointed under the university's "distinguished visiting professor" system. While they are required to visit Kyoto several times a year, they typically manage the lab remotely, maintaining close communication and sharing information through regular online meetings with their Co-PIs.

- **Support for international researchers by highly specialized professionals:** The Global Research Acceleration Unit (GRAU), staffed with highly specialized professionals, provides problem-solving support, thereby establishing a world-class research environment where non-Japanese PIs and researchers can focus entirely on their research.

<Initiatives toward Financial Self-sufficiency>

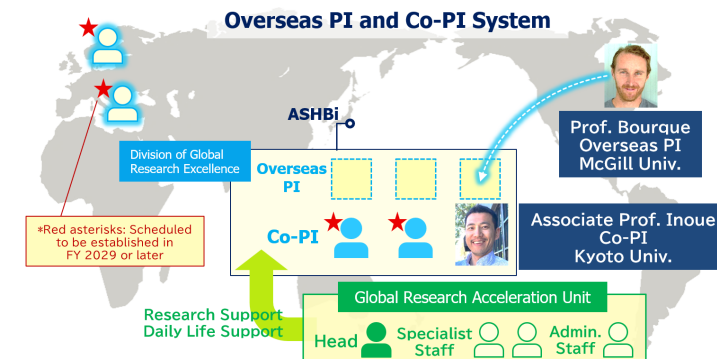
Through the FY2026 budget request to MEXT, we secured two tenured positions for Co-PIs, allowing us to hire Co-PI Inoue on a stable employment contract. In addition to securing one tenured position to recruit the GRAU head, we also obtained funding to employ one expert and one administrative staff member for the unit, enabling us to stably maintain its organizational structure.

<Activities and Activity Plans>

Overseas PI Bourque and Co-PI Inoue were hired in October 2018 and July 2020, respectively, giving this laboratory a proven track record of over multiple years of operation. Overseas PI Bourque visits Kyoto Univ. approximately three times a year (staying for a total of 75 days in FY2025) and actively promotes international collaborative research with ASHBI researchers. Additionally, the lab has hosted a total of five doctoral students to date through the Kyoto Univ.–McGill Univ. Joint PhD Program.

In FY2025, an international joint symposium with McGill Univ. was held in Canada, where seven PIs from Kyoto Univ. delivered presentations. For FY2026, Kyoto Univ. will serve as the host, planning an international joint symposium and retreat that will welcome a delegation of over ten PIs and Joint PhD students from McGill Univ.

Establish an international hub for human biology research by gathering multiple world-class laboratories in the field of human biology through the Overseas PI system



Bourque-Inoue Lab



McGill-Kyoto Symposium in 2025

Key Research Achievements

Zhang Z, Georgakopoulos-Soares I, **Bourque G**, Ahituv N, **Inoue F** (2026). Simultaneous epigenomic profiling and regulatory activity measurement using e2MPRA. **Nature Communications**, 17, 1724.

Chen X, Zhang Z, Yan Y, Goubert C, **Bourque G**, **Inoue F** (2025). A phylogenetic approach uncovers cryptic endogenous retrovirus subfamilies in the primate lineage. **Science Advances**, 11.

Yan Y, ..., **Bourque G**, Marques-Bonet T, Fishilevich S, **Inoue F**[^], Gokhman[^] (2026). The gene regulatory evolution of the human skeleton. **Nature** (in press). [^]: Co-corresponding authors

Kyoto University On-site Laboratory: Kyoto University–University of Zurich Next-Generation Medicine Laboratory



General Information

- ◆ Established by the Center for iPS Cell Research and Application (CiRA)
- ◆ Partner institution: University of Zurich (Switzerland)
- ◆ (Planned to) Established in October 2026
- ◆ Locations (Cross-bound)
 - ◆ University of Zurich, Zurich, Switzerland
 - ◆ Kyoto University, Kyoto, Japan
- ◆ Purposes: Develop next-generation medicine and globally minded scientific leaders for careers in academia, industry, and other sectors
- ◆ Activities/functions: Basic research and translation of advanced cell therapies

Positive Ripple effects on the University's Activities

- The CiRA–IREM connection bridges KU and UZH for advanced biomedical research and education to benefit both sides at the university level:**
- Enhance recruitment of talented international students and researchers
 - Implement joint workshops, courses, and summer schools in areas such as next-generation medicine and entrepreneurship
 - Progress toward the establishment of an international joint Ph.D. program
 - Promote industry collaboration and startup creation in Kyoto and Zurich to translate research outcomes into real-world applications
- Strengthen Kyoto University's standing as an international hub for research and education in next-generation medicine**

Activity Overview

Kyoto University–University of Zurich Next-Generation Medicine Laboratory

