

Host Institution's Commitment

February 19, 2022

To MEXT

The University of Tokyo
Teruo Fujii, President

Signature

I confirm that the measures listed below will be carried out faithfully regarding "International Research Center for Neurointelligence" adopted under the World Premier International Research Center Initiative.

<Provision in host institution's mid-to-long-term plan>

· Describe clearly the host institution's mid-to-long-term plan and how it will position the center within that plan.

In its draft *Fourth Mid-Term Goals and Plans*, the University of Tokyo (UTokyo) is committed to "facilitate the activities by research hubs such as Kavli IPMU, IRCN and Tokyo College. Specifically, these three hubs would invite and accept substantial numbers of researchers from abroad and that IRCN and Tokyo College will be transformed into permanent institutions". For this purpose, particular attentions have been and will be made to "reinforce the organizational structure and operations platform of the University of Tokyo Institutes for Advanced Study (UTIAS) and other centers of excellence". The *UTokyo Compass*, released in September 2021 to embody the motto of excellence and diversity, specifies to "further strengthen our world-class research facilities as hubs for linking different types of knowledge, promoting research of the highest global standards, and generating new academic knowledge through co-creation across disciplines." as a key action plan.

Taking note of its 140-year history, post-incorporation situations of the national universities, and the recent drastic changes in the national and international socioeconomic environment, UTokyo has been assigned a Designated National University Corporation status since 2017 in order to achieve greater academic governance and capabilities to contribute to the evolving social and economic needs. UTokyo has been implementing a series of initiatives to enhance its academic competitiveness. Those measures include: (i) to increase management efficiency by ensuring the transparency of human, financial, and technological resource allocation and by reviewing institutional research data, and (ii) to expand revenue and strengthen financial self-sufficiency through industrial partnership, effective use of available land assets, and other means.

<Concrete Measures>

· Describe the concrete measures that the host institution will take to satisfy the following requirements.

1) **How the host institution will support the center's operation and research activities in accordance with the FY 2017 Application Guidelines, section "6. Host institution's commitment."**

IRCN deals with the evolution of human intelligence, one of the unexplored fields of science. The

Institute is expected to be a hub which inspires integrated research on advanced artificial intelligence (AI) research that assists in creating new informatics and robotics industries, intelligent healthcare systems, and other social and industrial advances. UTokyo has launched the Tsukuba–Kashiwa–Hongo Innovation Corridor Plan to foster a research and development platform on UTokyo’s Kashiwa Campus for collaboration on innovative material, AI, analytical measurement techniques, and other cutting-edge topics. The National Institute of Advanced Industrial Science and Technology, the National Institute for Materials Science, the National Cancer Center, and UTokyo’s spin-off venture companies will participate in this project. In addition, UTokyo established the Next Generation Artificial Intelligence Research Center in October 2016, the Mathematics and Informatics Center in February 2017 and the Institute for AI and Beyond in July 2020 in the Hongo campus. These initiatives aim to develop experts in next-generation AI, and mathematical and informatics sciences. In collaboration with these organizations, IRCN will apply its findings including neuro-inspired AI to a wide range of scientific arenas, thereby contributing to social and economic advancements. UTokyo has positioned IRCN as one of its most important driving forces for its structural reform, and will support its activities to achieve its clearly defined goals.

2) How the host institution will establish a basic policy for the mid-to-long term direction of its organization and operation, one that restructures its existing organization in ways that give the center a permanent place within its organization. Please provide a concrete schedule for carrying out this organizational restructuring.

Kavli IPMU, the first institute established under the UTIAS umbrella, is in the process of transforming itself into an independent, stable and durable institute within UTokyo with the support by the WPI grant. IRCN, located under the UTIAS umbrella is following the example of Kavli IPMU, and will undergo organizational restructuring to obtain a stable and long-lasting status from a university-wide organizational perspective. To develop specific directions to take, UTokyo in 2021 has set up a Working Group, which includes deans of relevant faculties. The Working Group is charged to report to the President on the future planning for IRCN in this context.

3) Ways in which the host institution will provide support to sustain the center as a world premier international research center after the WPI grant period ends.

IRCN will continue to receive sufficient financial support from UTokyo’s special budget committee established in 2015 to take responsibility for strategic development and management of revenue streams. Additionally, the University’s Administration Bureau will continue to provide the necessary financial and human resources support to the departments that assign their faculty members on a joint basis to IRCN to ensure that its operation will cause no adverse impact on the research and educational activities of those departments. With these measures UTokyo intends to strategically bring IRCN as part of its academic ecosystem. UTokyo, starting 2022, will also support part of the human resource budget for two academic members of IRCN who play managerial or advisory roles, besides leading research activities, at IRCN.

4) How will a system be instituted under which the center’s director is able to make substantive personnel and budget allocation decisions necessary to implementing the center

project—a system, which in practice, will allow the center director autonomy in making decisions regarding the center’s operation.

The success of Kavli IPMU has shaped the new WPI center’s executive leadership and governance policy, which has been inherited by IRCN.

Specifically, budget and recruitment is not a remit of the board of professors. Instead, the center director assumes sole responsibility for the recruitment of post-doctoral fellows, academic development of junior researchers, allocation of travel expenses, invitation of external speakers, project participation, and other matters related to the operation of the center. This top-down chain of command will help the center maximize its overall performance.

5) Support that will be provided to the center director in coordinating with other departments within the host institution when recruiting researchers for the center, while giving reasonable regard to the educational and research activities of those departments.

The center director and the director of administration will be primarily responsible for the operation and the management of the center. In addition, a powerful administrative office will assist the center director to make quick and strategic decisions. This efficient and centralized management system will reduce the administrative load of IRCN’s principal investigators and other researchers who have concurrent responsibilities in their other affiliations, such as the Graduate School of Medicine, Graduate School of Science, Graduate School of Pharmaceutical Sciences, Graduate School of Frontier Sciences, and the University of Tokyo Hospital. The Administration Bureau will allocate adequate financial and human resources support to maximize their research and teaching potential. The Working Group, as referred to in section 2) of this document, will help President of UTokyo formulate his strategic planning for this undertaking.

6) Flexibility that will be given in applying, revising, or outfitting the host institution’s internal systems as needed for the center to effectively implement new management methods (e.g. English-language environment, merit-based pay, top-down decision making, cooperation in graduate education) unfettered by conventional modes of operation.

The innovative solutions adopted at Kavli IPMU have revolutionized its organizational management strategies. UTokyo has been making efforts to improve the international competence of its administrative staff in assisting with the relocation of researchers from overseas. For example, the proportion of staff members who have scored 800 or higher on the TOEIC (Test of English for International Communication) has increased by 10% in the past 10 years, and in the next decade, over 30% of the total staff body is expected to be at this level. The current reform efforts of UTokyo include a systematic review and integration of international programs, creation of World-leading Innovative Graduate Study (WINGS), and support for graduate students. Such efforts will produce a synergistic relationship between IRCN and the graduate schools of UTokyo.

UTokyo is the pioneer in academic reform among Japanese higher education institutions. For example, we have adopted a cross appointment system and other programs to facilitate the employment of leading junior researchers and female researchers. The new initiative, launched in

April 2018 to promote tenure-track faculty members aged 40 years or younger by leveraging a variety of revenue sources, has been supporting four Principal Investigators of IRCN. UTokyo is dedicated to designing, revising, and implementing strategic faculty employment and allocation policies.

7) The accommodation that will be given the center's infrastructural requirements (for facilities, e.g., laboratory space; equipment; land, etc.).

IRCN occupies a sizable, dedicated area on Hongo Campus to host an interactive, collaborative environment. UTokyo's cutting-edge apparatuses and equipment will continue to be made available to internal and external users upon request. Agreements will be maintained to allow the WPI center researchers to gain prioritized access to such facilities and other shared research spaces.

UTokyo is dedicated to fostering a safe and comfortable living environment for researchers and students from abroad. Under the President's globally outward-looking leadership, planning is under way for construction of a new Life Science Innovation Building with 14 floors and 90,000 m² space in Hongo Campus. When realized, this area will be offered to accommodate the entire IRCN's office and laboratory space to cohabitate with other departments and institutes who pursue related branches of life science research. In the meanwhile, IRCN will continue to receive prioritized allocation of the space and infrastructure support by UTokyo, so as to sustain its research activities with high-tech equipment and facility without interruption.

8) Other types of assistance that will be provided to give maximum support to the center in achieving its concepts and objectives and in becoming a world premier international research center in both name and deed.

The UTIAS Steering Committee, chaired by the board member responsible for the WPI initiative, provides guidance and recommendations on internationally competitive WPI centers. Specifically, the committee provides university-wide support for the proposed center, enabling close coordination and maximum synergy with Kavli IPMU and IRCN. UTokyo, in addition, is assigning nine permanent members from its administration pool as of 2022. This level of administrative support by UTokyo will be maintained. They will carry out the whole range of administrative matters at IRCN under the leadership of the Director and Administrative Director, as assisted by fixed term staff who are hired with the WPI fund.

9) How the host institution will self-evaluate the good results of the system reforms achieved by the center and take the initiative in extending them to departments throughout its organization.

The 2021 WPI Follow-up Report delivered to UTokyo by the WPI Program Committee, reads as follows:

"The University of Tokyo has been supporting IRCN by providing it space and funding for its renovation, basic instruments, and junior PI positions. The University of Tokyo has launched a working group to develop specific strategies for the permanent installation of IRCN within the

university”.

UTokyo, through discussion at the Working Group above and elsewhere, will facilitate adaptation of operational and managerial practice developed for IRCN in a wider range of institutes across UTokyo.

10) If the host institution has already established a WPI center, it should be fully supporting the maintenance and further development of the existing center and be capable, at the same time, of fully supporting the new center.

Kavli IPMU has adopted a variety of innovative administrative measures, which include a cross appointment system (a first among Japan’s higher institutions), a flexible wage system to recruit world-class scientists, quick top-down decision-making, and the appointment of an internationally competent administrative staff to provide daily-living support for overseas researchers and their families who have relocated to Japan. Their success has positively shaped the subsequent reform actions by the Administration Bureau. IRCN, under UTokyo’s encouragement, has also established its tight communication channel with Kavli IPMU which allows to funnel the know-hows on many aspects of managerial practice. Inspired by the success of Kavli IPMU, UTokyo has introduced a special employment system for promising junior researchers which has been applied to four of the Principal Investigators of IRCN.

Kavli IPMU is devoted to the mystery of the birth of the universe, whereas IRCN aims to investigate the neural basis of human intelligence. Despite the differences in the research fields, both centers address fundamental scientific challenges using approaches characterized by excellence and diversity, the hallmark of UTokyo. The mutual influences between the two centers will help UTokyo gain world-wide recognition as a premier research university.