

World Premier International Research Center Initiative (WPI)

Host Institution's Commitment

29/05/2018

To MEXT

Kyoto University
Juichi Yamagiwa, President

Signature

I confirm that the measures listed below will be carried out faithfully and concretely as follows regarding "Institute for the Advanced Study of Human Biology" if it is adopted under the World Premier International Research Center Initiative.

Concrete Measures

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

- 1) For the center to become a truly "world premier international research center" and independent by the time WPI support ends, the host institution must clearly define the center's role within its own mid-to-long-term strategy and provide its comprehensive support from the time that the funded project starts.**

※ Describe the center's role within host institution's own mid-to-long-term strategy.

Kyoto University clearly defines the role of the Institute for the Advanced Study of Human Biology in its mid-to-long term strategy and provides its comprehensive support to the Institute.

<Positioning of the Institute in the University's mid-to-long-term strategy>

The roles of the WPI center are clearly specified in the University's mid-to-long-term concepts/plans, namely, "Kyoto University's Vision for the Future (the WINDOW concept)," "Medium-Term Goals and Plans," and "Designated National University Proposal."

The "Kyoto University Institute for Advanced Study (KUIAS)" was set up as a foundational organization for the purpose of gathering superior researchers from Japan and around the world, creating an international research center with flexible organization, achieving an organizational structure able to respond to globalization, and providing research support functions.

By positioning the WPI center within KUIAS, we have laid down the organizational structure to create a world-leading research center.

<Comprehensive support from the host institution>

- Balancing intra-university interests by the Kyoto University provost

The "Kyoto University Provost" and the "University Strategy Council" will balance the interests of other departments to provide quick and flexible support for the Institute.

- Organizational support by Kyoto University Research Administration Office (KURA)

The Institute could receive organizational and comprehensive support from KURA, which is the largest URA organization in Japan (over 40 URAs) and received the highest possible score "S-rank" on MEXT's interim evaluation. Further, Kyoto University employs two URAs at the Institute, and they operate as a hub maintaining close cooperation with KURA.

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- Collaborative support by the Kyoto University HAKUBI project

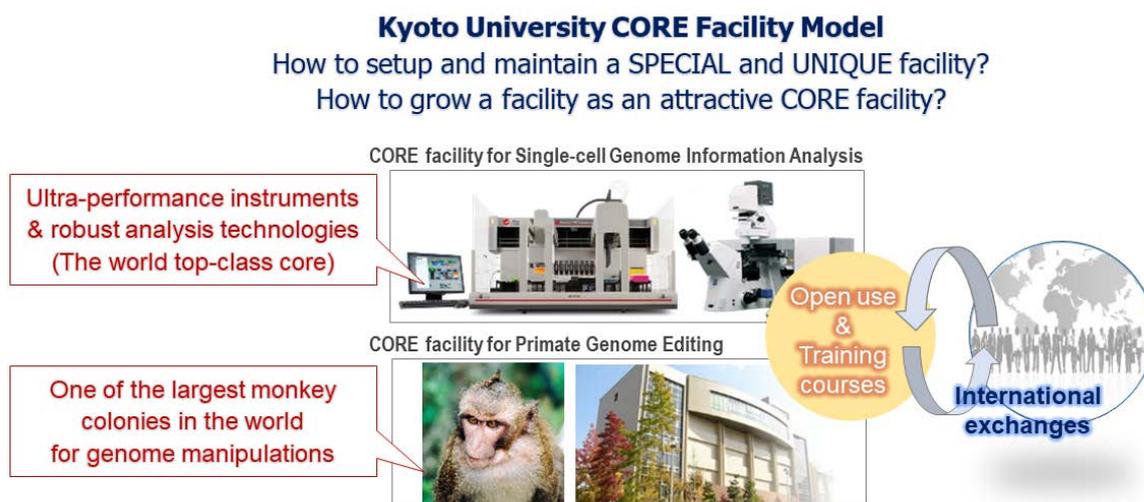
The HAKUBI project aims to foster and support young researchers who will pioneer new paths in their fields. This project currently employs more than 40 associate and assistant professors. Kyoto University proactively offers opportunities for the Institute's younger researchers to collaborate with HAKUBI researchers, promoting the creation of new interdisciplinary research.

2) Providing a mid-to-long-term policy for amending the plan on the direction of the host institution's organization and operation, one that includes the reform of the institution's existing organization in ways that will achieve the center's independence and create a permanent place for it within the organization. A concrete plan and schedule must be set and carried out for restructuring the host institution's organization.

※Describe both a mid-to-long-term policy for amending the plan on the direction of the host institution's organization and operation and provide a concrete plan and schedule.

<Establishing and maintaining a globally competitive core research facility>

To become a truly world-leading research center, it is essential for the center to possess globally competitive research facilities shared by researchers across Japan (core facility). Actually, the Institute plans to establish two globally competitive core facilities. One is the *Core for Single-cell Genome Information Analysis*, which has ultra-performance instruments and robust analysis technologies for genome analyses at the single-cell level. The other is the *Core for Primate Genome Editing*, which has one of the largest colonies of cynomolgus monkeys for genetic manipulation in the world. In addition to several highly-skilled staff scientists, two or more technical staffs will be exclusively assigned to these facilities to maintain and improve the performance of their instruments and analysis technologies.



The Institute's efforts to establish and maintain these two core facilities will serve as a basis to make a generalized model, which are applicable to other departments, to set up a globally competitive core facility. The University will take the initiative to spread this model to other departments.

<Basic plan/schedule>

- Set up the instruments and technologies of the core facilities (FY2018/FY2019).
- Develop the core facilities so as to become a university-level research center (FY 2021).
- To provide open-use programs and training courses that other university researchers/students and company investigators can use as core facilities(FY 2021).
- Improve and renew the instruments of the core facilities to maintain their competitiveness (FY2023).

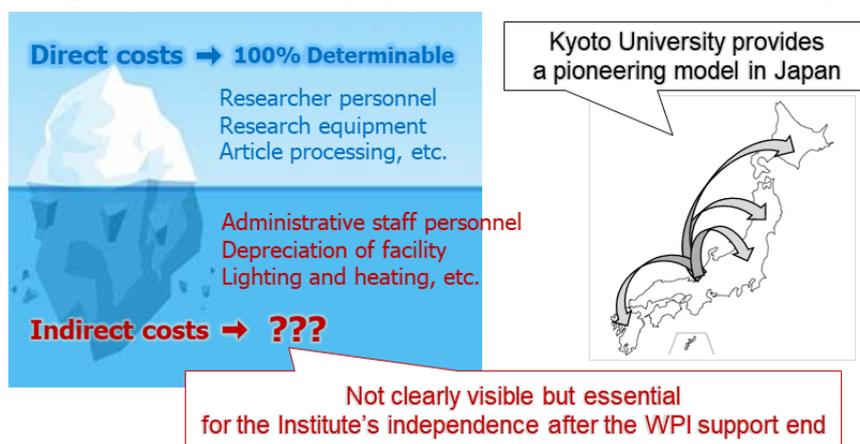
<Securing indirect costs of appropriate scale for the center's independence>

To ensure the independence of the center after the end of the WPI grant, the center must fund its indirect costs, such as management personnel expenses, facility depreciation, cost of lighting, and

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heating. As it is difficult to directly calculate indispensable indirect costs, they are conventionally determined by the ratio to direct costs in Japan. However, this ratio is often inappropriate and could result in insufficient funds after the grant ends. To determine indirect costs of appropriate scale, Kyoto University has created a new basic estimation model, like in Europe and the United States. Through its experiences at the Institute, the University has also created a generalized estimation model applicable to the other departments within the university. The University has taken the initiative to spread this estimation model across Japan.

Kyoto University Indirect Cost Model Securing Indirect Costs of Appropriate Scale for the Institute's Independence



<Basic plan/schedule>

- The University analyzes the indirect cost data in the Institute to formulate a new estimation model that can appropriately evaluate the indirect costs required for the Institute's management, and then verifies this model (FY2019, FY2020).
- The new estimation model is applied in the Institute as a testbed (from FY2021).
- The indirect cost model is generalized so that it can be applied to other departments within the University (from FY2023)

3) Provide sufficient support for carrying out the center's operation and research activities, including necessary personnel, financial, and system support.

In order to carry out the Institute's operation and research activities, Kyoto University provides various supports as described below.

<Personnel support>

Kyoto University takes responsibility for the personnel expenses for the director, the vice director, six PIs designated to Kyoto University, the administrative director, two URAs at the Strategic Research Support Office of the Institute, and two technical specialists at the Institute's Core facility.

The university also takes responsibility for the personnel expenses for three independent associate professors (from FY2023)

Of the 13 administrative staff, three are employed as permanent employees of Kyoto University.

<Financial support>

The Institute is allowed to take all indirect funds associated with competitive grants acquired by the Institute's researchers.

<System support>

The age limit retirement system is abolished and a flexible allowance payment system is applied.

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- 4) **Provide necessary support to achieve the independence of the center and sustain its research at a top world level after the WPI grant period ends.**

Kyoto University will continue to supply the Institute with the support stated in (1)–(3) and (5)–(9) after the end of the WPI grant.

- 5) **Provide a system that will in practice allow the center director to make decisions in implementing the center project, including personnel and budgets, and that will secure the autonomy of its operation.**

Under the umbrella of KUIAS, which is a special research district at Kyoto University, the Institute's director has the authority to make the final decision on important matters, such as choice of research direction, personnel affairs, and budgetary concerns.

- 6) **Provide support to the center director by coordinating with other departments regarding the assigning of researchers to the center and the creating of an effective environment for the center within the host institution. Needed adjustments to do so should be made proactively while giving consideration to their effect on the educational and research activities of those departments.**

In the WINDOW concept (Strategic Priority 5-3), Kyoto University declares the following:

*In order to break new ground in uncharted domains of academic endeavor, Kyoto University implements flexible and effective reorganization that removes the boundaries of existing academic departments through the **Faculty Consort/Platform System**^{#1} of academic staff organization.*

Based on this conceptual direction, Kyoto University provides all-out support for the Institute's director by proactively adjusting the interests of other academic departments whose researchers are dispatched to the Institute.

^{#1} 京都大学 学域・学系制

- 7) **Offer cooperation in flexibly applying, revising, or supplementing the host institution's internal systems as needed for the center to effectively implement new management methods unfettered by conventional modes of operation (e.g. English-language environment, merit-based pay, top-down decision making, linkage to graduate school education).**

Under the umbrella of KUIAS, which is a special research district at Kyoto University, it is possible to flexibly revise and improve the institution's systems, such as abolishing mandatory retirement, establishing an incentive system based on performance, assigning bilingual administrative staff, and determining personnel affairs based on top-down management by the Institute's director.

- 8) **Secure, provide and deliver the necessary infrastructure for the center to carry out its activities (e.g. research space, facilities, land).**

<Research space>

Kyoto University is providing 4,600 m² of space for research activity in its Faculty of Medicine Campus, specifically 1,700 m² of new space in addition to the existing 2,900 m² of space designated for the director, one vice director, and the six PIs of the University. The new space will be used for the research activities of new four overseas PIs (including one vice director), three independent associate professors, and one core facility (the core for the single-cell genome information analysis).

Moreover, space for a new building (the total floor space: 19,000 m²) has been secured in the same area (1 or 2 minutes' walk from the main building) for the future expansion of the center.

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Space for center executives and the administrative division

A director's room, conference rooms, administrative division offices, and open space for researcher interactions will be provided in the same area as the research space, facilitating regular interactions between the Institute's executives, researchers, and administrative staff. Another director's room will be secured in the KUIAS building, enabling regular exchanges with KUIAS's executives and the utilization of KUIAS's expertise and knowledge.

Use of animal research facilities

Participating researchers will be given approval to use the Institute of Laboratory Animals, which is one minute's walk from the main research building, in the Graduate School of Medicine Kyoto University.

- 9) **Provide other types of assistance to give the center maximum support in achieving its concepts and objectives and in becoming a world premier international research center in both name and deed.**

Kyoto University provides maximum support for the establishment of the Institute as a leading international research center under the University's mid-to-long-term vision.

- 10) **The host institution is to self-evaluate the results of the system reforms achieved by the center and distribute the results that it evaluates highly to all of its departments.**

The two URAs assigned to the Institute qualitatively and quantitatively examine the Institute's system reform efforts and their outcomes. The Institute's URAs summarize the results and propose generalized reform models for the University, in cooperation with KURA.

The **University Strategy Council** members and the University executives evaluate the Institute's system reform outcomes and the proposed reform models. If positively evaluated, the **Kyoto University Provost** will take the initiative to spread the good system reforms to other departments throughout the University.

- 11) **(For host institutions that already have an existing WPI center) Fully support and sustain the existing center and advance its development as a top world-level research institute while being concurrently capable of fully supporting the new center.**

The existing WPI center, iCeMS, is now located as a core and the research institute of KUIAS as a permanent entity. Separate to the support for the new WPI center, Kyoto University will provide personnel support for iCeMS (11 tenure posts) as well as financial support (full allocation of indirect expenses to iCeMS from competitive grants acquired by the institutions' researchers). Kyoto University will support both research institutions continuously in the future.

- 12) **(For host institutions that already have an existing WPI center) Take the initiative to spread the existing center's good system reform results to other departments throughout the institution and thus applied them to its own reform.**

Kyoto University has extended the good system reform results from iCeMS throughout the university. Three representative examples are shown below.

1) System reforms newly provided by iCeMS such as the cross-appointment system, annual salary system, and exceptions to mandatory retirement have been introduced in other departments (**Graduate School of Advanced Integrated Studies in Human Survivability**, the **Institute for Liberal Arts and Sciences**, and **KUIAS**).

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2) Various forms of support for foreign researchers from the **Overseas Researchers Support Office** in iCeMS have led to the establishment of the **International Service Office** in the University. This has been expanded to many other departments in the University.

3) Based on knowledge gained at iCeMS concerning international public relations, a new **Office of Global Communications** was established in the University in October 2015.