

The Dynamics of Charting Unexplored Intellectual Domains

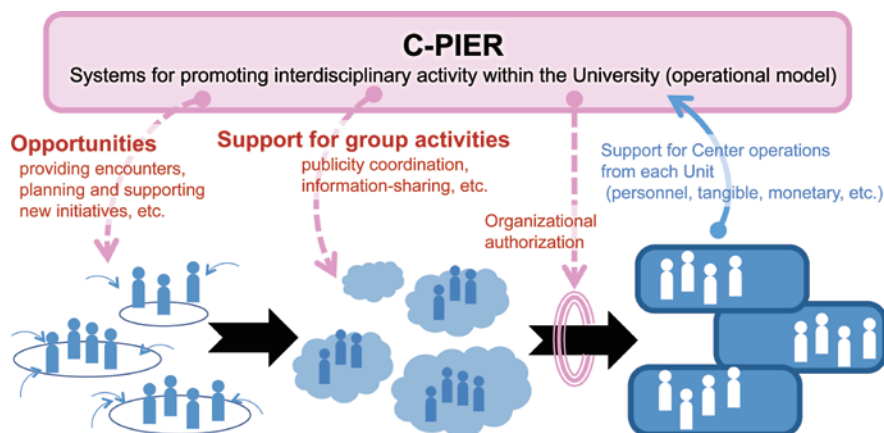
It is becoming increasingly unfeasible to address the problems facing contemporary society through research in any single discipline. Universities are now expected to produce interdisciplinary research that crosses conventional boundaries of academic discipline and college organization. Kyoto University is working to create mechanisms that induce and accelerate these interdisciplinary processes. Promotion of Interdisciplinary Education and Research (C-PIER) plays a key role in those efforts.

Center for the Promotion of Interdisciplinary Education and Research



An innovation engine to accelerate cross-organizational integration.

WEB www.cpier.kyoto-u.ac.jp



The decentralized structure of comprehensive universities in Japan limits their capacity to develop projects crossing divisional boundaries and encompassing the entire university organization. In the current social climate, however, there is more demand for cross-sectional initiatives. The Center for the Promotion of Interdisciplinary Education and Research (C-PIER) was established in order to accelerate such initiatives. Rather than waiting for interdisciplinary integration to develop spontaneously, the Center takes a strategic approach to facilitating integration. It is a pioneering presence in Japan's university community.

Specifically, the Center is engaged in the following activities.

1. **Creating “encounters” that bring together researchers from a variety of disciplinary fields**
 - ▶ Hosting cross-disciplinary forums and industry engagement initiatives
 - ▶ Researching the current status of interdisciplinary activity on campus (questionnaire surveys and dissemination of results)
2. **Generating “flexible connections” among researchers from different fields**
 - ▶ Proposing research grant applications involving interdisciplinary teams of investigators
 - ▶ Planning and supporting the organization of self-directed seminars and research forums

- ▶ Hosting a research idea contest for interdisciplinary research teams within the university (see the next section)
- ▶ Operating a bulletin board-style website to connect researchers within the university

3. Forming interdisciplinary organizations known as “Units” (see the section after next)

- ▶ Units are official organs of the university and can grant course credit to students

Communicating Innovative Ideas in a Single Page

Kyoto University Interdisciplinary Research Idea Contest.

The Kyoto University Interdisciplinary Research Idea Contest brought together researchers working in different disciplines to form teams and present a concept map illustrating their proposal on a single A3 page. A judging panel was organized with members beyond the university including entrepreneurship, government, and creative industries, in addition to the University President and Executive Vice-President. Ten teams which passed the initial documentary screening gave presentations on September 30, and the following prizes were awarded.



Prize for excellence

Development of food constituent modification techniques including allergen breakdown using physical stimuli (Dr. Kaori Shiojiri, *Assistant Professor of Graduate School of Agriculture*)

Development of techniques for transmission of olfactory information: Toward greater sensibility in information transmission (Dr. Katsura Koishi, *Assistant Professor of The Hakubi Center for Advanced Research*)



Honorable mention

African-style *jika-tabi** developed through community collaboration (Dr. Toshikazu Tanaka, *3rd year doctoral student of The Center for African Area Studies*)

* *Jika-tabi* is a traditional style of Japanese footwear suited to outdoor manual labor.



In the lead-up to the contest, the Center for the Promotion of Interdisciplinary Education and Research hosted a networking event for researchers of different disciplinary backgrounds.



Dinner Party to Promote Multidisciplinary Research



The Center for the Promotion of Interdisciplinary Education and Research (C-PIER) holds a buffet-style dinner party on the last Tuesday of every month. The event provides an opportunity for Kyoto University's researchers to gather and get to know each other regardless of their research fields or affiliations. Each dinner party sets a theme for free discussion, with the aim of exploring new research opportunities and promoting personal networking.

Not only researchers, but also administrative staff members, students, as well as persons from outside the university are welcome to the party—please come along!

Formation of Interdisciplinary “Units”

Developing groups to address the social issues and academic challenges of the present day.

The term “Unit” refers to a group of researchers gathered on a limited-term basis to work together on a common issue. There are currently 26 Units operating under C-PIER.

Advanced Biomedical Engineering Research Unit

Unit Head: **Dr. Yasuo Mori** Professor, Graduate school of engineering

WEB www.abe.kyoto-u.ac.jp/en/



Career-Path Promotion Unit for Young Life Scientists

Unit Head: **Dr. Shigekazu Nagata** Professor, Graduate school of Medicine

WEB www.cp.kyoto-u.ac.jp/index_en.html



Educational Unit for Adaptation to Extreme Weather Conditions and a Resilient Society

Unit Head: **Dr. Hirohiko Ishikawa** Professor, Disaster Prevention Research Institute

WEB 133.3.251.107/index.php?id=3



International Research Unit of Integrated Complex System Science

Unit Head: **Dr. Kazuo Mino** Professor, Institute of Economic Research

WEB www.kier.kyoto-u.ac.jp/ICSS/english/eindex.htm



Unit of Computational Science

Unit Head: **Dr. Satoru Ushijima** Professor, Academic Center for Computing and Media Studies

WEB www.cs.kyoto-u.ac.jp/

Green Innovation Management Education Unit

Unit Head: **Prof. Hiroyuki Matsui** Professor, Faculty of Economics

WEB www.cpier.kyoto-u.ac.jp/about/unit06/ (Japanese Only)

Nanotechnology Hub

Unit Head: **Dr. Kazuyuki Hirao** Professor, Graduate School of Engineering

WEB www.mnhub.cpier.kyoto-u.ac.jp (Japanese Only)



Japan-Egypt Cooperative Education and Research Unit

Unit Head: **Dr. Osamu Tabata** Professor, Graduate School of Engineering

WEB www.cpier.kyoto-u.ac.jp/about/unit08/



Unit for Advanced Studies of the Human Mind

Unit Head: **Dr. Kazuo Fujita** Professor, Graduate School of Letters

WEB www.kokoro-kyoto.org/index.html

Education and Research Unit for Regional Alliances

Unit Head: **Dr. Shigeru Takami** Professor, Graduate School of Education

WEB www.cpier.kyoto-u.ac.jp/about/unit10/ (Japanese Only)



Research Unit for Physiological Chemistry

Unit Head: **Dr. Kazuhiro Irie** Professor, Graduate School of Agriculture

WEB www.physichem.kais.kyoto-u.ac.jp/en/index.php



Pioneering Research Unit for Next Generation

Unit Head: **Dr. Masato Shiotani** Professor, Research Institute for Sustainable Humansphere

WEB kupru.iae.kyoto-u.ac.jp/en.html



Institute of Sustainability Science

Unit Head: **Dr. Hiroshi Watanabe** Professor, Institute for Chemical Research

WEB iss.iae.kyoto-u.ac.jp/iss/jp/



Resilience Research Unit

Unit Head: **Dr. Satoshi Fujii** Professor, Graduate School of Engineering *Resilience Research Unit, Kyoto University*

WEB trans.kuciv.kyoto-u.ac.jp/resilience/

Science for Public Policy Unit

Unit Head: **Dr. Koji Kawakami** Professor, Graduate School of Medicine

WEB stips.jp/



Inter-Graduate School Unit for Sustainability and Survivable Societies

Unit Head: **Dr. Kaoru Takara** Professor, Disaster Prevention Research Institute

WEB gss-sv01.gss.sals.kyoto-u.ac.jp/ja.html



Education Unit for Studies on the Connectivity of Hills, Humans and Oceans

Unit Head: **Dr. Yoh Yamashita** Professor, Field Science Education and Research Center

WEB fserc.kyoto-u.ac.jp/cohho/en/index.html



Elements Strategy Initiative for Catalysts and Batteries

Unit Head: **Dr. Tsunehiro Tanaka** Professor, Graduate School of Engineering

WEB www.esicb.kyoto-u.ac.jp/ (Japanese Only)



Elements Strategy Initiative for Structural Materials

Unit Head: **Dr. Isao Tanaka** Professor, Graduate School of Engineering

WEB esism.kyoto-u.ac.jp/en/index.html



Research and Educational Unit of Leaders for Integrated Medical System (LIMS)

Unit Head: **Dr. Hidenao Fukuyama** Professor, Graduate school of Medicine

WEB www.lims.kyoto-u.ac.jp/?lang=en



Unit of Design

Unit Head: **Prof. Toru Ishida** Professor, Graduate school of Informatics

WEB www.design.kyoto-u.ac.jp

Asian Studies Unit

Unit Head: **Prof. Emiko Ochiai** Professor, Graduate School of Letters

WEB www.kuas.cpi.kyoto-u.ac.jp/english/



Human Security Development Educational Unit

Unit Head: **Dr. Eiji Nawata** Professor, Graduate school of Agriculture

WEB www.hsd.cpi.kyoto-u.ac.jp/ja/index.html

Advanced Information Education Unit

Unit Head: **Dr. Katsumi Tanaka** Professor, Graduate School of Informatics

WEB www.dl.kuis.kyoto-u.ac.jp/~tanaka/ (about Prof. Tanaka)

Unit of Synergetic Studies for Space

Unit Head: **Dr. Tohru Tanimori** Professor, Graduate School of Physics

WEB www.uss.kyoto-u.ac.jp/e/index-e.html



Integrated Area Studies Unit

Unit Head: **Dr. Shigeki Kaji** Professor, Graduate School of Asian and African Area Studies

WEB kyouindb.iimc.kyoto-u.ac.jp/e/a18bY (about Prof. Kaji)

