Kyoto University Institute for Integrated Cell-Material Sciences (iCeMS)

iCeMS Cross-Disciplinary Collaborative Research Promotion Project 2014

Overview

iCeMS seeks to describe a chemical basis of cells, creating compounds to control processes in cells such as stem cells (materials for cell control) in addition to sparking cellular processes to create chemical materials (cell-inspired materials). Combining Kyoto University's established strength in cell biology, chemistry, and physics to delve deeply into the mesoscale world lying at the boundary of materials and life, we are making a concerted effort, through interdisciplinary research, to ultimately create a new research field of integrated cell-material science.

Beginning in FY2010, iCeMS has been putting out an annual call for collaborative research proposals to promote cross-disciplinary collaborative research projects between Kyoto University and iCeMS scientists. We look forward to receiving your proposals.

1. Eligibility

- Kyoto University scientists who will make positive contributions to cross-disciplinary collaborative efforts with iCeMS researchers
- Full-time associate professors, lecturers and assistant professors at Kyoto University
- If accepted, those who can be officially appointed as iCeMS Adjunct Faculty Members (faculty members involved in cross-disciplinary collaborative research, instruction, and advice); i.e. approval of the dean of the relevant department is required
- FY 2013 grantees must also list past research topics and progress updates on the application form
- Applications with identical topics and members for more than three years in total will not be accepted

2. Time period of the collaborative research

In principle, research should be completed within the fiscal year (i.e., by March 31, 2015). A brief report on the research results is required at the end of the term. A report form and submission instructions will be announced in February 2015

3. Number of collaborative projects to be funded

Approximately 10 projects are expected to be funded.
(FY2010: 19 projects; FY2011: 15 projects; FY2012: 15 projects; FY2013: 9 projects)

4. Support from iCeMS

- iCeMS facilities and equipment are available for use by project participants
- Start-up costs (around 700,000 yen) will be covered
- Applicants on the iCeMS side will receive additional assistance (around 300,000 yen)

Large, shared-use iCeMS equipment includes:

- Nuclear Magnetic Resonance Spectroscopy Advance III 500 US Plus, Bruker Biospin
- 3D Nanometer Scale Raman Microspectroscopy Nanofiner 3D, Tokyo Instruments Inc
- 5 Tesla Magnetic Property Measurement Systems, Quantum Design
- Confocal Laser Scanning Microscope, Olympus Inc
- FACSAria II Special Order Research Products Cell Sorter 3-Laser 5-Color Type, Becton Dickinson
- Single Fluorescent-Molecule Imaging Station
- Real-Time Terahertz (THz) Near-Field Microscope
- LSM 780/ConnfoCor3, Carl Zeiss …and more

5. How to apply

After making necessary arrangements with partner iCeMS researchers, please complete and hand in the "iCeMS Cross-Disciplinary Collaborative Research Promotion Project Application Form" to your local administration office, who will then submit your application to the project secretariat by **June 13, 2014**.

For information about research underway at iCeMS, please refer to our website (www.icems.kyoto-u.ac.jp).

6. Selection procedure

Evaluations will be based on submitted documents, but in some cases an interview may also take place. Results will be announced in late June or early July.

7. Additional notes

The application form must be prepared in English, using up to two sheets of A4-sized paper. The lengths of individual form fields may be adjusted as necessary, but the entire report should be no greater than two pages. Please use a font size larger than 10.5 points. Text for which there is no ready English translation (e.g., titles of papers and books published in Japanese) may be written in Japanese.

8. Website

http://www.icems.kyoto-u.ac.jp/e/pr/2014/05/01-crsdsprschproj.html

9. Past grantees

Graduate School of Science: Division of Physics and Astronomy, Global COE Program; **Graduate School of Medicine**: Human Brain Research Center, Center for Anatomical, Pathological and Forensic Medical Researches, Anatomy and Development Biology, Morphological Brain Science, Medical Innovation Center DSK Project; **Kyoto University Hospital**: Department of Pediatrics, Department of Cardiovascular Medicine, Department of Respiratory Medicine; **Graduate School of Pharmaceutical Sciences**: Division of Physical and Organic Chemistry, Division of Pharmacy and Biomedicinal Sciences; **Graduate School of Engineering**: Department of Chemical Engineering, Department of Synthetic Chemistry and Biological Chemistry, Department of Micro Engineering, Department of Material Chemistry; **Graduate School of Agriculture**: Division of Environmental Science & Technology; **Graduate School of Human and Environmental Studies**: Department of Interdisciplinary Environment; **Graduate School of Biostudies**: Laboratory of Cell Recognition and Pattern Formation, Division of Integrated Life Science, Division of Systemic Life Science; **Institute for Chemical Research**: Division of Materials Chemistry **Institute for Virus Research**: Laboratory of Molecular Genetics, Laboratory of Cell Regulation; **Academic Center for Computing and Media Studies**: Department of Digital Content Research, Department of Education Support; **The Hakubi Center** (members: CiRA, Graduate School of Science, Laboratory of Science Communication and Bioethics, Graduate School of Biostudies, Laboratory of Growth Regulation, Institute for Virus Research, iCeMS); **Center for the Promotion of Interdisciplinary Education and Research**: Career-Path Promotion Unit For Young Life Scientists

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