# Advanced Research Activities

# Center of Education and Research for Disaster Management



https://www.cerd.osaka-cu.ac.jp/

Immediately after the Great East Japan Earthquake, OCU launched a cross-sectional research study on ways to support the affected areas and respond to future disasters. CERD was established in 2015 to further promote these activities, focusing on the themes of "social implementation of disaster knowledge" and "disaster-resilient communities" in close cooperation with local residents and administrative agencies.

#### Center for Health Science Innovation (CHSI)



http://www.chsi.osaka-cu.ac.jp/en/

CHSI was established in 2013, aiming to contribute to preserving and improving health, with research concentrating on fatigue and active health. Through industry-university-government collaboration, the center develops health products and services, while making the latest scientific information available to society.

### Nambu Yoichiro Institute of Theoretical and Experimental Physics (NITEP)



https://www.nitep.osaka-cu.ac.jp/about.html

As the only Japanese university where Professor Nambu conducted his research as a full-time professor, we founded a research institute under his name. The main research theme is "Quest of Universality and Emergence in Physics Led by Broken Symmetry", the director of the institute being Hiroshi Itoyama from the Graduate School of Science. NITEP will promote research both from theoretical and experimental perspectives, making physics of elementary particles, atomic nuclei, spacetime, and condensed matter borderless, and forming the pillar of modern physics with "spontaneous symmetry breaking" as the central axis. Our aim from now on is to facilitate a research environment that enables the promotion of advanced and international research activities and the cultivation of young researchers. We hope to form a base for international collaboration where leading researchers both inside Japan and from abroad can gather and work together.



#### Osaka City University Advanced Mathematical Institute (OCAMI)



http://www.sci.osaka-cu.ac.jp/OCAMI/index\_e.html

OCAMI was initially established in 2003 within the Graduate School of Science following its selection for the 21st Century Center of Excellence Program under the theme "Constitution of Wide-Angle Mathematical Basis Focused on Knots." Even after the program ended, OCAMI has continued with its research and educational projects in mathematics and mathematical science and serves as an international institute encouraging young people who are interested in this field. In 2019, OCAMI was authorized as a Joint Usage/Research Center by the Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT).

# OCU Advanced Research Institute for Natural Science and Technology (OCARINA)



http://www.ocarina.osaka-cu.ac.jp/index\_e.html

OCARINA was established as an interdisciplinary research institute consisting of selected members from faculties of Science, Engineering, Medicine and Human Life Science. The aim is to find solutions for environmental problems and global crises that the world is now facing, such as shortage of energy and water resources, food production and global warming with cooperation and assimilation of the accumulated knowledge of these faculty members as project studies.

# Research Center for Urban Health and Sports (RCUHS)



http://www.sports.osaka-cu.ac.jp/?language=en

RCUHS works on interdisciplinary research in health and sports sciences in collaboration with associated administrative agencies and enterprises, to promote a healthy and active lifestyle in modern society. The center also offers lectures, sports practice, and applied experiment classes that contribute to improving students' understanding of the physiological and psychological effects of human movement and sports activity.

# Research Center for Artificial Photosynthesis (ReCAP)



http://www.recap.osaka-cu.ac.jp

To realize the artificial photosynthesis technologies required for producing solar fuel from CO<sub>2</sub>, ReCAP was established in 2013 as a center of excellence for research and development based on collaboration between the industry and academia. In 2016, ReCAP was authorized as a Joint Usage/Research Center by the Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT). The center has provided financial and technical support for collaboration proposals related artificial photosynthesis from the research community. ReCAP aims to develop a CO<sub>2</sub> recycling society for next generation using the artificial photosynthesis technologies.

## Urban Research Plaza (URP)



http://www.ur-plaza.osaka-cu.ac.jp/en/

Cities should ideally be places where new knowledge and urban culture are created through various encounters and discourses. URP, founded in April 2006, provides a platform for such endeavors with its unique structure and approach. URP has several satellite offices for studying urban problems on the scene. URP also has established international networks with various academic institutions and civic organizations in Shanghai, Yogyakarta, Bangkok, Hong Kong, Seoul, and Taipei. In addition, URP provides financial support for young researchers studying all over the world through its Research Fellow Program. Furthermore, in 2010, URP launched the international academic journal *City*, *Culture and Society* (CCS) published by Elsevier, a leading publisher, with editors working at prestigious universities including the City, University of London and the University of Zurich.