

Graduate Programs

IMS promotes pioneering and outstanding researches by young scientists as a core academic organization in Japan. IMS trains graduate students in Departments of Structural Molecular Science and Functional Molecular Science, Graduate School of Physical Sciences, the Graduate University for Advanced Studies (SOKENDAI). By virtue of open seminars in each research division, Colloquiums and Molecular Science Forum to which speakers are invited from Japan and all over the world, as well as other conferences held in IMS, graduate students have regular opportunities to be exposed to valuable information related to their own as well as other scientific fields. Graduate students can benefit from these liberal and academic circumstances, all of which are aimed at extending the frontiers of fundamental molecular science and to facilitate their potential to deliver outstanding scientific contributions. Recently, we started Course-by-Course Education Program. Students choose one of the courses of Basic, Advanced research skills, Project research, and Development research, and can stay abroad, join some big projects, or stay in private companies to improve their research achievements. For more details on Departments of Structural Molecular Science and Functional Molecular Science, young scientists are encouraged to visit IMS through many opportunities such as the IMS Open Campus in May, Graduate-School Experience Program (Taiken Nyugaku) in August, Open Lectures in summer and winter, *etc.*



International Collaboration and International Exchange

IMS has accepted many foreign scientists and hosted numerous international conferences (*e.g.* Okazaki Conference) since its establishment and is now universally recognized as an institute that is open to foreign countries. In 2004, IMS initiated a program to further promote international collaborations. As a part of this program, IMS faculty members can (1) nominate senior foreign scientists for short-term visits, (2) invite young scientists for long-term stays, and (3) undertake visits overseas to conduct international collaborations. In 2006, IMS started JSPS Asian CORE Program on “Frontiers of material, photo- and theoretical molecular sciences” (2006–2011). This program aims to develop a new frontier in the molecular sciences and to foster the next generation of leading researchers through the collaboration and exchange among IMS and core Asian institutes: ICCAS (China), KAIST (Korea), and IAMS (Taiwan). After this JSPS Asian CORE Program was successfully completed in March 2011, we have launched IMS Asian CORE Program to further promote collaborations with those four key institutes. From 2008, IMS also started JSPS JENESYS Program on “Improvement of Fundamental Research Base for Environmental and Energy Problems.” IMS provides the opportunity for young researchers from ASEAN countries to stay in the laboratories related to the basic research for environmental and energy problem for 14–90 days. Through the experience, we encourage them to continue the basic research in their own countries as well as to build up the future collaboration.



Joint Studies Programs

As one of the important functions of an inter-university research institute, IMS facilitates joint studies programs for which funds are available to cover the costs of research expenses as well as the travel and accommodation expenses of individuals. Proposals from domestic scientists are reviewed and selected by an interuniversity committee. See the details in pages 109–110. The programs are conducted under one of the following categories. In addition to the normal programs, IMS provides “Urgent Joint Studies Programs” for the researchers suffering from the earthquake on March 11, 2011 to recover and rebuild their research activities. In the “Urgent Joint Studies Programs,” the proposals in the category 3, 4, 5, and 6 are accepted.

- (1) Joint Studies on Special Projects (a special project of significant relevance to the advancement of molecular science can be carried out by a team of several groups of scientists).
- (2) Research Symposia (a symposium on timely topics organized as a collaborative effort between outside and IMS scientists). Since October, 2010, three sub-categories are set up in Research Symposia: (i) general type as in the past, (ii) Research Symposia in cooperation with foreign scientists in Asian countries, (iii) Research Symposia in cooperation with scientific societies.
- (3) Cooperative Research (a research program conducted by outside scientists with collaboration from an IMS scientist).
- (4) Use of Facilities (a research program conducted by outside scientists using the research facilities of IMS, except the UVSOR facility).
- (5) Joint Studies Programs using beam lines of UVSOR Facility.
- (6) Use of Facility Program of the Computer Center (research programs conducted by outside scientists at research facilities in the Research Center for Computational Science).

