

A Tradition of "Open-Door" Spirit Active Approaches to Social Contribution and Gender Equality

Tohoku University "Exploring-Germination-and-Growth program for young Scientists (EGGS)" Held

Founded in June 2009, Tohoku University's "Exploring-Germination-and-Growth program for young Scientists (EGGS)" (opened to 70 students in the Basic Course and 30 students in the Advanced Course) had its opening ceremony on June 12, 2010. These courses are provided annually for high school students across the country as a part of the Japan Science and Technology Agency (JST)'s Fostering Next-Generation Scientists project. The university sent invitational letters to about 2,000 high schools, and received 278 applications in FY2010, and finally 100 students were selected. They come to the university once a month to take two lecture classes. The selected young people are given the opportunity to experience cutting-edge research and tackle assignments in many scientific fields, including general sciences, engineering, biology, medicine, agriculture and environmental science. They also have opportunities to visit the university's research facilities and learn about their prospects through career education. Students and their parents have great interest in these fruitful opportunities.

In FY2010, the Extended Course was launched; it allows FY 2009 Advanced Course students to explore research in-depth with particular faculty members for one year.



"Hirameki☆Tokimeki Science"—Welcome to the University Lab-Science inspiring outreach science program for elementary and junior high school students

This program of the Japan Society for the Promotion of Science (JSPS) invites fifth and sixth year elementary school students, and junior high school students to university laboratories to have them see, hear and experience the results of research conducted at universities so that they can learn the relations between academic activities and daily life, and feel how interesting they are. Tohoku University held the following five events in FY2009.

■ July 30–31, 2009 (same event program on both days)

Professor Motoyuki Sato, Center for Northeast Asian Studies: *Ground-penetrating radar to detect mines*

Presentation to the children on how mines were removed in Afghanistan and Cambodia, and explained how the Advanced Landmine Imaging System (ALIS) detects mines by means of radar using electromagnetic waves. The children handled measuring instruments for electromagnetic waves and electricity, and experienced detection of a simulated mine by moving an ALIS around a large earth tank for the experiment.



Detecting a simulated mine with an ALIS

■ August 8, 2009

Professor Shoichiro Kurata, Graduate School of Pharmaceutical Sciences: *Feel the wonders of insect functions, together with Tohoku University Science Angels*

Some estimates claim that more than 80% of the species on the Earth are insects, and insects account for 99% of all the population on it. The children, guided by Science Angels, who are female students of graduate schools of natural sciences, explored the forming of insects' shapes, which enables them to thrive, and their excellent protective function against infectious diseases.

■ October 3, 2009

Professor Mamiko Sasao, Graduate School of Engineering: *Let's experience plasma—Energy around us*

Lectures on the present state of plasma technology, and an introduction of the relevant laboratories, were conducted. The children also experienced what plasma around us is like through an experiment to generate it, and how it can be used.

■ January 7, 2010

Professor Hitoshi Soyama, Graduate School of Engineering: *Strengthening by striking with bubbles*

The children learned why metal is strengthened by applying an impact force produced when special bubbles called, cavitations, are collapsed on it. They assembled bubble generators that they could take home for their own experiments. They also processed aluminum pieces with equipment actually used in research at the laboratory, and analyzed them with an X-ray diffractometer to learn about research activities at the site.



Lecture with an experiment by Prof. Soyama

■ October 12–13, 2009 (same event program on both days)

Associate Professor Toshiaki Muramoto, Graduate School of Information Sciences: *Language, Mind, and Communication*

The language that we use has ambiguous and insufficient aspects; nevertheless we can communicate with others, because of the excellent work of the human mind. Professor Muramoto presented various examples and demonstrations of that work.

The 8th Tohoku University Gender Equality Symposium

Ten years have passed since the Basic Act for Gender-Equal Society was enacted. Tohoku University, the first university to admit women in Japan under the "Open-Door" policy, set up the Gender Equality Committee in 2001, and has since made active efforts to implement gender equality, including establishing the Sawayanagi Prize (Tohoku University Prize for the Encouragement of Gender Equality) and the Support Program for Female Researchers.

This symposium has been held annually since 2002. In FY2009, it took place at Katahira Sakura Hall at Tohoku University on November 28, 2009. It included the presentation ceremony for the Sawayanagi Prize, lectures, reports and panel discussions.

The Sawayanagi Prize consists of three categories: Research, Activity, and Projects, to promote research and activities related to gender equality, with emphasis on active proposals or plans to realize a gender equal society. The 7th Sawayanagi Prize (Research) was awarded to Miyuki Shimoebisu, Associate Professor at the Graduate School of Arts and Letters, for her paper: "Research on Policies of Child Support after Divorce and the Status of Women – Ambiguity in the Nation's Intervention in Families." It was praised as "research from a broad perspective that covers a wide range of family welfare policies, with a focus on changes in the child support system for fatherless households with divorced mothers, and depicts the status and problems of Japan in comparison with

the United States and Britain."

The second part of the symposium titled "The State of Gender Equality in Tohoku University – Issues and Prospects as Truly Discussed" was a comprehensive report by Miyoko Tsujimura, Professor, Graduate School of Law, followed by a panel discussion on the state of gender equality and problems at Tohoku University with views and comments from the floor.

Some of the attendees' comments were: "the perspectives of 'broadening the range' and 'life-work balance' which will lead to the creation of an environment where individuals can give full play to their abilities regardless of gender" and "I would like the university to lead society theoretically and practically in implementing gender equality."



The 8th Tohoku University Gender Equality Symposium
The State of Gender Equality – Issues and Prospects as Truly Discussed

Tohoku Women's Hurdling Project—toward Next-step Actions

The Tohoku Women's Hurdling Project has provided support to help female researchers overcome obstacles along their career paths and establish systems for such support for three years since 2006. This project has produced results including newly established systems and revised internal regulations to increase female academics and improved attitudes among academics toward gender issues in the university, and increase women's involvement in the management system of the university. To further develop these results, the Tohoku Leading Women's Jump Up Project for 2013 commenced in FY2009. It has set a target of having 30 female researchers in five years in the fields of physic, engineering and agricultural sciences, where the ratio of female researchers is low, with the aim of fostering "female researchers in Tohoku who are independent, helpful to each other, and who will shape the future." The Tohoku Women's Hurdling Project still continues to be implemented as a unique project of our university, to realize a gender equal society by providing further support. This project includes the following.

■ Child Rearing/Elderly Care Support Program

One of the highest hurdles that female researchers must step over along their career paths is the task of taking care of their children/elderly parents while engaging in research. The Child Rearing/Elderly Care Support Program has reviewed, administered on a trial basis, and fully executed, a fully supported system to enable female researchers to do both tasks, in collaboration with the Committee on Equal Opportunity for Women Physiologists. The system involves dispatching a technical assistant/secretary selected from among applicants to female researchers who are rearing children, and providing financial support for the cost of hiring baby-sitters. Further developments of this program in collaboration with the Gender Equality Committee are a shortened work-time system and an improved system for extended terms of positions involved in taking child-rearing leaves, which creates an environment where female researchers are allowed to fully exhibit their abilities.

■ Next-generation Support Program

Science Angels is organized by women students who belong to graduate schools of natural sciences of Tohoku University. It was organized to nurture female researchers of the next generation and enlighten young women on selecting natural science courses for their future. The Science Angels work in scientific seminars/events outside the campus to convey the attraction and pleasure of science and research.



A Science Angels activity

■ Environmental Improvement Program

To ensure that female researchers can continue their research activities, various appropriate environments need to be in place. Child-care facilities for ill children in Tohoku University Hospital, which have operated since 2001 under space limitations, were granted an increase in staff members by this project in FY2006, so that they can now be used by the entire university. Now every graduate school of natural science/natural science laboratory has a lounge for women under this program.