

## GCOE Achievements 2007

We were selected for the Global COE Program on July 20, 2007 and started a new project entitled “Frontier biosciences: strategies for survival and adaptation in a changing global environment” led by Prof. Ko Shimamoto. The goals of this project are:

- 1) to promote scientific activities which will contribute to understanding survival and adaptation strategies of organisms in a changing global environment;
- 2) to train young scientists who will make internationally recognized achievements in the future;
- 3) to contribute to society’s quest for solutions to global food and environmental problems.

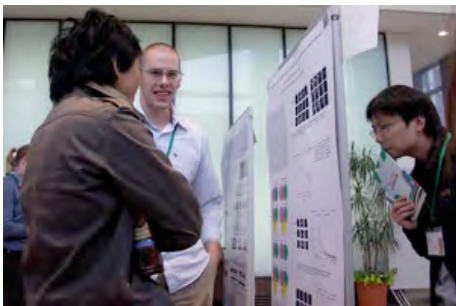
Immediately after our selection was announced, an organizing committee was formed to execute the project sequentially as in the application. This project is divided into two parts, research programs and education programs, and both are accomplished under tight international cooperation.

### Main programs in 2007

#### I. Research Programs

##### 1) International Symposia

- A) The “International Symposium on Plant Biology 2007” was held on October 18-19, 2007 at the Millennium Hall, NAIST. The theme of the symposium was recent progress in plant research, particularly in the model plants rice and Arabidopsis. Eleven eminent international scientists, including five from our international partners, CAS-IGDB (China) and UCD-BS (USA), and five Japanese scientists, including three from NAIST, were invited to give



presentations on their current research. Approximately 350 participants attended the symposium. Participants from the GCOE International Student Workshop (see below, ‘Education Programs’) also presented their work in a poster session.

- B) The “International Symposium Developmental Biology 2007” was held on January 15-16, 2008 at Nara New Public Hall. The topics included morphogenesis, cell differentiation, transcriptional regulation and regeneration during animal development. Twenty eminent international scientists, including five



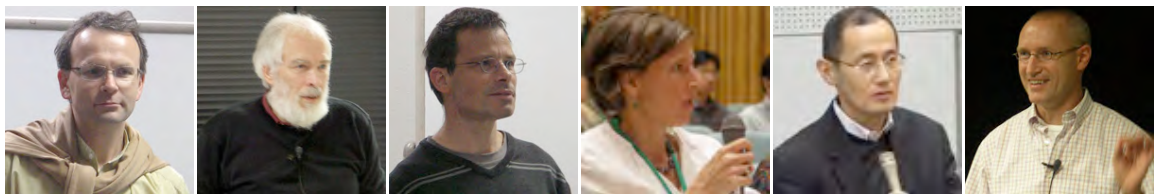
from overseas, were invited to speak. Approximately 230 participants attended the symposium.

- C) A “GCOE Microbiology Workshop” was held on March 14, 2008 in the Biological Sciences building, NAIST.



## 2) Seminars and Colloquia

A total of 65 seminars and colloquia have been held since the start of this project, including eight given by faculty from UCD-BC.



## 3) Establishment of Special Research Groups

The following three new research groups were organized and started their projects with an Asst. Prof. and a technical assistant.

- (i) Developmental Morphology Research Group led by Assoc. Prof. Mitsuhiro Aida;
- (ii) Plant Reproductive Genetics Research Group led by Assoc. Prof. Tetsu Kinoshita;
- (iii) Developmental Genomics Research Group led by Assoc. Prof. Hajime Ogino.



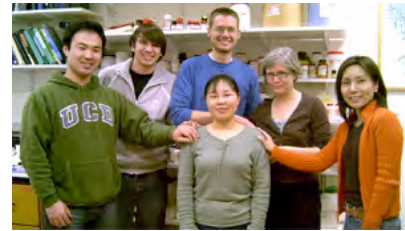
## 4) Employment of Overseas Young Researchers

Six post-doctoral fellows from overseas were employed as International Research Fellows to work at NAIST to pursue the projects identified in the COE program.

## 5) Sending Young Researchers to Overseas Laboratories

Two young researchers and three graduate students were sent to overseas

laboratories for one month to promote collaborative projects.



#### 6) Subsidies for Young Researchers

Two Young Professors, six Associate Professors and 34 Assistant Professors were financially supported after their proposed research projects were evaluated.

### II. Education Programs

#### 1) Funding to Young Researchers and Students

Eighty-five doctoral course students were employed as COE-RAs this year and 20 doctoral course students were selected as next year's COE-SRAs after their research projects were evaluated. Four post-doctoral fellows, having just received their doctoral degrees from our graduate school, were employed as COE-PDs.

#### 2) International Student Workshop

A total of 38 graduate students (13 from UCD-BC, 12 from CAS-IGDB, and 13 from NAIST) participated in this workshop at Wel Sunpia Kyoto (Kyo-Tanabe) on



October 15-17, 2007 and presented their research progress orally in English. This event was reported in the press. All of them also attended the International Symposium on Plant Biology 2007, and made poster presentations.

#### 3) Summer Camp

The Summer Camp was held at Awaji Yumebutai International Conference Hall on September 10-12, 2007. Seventy-three doctoral students and 55 faculty members gathered for presentations and discussions about their research. All the presentations were conducted in English. A Professor from UCD-BC participated, giving a seminar and review.



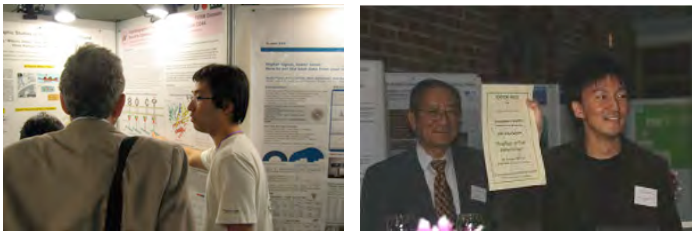
#### 4) International Lectures

Four UCD-BS faculty members gave intensive lectures about different projects and led discussions with small groups of students and researchers for two days.



#### Achievements

A total of 207 papers were published from the Graduate School of Biological Sciences this year, 186 of them in English. Almost all were published in peer-reviewed journals, several in top journals such as 'Nature' and 'Science', and 10 were published in journals having impact factors greater than 10. Some of these papers were covered by the media. Furthermore, doctoral course students were the first authors of 34 papers. This year, a total of 110 presentations at overseas conferences and 399 presentations at domestic conferences were given. The international conference presentations included 27 by doctoral students.



#### International Network

The GCOE program involves developing strong interactions with UCD-BS and CAS-IGDB. In the International Student Workshop, 25 students from the two universities participated in discussions and exchanges of ideas with NAIST students. Many researchers gave International Lecture classes and seminars at NAIST to exchange their ideas actively, which has laid a strong foundation for further international cooperation in the future.

