



## Molecular and Biological Agricultural Sciences Program (MBAS)



### Introduction

Taiwan's academic interest in agricultural sciences began in earnest about 40 years ago with a breeding program in Taiwan's local rice varieties. Since then, various life science research institutes have worked on a wide variety of agricultural projects including crop plant improvement, aquaculture, and others. At Academia Sinica, the Agricultural Biotechnology Research Center, the Institute of Plant and Microbial Biology, the Institute of Cellular and Organismic Biology, and the Institute of Molecular Biology have, to varying degrees, developed research projects and graduate programs to address specific issues in specialized areas of agricultural biology.



The Taiwan International Graduate Program (TIGP) in Molecular and Biological Agricultural Sciences (MBAS) was founded by Academia Sinica in 2003, and is an interdisciplinary program that works in close partnership with the National Chung Hsing University (NCHU). This program has built a research and learning environment that can inspire young graduate students to engage in innovative studies in bio-agriculture. From the outset, the intention of the program has been to train students to employ multi-disciplinary approaches to address specific and important questions in biotechnology and to develop emerging technologies or experimental systems that can contribute to future agricultural biotechnology research and development.



The MBAS graduate program pursues basic and applied research in the bioagricultural sciences that has the potential to lead to new platform technologies or develop into novel systems and industrial applications in biotechnology. A key emphasis of the program is to promote "translational" research whenever possible, particularly when specific new breakthrough findings in basic research can be readily and efficiently advanced into experimental research projects within the program, and are demonstrated to have the potential to be transformed or engineered into platform technology systems and industrial applications for agriculture. Aside from highlighting innovative research, the program also tries to provide networking opportunities and information systems to satisfy the communication and technological needs of the agricultural and business sectors of the biotechnology industry in Taiwan and worldwide.



### Faculty and Staff

#### Academia Sinica

#### Agricultural Biotechnology Research Center

##### Yee-Yung Charng

*Ph.D., Dept. of Biochemistry, Michigan State University, USA*  
Molecular genetics and biochemistry of plant stress response

##### Ho-Ming Chen

*Ph.D., Molecular and Biological Agricultural Sciences,  
Taiwan International Graduate Program, Taiwan*  
Plant small RNA biogenesis and function

##### Yet-Ran Chen

*Ph.D., Institute of Chemistry, National Taiwan University, Taiwan*  
Plant peptide hormones signaling involved in the development and stress defense;  
MS-based proteomics and metabolomics



**Tzyy-Jen Chiou**

*Ph.D., Physiological and Molecular Plant Biology Program,  
University of Illinois, USA*  
microRNA-mediated gene regulation; phosphorus nutrient

**Pei-Wen Hsiao**

*Ph.D., Endocrinology and Reproductive Physiology Program,  
University of Wisconsin-Madison, USA*  
Cancer biology; herbal medicine effects on cancer metastasis;  
signaling and epigenetic controls of gene expression;  
influenza VLP vaccine

**Shu-Mei Liang**

*Ph.D., Biochemistry, University of Arkansas for Medical  
Sciences, USA*  
Immunology in innate immunity; vaccine research; protein  
therapeutics for cancers

**Ming-Che Shih**

*Ph.D., Genetics, University of Iowa, USA*  
Plant molecular biology and functional genomics

**Lie-Fen Shyur**

*Ph.D., Dept. of Agricultural Chemistry, National Taiwan  
University, Taiwan*  
Phytoagents R&D for inflammatory and cancer diseases;  
metabolomics; protein engineering of industrial enzymes

**Ning-Sun Yang**

*Ph.D., Biochemical Genetics, Michigan State University, USA*  
Phytomedicines; gene and cell-based vaccine; transgenic  
biotechnology

**Wen-Chin Yang**

*Ph.D., Institut de Cancerologie et d'Immunologie de Marseille,  
Universite Mediterranee, France*  
T cell biology; signal transduction; knockout/transgenic  
mice; herbal medicine study

**Hsin-Hung Yeh**

*Ph.D., Dept. of Plant Pathology, University of California,  
Davis, USA*  
Plant virology; plant pathology; molecular biology

**Kuo-Chen Yeh**

*Ph.D., Plant Biology Graduate Group,  
University of California-Davis, USA*  
Heavy metal homeostasis in plants and biotechnological  
applications

**Institute of Plant and Microbial Biology****Long-Fang Chen**

*Ph.D., Agronomy, Iowa State University, USA*  
Plant developmental phases; omics profiling

**Wan-Hsing Cheng**

*Ph.D., Plant Molecular and Cellular Biology Program,  
University of Florida, USA*  
Sugar sensing and signaling; sugar signal interaction with  
phytohormones (ABA and ethylene); ABA biosynthesis and  
signaling

**Hsiu-An Chu**

*Ph.D., Biochemistry, University of California-Riverside, USA*  
Structure and molecular mechanisms of the photosystem  
II reaction center

**Hong-Yong Fu**

*Ph.D., Plant Molecular Biology, Texas A&M University, USA*  
Function and mechanism studies for critical components  
of the ubiquitin/26S proteasome system

**Tuan-Hua David Ho**

*Ph.D., Biochemistry, Michigan State University, USA*  
Hormone and stress signaling; function of stress proteins;  
lignocellulose degrading enzymes

**Ming-Hsiun Hsieh**

*Ph.D., Biology, New York University, USA*  
Regulation of chloroplast and mitochondrial gene  
expression

**Yue-le Hsing**

*Ph.D., Dept. of Agronomy, University of Illinois, USA*  
Rice genomics study and research on soybean seed  
maturation proteins

**Guang-Yuh Jauh**

*Ph.D., Dept. of Botany and Plant Sciences,  
University of California-Riverside, USA*  
Genes/proteins and potential autophagic machinery  
involved in plant cell

**Kazue Kanehara**

*Ph.D., Kyoto University, Japan*  
The cell systems in plants

**Chih-Horng Kuo**

*Ph.D., Genetics, University of Georgia, USA*  
Microbial diversity; genome evolution

**Erh-Min Lai**

*Ph.D., Plant Pathology, University of California-Davis, USA*  
Molecular mechanisms of plant-pathogen interactions

**Na-Sheng Lin**

*Ph.D., Dept. of Plant Pathology,  
University of Nebraska-Lincoln, USA*  
Molecular interactions of plant viruses, satellite RNA and  
plants

**Yuki Nakamura**

*Ph.D., Tokyo Institute of Technology, Japan*  
Lipids and development

**Sunny Wan-Sheng Lo**

*Ph.D., Molecular Genetics Program, Dept. of Biological Sciences,  
St. John's University, USA*  
Epigenetics and regulatory mechanism of chromatin  
dynamics

**Wolfgang Schmidt**

*Ph.D., Dept. of Biology, Univ. of Oldenburg, Germany*  
Systems biology; molecular plant nutrition

**Shih-Long Tu**

*Ph.D., Grad. Ins. of Life Science, National Defense Medical  
Center, Taiwan*  
Biosynthesis of phytochrome chromophore in higher plants

**Paul E. Verslues**

*Ph.D., University of California-Riverside, USA*  
Proline metabolism and its role in stress resistance,  
osmoregulation and osmotic adjustment, abscisic acid  
signaling and metabolism



### **Chao-Wen Wang**

*Ph.D., Cell and Developmental Biology,  
University of California-Davis, USA*

Organelle architecture; dynamics and biogenesis

### **Chung-Ju Wang**

*Ph.D., Department of Botany, National Taiwan University,  
Taiwan*

Studies of plant meiosis and anther development

### **Long-Chi Wang**

*Ph.D., Molecular Genetics, Albert Einstein College of Medicine,  
USA*

Molecular mechanism in the regulation of ethylene biosynthesis and signaling

### **Shu-Hsing Wu**

*Ph.D., Plant Biology, University of California-Davis, USA*

Light-mediated gene expression and signal transduction in Arabidopsis

### **Tien-Shin Yu**

*Ph.D., Grad. Ins. of Life Science, National Defense Medical Center, Taiwan*

Function and molecular mechanism of RNA long-distance trafficking

## **Institute of Cellular and Organismic Biology**

### **Chi-Yao Chang**

*Ph.D., Ins. of Life Science, National Tsing Hua University,  
Taiwan*

Molecular biology; virology; cellular biology

### **Jyh-Yih Chen**

*Ph.D., Institute of Zoology, National Taiwan University,  
Taiwan*

Molecular biology; molecular immunology

### **Pinwen Peter Chiou**

*Ph.D., Microbiology, Oregon State University, USA*

Fish immunology; fish viral pathology

### **Hwei-Jan Hsu**

*Ph.D., Institute of Life Science, National Defense Medical Center, Taiwan*

Developmental biology; stem cell biology

### **Cho-Fat Hui**

*Ph.D., Dept of Molecular Sciences, University of Warwick, UK*

Molecular biology

### **Sheng-Pin Hwang**

*Ph.D., Dept of Biochemistry and Cell Biology,  
State University of New York at Stony Brook, USA*

Developmental biology, molecular biology, gene regulation

### **Cheng-Fu Kao**

*Ph.D., Developmental and Molecular Biology, University of Edinburgh, Scotland*

Histone modifications and cancer

### **Yung-Feng Liao**

*Ph.D., Dept. of Biochemistry and Molecular Biology,  
University of Georgia, USA*

Neuroinflammation in Alzheimer's disease, notch signaling in neural stem cell development

### **Kinya G. Ota**

*Ph.D. Department of Genetics, School of Life Science, The Graduate University for Advanced Studies (SOKENDAI), Japan*  
Zoology; evolutionary developmental biology; marine biology

### **Yi-Ching Lee**

*Ph.D., Graduate Institute of Life Science, National Defense University, Taiwan*

Genetics; cellular and molecular biology

### **Yi-Hsien Su**

*Ph.D., Marine Biology Research Division, Scripps Institution of Oceanography, University of California, San Diego, USA*

Developmental biology; gene regulatory networks; systems biology

### **Jen-Leih Wu**

*Ph.D., Biochemistry and Molecular Biology, University of Arkansas, USA*

Molecular biology, molecular virology, developmental biology

### **Ling-Huei Yih**

*Ph.D., Institute of Life Sciences, National Defense Medical Center, Taiwan*

Cell biology; genetic toxicology

## **Institute of Molecular Biology**

### **Yu-Chan Chao**

*Ph.D., Dept. of Entomol., Univ. of Arkansas, USA*

Protein engineering and molecular manipulation of Baculovirus

### **Jy-Chian Chen**

*Ph.D., Dept. of Biological Science, Washington University-St. Louis, USA*

Analysis of carbohydrate metabolism mutants of Arabidopsis

### **Jun-Yi Leu**

*Ph.D., Dept. Molecular & Cellular, Developmental Biology, Yale University, USA*

Experimental evolution and genomic analysis of yeast mating preference and genetic buffering

### **Meng-Chao Yao**

*Ph.D., Dept. Biology, University of Rochester, USA*

Gene amplification; DNA rearrangements and chromosome instability in Eukaryotes

### **Su-May Yu**

*Ph.D., Dept. of Plant Biology, University of Arkansas, USA*

Sugar signaling and regulation in plants

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### **Yu-Chan Chao**

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Protein engineering and molecular manipulation of Baculovirus

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Analysis of carbohydrate metabolism mutants of Arabidopsis

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### **Meng-Chao Yao**

*Ph.D., Dept. Biology, University of Rochester, USA*

Gene amplification; DNA rearrangements and chromosome instability in Eukaryotes

### **Su-May Yu**

*Ph.D., Dept. of Plant Biology, University of Arkansas, USA*

Sugar signaling and regulation in plants

## **Biodiversity Research Center**

### **Wen-Hsiung Li**

*Ph.D., Mathematics and Genetics, Brown University, USA*

Evolutionary genomics; molecular evolution; bioinformatics; computational biology; population genetics; human genetics

### **Sen-Lin Tang**

*Ph.D., Dept. of Microbiology and Immunology, University of Melbourne, Australia*

Virology; archaeal biology; microbial genomics; computational biology

## **Genomics Research Center**

### **Tien-Hsien Chang**

*Ph.D., Molecular Biology, State University of New York at Buffalo, USA*

Molecular genetics and genomics of mRNA metabolism

### **Tsung-Lin Li**

*Ph.D., Chemistry, University of Cambridge, UK*

Natural product chemistry; microbial pathogenicity

### **Chi-Ming Liang**

*Ph.D., Pharmacology, University of Arkansas for Medical Sciences, USA*

Immunology; biochemistry; pharmacology

### **Chi-Huey Wong**

*Ph.D., Chemistry, Massachusetts Institute of Technology, USA*

Chemical biology; drug discovery

## **Institute of Biological Chemistry**

### **Chun-Hung Lin**

*Ph.D., Chemistry, Scripps Research Institute, USA*

Drug discovery; glycochemistry; glycobiology; enzymology

### **Andrew H.-J. Wang**

*Ph.D., Chemistry, University of Illinois at Urbana-Champaign, USA*

Structural proteomics; drug design

## **National Chung Hsing University**

### **i-Fang Linda Chang**

*Ph.D., Dept. of Horticulture, Purdue University, USA*

Molecular plant stress biology; plant biotechnology; molecular biology of plant-pathogen interactions

### **Giann-Hwa Chen**

*Ph.D., Dept. of Biochemistry and Molecular, The Pennsylvania State University, USA*

Molecular biology; microbiology

### **Hong-Lay Chen**

*Ph.D., Dept. of Civil Engineering, University of California-Berkeley, USA*

Bio-engineering; environmental engineering; bio-environmental management; bio-environmental medicine

### **Liang-Jwu Chen**

*Ph.D., Dept. of Plant Molecular Biology, University of Illinois, USA*

Plant molecular biology; chloroplast genetic engineering; functional genomics

### **Chuan-Mu Chen**

*Ph.D., Dept. of Animal Science, National Taiwan University, Taiwan*

DNA methylation and imprinting in developmental embryo; transgenic animal technology

### **Lung-Chung Chen**

*Ph.D., Dept. of Plant Pathology, Tohoku University, Japan*

Fungal genetics and biotechnology; fungal-plant interactions; molecular biology; edible and pharmaceutical fungi

### **Yu-Ting Chen**

*Ph.D., Grad. Ins. of Life Sciences, National Defense University, Taiwan*

Plant functional genomics; plant molecular biology; postharvest biotechnology

### **Yen-Wei Chu**

*Ph.D., Dept. of Computer Science, National Chiao Tung University, Taiwan*

Artificial intelligent; data mining; bioinformatics; natural computing

### **Pin-ju Chueh**

*Ph.D., Medicinal Chemistry & Molecular Pharmacology, Purdue university, USA*

The role of tNOX, a tumor-associated protein, played in cancer development; tNOX and its signal transduction pathway, the apoptotic mechanisms induced by anticancer drugs.

### **Tony J. Fang**

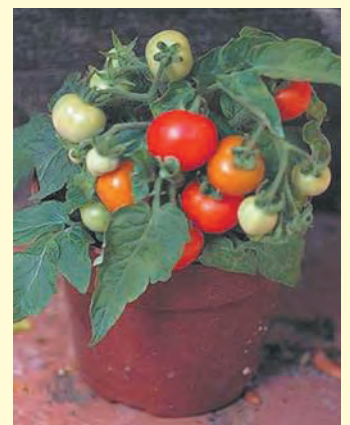
*Ph.D., Dept. of Food Science and Technology, The Ohio State University, USA*

Food microbiology; fermentation biotechnology; HACCP, CNLA

### **Ming-Hung Ho**

*Ph.D., Biochemical Sciences, National Taiwan University, Taiwan*

Function and structure study of the relationship between nucleocapsid protein and RNA of influenza virus



### **Jenn Wen Huang**

*Ph.D., Plant Pathology, University of Georgia, USA*  
Ecology and integrated management of plant pathogens

### **Mu-Chiou Huang**

*Ph.D., Dept. of Animal Science, National Taiwan University, Taiwan*  
Animal breeding and genetics; molecular biology

### **Hui-Chih Hung**

*Ph.D., Life Sciences, National Defense Medical Center, Taiwan*  
Structure and function of proteins

### **Hau-Hsuan Hwang**

*Ph.D., Dept of Biological Sciences, Purdue University, USA*  
Molecular mechanism of agrobacterium-mediated plant transformation process

### **Fuh-Jyh Jan**

*Ph.D., Dept. of Plant Pathology, Cornell University, USA*  
Plant virology; diagnosis of plant virus diseases; plant biotechnology

### **Chien-Chen Lai**

*Ph.D., Analytical Chemistry, National Taiwan University, Taiwan*  
Mass spectrometry; analytical biochemistry; proteomics; clinical screening; instrumental analysis; clinical chemistry

### **Mei-Chin Lai**

*Ph.D., Dept. of Microbiology, University of Rhode Island, USA*  
Archaea: methanogen; extreme halophiles; deep-sea microbial ecology; osmoregulation, biopolymer

### **Tsung-Han Lee**

*Ph.D., Zoology, National Taiwan University, Taiwan*  
Comparative Physiology; molecular and integrative approach

### **Wei-Ming Leu**

*Ph.D., Ins. of Biochemistry, National Yang-Ming Medical College, Taiwan*  
Molecular biology; biochemistry

### **Jyung-Hurng Liu**

*Ph.D., Life Science, National Defense Medical Center, Taiwan*  
Structural bioinformatics; X-ray crystallography

### **Meng-Hsiao Meng**

*Ph.D., Michigan State University, USA*  
Protein engineering

### **Der-Syh Tzeng**

*Ph.D., Dept. of Plant Pathology, University of California-Davis, USA*  
Physiological and molecular plant pathology; free radical chemistry

### **Min-Ying Wang**

*Ph.D., University of Maryland- College Park, USA*  
Protein production and purification; biochemistry engineering

### **Sheng-Yang Wang**

*Ph.D., Dept. of Forestry, National Taiwan University, Taiwan*  
Natural product chemistry; wood chemistry

### **Chang-Hsien Yang**

*Ph.D., Genetics Graduate Group, University of California-Davis, USA*  
Plant molecular biology; plant molecular genetics

### **Jeng-Tze Yang**

*Ph.D., Dept. of Entomology, National Chung Hsing University, Taiwan*  
Insect taxonomy and biodiversity; insect acoustics

### **Shyi-Dong Yeh**

*Ph.D., Dept. of Plant Pathology, Cornell University, USA*  
Molecular studies on papaya ringspot potyvirus; watermelon tospovirus, control of plant viruses by transgenic approaches.

## **Research Topics**

The MBAS graduate program focuses its research projects and themes on regional needs or issues in agriculture; for example, sub-tropical crop or flower plant systems, major infectious diseases of pig or chicken farms, warm water marine products, and the herbal plant systems of Chinese traditional medicine. The program encourages students to develop strong reasoning, logical thinking, and decision-making capabilities to work on strategic research in biotechnology. Within these themes and research specialties, five research areas have been defined and are actively pursued. These are:

- Plant Sciences and Biotechnology
- Molecular Virology and Vaccine Technology for Agricultural Applications
- Enzyme Technology in Bio-Agricultural Applications
- Phytochemistry and Herbal Medicine
- Microbial Genetics and Genomics

## **Curriculum**

### **1. Core Courses:**

Students taking the Agricultural Sciences course of study are required to take two of the four core courses below:

- (1) Molecular and Cellular Approaches for Biotechnology
- (2) Advanced Plant Biology
- (3) Advanced Animal Biology
- (4) Agricultural Microbiology

These courses have been designed to cover the basic principles of biochemistry, molecular biology, microbiology and also cell biology, application of transgenic technology in modern biotechnology as well as providing broad experience in the agricultural sciences.

- Seminars and Symposia: four seminar credits (one credit per semester) have to be taken during the first two years of the Ph.D. program.
- Laboratory Rotations: Students are required to participate in at least two laboratory rotations either at Academia Sinica or at NCHU, within the MBAS program during the first year.

### **2. Elective Courses:**

- Plant Reproductive Biology
- Biomolecular Analysis and Engineering
- Emerging Vaccine Technologies
- Phytochemistry and Herbal Medicine

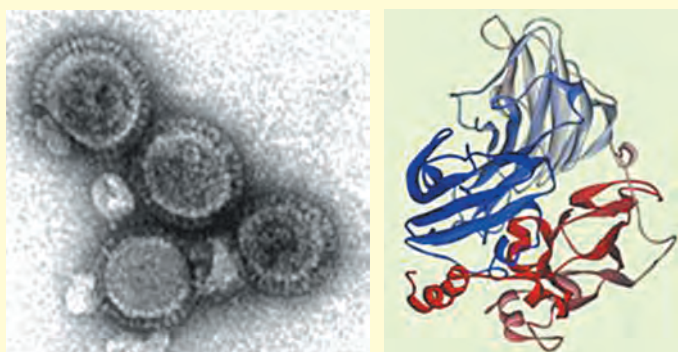


- Plant Genetics and Genomics
- Principles and Methods in Plant Biology Research
- Special Topics in Biological Sciences and Biotechnology I, II, III, IV (short-term course)
- Seminars in Biological Sciences I & II
- Other courses: Elective courses offered by other programs that are part of TIGP (with a maximum 6 credits) or selected courses offered at National Chung Hsing University.

Note: All courses are conducted in English

### 3. Chinese Language:

In order to help in everyday communication with the local people, international students are required to take a one year course in Mandarin Chinese



## Degree Requirements

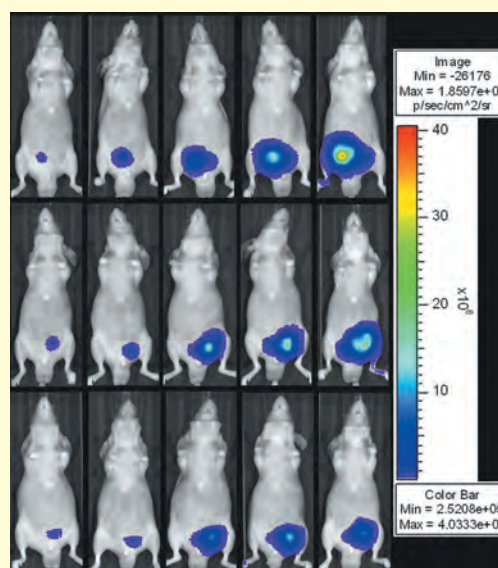
- 1. Course work:** Students are required to complete the core courses during the first two years of study. Total credits to be taken to complete the MBAS Ph.D. program are as follows:

Courses	18 credits	6 core courses + 12 elective courses * A maximum 6 credits from courses from other TIGP programs will be granted for graduation.
Thesis preparation	12 credits	
Seminars	4 credits	
Rotations	2 credits	
Total:	36 credits	Students enrolled as Master in the first year are required to take a total of 48 credits for graduation.

- 2. Qualifying Exam for Ph.D. Candidacy:** Students have to take the first qualifying exam before the end of the second academic year and to pass the qualifying examination before the end of the fifth semester. The student can choose either non-thesis or thesis qualifying exam for the advancement of Ph.D. candidate, and the decision needs to have the thesis advisor's consent. An original research proposition for thesis or non-thesis-related research and an oral defense of the written proposal are required. The

proposal should include a clear outline of goals and specific aims of the proposed research, and should provide a description of the issues to be resolved within the broad scientific context of the field. One make-up examination is permitted if the student fails the first examination.

- 3. Thesis Progress Report (optional):** Research advisors to supervise students' doctoral thesis research are selected before the end of the second year. After the requirements of the qualifying exam have been satisfied, a thesis advisory committee which convenes annually may be constituted by the research advisor to guide the student with his/her doctoral research.
- 4. Thesis Preparation and Defense:** Upon completion of thesis research, the student must fulfill the minimum requirements of article publication(s) and also obtain the thesis advisor's consent to apply for oral thesis defense. The student must deliver a Ph.D. thesis open seminar within a month after passing the oral defense.



## Admission to the Ph.D. Program

The MBAS graduate program Admission Committee considers all applicants for admission on an individual basis. Admission decisions are based on a number of factors, such as candidate's academic background, statement of purpose, letters of recommendation and relevant work experience. The appropriateness of the student applicant's study goal to the program will also be considered.

### Requirements for Admission

#### Requirements for Admission

The minimum graduate admission requirements are: (1) a bachelor's degree or an equivalent from an accredited institution; (2) evidence of adequate undergraduate training in the biological sciences, or related field; and (3) a satisfactory grade point average (GPA), usually a minimum of 3.0 (A=4.0).

#### 1. Academic Records and Degree Certificates:

Applicants are required to submit official records and

certificates from each academic institution attended after senior high school. Official records must either be the original documents issued by the institution, which bear the original stamp or seal of the issuing institution and the signature or signature stamp of the appropriate authorizing official, or duplicate copies that are certified by a university officer.

The records must be issued in the original language and accompanied by English translations prepared by the issuing institution. If English translations are not available from the institutions issuing your records, you may have a translation prepared by a government translator or an official translator. They must state that this is a complete and exact word-for-word translation of the original. The translator's statement should be prepared on the letterhead of the translator's institution. Translators must sign their statements in ink and indicate their title. If possible, translators should also use the stamp or seal of their institution.

Academic records must show the dates of your enrollment, all subjects or courses taken, units, credits per hour, and grades earned in each subject. If rank is determined by the results of comprehensive examinations, records should show the examination date and your scores, rank, class, and division. All records must include a complete description of institutional grading scales or other standards of evaluation with maximum grades and minimum marks indicated. If official academic records issued by your institution do not list the courses or subjects studied in preparation for comprehensive examinations or identify the topics on which you were examined, you should prepare two copies of course descriptions or lists of lectures, seminars, or laboratory periods attended during the academic year. Wherever possible you should include hours per week devoted to each subject and marks earned in that subject. A university officer or the supervisor of your studies should certify that such course descriptions or lists are complete and accurate.

## **2. Statement of Purpose or Research Plan:**

A brief statement of the applicant's scientific and professional interests and objectives, as well as the applicant's career goals are essential elements in the statement. Report the applicant's results on any research in progress, if applicable. This statement must be written in English by the applicant, and should not exceed 2 pages.

## **3. Letters of Recommendation:**

At least three letters of recommendation are required. Letters should be submitted in sealed envelopes with signatures of the reference across the seal.

## **4. English Proficiency Requirement:**

Students from non-English-speaking countries are expected to read, write, comprehend, and speak English in order to be admitted for graduate study. Applicants whose first or native language is not English are required to take a test of English proficiency as part of the application procedure. One of the following

language test scores must be provided for application. Please note that test scores submitted must be taken within the past two years. Applicants should ensure that the test score(s) be sent to the TIGP Admissions Office prior to the application deadline.

Although the English proficiency requirement for admission may vary in respective programs, the recommended requirements are as follows:

- (1) TOEFL: A total score of 79 on internet-based (TOEFL-iBT), 213 on computer-based TOEFL or 550 on paper-based TOEFL is strongly recommended as the minimum admission requirement for all programs. Please note that institutional TOEFL will not be accepted, only ETS International TOEFL will be accepted.
- (2) IELTS: A minimum overall Band Score of 5.5 on the Academic Test of International English Language Testing System (IELTS) taken within the past two years is required.
- (3) GEPT: In addition to TOEFL and IELTS, applicants in Taiwan may take the General English Proficiency Test (GEPT), administered by the Language Training and Testing Center. Under this option, applicants must submit their high-intermediate level certificate with the application.  
\* Exemption from the English proficiency requirement

The test of English proficiency can be exempted for applicants graduated from universities where English is the primary language of instruction with at least two year's duration of study, if the applicants provide an official certification issued by the Office of Registrar.

## **5. The Graduate Record Examination (GRE):**

All applicants are strongly encouraged to submit GRE's General Test scores to be evaluated for admission. An advanced Subject Test in biochemistry, chemistry, biology, cell and molecular biology, or physics is also highly recommended.

## **6. Applicant's published paper(s) will be useful for admission.**

Admission will be executed in two rounds. For the first round of admission, the application deadline will be on January 31st every year for further consideration. The second deadline for all applications will be on March 31st every year and the final decision to all applicants will be made and formally announced in June.

Application can be submitted through the on-line application system (recommended)

<http://db1x.sinica.edu.tw/tigp/index.php> or by post to:

Admissions Office

Taiwan International Graduate Program

No. 128, Sec.2, Academia Road,

Nankang, Taipei 11529

Taiwan

The submitted application materials will not be returned to applicants under any circumstances. The complete application materials should be received by TIGP before March 31.



## Student Status and Degree Conferral Policy

Based on the Regulations of the Ministry of Education in Taiwan, students will officially register with our partner university i.e. Graduate Institute of Biotechnology at National Chung Hsing University. Upon completion of the program, each student will be conferred a Ph.D. degree by the partner university and a certificate jointly signed by the President of Academia Sinica and the Director of TIGP.

## Cost of Study

The payment of tuition fees (basic fee + credits fee, about NT\$ 27000/US\$ 900 per semester) is due after school registration.

## Fellowship and Stipends

TIGP-MBAS will provide the fellowship support for all graduate students for the first year. All second and third year students are required to apply for the fellowship through an evaluation system during summer. The stipend levels are NT\$34,000 (about US\$1,133) per month. In subsequent years, the financial support may be provided by the students' thesis advisors; however, the amount will not be guaranteed to be the same as TIGP fellowship.

## Medical Insurance

Six months after the student receives the Alien Resident Certificate (ARC), the student will be qualified for Taiwan's National Health Insurance Program. The students are expected to pay the same premium (about NT\$749/US\$25 per month) as all the Taiwan citizens and will be entitled to the same medical coverage. The medical insurance will be added in the tuition bill.

## Housing and Living Costs

Options include on-campus housing and off-campus housing. On-campus self-catering student dormitory providing single study bedrooms is available to TIGP students at reasonable costs (for details please visit our website at: <http://tigp.sinica.edu.tw/housing.html>) Off-campus private housing is generally more expensive. Rents for off-campus flats with 2-3 rooms range from NT\$ 12,000 - 20,000 (US\$ 400 - 670, facility expenses excluded) per month.

Meals are available at the Activity Center Cafeteria, the Café, the Chinese Restaurant, and the Western Restaurant at modest costs. Various types of local cuisines are also available at off-campus cafeterias and restaurants within walking distance and at affordable costs.

## Correspondence and Information

**For general information concerning TIGP, please contact:**

### Ms. Huan-Yi Shen

Administrative Assistant  
Taiwan International Graduate Program  
Academia Sinica, Taiwan  
E-mail: [tigp@gate.sinica.edu.tw](mailto:tigp@gate.sinica.edu.tw)  
Tel.: 886-2-2789-8050 Fax: 886-2-2785-8944

**For information concerning this program, please contact:**

### Dr. Kuo-Chen Yeh

MBAS Program Coordinator  
Agricultural Biotechnology Research Center  
Academia Sinica, Taiwan  
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### Ms. Jennifer Wu

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Agricultural Biotechnology Research Center  
Academia Sinica, Taiwan  
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### Our mailing address:

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