

# When East

## A Brief History of the

American missionaries, teachers, and doctors who visited China in the early 1800s opened the path for Chinese students to enter the United States for a Western education. The first known Chinese students were Yung Wing and two other young men who came to Monson Academy in Wilbraham, Massachusetts, in 1846. Yung Wing, who eventually enrolled at Yale University, graduated with a bachelor's degree in 1854. He then returned to China and convinced the Chinese government to send students to the West to be "thoroughly educated for the Chinese Public Service." In 1872, he established the Chinese Educational Mission, in Hartford, Connecticut, and over the next four years brought about 120 students to the United States.

The influx of Chinese students to the United States has fluctuated over the years, influenced largely by internal and international political events, such as the overthrow of the Ching dynasty and the founding of the Republic of China in 1911, the Sino-Japanese War in 1937, the establishment of the People's Republic of China (PRC) in 1949, and the diplomatic recognition of the PRC by the United States in 1976. Professor Hsien Wu was among the earlier U.S.-trained Chinese students in biology. He developed the Folin-Wu method for blood analysis in 1919, returned to The Peking Union Medical College in Beijing, and established the first department of biochemistry in China.

Following normalization of U.S.-China relations in 1979, thousands of Chinese students wanted to come to the United States for advanced education and training. A major challenge, though, was that the U.S. universities had difficulty in comparing American and Chinese applicants and selecting the most qualified, since the GRE [Graduate Record Examination] and TOEFL [Test of English as a Foreign



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Language] exams were not available for Chinese applicants. To overcome this challenge, in 1981 Professor Ray Wu at Cornell University initiated the China-U.S. Biochemistry Examination and Application (CUSBEA) program with the goal of recommending qualified students in the areas of biological sciences to be educated in the U.S. The Chinese Ministry of Education, which sponsored the CUSBEA program in China, delegated coordination of the program to the biology department at Peking University. Professor Wu served as the U.S. coordinator, and he began to contact a number of major U.S. universities. Within only a year, approximately 50 universities had agreed to participate, a number that nearly doubled to almost 90 over the next seven years.

Until 1989, the last year of the program, 425 Chinese students came to

the United States through the CUSBEA program. By 1984, due to its success, even those students who applied for admission on their own benefited from the reputation of the students admitted under the aegis of the CUSBEA program.

Even though the CUSBEA program ceased operations more than 15 years ago, the Chinese applicant pool has continued to increase. In the biological and biomedical sciences, many U.S. colleges were receiving far more applications each year than they could accommodate, creating a serious logistical burden in the handling, responding, and filing of applications. And, without the CUSBEA program, it was again difficult to evaluate the qualifications of the Chinese applicants.

Robert Yu, who was chair of the department of biochemistry at the Medical College of Virginia in Richmond from the late 1980s until 2000, first brought this issue to the attention of the Association of Medical and Graduate Departments of Biochemistry (AMGDB) at its 1994 annual meeting. Many of the AMGDB attendees that year believed it would be advantageous to establish a mechanism to assist U.S. institutions in evaluating the credentials of Chinese applicants. Based on our previous experience with the CUSBEA program, we believed that a face-to-face interview by an experienced interviewer was the most efficient and cost effective

# Meets West: CUSBEA and CUSBA Programs

tive mechanism for conducting the selection process.

After additional discussions among several prominent educators in the biomedical sciences in the United States and China and with the support of the Society of Chinese Bioscientists in America (SCBA), we formally initiated the China-United States Biochemistry Admissions (CUSBA) Program in 1995. Our purpose was then, and still is, to provide coordination services in graduate admissions from Chinese students to U.S. departments of biochemistry, molecular biology, biophysics, and related fields.



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Since its inception over a decade ago, more than 50 departments and programs in the United States and Canada have participated in and sought assistance from the CUSBA program, which to date has interviewed nearly 2,000 applicants.

As of this writing, most of the CUSBEA alumni/alumnae have completed their academic training and have been doing excellent and important research. All together, more than 1,000 well-trained and talented Chinese scientists are active in the areas of biochemistry, molecular biology and biotechnology as a result of the CUSBEA program, constituting a "reservoir of talent" in the United


States. Because of its relatively short history, the number of students who have completed the CUSBA program is not yet available.

Robert Yu and Ray Wu serve as the coordinators of the CUSBA program. The U.S. coordination office is currently located at the Institute of Molecular Medicine and Genetics, Medical College of Georgia, Augusta, GA, 30912 (tel. 706-721-0699, fax 706-721-8727, E-mail: ryu@mcg.edu).

The liaison office in Beijing is chaired by Dr. Zeng-Yi Chang (a former CUSBEA graduate), professor of biochemistry and molecular biology, at Peking University, and the liaison office is located at the Department of Life Sciences, College of Life Sciences, Rm. 204, New Life Sciences Building, Peking University, Beijing 100871, China; tel.: 86-10-6275-8822; fax: 86-10-6275-1526; email: changzy@pku.edu.cn.

We are fortunate that Professor Xiaocheng Gu, who participated in the founding of the CUSBEA program, continues to act as a consultant. Drs. David Allmann and Richard Haak (Indiana University School of Medicine, Indianapolis) served as group leaders of the team who conduct the onsite interviews. We usually invite 4–5 interviewers each year from participating universities. It should be noted that the CUSBA program is a non-profit consortium for the sole purpose of providing the coordination services in graduate admissions from China to U.S. and Canadian universities.

In conclusion, both the CUSBEA and the CUSBA programs have provided a vital service to U.S. educational institutions, achieving the recruitment and training of a large number of outstanding Chinese students in biological sciences, many of whom have become leaders in the biomedical and life sciences. Nine are Investigators of the Howard Hughes Medical Institute (HHMI), and many others have become professors and achieved recognition from prestigious academic institutions. A former CUSBEA student, Professor Xiaodong Wang of the University of Texas Southwestern Medical Center, has become a member of the National Academy of Sciences.

Even though the majority of these scientists have remained in the United States, many of them have become increasingly active in helping China to develop life sciences. Those who have returned to China have made important contributions in science, engineering, education, and government service there, and, importantly, have taken an active role in the modernization of China. With the globalization of science, we will certainly witness more mixing and exchange ahead with China and other countries. 

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