Spring 2008

Fability Grants News reports on funding and research trends of public and private sources, as well as the grant and scholarly activities of Hamilton's faculty members.

The ACC flourishes with the assistance of three major grants

FOR MORE THAN A DECADE, Hong Gang Jin has administered the Associated Colleges in China (ACC), an intensive year-long Chinese language program hosted by Capital University of Economics and Business (CUEB) in Beijing. The ACC, long considered one of the best study abroad programs in China, has enabled more than 1,000 students to become linguistically and culturally proficient in Mandarin Chinese.

Even as the standard year-long ACC program continues to grow, Jin has created new opportunities for students who have completed a study abroad program and for K-12 teachers of Chinese. In 2007, she was awarded an \$80,000 grant from the Department of Education's Fulbright-Hayes Group Projects Abroad program to pilot a post-study abroad initiative. Building on the success of that pilot, she applied for two additional grants, one to the same Department of Education program and one to the Henry Luce Foundation. She was awarded both — a four-year \$944,700 grant from the Fulbright-Hayes program and a three-year \$300,000 grant from the Luce Foundation.

The initial \$80,000 pilot grant provided 12 nationally selected students, who had already completed at least one term of study abroad, with the opportunity to return to China and participate in an experience-based language and cultural internship for seven weeks during the summer of 2007. For four weeks, these students were immersed in advanced language training at CUEB. The remainder of their time in China was spent with the Education and Science Society (ESS), a nongovernmental organization that works on issues related to education in rural China. During their time with ESS, students offered day camps to elementary school students in rural areas and facilitated workshops for rural teachers in China, which included presentations and workshops.

"We chose to focus on education, since all the students had the common experience of the American education system and were therefore able to compare and contrast their experiences with those



of Chinese students," Jin explained. "We believe that by studying the educational system, students can learn about an institution with which nearly all Chinese citizens interact at one time or another. The education system can operate as a window for students from the United States to obtain a more intimate view of Chinese culture and Chinese life."

The vast majority of study abroad programs operate in urban areas. Jin's new program focuses on rural China, which made her grant applications very competitive.

"With the urban-based programs, students only have the opportunity to interact with a segment of the Chinese population that generally has access to more educational, economic and cultural resources. This project gave students the opportunity to interact with communities in rural China, where more than 80 percent of China's population resides. This also gave students a more realistic and complete picture of China and Chinese culture," Jin said.

Jin's primary concern with the new post-study abroad initiative is to make it possible for students to retain and expand upon what they learned during their initial study abroad experiences.

"While most study abroad programs do an excellent job training students to become fluent Mandarin Chinese language speakers, we are finding that students suffer a serious language loss and have a difficult time maintaining and improving their Chinese

GRANTS NEWS

IS COST-SHARING RETURNING TO NSF?

In 2004, the National Science Board (NSB) — the National Science Foundation's policy arm — decided to eliminate mandatory cost-sharing, based upon concerns that the practice was biasing award decisions and interfering with the objective review of applications on the basis of scientific merit. *Federal Grants and Contracts Weekly* (Feb. 21, 2008) is reporting that NSF may reverse its decision under certain programs because eliminating cost-sharing has unintended consequences and undermined program goals.

If cost-sharing returns, it will likely be limited, at least initially, to the Engineering Research Centers program, the Experimental Program to Stimulate Competitive Research program and the Industry/University Cooperative Research Centers program.

While the NSB conceded that cost-sharing presents "significant challenges," not the least "efforts to broaden participation in science in federally sponsored research are hindered."

However the NSB is urging NSF to investigate ways to define and communicate principles to guide cost-sharing and to train program officers to "avoid unintended or explicit requests for voluntary cost-sharing ... during the budget process."

A more comprehensive report on the subject will be released later this year.

FINAL BUSH BUDGET INCLUDES INCREASES TO NSF'S BUDGET, BUT KEEPS NIH FLAT

If approved, the final Bush budget would include increases for the National Science Foundation — mainly in the physical sciences — but increases also would be in store for biological sciences related to energy and security (*Federal Grants and Contracts Weekly*, Feb. 7, 2008).

NSF's total budget would increase 13.6 percent next year, with the majority of the increases going to engineering, math, physical science, information science and engineering.

Meanwhile, NIH officials are advising grantees that the agency's funding — the fifth year in a row with "sub-inflation" budgets — means declining success rates and fewer awards (Federal Grants and Contracts Weekly, Jan. 17, 2008). The number of new and competing grants is projected to decline to 526 in fiscal year 2007 — down from 620 this year.

continued from page 1

language skills upon returning to the U.S. Students have limited opportunities to speak Chinese at home, and without regular use, their language skills deteriorate," she added.

The first cohort of field studies students completed the poststudy abroad program this past summer. The students reported that the program was excellent and eye-opening. Moreover, an expert in language acquisition hired to evaluate the program found that all students achieved significant advances in language development.

"While classroom interaction is valuable, it lacks authenticity and communicative contexts. Placing students in the field took them out of the classroom, and I believe this experience will promote retention of the language much longer than traditional programs," Jin said.

Before the first cohort of students left for China last June, Jin approached the Henry Luce Foundation about supporting the program for three subsequent years. The Luce Foundation, particularly impressed with the rural focus of Jin's program,

agreed, and she was awarded a three-year \$300,000 grant. The first Luce-supported students will travel to China this summer.

"The demand for slots in the field studies program far exceeded what we could accommodate. I'm grateful to the Luce Foundation for enabling us to expand the program," Jin added.

Every four years, the Fulbright-Hayes program holds a competition for its Advanced Overseas Intensive Language program. Unlike the first Fulbright-Hayes grant Jin received to pilot the post-study abroad program, which permitted only one year of funding, the Advanced Overseas Intensive Language program allowed applicants to request support for up to four years.

Jin's AOIL Fulbright-Hayes proposal had three components: 1) scholarship support for students interested in the year-long ACC program; 2) instructional support and scholarships for the post-study abroad field studies program; and 3) the establishment of a new program for pre-service or in-service K-12 teachers of Chinese.

"While classroom interaction is valuable, it lacks authenticity and communicative contexts. Placing students in the field took them out of the classroom, and I believe this experience will promote retention of the language much longer than traditional programs," Jin said.

Not only will there be fewer grants, but also grants will buy less relative to growth in recent years in the average size of awards. The average in 1999 was \$281,000 while the 2007 is \$354,000.

NSF AND NIH MOVE TOWARDS INSTITUTING CHANGES TO GRANTMAKING PROCESSES

NSF has been focusing a two-year analysis that it has dubbed The Impact of Proposal and Award Management Mechanisms (IPAMM) (Federal Grants and Contracts Weekly, Jan. 10, 2008). The study examined factors involved with declining success rates and is making recommendations to achieve a better balance between funding rates, awards sizes and duration.

NSF's funding rate for research proposals decreased from 30 to 21 percent from fiscal year 2000 to 2006 and IPAMM claims the decrease wasn't entirely due to budget cuts. IPAMM's major findings included:

- Funding rates declined due to a surge in proposals, even as budgets often remained flat, and while NSF was making an effort to increase the average award size.
- Proposals increased because of the growth in the research community's capacity, decreases in funding from other sources, and increases in targeted solicitations in new areas.

IPAMM made a number of suggestions, including that directorates should incorporate a more flexible management system; long-term planning must be incorporated into new funding opportunities; limiting the number of proposals a faculty member and/or an institution may submit could be useful in some instances; and NSF should ensure that accurate statistical data on funding rates is more readily available.

NIH, meanwhile, is focusing on tweaking its increasingly burdened peer review system to better respond to the rapid changes in the biomedical and behavioral sciences fields (Federal Grants and Contracts Weekly, Feb.28, 2008). Because success rates for new investigators are traditionally lower, NIH is looking to ensure the future biomedical and behavioral sciences workforce. NIH is considering a number of changes, including reducing the number of applications by providing unambiguous feedback, such as establishing a "not recommended for resubmission" decision option; eliminating the "special status" accorded to amended applications, which are often reviewed before new proposals, and considering all applications as "new"; enhancing the review system to better focus on organizational wide priorities; recruiting more reviewers by creating incentives for reviewers, such as flexible deadlines for those who volunteer services; and, continuing to fund more R01 for early-career investigators.

"Students often cite cost as the reason for not participating in the year-long ACC program," Jin said. "The Fulbright-Hayes grant will enable us to provide some much-needed financial relief to talented and motivated students who simply don't have the resources to enroll in the program."

Jin is particularly excited about establishing the new program for K-12 teachers. To respond to a serious shortage of Chinese language teachers at K-12 levels, many colleges and universities are beginning to offer teacher training programs for Chinese language. However, Jin notes that many of these programs target native Chinese speakers and focus only on pedagogy and materials development. "They ignore the fact that many non-native teachers of Chinese are now teaching, with many more planning to join the force. These teachers will need both pedagogical training as well as refresher language courses as part of their in-service and pre-service professional training — all things the ACC program can provide."

The summer Chinese Language Teachers Institute will support U.S. K-12 teachers of Chinese with a six-week immersion program in China. In addition to advanced language training, the institute will host professors from different institutions in Beijing to lead discussions on China's society, education, economy, government, family structures, folklores, literature, arts and culture. Cultural tours to historical sites in Beijing and nearby cities will be arranged.

Teachers will also participate in training workshops organized on theories and practice of teaching Chinese as a second language, including pedagogical principles of second language instruction, curricular design and instructional approaches, classroom techniques, small group and task-based instruction, and assessment.

"We will have a highly respected second language acquisition scholar with us, and she will be responsible for administering preand post-tests to assess the development of language skills for all program participants," Jin said. The preliminary evaluation of the initial Fulbright-funded field studies program showed that all students made significant gains in these areas, and Jin expects to see similar results this summer.

The Fulbright-Hayes Group Projects Abroad program is administered by the U.S. Department of Education and provides grants to support overseas projects in training, research and curriculum development in modern foreign languages and area studies for teachers, students and faculty engaged in a common endeavor. The Henry Luce Foundation was established in 1936 by Henry R. Luce, the co-founder and editor-in-chief of Time Inc., to honor his parents who were missionary educators in China. The foundation builds upon the vision and values of four generations of the Luce family — broadening knowledge and encouraging the highest standards of service and leadership.

Please join the Office of Foundation, Corporate and Government Relations as we extend congratulations to the following faculty members who have recently received awards or submitted proposals.

SELECTED AWARDS AND SUBMISSIONS

HAENG-JA S. CHUNG, associate professor of anthropology, was awarded a long-term fellowship from the Social Science Research Council and the Japan Society for the Promotion of Science to support her project Erotic Capital of Korean Hostesses in Japan: Performative, Emotional & Affective Labor.

DAVID G. BAILEY, associate professor of geosciences and co-director of geoarchealogy, and GEORGE T. JONES, professor of archaeology and co-director of geoarchealogy, submitted a proposal to the National Science Foundation's Major Research Instrumentation program requesting \$273,659 for support of their project Acquisition of an X-ray fluorescence spectrometer to enhance faculty-student research and to support Hamilton College's environmental sciences initiatives.

MARK W. BAILEY, associate professor of computer science, was awarded a \$25,000 grant from the Microsoft Corporation for his project Defense against the Dark Arts: Phase II.

TIMOTHY E. ELGREN, professor of chemistry, submitted, with colleagues from Loyola University of Chicago, the Medical College of Wisconsin, Northwestern University and the University of California at Santa Cruz, a proposal to the National Science Foundation requesting \$547,419 to support the project Collaborative Research in Chemistry for the Conversion of Nitriles to Amides.

NAOMI E. GUTTMAN, associate professor of English, was awarded a \$20,000 grant from the Canada Council for the Arts to work on a collection of poems titled Resurrections of the Body.

KARL N. KIRSCHNER, visiting assistant professor of chemistry and co-director of the Center for Molecular Design, submitted a proposal to the National Institutes of Health requesting \$231,197 for his project The Development of a Comprehensive Atomic Force Field for Lipids.

GEORGE C. SHIELDS, professor of chemistry and co-director of the Center for Molecular Design, submitted a proposal to the National Institutes of Health requesting \$218,860 for his project Computational Design & Experimental Validation of Anti-Breast Cancer Leads. Shields also submitted, along with colleagues from Mount Holyoke College, University of Richmond, Connecticut College, Truman State University, Westminster College, Rhode Island College, Rhodes College and Wheaton College, a proposal to the National Science Foundation's Major Research Instrumentation program Performance Computer for the Molecular Education and Research Consortium in Undergraduate Computational Chemistry (MERCURY).

NICOLE L. SNYDER, assistant professor of chemistry, submitted a proposal to the American Chemical Society – Petroleum Research Fund requesting \$60,000 for support of her project Mechanistic Studies of Immobilized Cellulase.

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