The China-America Connection

To understand why Chinese are prone to cancer of the esophagus, Rutgers pharmacologist Chung Yang and Chinese pathologist Wang Li-Dong of Henan Medical University will do research in China's Hunan Province sponsored by the U.S. National Institutes of Health. But the collaborators view this effort as more than just a research project: It's an opportunity to strengthen ties between Chinese-American scientists and their Pacific Rim counterparts.

Yang intends to bring Wang to Rutgers later this year to update him on biomedical techniques and to produce what he calls "a more 'international' Chinese scientist." Yang foresees the effort as a model arrangement for the Society of Chinese Bioscientists in America (SCBA), an organization he leads that's committed to advancing the careers of Chinese-American scientists.

The society is one of a growing number of organizations for Chinese-American scientists and engineers that serve as informal links to researchers in Asia. These networks, which include organizations of Chinese-American chemists and physicists, help not only to provide opportunities for scientists from Asian countries to work and train in the United States but also to assist Asian governments and companies in recruiting top-flight U.S. researchers for jobs in Asia.

SCBA was conceived in a San Francisco restaurant in 1983 by three senior Chinese-American scientists—Yale pharmacologist Yung-Chi Cheng, University of Minnesota pharmacologist Horace Loh, and University of California, San Francisco, molecular parasitologist C.C. Wang. It has remained apolitical—it took no position on the Tiananmen Square massacre in 1989, for example—and has grown from 200 members in 1985 to more than 1500 in 1993. Yang insists the SCBA "can play a major role in improving biological science in the Pacific Rim."

The society's key role is as an employment matchmaker. Senior SCBA members trawl the society's meetings for collaborators or postdocs, and post-docs do the same in search of job openings. Until recently, much of this networking occurred between Asian researchers already in the United States, but the society is increasingly reaching across the Pacific. One indication: It met in Hong Kong in 1990 and in Singapore in 1992. In addition, its meeting in Baltimore last June was attended by talent scouts from several Asian organizations, including three from Taiwan—the National Institute of Preventive Medicine, the Development Center for Biotechnology, and the Institute of Biomedical Sciences at Academia Sinica—trying to recruit researchers from the United States.

"Many trainees are going home to Taiwan, Singapore, and Hong Kong because they're offering better opportunities than America," says former SCBA president Yung-Chi Cheng. "There are a lot of positions abroad," adds Harvard physical chemist Shao Huang, president of the 1000-person strong Chinese-American Chemical Society, whose members are prime candidates for many of those slots.

As the SCBA looks toward Asia, it also is helping members develop their professional skills. Foremost among the society's goals is to "start changing the stereotype that orientals are good with their hands but can't communicate," says cell biologist Savio Woo of Baylor College of Medicine, a past SCBA president. While the chatter of Chinese dialects fills the halls and poster rooms at society meetings, the official language—the one used to deliver talks—is English.

By honing the professional skills of Chinese-American scientists and tapping into the existing wealth in Asia to train more Chinese scientists, Yang and others hope to develop more researchers who can contribute scientifically on both sides of the Pacific. Their first step is to instill the kind of international awareness that Yang sees blossoming in his Hunan colleague.

–Richard Stone

stitutes is an insistence on international reviews. They also use English in everyday scientific discourse. But it is not clear if other, less prestigious institutions will follow their example. "Local scientists really prefer their isolated, easy life than to open up and compete internationally," complains a prominent Taiwanese returnee.

Regional collaboration

Cooperation is another way to overcome isolation and strengthen Asian science. But most Asian researchers would still rather collaborate with the West than with fellow Tigers or even with Japan. "I don't think Asian countries can provide as much up-to-date information," says one Korean immunologist.

Once again, the impetus for change is coming from returnees. Last summer, scientists from Taiwan's IBMS and Singapore's IMCB—mostly returnees—went on a 3-day retreat at a hot springs resort in the mountains south of Taipei. "We're calling it Hot Spring Harbor," jokes IMCB's director Y.H. Tan, who hopes the retreat becomes an annual tradition under the auspices of the new Asia Pacific Society of Bioscientists. For theoretical physicist Rey Soo-Jong, now an assistant professor at Seoul National University, his years at Caltech and the University of California, Santa Barbara, brought him in contact with Japanese colleagues. Now back home, they hope their friendships will blossom into collaboration. "I think it's a waste of resources not to make contact," says Rey. "Some Japanese may say, what can they learn by exchanges with Korea? But if you're a good physicist, you realize any time you exchange ideas with someone, you get twice as many new ideas. You can always learn another dimension of problem solving."

Economic forces are also beginning to forge regional collaborations. No single Asian nation has enough money, talent, and know-how to develop science and technology across the board, but some are beginning to form strategic alliances that enable them to complement one another.

The electrical engineering lab at Fudan University in Shanghai, one of China's top science and engineering universities, may be a harbinger of the future. Housed in a modern six-story building donated by a Hong Kong movie mogul, the lab is furnished in universal high-tech decor, down to the white laminated desktops and flannel-gray partitions. Using $2 million worth of CAD equipment, the researchers turn out designs for very large-scale integrated circuits to be fabricated by companies like United Microelectronics Corp. in Taiwan and Samsung in Korea. Across the hall, the computer science department runs a joint project with the European Community to test computer hardware and network software against international standards. In both cases, the foreign partners provide costly equipment, and the Chinese furnish brainpower at salaries of less than $100 a month.

Not far away, at Shanghai's Institute of Organic Chemistry, Wang Lai-Xi is synthesizing potential anticancer molecules for Singapore's IMCB. IMCB's Tan dreams of teaming up with multinational drug companies to test and market new drugs among China's 1.2 billion people. For Tan, the future lies in Asia. Says he: "I used to think, Singapore is too far from United States and Europe. Now I think the United States and Europe are too far from China."

–June Kinoshita