

Asia/Pacific 'bionetwork' comes to life

[TOKYO] Only six months after it was first publicly discussed, a network of life scientists in the Asia-Pacific region that aims to boost biomedical research and biotechnology in the area has begun to take shape. The network will be modelled on the European Molecular Biology Organization (EMBO).

Meeting in Shanghai, China, at the end of last month, representatives of the founding members of the International Molecular Biology Network for Asia and the Pacific Rim (IMBN) agreed on rules for membership and a draft constitution. They also elected key officers, and pulled together sufficient seed funding to begin operations next year.

The concept of the network was discussed at a meeting of scientists from throughout the region in June (see *Nature*, 388, 3; 1997) and was endorsed by science officials of the Asia-Pacific Economic Cooperation (APEC) forum in Singapore in October.

Ken-ichi Arai of Tokyo University's Institute of Medical Science has been elected chairman of a task force that will draw up an initial membership of about 200 scientists from the region by next spring and set up a governing council. Jeongbin Yim, director of the Institute for Molecular Biology and Genetics at Seoul National University in Korea, and Louis Lim of the Institute of Molecular and Cell Biology in Singapore,

will both act as vice-chairmen.

The executive director and coordinator of the network's secretariat is Gurinder Shahi, a founding father of the International Vaccine Institute in Seoul (see *Nature* 389, 655; 1997). He will be based in Singapore, but expects the network to have 'virtual' offices throughout the region, which he will coordinate. As in the case of EMBO, members will be selected on the basis of scientific 'excellence'; EMBO is expected to help by screening potential members, says Shahi.

The task force set approximate membership quotas for each country or economy in the area. Japan is expected to have up to about 40 members, Australia, China, Chinese Taipei (Taiwan), and Korea up to about 20 each, Hong Kong, India, New Zealand and Singapore up to about 10 each, and Indonesia, Malaysia, the Philippines and Thailand up to about 5 each.

But the task force also wants membership to be open to individuals from other countries in Asia and the Pacific Rim, including, potentially, the United States, Canada, Russia and Latin American countries in APEC.

A governing council will be elected from among the founding members, probably with one representative from each country/economy in the region, but possibly with one extra representative for those with large

numbers of members. "Such an approach will help ensure broad representation while enabling more scientists from economies with a concentration of excellence to serve IMBN," says Shahi.

The first meeting of the governing council will be held in June in Pohang, South Korea, in association with IMBN's first conference, to be held that month in Seoul. A second phase of membership development is planned after June with membership on two levels — 'members' who will be able to vote and serve as members of the governing council, and 'associates', those committed to the idea of IMBN but not yet meeting the organization's criteria of excellence.

Several participating institutions have agreed to provide seed financial support to kick-start IMBN activities, and funding commitments totalling more than US\$300,000 have already been made by institutions, government and industry in the region.

IMBN plans to support short-term fellowships for scientists and graduate students to visit centres of excellence for collaborative research and/or training. It will also sponsor courses and workshops and provide small grants for collaborative research involving scientists from two or more economies.

David Swinbanks

Taiwan looks to the skies for a boost to its basic research

[TOKYO] Taiwanese astronomers have won approval for a small but ambitious international project to carry out the first survey of the outer regions of the Solar System to look for comets and small objects. The Taiwan-American Occultation Survey (TAOS), a joint two-year project with the Lawrence Livermore National Laboratory's Institute of Geophysical and Planetary Physics (IGPP) in the United States, will lead to the construction of the first observatory in Taiwan to carry out international research.

Astronomers at Taiwan's Academia Sinica and National Central University will work alongside researchers from the Lawrence Livermore National Laboratory in California, who carried out the Massive Compact Halo Object (MACHO) project.

The astronomers plan to use three automated 0.5-metre optical telescopes, stationed at a height of 2,800 metres and located within 7 km of each other in the Jade Mountains in Taiwan, to survey the Kuiper Belt. They will conduct a census of objects down to 3 km in size, and will also survey the inner Oort Cloud.

Two-thirds of the \$500,000 funding for the new TAOS hardware comes from organizations in Taiwan including Academia



High hopes: the Jade Mountains will host three new telescopes.

Sinica, the National Science Council, and the Ministry of Education, with the remainder coming from the US Department of Energy. The telescopes will be operational within two years.

Basic research and astronomy are growing rapidly in Taiwan, fuelled by increasing numbers of researchers

returning to Taiwan from the United States (see *Nature* 383, 12; 1996). "This is how the electronics industries developed in Taiwan 10–15 years ago when experienced engineers and managers were brought to Taiwan," says K. Y. Lo, the director of the Institute of Astronomy and Astrophysics at Academia Sinica, who himself recently returned to Taiwan from the University of Illinois.

An influential panel of Chinese astronomers and astrophysicists based in the United States and Canada, led by Frank Shu of the University of California at Berkeley, have played an important role in planning

projects and building momentum for the Taiwanese study. Five years ago the panel was instrumental in creating the Astronomy and Astrophysics Institute at Academia Sinica, Taiwan's leading government research institute. It was also involved in the decision by Academia Sinica last June to expand, through a partnership with its new institute, the Smithsonian Astrophysical Observatory Sub-Millimeter-wave Array (SMA), increasing the number of telescopes on Mauna Kea in Hawaii from six to eight.

It is hoped that the high technology used in astronomy will stimulate Taiwanese industry. "Basic research needs to develop to stimulate further high-tech development," Lo argues. There is already some spin-off from these projects: two of the SMA telescopes to be stationed in Hawaii are being built in Taiwan, and structural carbon-fibre reinforced plastic tubes for all eight telescopes are being built by a bicycle-frame manufacturer in Taiwan.

Astronomers in Taiwan hope that SMA and TAOS will increase the discipline's visibility in Taiwan by attracting students and encouraging university physics departments to expand their astronomy and astrophysics programmes.

Richard Nathan