

Wolf winners

Rehovot

THE winners of the 1983-84 Wolf Foundation Prizes in the sciences have been announced in Herzliya, Israel. The Wolf Foundation was set up in 1976 with an endowment fund of \$10 million and the prizes, worth \$100,000 each, have become known unofficially as the Israeli Nobel prizes. The prizes are awarded for chemistry, physics, mathematics, agriculture, medicine and the arts, but this year there will be no prize for medicine. (The winner of the arts (architecture) prize has yet to be announced.)

The chemistry prize is shared by three US university professors, Herbert S. Gutowsky of the University of Illinois, Herden M. McConnell of Stanford University and John S. Waugh of Massachusetts Institute of Technology, for the "singular contribution" of magnetic resonance spectroscopy to the theory, structure and dynamics of molecules.

The physics prize is shared by Professor Erwin L. Hahn of the University of California at Berkeley, Dr Theodore H.



Sir Peter Hirsch — a share in the physics prize

Maiman of TRW Inc., Los Angeles, and Sir Peter Hirsch, chairman of the United Kingdom Atomic Energy Authority and professor of metallurgy at the University of Oxford. They are honoured for their work in discovering nuclear spin echoes, for the realization of the first operating laser, and for the development of the scanning electron microscope respectively.

The mathematics prize is shared by Professor Shiing S. Chern of the University of California at Berkeley and Professor Paul Erdos of the Mathematics Institute at the Hungarian Academy of Sciences in Budapest. Both are described as "veteran mathematical giants". The agriculture prize goes to Professor Don Kirkham of Iowa State University and Professor Cornelis T. de Wit of the Agricultural University of Wageningen in the Netherlands, both of whom have made "innovative contributions" to the quantitative understanding of soil/water and other environmental interactions influencing crop growth and yield. The awards will be made in Israel in May.

Nechemia Meyers

US space station

NASA seeks partners, purpose

Washington

WITH presidential approval for a space station tucked firmly under his belt, James Beggs, administrator of the National Aeronautics and Space Administration (NASA), is about to tour world capitals in search of international partners for the new venture. And because NASA has still only the sketchiest notion of what it wants from a space station, countries willing to make an early investment can expect a big say in the final design.

During the past two years, while NASA has been arguing the case for a space station, tentative discussions have taken place with the European Space Agency, a number of individual European nations, Canada and Japan. But until last week, when President Reagan gave the space station formal approval in his state of the union message, NASA had been unable to negotiate in earnest.

Beggs is now in an unusually strong position. His status during his overseas tour will be as President Reagan's personal emissary. Meanwhile, one of the principal impediments to foreign collaboration — the involvement of the Pentagon — has been removed. The Department of Defense has so far refused to find a military argument for supporting the new venture. As a result, the space station is being justified by the administration solely on scientific and commercial grounds, and there will be no Pentagon contribution to the \$8,000 million development budget.

For overseas partners, however, the most attractive feature of NASA's space station is that it has not yet been designed. Beggs intends to wait for at least another two years before completing plans for the station and beginning hardware development. After the state of the union message last week, NASA was careful to keep the technical specifications of the space station as vague as possible.

All that NASA is saying for the moment is that the station will provide for a permanently manned base in a low inclination orbit. In addition to living quarters for a crew of six to eight, the station will house data-processing facilities and a docking hub for the shuttle. Pressurized modules for scientists and astronauts will be attached to the station, as well as unpresurized free-flying platforms capable of performing a variety of functions.

The purpose of the space station is, so far, almost as vague as its design. Possible roles listed by NASA range from the relatively mundane, such as the tending and repair of satellites and space telescopes, to the frankly exotic. In the long run, NASA maintains, the space station could become the first step towards the establishment of a manned lunar base, or a manned mission to Mars.

Despite its glee at having at last won its

battle for a space station, NASA was careful last week to mollify some of the groups that had opposed it. The space science board of the National Academy of Sciences concluded last year that developing a manned space station could not be justified on scientific grounds alone. NASA is now promising to work closely with the space science community and to do its best to ensure that space science funds are not raided to provide funds for development of the space station.

Peter David

US materials science

Setback for Keyworth

Washington

AFTER a year of trouble for his plan to establish a National Center for Advanced Materials (NCAM) at Lawrence Berkeley Laboratory (see *Nature* 301, 456; 1982), presidential science adviser George Keyworth has bowed to the inevitable and asked the National Academy of Sciences to study priorities for "major facilities" for materials science.

The original NCAM plan met with harsh criticism from many materials scientists who complained that the proposal had been sprung on them without warning and without the benefit of peer review. Responding to these criticisms (and perhaps sensing a budget item that could be raided for several pork-barrel projects), Congress last spring cut the \$26 million that the President had proposed for NCAM in his budget for fiscal year 1984 to a mere \$3 million and ordered that no more should be spent until a scientific review of the project was completed.

A Department of Energy panel headed by Albert Narath of Sandia National Laboratories was appointed to carry out this review; last fall it declared that the centrepiece of the NCAM proposal, a new advanced synchrotron light source intended as a national facility should not be locked up in a laboratory dedicated to materials research. NCAM has since become mere CAM, and Keyworth's efforts to turn the spotlight on materials science have been pushed back to square one.

The National Academy panel, headed by Frederick Seitz, president of Rockefeller University, New York until 1978, will be considering facilities with an initial cost of \$5-10 million or more, including synchrotron and neutron sources. The panel will report next summer, in time for its recommendations to be considered for inclusion in the then President's budget for the fiscal year 1985-86.

Stephen Budiansky