

US industrial research

Incentives for innovation

Washington

WITH fear of Japanese competition assuming epidemic proportions in the United States, the Reagan Administration is mixing together a cocktail of legislative and fiscal tonics designed to persuade industry to spend more on research and development. Ingredients include a battery of tax rewards for companies increasing their research effort; major reforms of the anti-trust laws; and new schemes to make it easier for corporations to raise money for high-risk research projects.

So far the United States has nothing to compare with Japan's "mighty MITI" — the Ministry of International Trade and Industry credited by American government officials with almost magical powers to target and dominate new high technology industries. But the US commerce department does have an office for Productivity, Technology and Innovation (PTI) whose head, former industrialist Bruce Merrifield, believes he can give MITI a run for its money.

One of Merrifield's main innovations is a system of Research and Development Limited Partnerships (RDLPs) through which big corporations enjoy a variety of tax advantages by raising outside venture capital to fund large-scale research projects. Under RDLPs, corporations raise money from external partners who shoulder the financial risk of the research

project in return for tax benefits, royalties and other forms of profit sharing.

The Department of Commerce says that the scheme has generated massive interest and that major RDLPs are being formed in areas such as biotechnology, semiconductors, aerospace and education technology. In a typical example last December, Genentech raised \$56.6 million from private investors for clinical testing of a new human growth hormone and



gamma-interferon. And the Semiconductor Research Corporation, the research cooperative formed last year by a dozen electronics companies, is considering using an RDLP to finance development of a new 4-megabit chip.

Merrifield's PTI also claims the credit for having prodded the Reagan Administration into crafting a package of reforms that would free companies which band together for research projects from fear of prosecution under the antitrust laws. The administration has recently been heaping praise on the Microelectronics and Computer Technology Corporation (MCC), the joint research venture set up by 12 companies to beat back the Japanese challenge in microelectronics. But MCC went ahead only because it was given a cautious green light by the antitrust division of the Justice Department.

To allay the fears of companies wishing to follow MCC's example, the administration has asked Congress to change the antitrust law so that joint research agreements will not be considered automatically unlawful in antitrust suits and will therefore not be in danger of having to pay treble damages. Furthermore, courts would in future have to weigh the erosion of domestic competition caused by such agreements against the benefit they might have for the nation's competitiveness.

PTI's initiatives are taking place against a background of lucrative tax breaks for companies expanding their stake in research. Under the Economic Recovery Tax Act companies which increase their

Biotech teams up with China

Washington

BIOTECH Research Laboratories, a Maryland-based developer and supplier of monoclonal antibodies, has signed what it believes to be the first biotechnology research agreement between a US company and the People's Republic of China.

Thomas Li, Biotech's president, told *Nature* that under a three-year contract beginning in October the company is to train members of the Shanghai Cancer Institute in the development of monoclonal antibodies at the company's Maryland Laboratories. On their return to China, the Shanghai staff would develop their own projects, with each partner permitted to use the end products. With China's new policy of encouraging foreign investment, the research collaboration could lead to a decision by Biotech to manufacture its products in China instead of importing them.

The arrangement has two obvious benefits for Biotech, a ten-year-old company that reported revenues of \$1.5 million last year. It will give the company access to clinical material from patients with diseases, such as oesophageal and nasopharyngeal cancers, which are prevalent in South-East Asia but rare in the United States. And it could give the company a foothold in a huge market for its diagnostic products.

Peter David

spending on research over a three year average qualify for a 25 per cent tax credit. PTI is arguing that the tax credit should be extended beyond its 1985 expiry date and looking at proposals to enlarge it so that the development of computer software — not currently defined as research — could qualify for tax relief. The act might also be changed to enable new companies to become eligible.

As a final inducement to companies to do more research the federal government is liberalizing its patent policies so that private firms doing research at federal laboratories can retain patent rights — which until now have belonged to the government. Companies can now also prevent research they do at federal laboratories from being published as long as they pay for the cost of the facilities they use.

It is too early to assess whether PTI's efforts to spur greater private investment in research will have a significant impact but the need for some government encouragement was underlined last month by a National Science Foundation warning that the spurt in industrial spending on basic research that started in 1975 began to slow down last year. From 1975 to 1981 firms expanded their basic research funding by 6.7 per cent a year in real terms. In 1982 the rate of growth plunged to less than 3 per cent, with most growth concentrated in the chemicals industry.

Peter David

More AIDS money

Washington

ONLY weeks after Public Health Service officials were once again insisting that adequate funds are available to deal with the acquired immune deficiency syndrome (AIDS) epidemic, Secretary of Health and Human Services Margaret Heckler announced that she would ask Congress to reallocate an additional \$22 million to AIDS research next year. Mrs Heckler made the announcement last week during a well-publicized visit to an AIDS patient in a New York City hospital.

The additional support, which would nearly double the planned spending on AIDS research for the next year, will come from money set aside for rural development loans and for Health and Human Services expenditures on construction and new furniture.

Representative Ted Weiss (Democrat, New York), whose House of Representatives subcommittee investigated the federal response to AIDS in a series of recent hearings, said that although he wished Mrs Heckler's announcement had come sooner, he was "glad that the Administration has reversed its earlier position".

Stephen Budiansky