

Argonne treads carefully

Washington

In an arrangement carefully crafted to avoid charges of federal meddling in industry, an investment fund set up by the Argonne National Laboratory and the University of Chicago has been used to start a company to market the laboratory's superconductivity technology. Officials say the arrangement marks the first time a US government laboratory has become involved in the creation and management of a private company.

Known as the Illinois Superconductor Corporation (ISC), the start-up company obtains one third of its initial \$1.5 million funding from the ARCH Development Fund, a venture-capital fund started by the laboratory and the University of Chicago, which runs Argonne for the Department of Energy. Additional funds come from the state and a private venture capital firm. The company is the first Argonne spinoff created by ARCH.

Although laboratory officials are careful to emphasize that federal dollars are not going directly to the company, but are filtered through ARCH, the agreement is reminiscent of a deal that lost the chief of another federal agency his job last month. Craig Fields, head of the Defence Advanced Research Projects Agency (DARPA), was removed from his post after deciding that the agency should invest \$4 million in Gazelle Microcircuits Inc., a small semiconductor company.

For the conservative Bush administration, which favours free markets and

resists government intervention in industry, Field's move smacked of an "industrial policy" by which the government would decide to support one technology or company over another.

In the case of Gazelle, the technology was fast gallium arsenide microelectronics, a difficult but promising technique that has had trouble attracting traditional investors. By becoming a partner in Gazelle, DARPA — and the federal government — effectively became a very large and potentially unfair competitor in the industry.

What makes the Argonne start-up different, says ARCH director Steven Lazarus, is that the laboratory is driven solely by a wish to get its technology into the field, rather than the urge to support an ailing part of the industry. Six Argonne superconductor inventions will go into ISC's first product, a sensor to measure the temperature of refrigerants. Because the independently run ARCH — and not the laboratory directly — is the actual partner in the new company, other companies are unlikely to complain that they are forced to compete against the US government, Lazarus says.

Argonne puts \$200,000 a year into ARCH to find outlets for the laboratory's technology. If ISC becomes successful, a share of its profits will return to ARCH, which will then return funds to Argonne's technology transfer programme to encourage further spinoffs.

G. Christopher Anderson

Japanese/US joint venture announced

Washington

CONSOLIDATION within the biotechnology industry continues apace with the announcement this week that US-based Genetics Institute is entering into a joint venture with Yamanouchi Pharmaceutical Company Ltd, one of Japan's largest drug companies. The two-part agreement involves the formation of a separate company for the commercialization and marketing of Genetics Institute's genetically engineered bone morphogenetic proteins (BMPs) in Japan, and the setting up of a partnership to support the development and commercialization of BMPs worldwide.

As a result, Genetics Institute is likely to become the first US biotechnology company to establish a direct marketing presence in Japan. In the carefully crafted agreements, Genetics Institute will retain worldwide manufacturing rights and US marketing rights to its BMP products, and will receive a 50 per cent share in the profits from the sale of its BMPs in Japan.

Gabriel Schmergel, president and chief executive officer of Genetics Institute, expects that by the late 1990s, up to one-third of Genetics Institute's business could be in the bone area, worth in excess of \$2,000 million worldwide. Bone morphogenetic proteins have been shown to induce new cartilage and bone formation. They have potential as a substitute for existing bone graft materials in fracture healing and in the treatment of bone loss associated with periodontal disease and certain cancers.

BMPs are in the pre-clinical testing phase of development and products are not expected on the market for some years.

Genetics Institute has forged close business ties with Japanese companies — Chugai Pharmaceuticals and Suntory as well as its new joint venture with Yamanouchi. "All of our past deals in Japan were licensing deals — everything else will now be channelled through this joint venture, of which we own 50 per cent", says Schmergel. Diane Gershon

Soviet doors opening up

Leningrad

It has been cogently argued that of the many frustrations to research scientists in the Soviet Union, the worst is the sluggish flow of information from elsewhere: in a fast-moving field, not to know what others have already done, or tried and failed to do, is crippling. While the post, telephone and fax on the whole serve Soviet scientists rather ill, perhaps the most important device for the transmission of information is the international conference. So it is a significant achievement of the Institute of Cytology of the Academy of Sciences of the USSR to have brought to Leningrad last week some two dozen biologists from the United States, Europe and Japan (but mostly from the United States) to speak, along with about a dozen Soviet participants, on the highly topical theme of chromosome transmission and mitosis.

The idea for the conference seems to have arisen during a year-long visit by one of the organizers, Natalay Kouprina (Institute of Cytology, Leningrad) to the laboratory of co-organizer Phil Hieter at Johns Hopkins University in the United States; other members of the organizing committee were Vladimir Larionov and N. Nikolski at the Institute of Cytology, and William Earnshaw at Johns Hopkins.

Scientifically, the conference marked the early stages of a new assault on the macromolecular miracle whereby each time a eukaryotic cell divides, its microtubules assemble into a mitotic spindle that captures the paired and duplicated chromosomes and delivers one set reliably to each daughter cell.

Two traditional lines of attack on the problem may be expected to converge: many participants reported the identification of mutant yeast genes that affect the mitotic machinery so as to increase chromosome loss; many others contributed animal proteins that bind to the chromosomes themselves, or to the spindle microtubules, or both, and are thereby implicated as components of the machinery. The expectation is that some of the animal proteins will turn out to be the products of the genes defined in yeast.

The conference provided a forum for discussion of a central topic in cell biology at an exciting phase of its development when much of what is happening is not yet in print (but see *Nature* 345, 22 & 345, 206; 3 & 17 May 1990). This is the sort of thing Soviet scientists need. But it cannot have been conducive to Soviet participation in informal discussion that, in the retreat to the hard-currency hotel bar each evening, local participants were put in the invidious position of having to accept the hospitality of their guests.

Miranda Robertson