Academy Opens Center in California

The National Academies of Sciences and Engineering now have an outpost in the West with the opening of the Arnold and Mabel Beckman Center in Irvine, California. It is hoped that the new facility will encourage scientists and engineers on the West Coast to participate more fully in the academies' programs, since roughly one-fourth of the 3400 active members of both the academies and the Institute of Medicine reside in California.

The 48,000-square-foot facility is the brainchild of Arnold Beckman, chairman of Beckman Instruments, Inc., a subsidiary of SmithKline Beckman Corporation, which produces analytical and electronic instruments for industry, science, and medicine. Beckman, who received his Ph.D. in photochemistry from Caltech, is the inventor of the *p*H meter. He and his wife donated $20 million for the construction and partial endowment of the center. The Irvine Company, a real estate and development firm based in Orange County, California, and owned by Donald L. Bren, donated the 7 acres upon which the center is built.

An inaugural series of symposia are planned. The topics: mathematics education, biological research and human values, energy in the 1990s, the economy and technology of the Pacific Rim, and prospects for providing affordable health care. ■ **W.B.**

More NSF Fellowships

The National Science Foundation has increased the number of new awards in its regular graduate fellowship program this year to 685, an increase of 180 over last year. The NSF fellowships cover 3 years of graduate study in the natural and social sciences, mathematics, and engineering. Stipends have been raised to $12,300 a year from $11,100 last year. NSF officials say the increase—amounting to $100 a month—was intended to compensate for an IRS ruling making fellowship income taxable. Institutions selected by the fellows receive a $6000 cost-of-education allowance in lieu of tuition and fees. Awards in the foundation's minority graduate fellowship program were increased to 75 this year from 55 last year. The number of fellowships offered under the regular program has been building up from a low point of 450 in 1983. The all-time high was 1998 in 1966. ■ **J.W.**

Out West. *The Arnold and Mabel Beckman Center is located in Irvine, California. Inside are a 256-seat auditorium, dining areas, and conference rooms.*

British and French Get Research Prescriptions

Both the British and French governments received strongly worded advice last week on how to increase the effectiveness of their biomedical research communities. Concern has been mounting in both countries about a loss of initiative in biotechnology to Japan and the United States and the two reports suggest in particular how to raise the contribution of basic research to the health of their respective pharmaceutical industries. But the thrust of the advice pointed in somewhat different directions.

The British comments came in a report from the select committee on science and technology of the House of Lords and is the result of an inquiry into the way priorities are selected in medical research. The committee's sharpest criticisms, however, are directed at the lack of adequate government funding for basic biomedical research in the United Kingdom, a situation which, it says, threatens "disastrous effects that will take years to rectify."

The French report had been commissioned by Prime Minister Jacques Chirac from René Sautier, the former president of the large chemical corporation Sanofi, and concentrates in particular on the development of biotechnology and its applications to human health, agriculture, and food processing.

Although pointing out that, under the conservative government, funding for biotechnology research has dropped over the past 2 years, Sautier is relatively restrained in his criticism. However, he has some harsh words to say on the strong institutional barriers that separate France's academic research community from the world of industry, claiming that the more the pharmaceutical industry comes to depend on the speedy applications of the fruits of basic research, the more these barriers will become a handicap in international competition.

Both reports address the question of an apparent imbalance between the rapid development of scientific knowledge generated by biomedical research, and the difficulties of finding ways that this knowledge can be effectively developed into practical applications aimed at meeting the needs of patients.

The House of Lords committee, for example, endorses the view of Britain's Medical Research Council that a "science-led approach should be dominant" in selecting research priorities. It points out that many of the witnesses who gave evidence to the committee over a period of 2 years drew attention to the studies by Julius H. Comroe, Jr., and Robert D. Dripps showing that the origins of clinical advances frequently came from basic research (*Science*, 9 April 1976, p. 105).

It expresses less satisfaction, however, about the role given to clinicians in determining medical research policy, arguing that "a wholly science-led approach cannot be effective," and repeating many of the views expressed by Lord Rothschild in the early 1970s (and at times firmly resisted by the MRC itself) that a greater "customer/contractor" approach to medical research is needed.

The MRC, says the committee, must "counter any tendency to spend too much on basic research when funds are short," particularly at a time when new techniques, including those derived from molecular biology, are pervading the whole range of medical research and becoming standard diagnostic tools. And it suggests the creation of a new, independently funded National Health Research Authority based on the principle that "the National Health Service is the main customer for research results and so it should commission research for which it sees a need."

As for the impact of recent restrictions on the growth of research funding in the United Kingdom, the committee says it was struck by an "air of despondency" among those engaged in medical research. "The overriding cause of the collapse of morale is the impression, right or wrong, that neither the NHS nor the DHSS [Department of Health and Social Security] demonstrates any awareness of the importance of research nor is prepared to devote time, effort and resources to promote it."

In contrast to the situation in the United Kingdom, the French biotechnology report suggests that the main lack of enthusiasm for research in France lies in the private sector, with an excessive tendency to leave research to publicly-funded institutions with which private companies have little or no contact, and which themselves often function in a highly uncoordinated way.

"France has a high quality research effort, but the research is largely carried out in large public organizations," the report's author, René Sautier, said in Paris last week. "Foreign scientists, who are used to seeing academic and industrial researchers working side by side, find the French model very curious."

Among Sautier's proposals are that there should be a greater concentration of research resources at a more limited number of institutions (including concentration of both teaching and research in universities) and a major new effort to build bridges between public research laboratories and private enterprises, including the creation of more joint research projects. ■ **D.D**

EPA Will Keep Old SO_2 Rules

The Environmental Protection Agency (EPA) announced last week that it will not toughen current controls on sulfur dioxide emissions, saying that they are "adequate." Coal-burning power plants and smelters are the main sources of sulfur dioxide.

Environmental groups said the decision was a lost opportunity not only to protect asthma sufferers, but also, indirectly, to reduce acid rain.

Under the proposed tighter rule, pollution controls would have cost a whopping $7 billion over 11 years, according to EPA estimates. But under the Clean Air Act, an agency cannot weigh the financial costs of a regulation when considering health risks.

For nearly a decade, EPA has been mulling over a proposal to limit short-term bursts of sulfur dioxide. Specifically, the proposal would have capped exposure at 0.5 parts per million (ppm) for 1 hour. Current rules, which were set in 1971, limit concentrations to 0.14 ppm averaged over 24 hours and 0.03 ppm averaged over a year.

According to EPA data, annual average SO_2 levels range from less than 0.004 ppm in remote rural areas to more than 0.03 ppm in the most polluted urban industrial areas. About 2% of U.S. counties do not meet SO_2 air quality standards.

The agency decided not to tighten the regulations although its Clean Air Scientific Advisory Committee recommended tougher controls. But a majority of the committee did not feel strongly that stiffer regulations were imperative. "It was a very hard issue to come to grips with. It was right on the border," says Morton Lippmann of New York University.

Several major clinical trials showed that exercising asthmatics exposed to peak exposures at or below 0.5 ppm experience "measurable changes in respiratory function," according to a 1983 committee report. A majority of the committee members "believe that the effects. . .represent a significant public health concern," the group said in a 19 February report to EPA.

But Lippmann noted that in the clinical trials, "there was a spectrum of responses. Even the heaviest response was not an asthmatic attack." He also noted that the symptoms were transient.

The committee reached a consensus also that the number of asthmatics vulnerable to peak exposures near electric power plants under current standards "was small." It estimated that the number of exercising asthmatics potentially affected ranged roughly from 5,000 to 50,000. (EPA said that the figure was 100,000, plus or minus 50,000.) Most of these people would be exposed no more than *once* a year to the proposed short-term limit, according to the agency.

The committee said, "Although the Clean Air Act requires that sensitive population groups receive protection, the size of such groups has not been defined. . . . This issue represents a legal/policy matter."

If EPA had set a 1-hour limit of 0.5-ppm peak exposure, utilities and other sources would have had to cut their sulfur dioxide emissions by about 12 million tons, about half of the emissions presently allowed, according to agency figures. For the past several years, supporters of tougher acid rain controls have been trying to achieve the same reductions through federal legislation, but with little success.

Robert Yuhnke of the Environmental Defense Fund asserted that the agency did not consider smaller sources of emissions, such as heating plants for hospitals and schools, which, he says, emit significant levels of sulfur dioxide. ■ **M.S.**

What's in an Acronym?

Acknowledging that the name "Stimulation Program"—a program which supports collaboration between fundamental research workers in different European countries—lacks either the impact or appeal of catchy titles such as EUREKA and ESPRIT, officials with the Commission of the European Community in Brussels have, after several months of internal debate, rebaptized it with the title SCIENCE.

Research ministers from the 12 member states of the European Economic Community, meeting in Luxembourg last week, gave their approval to the new acronym—and also to a significant increase in the program's budget, which will grow from $74 million over the 4 years 1985 to 1988 to $136 million by 1993.

Already, over 3000 individual European scientists have received support from the Stimulation Program, in fields ranging from drosophila genetics to optical computers. The support comes primarily in the form of travel funds and short-stay grants, both designed to counter the geographical barriers (and in particular the high air fares) widely considered one of the major limitations to Europe's scientific competition with the United States (*Science*, 4 September 1987, p. 1106)

The acronym SCIENCE stands, in principle, for Stimulation des Cooperations Internationaux et des Echanges Necessaires aux Chercheurs Europeenes. (This translates as the Stimulation of International Cooperation and the Necessary Exchanges of European Scientists, but, perhaps understandably, the English acronym SICNEES found little support in Brussels.)

The research ministers meeting in Brussels approved several other components of the 5-year $7.2-billion "Framework Program" for cooperative research and development which was agreed on last year after prolonged negotiations between the heads of government of the 12 EEC member states. The largest single item was a $1.9 billion package of support for research projects in information technology under the so-called ESPRIT program.

However, the ministers refused to agree on the rate at which they will spend money on research into thermonuclear fusion, another important element of the Framework Program since it includes funding for the Joint European Torus (JET) at Culham in Britain. The Commission wants to spend $730 million on fusion over the next 5 years, but Britain, apparently backed by several smaller European countries, claimed that this proposal was too high. ■ **D.D.**