edited by RICHARD STONE

Electric Utility Zaps Life Into Biotech

Usually, biotechnology firms and electric utilities only interact when it's time to pay the bill. But Pacific Gas & Electric Company (PG&E) says it wants to pump more than electrons into San Francisco's biotech industry: It plans to develop unused lab space into facilities to house 15 to 20 startup biotech companies.

The San Francisco Bay area already has some 200 biotech firms, more than any region of the country, according to the newsletter *Bioventure View*. Nevertheless, the regional boom hasn't made it any easier for young firms with small pocketbooks to find lab space, says Michael Hildreth, an analyst at San Francisco-based Ernst & Young. For years, both public and private venturists in the Bay area hoped to address the problem by creating a biotech "incubator" space—essentially, rooms for rent for startup firms. But for a variety of financial reasons, "it never got off the ground," says Tom Ferguson of the Bay Area Biotechnology Center.

History, however, hasn't deterred PG&E, which foresees loads of future megawatt munchers in biotech. "Creating incubator space would be an ideal way to stimulate California's economy and our own well-being," says Bob Groh, PG&E's biotech

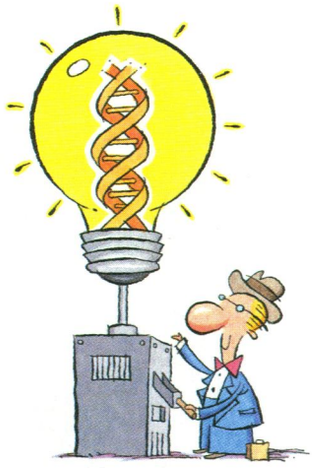

ILLUSTRATION BY TERRY E. SMITH

account manager. The benefit for the biotech firms, Groh says, would be cheap rent.

Over the next few months, Groh says, PG&E and a business developer will search for lab space to renovate—particularly in South San Francisco, a biotech hotbed.

DOE to Sequence Microbe Genomes

While some biologists are aiming to sequence the entire human genome, others will soon be aiming at a more modest goal: The Department of Energy (DOE) is seeking proposals for a 5-year program to sequence the genomes of microbes used to manufacture proteins or clean up environmental wastes.

Genome research is nothing new to DOE—it was once the lead agency for the Human Genome Project, and even now it supplies about one-third of the project's $196 million budget. Nor will DOE's program be the first to sequence a microbe's genome: A program funded by the National Institutes of Health will soon yield the genomic sequence of the lab workhorse *Escherichia coli*.

But many microbiologists want to know more about the genes of industrial-strength microbes such as *Pseudomonas putida*, which metabolizes a variety of pollutants, and archaebacteria like *Methanothermus*, which live in high-temperature offshore oil wells. DOE intends to spend about $3 million a year to unravel the genetic codes of bugs it has yet to select. "Once we have the sequences, we will be able to ask questions that we haven't even conceived yet," says DOE microbial ecologist D. Jay Grimes.

Not all geneticists share his optimism. Ananda Chakrabarty, a microbiologist at the University of Illinois in Chicago, is concerned the initiative may divert funds from basic research projects. "If I had an enormous amount of money, I would sequence everything," he says. "But sequence still doesn't tell you anything about function," he says.

The deadline for proposals is 21 April. For more info, contact Grimes at (301) 903-4183 or at darrell.grimes@mailgw.er.doe.gov

NSF Makes Room for Big Science

Individual investigators are fond of complaining that the growth of funding for large facilities is putting the squeeze on the National Science Foundation's (NSF) support for small science. At the same time, they argue the squeeze is unavoidable because NSF funds both types of research from the same $2 billion pot. But *Science* has learned that NSF big science and small science may soon have their own budgets: President Clinton's 1995 budget, to be released next month, will contain a new $75 million account for the foundation's two biggest projects now under construction, the $230 million Laser Interferometer Gravitational-Wave Observatory (LIGO) and the $175 million twin Gemini telescopes.

While the account won't contain any "new" money, it will clarify how much NSF intends to spend on major projects versus individual investigators and small research teams. NSF's math and physical sciences directorate created such a system in 1992; the new account extends this approach to the entire agency.

Insiders predict Congress may take a strong interest in the new account. For one thing, it offers a more convenient mechanism for lawmakers to set aside the entire cost of a project. Such multi-year funding is nearly impossible under the current system.

A downside, warn congressional and Administration officials, is that the new account might attract pork-barrel politicians looking for a big-dollar account to fund their favorite home-state building or laboratory. However, the account does stand a good chance of remaining pork-free. Sources point out that NSF already has a more attractive potential target for pork-barrelers, a $100 million program to renovate aging research facilities, and that projects in the new account likely would benefit entire disciplines rather than particular institutions.

Earthquake Aftermath

Most major L.A.-area research institutions reported good health after the 17 January earthquake that killed at least 34 people. Hardest hit may have been biotech giant Amgen Inc., based in Thousand Oaks. As *Science* went to press, Amgen was closed; an employee reached at the firm said there was "significant damage inside the lab" but couldn't speculate on structural damage. Meanwhile, Caltech and the National Aeronautics and Space Administration's Jet Propulsion Lab reported broken bottles but no structural damage. A full account of the quake will appear in *Science* next week.

NIH AIDS Plan: Under New Management

The leadership of the National Institutes of Health's (NIH) AIDS research program will soon undergo a shakeup as the agency moves to fill two of the nation's most influential AIDS posts.

At the National Institute of Allergy and Infectious Diseases (NIAID), insiders say director Anthony Fauci has selected Jack Killen to head the Division of AIDS, which spends more than $400 million a year coordinating drug and vaccine development. As acting division director since last July, Killen has been formulating an AIDS research agenda for NIAID. Other than a 1-year stint as medical director of the Whitman-Walker Clinic, Killen has been at NIH since 1980. He must be approved by Department of Health and Human Services Secretary Donna Shalala.

Meanwhile, a committee is narrowing its search for a new head of the Office of AIDS Research, a recently revamped arm of NIH that now oversees the agency's $1.3 billion AIDS budget. Sources close to the search say the current lead candidate is Harvard's Bernard Fields, author of the classic text *Virology*. Fields has little background in AIDS research; he's known for work on mouse reoviruses, which are similar to human rotaviruses that cause diarrheal diseases. NIH Director Harold Varmus is expected to name the new director next month.