SCIENCESCOPE

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Beefed-up genomics. Cattle targeted for USDA project.

An All-You-Can-Eat Genome Project

Swept up by the genetic research boom, a Senate panel has endorsed an ambitious program put forward by the U.S. Department of Agriculture (USDA) to sequence the genes of important food sources. USDA officials are touting a 4-year, $200-million effort to study the genetic makeup of plants, animals, and agriculturally significant microbes.

Last month, the Senate Agriculture Committee backed legislation that would create a National Food Genome Strategy as part of the Initiative for Future Agriculture and Food Systems, a $780-million, 5-year research program financed with money taken from other USDA activities. The bill is short on specifics, but University of Minnesota, St. Paul, plant geneticist Ronald L. Phillips, who is also chief scientist for the $94-million-a-year competitive grants program at USDA, says the new program would focus on animals—including cattle, pigs, chickens, and sheep—crop plants, and microbes such as nitrogen-fixing bacteria and disease-causing organisms.

Phillips says the idea was first proposed as a corn sequencing effort by the National Corn Growers Association and then modified by land-grant university lobbyists to include other genomes. A similar program, called the Plant Genome Initiative, has been inserted into the 1998 budget of the National Science Foundation by Senator Kit Bond (R–MO) (*Science*, 25 July, p. 470).

NSF officials are hoping that legislators will scale back Bond's proposal next month in conference. And USDA's initiative has even further to go before it becomes law. The bill—which provides a road map but no cash—has not yet been scheduled for floor action in the Senate, and as yet there is no companion bill in the House. Still, a Senate staffer is optimistic about the initiative's chances, saying the bill enjoys "broad support."

HHS Plan Angers Breast Cancer Panel

Activists for breast cancer research are fuming at the Department of Health and Human Services (HHS) for rejecting their advice on how to use $14 million earmarked last fall by Congress to fight breast cancer. A group of advocates wants the money spent solely on peer-reviewed science, but HHS has decided to spend it on a variety of staff-directed programs. The activists blame the head of HHS's Office of Women's Health, Susan Blumenthal, for foiling their strategy.

"I am outraged," says Mary Jo Ellis Kahn, a Virginia leader of the National Breast Cancer Coalition, who recently appeared with President Clinton at a White House public meeting on cancer risks. Kahn also sits on the steering committee of the National Action Plan on Breast Cancer, a group of citizens and officials that advises HHS Secretary Donna Shalala.

Blumenthal had proposed that the money be spent on education, mammography, and agency-led activities. But the panel asked HHS to spend it on research at the National Cancer Institute (NCI) (*Science*, 15 November 1996, p. 1077). Last week, after learning that Shalala had agreed to send more than half the money to projects under Blumenthal's leadership, the steering committee voted its "lack of confidence" in Blumenthal, noting her "disturbing and disheartening" tendency to promote her own office's agenda. Blumenthal responds that most of the money ($11 million) will be spent on research projects, as approved by Shalala.

Committee members still hope to win Shalala's support for peer-reviewed science carried out under the "exclusive direction and control" of NCI. Senator Arlen Specter (R–PA), who added the earmark to last year's HHS budget, hasn't offered a second installment in 1998.

Japan Cuts Back on Space Program

Japan's ambitious plans for space exploration are being squeezed by efforts to shrink the country's ballooning budget deficit. Last week, an advisory committee to the Science and Technology Agency (STA) signed off on about $700 million in cuts over the next 6 years—most importantly, killing a robotic space plane and reducing the scope of a lunar mission scheduled for 2003. But the committee, whose views reflect a government consensus, protected several planned Earth monitoring missions that are expected to boost the country's status in global environmental research.

The biggest savings will come from axing an unmanned space shuttle called HOPE, which was planned by the National Space Development Agency of Japan (NASDA) to ferry supplies to the International Space Station. Instead, the agency will try to upgrade a small experimental version of the spacecraft. The decision will not affect Japan's overall contributions to the International Space Station.

Budgetary pressures have also doomed a lander planned for Japan's Selenological and Engineering Explorer (SELENE), a joint mission to the moon by NASDA and the Institute of Space and Astronautical Science (ISAS). The Selene mission will map the moon's far surface and study its magnetic properties. "We're trying hard to minimize the effect on the science," says Hitoshi Mizutani, an ISAS planetary scientist, about cuts totaling more than a fourth of the mission's original $320-million price tag.

One area conspicuously spared the ax is Earth observation. NASDA's plans to launch three Earth-observing satellites by 2002 were largely untouched by the budget pruning. Keizo Fujii, assistant director of STA's space policy division, says this is a reflection of the importance attached to environment-related research.

DOE Plans Nuclear Physics Lab

The Department of Energy (DOE) has taken the first steps toward winning support for building a laboratory to study exotic atomic nuclei—those with an unstable ratio of neutrons to protons—that can provide information on topics ranging from the structure of the nucleus to nuclear reactions in supernovae.

Last year, a nuclear science advisory committee to DOE and the National Science Foundation listed a new ISOL, or "ion separator on-line" facility, as the field's top priority for new construction. And in late July, more than 150 physicists from several countries gathered at Ohio State University in Columbus to compile a scientific wish list of experiments for the accelerator facility. Proponents say an investment of $100 million to $200 million will create the highest quality, highest energy beam of its type in the world. And it will be a significant improvement over the current crop of older accelerators that have been modified to generate beams of radioactive nuclei. Two of DOE's national labs—Oak Ridge and Argonne—have said they want to build the project.

The nuclear physics community is "very enthusiastic," according to David Hendrie, director of DOE's Nuclear Physics Division, who expects another meeting this fall will clarify technical aspects of the accelerator. If all goes well, Hendrie says, the project could show up in DOE's budget request for 2001. Then its fate would rest with Congress.