

genome of the silkworm *Bombyx mori*, which may shed light on pest moths and butterflies. An international consortium was formed 3 months ago, and Kazuei Mita of the National Institute of Agrobiological Sciences in Tsukuba, Japan, has done some preliminary work on the genome, but funding is not yet forthcoming.

The USDA's internal research arm, the Agricultural Research Service (ARS), budgets some \$60 million for agricultural genomes. But about two-thirds of that goes toward protecting genetic diversity important for agriculture. Most of the remaining money goes to genomics research on domestic animals and crop plants, says Leland Ellis, ARS program leader for genomics and bioinformatics: "Right now there is zero for insect genomes."

Other federal agencies also come up short. The Department of Energy has decided to focus on organisms involved in energy production, bioremediation, or carbon sequestration, says DOE's Ari Patrino—and insects don't fit the bill. Likewise, the National Science Foundation, which over the past 4 years has spent \$215 million on plant genomics, won't tackle insects, warns NSF's Chris Cullis: "We'll not be able to fund the sequencing of an aphid no matter what damage they are doing [to plants]." The National Human Genome Research Institute (NHGRI) plans to sequence the genome of a sister species of *Drosophila*. But, says NHGRI director Francis Collins, "unless it applies to human health, NHGRI is not likely to get involved."

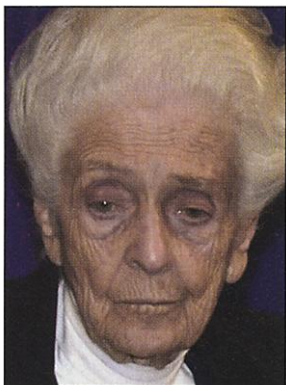
To improve the funding situation, the entomology community needs to pull together and garner the support of farm commodity groups much the way the National Corn Growers Association worked to get funding for plant sequencing (*Science*, 23 October 1998, p. 652), says Ellis. Otherwise, says Purcell-Miramontes, "very little is going to happen."

—ELIZABETH PENNISI

## ITALIAN RESEARCH

### Mirage of Big Budget Boost Evaporates

**CAMBRIDGE, U.K.**—Italian scientists are up in arms over government plans to drastically scale back a promised increase in science funding in 2002. More than 5000 researchers have signed a petition opposing legislation before Parliament that would eliminate all but \$200 million of a scheduled \$900 million boost. The new budget



"will simply ruin the possibilities for Italian scientists," argues Nobelist Rita Levi-Montalcini, former director of the Institute of Cell Biology in Rome.

Scientists had expected to receive \$8.2 billion in 2002, up 12% over this year's spending. But that promise was made by Giuliano Amato, whose government was replaced after elections last May. The new administration, headed by Silvio Berlusconi, has made science one of the biggest losers in a review of its predecessor's spending plans. The government puts a positive spin on the change, noting that it doesn't shrink current levels. "There will be no cuts for universities and research" next year, says Guido Possa, vice minister at the Ministry of Education, Universities, and Research.

Italian scientists are unimpressed. In the newspaper *La Repubblica*, Levi-Montalcini last week accused Berlusconi of "betrayal." "They don't care," adds Renato Dulbecco, an Italian-born Nobel laureate at the Salk Institute for Biological Studies in La Jolla, California. The new budget numbers, he says, will have an immediate effect in preventing the country's National Research Council (CNR) from replacing researchers who retire from its staff.

Italy can ill afford such policies, say scientists. The country's research spending stands at 1% of the gross national product, compared to the European average of 2.2%, according to a petition from the Italian Association of Doctoral Students protesting the 2002 budget. The group warns of a "lost generation" of young talent driven away by poor funding.

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Funding isn't the only issue that has scientists fuming. One member of Parliament, Marcello Pacini, has proposed privatizing the CNR, arguing that the private sector would do a better job of supporting research. Scientists are hoping to knock down such an idea before it finds its way into legislation. Dismantling central planning, insists CNR president Lucio Bianco, would spark a crisis in

Italian research.

Despite their protests, scientists aren't optimistic about their chances. Indeed, many regard the budget retrenchment as a fait accompli, predicting its passage later this month without significant changes. "It is difficult to think of hope," Dulbecco says.

—BEN SHOUSE

## SOCIAL PSYCHOLOGY

### Reality TV Puts Group Behavior to the Test

**CAMBRIDGE, U.K.**—Two British scientists are preparing to take advantage of the popularity of "reality TV" to recreate a notorious psychology experiment in which students played the roles of prisoners and guards. Skeptics, including the researcher who designed the original experiment at Stanford University in 1971, fear that the BBC production could rerun the abuses that brought it to a halt after 6 days. But the researchers say that the show offers an excellent opportunity to answer pressing questions about the psychology of racism, oppression, and terrorism.

The Stanford experiment, conducted by psychologist Philip Zimbardo, took place in the basement of the psychology building, which had been converted to look like a jail. Immersed in the situation, the 9 prisoners and 9 guards quickly internalized their assigned roles, the guards becoming brutal and the prisoners at first rebellious and then utterly compliant. Even the researchers acted more like wardens than scientists, suspecting that the prisoners were faking anxiety to gain early release and helping the guards thwart a rumored jailbreak. The experiment, planned to run for 14 days, was stopped after a colleague objected to its brutality.

The study demonstrated the influence of group pressure on individual behavior. Other experiments during the 1970s confirmed the power of social context. In one, subjects stayed in a room that was filling up with smoke because others seemed unconcerned; in another, they obeyed a lab-coated scientist's orders to deliver what they thought was an electric shock to a human subject. The specter of these disturbing experiments has prevented further realistic, large-scale tests of group psychology.

Then along came reality TV, which puts people in artificial situations for sheer entertainment value. Stephen Reicher of the University of St. Andrews, U.K., and Alex Haslam of the University of Exeter, U.K., accepted an offer to create a show with a stronger experimental basis. "This is a piece of science being filmed," says Reicher, who with Haslam will select 15 people to be as-

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