NIH's planned purchase of 14 young, uninfected chimps from Coulston for nearly $30,000 each is a less happy development for activists. Vaitukaitis says her office was concerned that the animals, among those still owned by Coulston, "would be sold to the entertainment business" if NIH didn't act. She says it is not yet clear where the young chimps, ranging in age from 1 to 2 years, will live, but they will be available for research if the need arises.

Animal activists complain that NIH is "adding more babies into a supply" that already exceeds demand, says Chris Heyde of the Society for Animal Protective Legislation in Washington, D.C. For its part, McKinney says that the company has no plans to sell its animals to the entertainment industry but would try to sell them to other research laboratories if NIH didn't buy them.

–GRETCHEN VOGEL

RUSSIAN UNIVERSITIES

Centers of Excellence Get Big U.S. Boost

CAMBRIDGE, U.K.—A unique experiment to improve Russian science has won a ringing endorsement: Two heavyweight U.S. foundations are plowing $12.5 million into an effort to create scientific oases in Russia's impoverished university system. The funding boost more than doubles the budget of the fledgling Basic Research and Higher Education (BRHE) Program, allowing it to expand from eight to 16 centers across the country.

BRHE's aim is to help break down the firewall between the Russian Academy of Sciences' institutes—where much of the country's best research is carried out—and the universities, which tend to lack world-class scientists. Toward that end, the program gives university-based centers 3-year, $1.05 million grants for purchasing major equipment and supplies, with the stipulation that the center collaborate with academy researchers. These are huge amounts—as much as 20% of a recipient university's annual budget. A key to sustaining the centers is to involve young scientists; this the BRHE ensures by mandating that 10% of center funds be distributed as grants to scientists who have received a Ph.D. or the Russian equivalent within the past 6 years.

BRHE debuted in 1998 with a 1-year pilot project: a center for scanning probe microscopy at Nizhny Novgorod State University, 400 kilometers east of Moscow (*Science*, 29 May 1998, p. 1336). BRHE has since expanded to seven more universities, from a center on nonlinear dynamics in Saratov, southeast of Moscow, to a marine biology center in Vladivostok, in Russia's Far East. One goal of the peer-reviewed program has been to beef up science outside Moscow and St. Petersburg; universities from these two powerhouses have been prohibited from competing for BRHE funds.

The initiative has also required the Russian federal government and local authorities to pony up half the funding for each center. The fact that Russia has come up with every ruble it has pledged "tells us that we're responding to a need that's real," says Gerson Sher, president of the Civilian Research and Development Foundation, an Arlington, Virginia–based nonprofit that runs BRHE with Russia's Ministry of Education. The eight centers are blossoming, adds Marjorie Senechal, a mathematician at Smith College in Northampton, Massachusetts, who attended a conference in Nizhny Novgorod last September to review the program's progress.

The new money announced last month—$11.5 million over 5 years from the John D. and Catherine T. MacArthur Foundation and $1 million over 2 years from the Carnegie Corp. of New York—will allow the BRHE to give 2-year extensions to some existing centers as well as add four centers in the Russian provinces. The new funding will also open up the peer-reviewed competition to Moscow and St. Petersburg, each of which will get two centers. The first winners will be announced in November, with another four centers to be chosen in 2002.

The BRHE's rising fortunes should help dispel the gloom that some scientists in Russia are feeling over the impending demise of another major Western effort: the 7-year-old International Soros Science Education Program, which has, among other things, provided stipends to 3750 university professors, high school teachers, and students in Russia, Ukraine, Belarus, and Georgia. The billionaire financier George Soros, who has sunk $109.5 million of his own fortune into the program, has said that this is the last year he will support it. Georgia's president, Eduard Shevardnadze, and others are lobbying Soros in the hopes he will change his mind.

–RICHARD STONE

THE ELITE EIGHT

University	Specialty
Nizhny Novgorod State	Scanning probe microscopy
Krasnoyarsk State	Environmental technologies
Far Eastern State	Marine biology
Rostov State Kuban State Taganrog State Univ. of Radio Engineering	Ecological modeling and geophysics
Ural State	Advanced materials
Saratov State	Nonlinear dynamics and biophysics
Kazan State	Advanced materials
Novosibirsk State	Molecular design

Half of the sweet 16. Eight new Russian centers will join the existing BRHE units, above, over the next 2 years.

GENOMICS

New Genomes Shed Light on Complex Cells

COLD SPRING HARBOR, NEW YORK—Biologists have long wondered what genes separate the men from the boys—that is, the complex eukaryotes from the more primitive prokaryotes. Now they are beginning to find out, thanks to new work deciphering the genome sequences of higher organisms.

At a genome sequencing and biology meeting last week,* researchers announced that they have decoded the genetic complement of a second yeast and are in the midst of sequencing two fungi. Already, these three new genome sequences are shedding light on what it takes to be a eukaryotic cell, says Paul Nurse, director of the Imperial Cancer Research Fund in London. By determining which genes these varied organisms have in common and removing those that are also shared by prokaryotes, he and his colleagues have identified the subset of genes that make possible more complex cell functioning.

Yeast, fungi, and all multicellular organisms—from plants to humans—are eukaryotes, with complex cells that have discrete subunits, such as the nucleus and mitochondria, to help with various tasks. For decades, cell biologists have studied yeast, simple, one-celled organisms, for insights into how they and more complex eukaryotes work. Toward that end, in 1996, the yeast research community decoded the genome of the budding yeast, *Saccharomyces cerevisiae*.

Now a European consortium of 12 labs led by the Sanger Centre in Hinxton, United Kingdom, has sequenced and analyzed the 14-million-base genome of *Schizosaccharomyces pombe*, also known as fission yeast. The team has even determined three-quarters of the bases in a hard-to-sequence region, called the centromere, that is critical to the proper replication and separation of chromosomes during cell division—a feat few other groups have accomplished on any genome.

* Genome Sequencing and Biology was held in Cold Spring Harbor, New York, 9 to 13 May.