NEWS IN FOCUS

ALAMOGORDO PRIMATE FACILITY

Most of the chimpanzees at the Alamogordo Primate Facility are well into their twenties and have not been research subjects for more than a decade.

ETHICS

Chimps' fate ignites debate

Decision to relocate colony of ageing research apes becomes political.

BY HEIDI LEDFORD

After a ten-year hiatus, the chimpanzees of the Alamogordo Primate Facility in New Mexico are being called back to duty. The 186 chimps, already grizzled veterans of medical research, will be pulled from an unofficial retirement and sent back into the lab by the end of 2011, the National Institutes of Health (NIH) announced last month. But the decision has brought to a head a simmering debate about the use of chimpanzees for medical research in the United States — a practice finally banned by the European Union earlier this month.

The chimps would rejoin a dwindling cadre of research primates. In 1995, the NIH established a moratorium on chimpanzee breeding in federally supported laboratories, and scientists have developed alternative ways to study the basic biology of diseases. But the roughly 700 chimps remaining still have a key role in vaccine testing for viruses such as hepatitis C and HIV, which don't infect other laboratory animals.

After a visit to Alamogordo on 21 September, New Mexico governor Bill Richardson renewed a vow to fight the NIH plan, which would send the chimps to the Southwest National Primate Research Center in San Antonio, Texas. Richardson has said that he will push Congress to legislate that the chimps' present home, at which about 40 people are employed, be converted into an official sanctuary managed by non-profit agencies, or be run by nearby universities for non-invasive behavioural research. So far, the NIH has not been receptive to his proposals. "They held fast to their position," Richardson told reporters after a meeting with NIH officials in August. "And I'm going to hold fast to mine."

The world's best-known primatologist has also voiced her concerns. "Most of these chimpanzees are older and have already been subjected to years of invasive research," wrote Jane Goodall in a 29 July letter to NIH director Francis Collins. "Would it not make more sense to leave these chimpanzees in permanent sanctuary at the Alamogordo facility?"

The Alamogordo chimps have a long and notable history. Some are descendants of the apes groomed for space flight as part of the Mercury project half a century ago. All have spent years as research subjects, and during their lives have been exposed to HIV or hepatitis C.

The chimps came under NIH purview after federal officials took over control of the animals from the Coulston Foundation, which once managed most US research chimpanzees, after charges that it was mistreating its animals. Then, in 2004, Charles River Laboratories of Wilmington, Massachusetts, which the NIH had hired to manage the facility, had to fend ▶

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off a criminal charge when the death of two chimpanzees highlighted the facility's after-hours practice of leaving critically ill animals in the care of security guards with no veterinary training — a policy the NIH says has since been changed. This troubled history has led some to say that the Alamogordo colony has been through enough, and that it is time to let the chimps retire. "These animals have been used to an extensive degree," says John Gluck, an emeritus professor of psychology at the University of New Mexico in Albuquerque. "Is there a sense that we owe them something for that? I think we do."

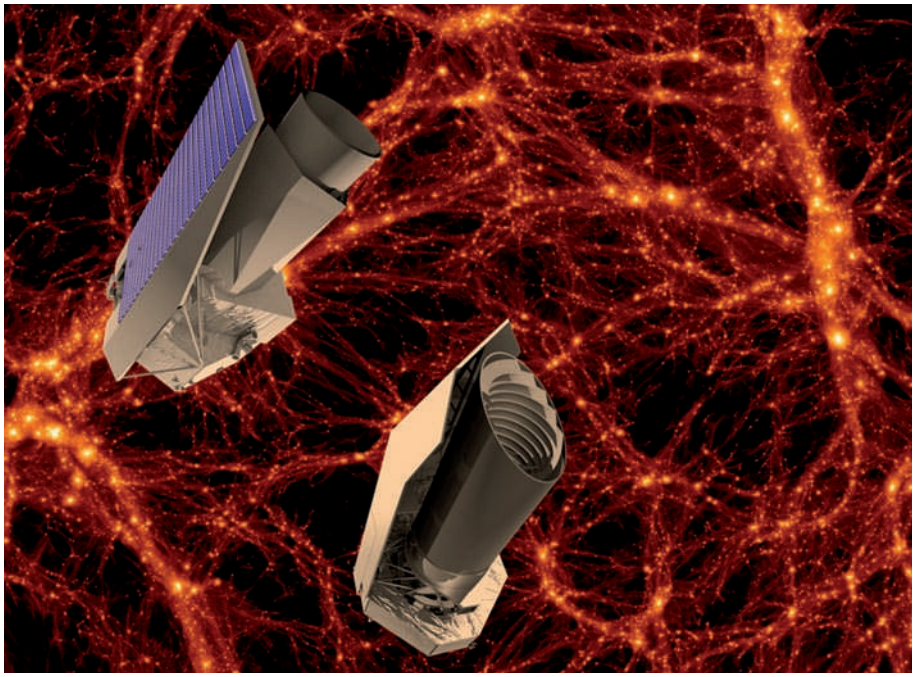
Gluck says that when he first visited the Alamogordo colony in 1973, the stark environment and individual metal cages reminded him of a medieval prison. Since then, the buildings have been converted into a more comfortable habitat, complete with space for the chimpanzees to socialize and to exercise outside.

The 2000 US Chimpanzee Health Improvement, Maintenance, and Protection Act called for a system of sanctuaries for retired chimpanzees "no longer needed" for medical research. Only one such federal sanctuary has been built: Chimp Haven, near Keithville in Louisiana, which is home to some 100 retired chimps. But the government's contract with Chimp Haven expires in 2012 and there has been no discussion of extending it. At Alamogordo, the chimpanzees have enjoyed their unofficial retirement because Holloman Air Force Base, where they are located, dictates that they cannot be used for medical research on the premises.

But the NIH considers the Alamogordo centre a "research reserve" rather than a sanctuary. Closing the centre and moving the chimps to San Antonio will save US$2 million a year, says Harold Watson, NIH programme director for chimpanzee management.

In Texas, the Alamogordo chimpanzees will join about 150 others in an environment much like that at their present facility, says Watson. They will be allowed to socialize and go outdoors unless specific medical protocols require isolation. "This colony has been together for a long time," he adds. "They'll be temporarily disrupted during the move, but then the original social groups can reform and that's the best way to do it." Most testing will involve little more than a few blood samples, and samples of liver tissue taken using very thin needles, he says.

If so, then sending the chimps back into the lab could be justifiable, says Ajit Varki, a biochemist at the University of California, San Diego. "We have the chimps in captivity," he says. "They cannot be returned to the wild. We should be able to do with chimps what we do with humans." ■



ESA

This depiction of two concepts for the Euclid observatory could foreshadow a real-world problem.

ASTRONOMY

No scope for agency collaboration in space

Bureaucracy and schedule conflicts could lead to overlapping dark-energy missions from the United States and Europe.

BY ADAM MANN

It ought to be a match made in heaven. Two telescopes — one European, one American — with similar research objectives and a combined price tag of more than US$2 billion are both looking for support from funding agencies and the scientific community. In the current budget climate, it would seem natural for the projects to combine forces and push for one joint mission. Instead, it seems that in about a dozen years' time there will be two orbiting observatories doing the same job.

"Does it make sense to send two missions if their scientific goals are so similar?" asked James Kasting, a geoscientist from Pennsylvania State University in University Park, during a meeting of the 17-member NASA Advisory Council astrophysics subcommittee in Washington DC on 16–17 September. Other subcommittee members, who have the task of deciding how NASA should proceed on the telescopes, echoed the question. "Unless you change things, we might be doing the same thing twice," says chairman Alan Boss, an astrophysicist at the Carnegie Institution for Science in Washington DC.

At stake is the chance to speed progress towards a desirable goal: a better understanding of dark energy, the mysterious phenomenon that has been proposed to explain the acceleration of the Universe's expansion. To investigate it, a telescope must be able to look for dark energy's subtle effect on the distribution of galaxies and dark matter, as well as on the motion of distant supernovae (see 'Illuminating dark energy') — ambitious requirements. Yet prospects for a partnership between NASA and the European Space Agency (ESA) to develop such a telescope have collapsed in a bureaucratic tangle.

Two options remain: NASA could become the minority partner in a Europe-led mission in exchange for ESA taking on a share of a similar US project, or they could proceed on their own separate but parallel tracks. Both options set up the possibility of a redundant effort.

The dual-mission dilemma was precipitated last month by the US National Academy of Sciences, in its release of the Astro2010 decadal survey, which sets goals and funding priorities for US astronomers and astrophysicists from

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