

RANDOM SAMPLES

edited by CONSTANCE HOLDEN

Hello, Missy

The wealthy owners of Missy, a husky-border collie mix, are not the kind of people who let sleeping dogs lie. Last week, Texas A&M University in College Station announced that it has received a \$2.3 million grant to embark on a 2-year project to clone the owners' beloved pet.

The project is headed by Mark Westhusin, director of Texas A&M's cloning lab. He was selected by a three-person review board of U.S. and Canadian cloning experts, says Lou Hawthorne, a San Francisco communications consultant who is coordinating "Project Missy-plicity." Hawthorne says Westhusin's lab, the only one

in the country to have produced puppies by transferring embryos to a surrogate mother, was clearly the most qualified of the applicants. Also on the cloning team are tissue-culture expert Robert Burghardt and embryo transfer expert Duane Kraemer.

Although Missy's owners want to remain anonymous, the Missy-plicity project has all the trappings of a major public relations venture, with a picture-filled Web site (www.missy-plicity.com)

and its own code of ethics. Every aspect is also being taped and filmed.

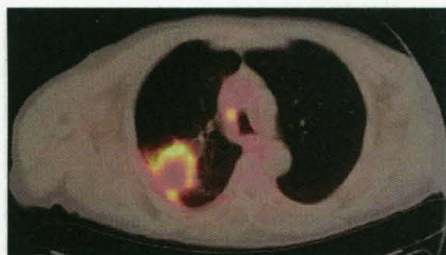
Westhusin says "we're just getting started." Missy was flown to Texas several months ago to donate skin and mucus cells. But a lot of basic research will be needed before



LOU HAWTHORNE/COURTESY BIO ARTS AND RESEARCH CORP.

Shown here in grim yellow is an unprecedentedly clear picture of lung cancer taken by combining two imaging technologies: positron emission tomography (PET) and computer-assisted x-ray tomography (CT). The feat, a longtime dream of physicians, was achieved by a team at the University of Pittsburgh Medical Center (UPMC) and CTI PET Systems in Knoxville, Tennessee. This image is of a lung tumor in a 75-year-old woman that has metastasized to the lymph nodes. CT scans generate high-resolution 3D images indicating differences in tissue densities. PET, which uses radio-tagged glucose, highlights tissues with higher metabolic rates indicating possible malignancy, but resolution is fuzzy in below-neck tissues. The combination technology should be a big help in pinpointing abdominal tumors, monitoring treatment, and targeting which part of a tumor to biopsy, says UPMC physicist David Townsend. If all goes well, it may make it into clinics within a year or two.

Cancer Seen Clearly



UPMC

any cloning is attempted, because relatively little is known about canine reproductive physiology. Westhusin is optimistic that Missy will be cloned, but in any case "the opportunity to do science is just phenomenal." Information gained from the work, he says, will be useful on many fronts, including saving endangered canids and pet contraception.

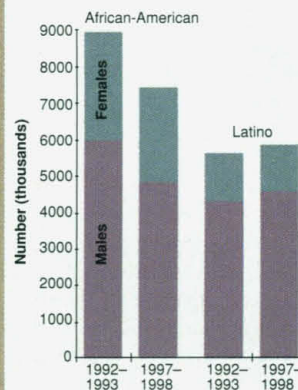
One early skeptic about the project, who was approached for advice last year, is Princeton University biologist Lee Silver. "Based on what has happened since, and the quality of the scientific team," he says, "I would say there is now a good chance they'll succeed."

Mutant Mosquitoes

A variation on the old urban legend about albino alligators dwelling in the New York sewer system comes to us from London: Biologists say a new species of mosquito is evolving in the tunnels of the London Underground. Researchers at the University of London believe the insects are descendants of mosquitoes that colonized the tunnels a century ago when the railway was being built. Originally bird-biters, they apparently evolved new feeding behavior, dining on rats, mice, and maintenance workers. "It looks as if there has been a unique colonization event," says biologist Richard Nichols.

Nichols and colleague Kate Byrne have shown that the Underground mosquitoes, dubbed *molestus*, are now different from *Culex pipiens*, the bird feeders. Genetic studies revealed significant differences in the frequency of alleles at 20 different loci, suggesting that the subterranean pests are well on their way to becoming a separate species, and it is almost impossible to mate

Fewer Black Engineers in the Pipeline



Freshman engineering enrollment

The number of African-Americans majoring in engineering at U.S. universities has dropped substantially in the past 5 years even as other underrepresented minorities—Hispanics and American Indians—have shown modest growth, the National Action Council for Minorities in Engineering (NACME) reported last month. The decline among black freshmen was 1.1% last year, and 17% since the high-water mark of 1992. NACME president George Campbell blames the backlash against affirmative action as well as shifts in scholarships away from the lowest-income students.

the two varieties. The team, which has a paper in press at the journal *Heredity*, also found some genetic differences between mosquitoes on different Underground lines, suggesting that drafts disperse the insects more readily along rather than between lines.

The Underground provides an ideal breeding ground for mosquitoes with its moderate temperatures and pools created by water leaks, says Nichols. "Human skin and other debris from passengers likely provide food in the pools for larvae."