Briefings

edited by CONSTANCE HOLDEN

Research Entourage Leaves Rockefeller

One of Rockefeller University's leading researchers, biochemist Anthony Cerami, is leaving the university and taking his entire 30-member research team with him. Known for his work on age-related diseases, especially diabetes, Cerami is to be president of the newly founded Picower Institute for Medical Research on Long Island.

A former Rockefeller dean, Cerami was among faculty members who two years ago opposed the appointment of David Baltimore to the presidency because of his handling of the Imanishi-Kari misconduct case. But he says Baltimore had nothing to do with his departure—"I would have left Rockefeller to take this position no matter who was president. This is a unique opportunity."

The Institute, to be housed at North Shore University Hospital in Manhassett, has been set up with an endowment of $10 million from Florida investor Jeffry Picower. Cerami hopes to have 100 professionals on board within the next few years. He says 80% of the research will be on age-associated diseases and the rest on infectious diseases, including AIDS.

Beyond the Great Wall?

The harder astronomers look, the lumpier the universe turns out to be. Now comes a new installment to the saga. Alain Picard, a Caltech astronomer, has examined two broad swaths of sky and found that galaxies are from 30% to 40% more numerous in one direction than the other. That imbalance, reported in this month's *Astronomical Journal*, further complicates life for cosmologists already struggling to explain the uneven distribution of galaxies.

Picard discovered the density difference by analyzing plates from the Palomar Observatory Sky Survey II, an ongoing effort to create a complete photographic atlas of the heavens. Using COSMOS, a device at the Royal Observatory in Edinburgh, Picard digitized images covering patches of the northern and southern sky 15 degrees on a side and sorted out the fuzzy images of distant galaxies from the pinpoint images of stars.

The resulting starless images show what might be seen from a vantage point beyond the Milky Way—galaxies stretching out to hundreds of millions of light years. From earlier data on galaxy distributions, Picard says, he expected the density in the two images to differ by 3% or 4%.

What could explain a difference ten times that? Having counted but not mapped the galaxies, Picard can't say. But the structures mapped to date wouldn't do it. Take the "Great Wall," a membrane of galaxies 500 million light years long. If a structure that big lay within one of Picard's sky swaths, it would account for only about 20% of the density difference.

Other astrophysicists aren't surprised to hear that formations even larger than the Great Wall may be out there, says Picard. "People I show my work to are puzzled but not amazed." Cosmologists, it seems, are getting used to taking their lumps.

Humboldt penguin—he or she?

Mike Greer/Chicago Zoological Society

There are 209 of these animals in captivity in North American zoos. But the sex of one-third of them is still unknown. Now the Brookfield Zoo in Chicago will be able to find out as it becomes the only zoo in the world with a computerized chromosome analysis system. The system will aid in the breeding of endangered species not only by determining the sex of endangered birds but by identifying subspecies. Many monkeys, for example, end up in zoos after being confiscated from smugglers. Without knowing their origins, experts have difficulty sorting them out to ascertain their endangered status. Conventional chromosome analysis is a time-consuming affair involving cut-and-paste jobs with photographs. The new system, donated by the Illinois firm of Imagenetics, is able to electronically separate, arrange, and pair images of chromosomes.

Fewer Prospectors, Brighter Prospects

When Brazilian President Fernando Collor de Mello visited Washington in June, he came under heavy fire from what some Brazilians derisively call the "Yanomami Lobby." Members of Congress and the U.S. press have been criticizing Brazil's handling of the Yanomamo Indians, the largest remaining tribe indigenous to the Brazilian Amazon. The 8000 Yanomami are said to be threatened with extinction by an influx of miners and other settlers. Even George Bush expressed concern to Collor about the tribe, according to *Financial Times*.

The chorus of disapproval evidently had an effect. Collor, on returning to Brazil, promptly fired the head of FUNAI, the bureau of Indian affairs. Its new head, Sydney Possuelo, has instructions to demarcate a 94,100–square kilometer reserve for the Yanomami "without delay," according to University of Chicago anthropologist Terence Turner. Collor is also preparing to expel gold and tin miners from the Indians' lands and to expand Brazil's antimalaria campaign in the region. Says Turner: "For more than 6 years, people have been struggling for these precise measures."

Some Brazilian military and mining interests still oppose the formation of the reserve. So the Indian lobby will have to keep the pressure on Collor "until the Yanomami get their park and the miners get the boot once and for all," says Turner.

Genome Assignment for Industry

One of the big questions for the Human Genome Project is who will actually slog through the sequencing of millions and millions of nucleotide bases. Should project leaders follow the usual route and pass the chore to graduate students, or should they try something different—namely, call on industry?

Now, for the first time, NIH's genome center has awarded a $5-million, 3-year grant to a company, Collaborative Research, Inc., in Bedford, Massachusetts. CRI plans to tackle the genomes of two mycobacteria that cause leprosy and tuberculosis, each about 4 million bases long. This will be no small feat—the largest complete genome sequenced to date is that of cytomegalovirus, with 250,000 bases. The company plans to do the sequencing for 50 cents a base by using a promising but relatively untried technique called multiplexing, developed by George Church and colleagues at Harvard.

Genome officials see the grant as a test of industry capability. But CRI's vice president for research, Gerald Vovis, says he is already convinced that if the entire human genome is ever to be sequenced, it will have to be industry that does the job.