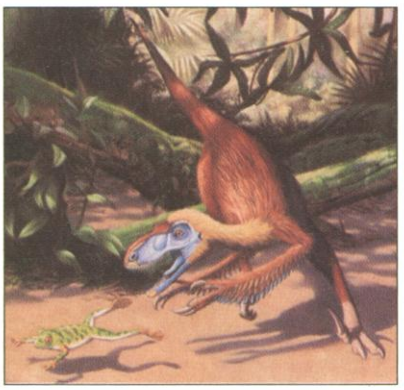
Another Birdlike Dino Unveiled

Scientists last week presented what they claim to be a major piece in the puzzle of dinosaur-to-bird evolution: a cat-sized fossil that they call "the most birdlike dinosaur yet discovered." Its name, *Bambiraptor feinbergi*, tells much of its story. It was found in 1993 by a fossil-hunting family in Montana who nicknamed the juvenile creature Bambi. It was purchased for a reported $600,000 by Florida dinophile Michael Feinberg, who paid to have it reconstructed and analyzed at the University of Kansas (UK), Lawrence.

The long-tailed fossil—a member of the large-clawed, meat-eating dromaeosaur family—is not only a new species but remarkably complete, says David Burnham of the UK Museum of Natural History. It sports a birdlike wishbone, probably weighed in at about 3 kilograms, and boasted a relatively big brain. It was "as brainy as almost any bird today," says Burnham.



Artist's vision of *Bambiraptor* in action.

The 75-million-year-old fossil looks "old-fashioned for his time," because some of its features are more primitive than the 150-million-year-old *Archaeopteryx*, known as the earliest bird, says University of New Orleans paleontologist Kraig Derstler, co-author of a paper appearing this month in *The University of Kansas Paleontological Contributions*.

Bambi has "a gorgeous little skull," enthuses dino expert Tom Holtz of the University of Maryland, College Park. He says the specimen is likely to furnish missing details about dromaeosaur bones, and it "tells us how successful the dromaeosaur body plan was," persisting with few changes for 100 million years.

Rehab for Harvard's Glass Flowers

This carnivorous pitcher plant (below) is due for a makeover. The South Pacific beauty is just one of about 3000 intricate glass models made for Harvard University by the German father-son team of Leopold and Rudolf Blaschka between 1886 and 1939. Representing 830 species, from simple mosses and algae to complex flowering plants, the exquisitely realistic models also illustrate diseases.

But the teaching aids are now endangered works of art. Their glass has become hazy and cracked, and the flowers are losing their decorative coatings. So Harvard has undertaken a $2 million project that may take as long as a decade to restore the flowers and conserve them properly.

A first challenge, says Carlo Pantano, director of the Materials Research Institute at Pennsylvania State University, is to learn what the flowers are made of. "Almost every model has a different composition," and repair parts must be compatible, he says. For example, the modern materials must have the same expansion coefficient as the originals to prevent cracking, while new surface enamels must soften and stick at temperatures that don't cause the glass base to soften. "It is a project that scares the faculty," says Susan Rossi-Wilcox of the Harvard Botanical Museum. But, "everyone says it must be done."

Sex and the Schizophrenic

A Johns Hopkins University team has identified a brain abnormality in male schizophrenics that could help explain why the disease affects men and women differently.

Men are up to twice as likely to develop schizophrenia, an illness characterized by disordered thinking, emotional withdrawal, and hallucinations. The disease strikes males earlier than females, more severely affects their cognitive functions, and isn't as amenable to drugs. Now, Hopkins neuroscientist Godfrey Pearlson says his team has found evidence that it is indeed a "sexually dimorphic disorder."

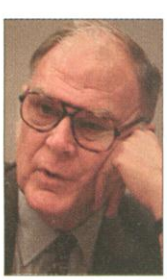
In a study in this month's *American Journal of Psychiatry*, researchers describe using functional magnetic resonance imaging to measure the inferior parietal lobe (IPL), which is involved in higher cognitive functions such as language, attention, and spatial awareness, in 30 male and female schizophrenics and 30 closely matched controls. They found that the left IPL in male schizophrenics is smaller than the right—the opposite of what is found in normal males—and about 16% smaller than normal. (There are no significant differences in females.)

Another study in the same journal goes a step further: Martha Shenton and colleagues at Harvard Medical School in Boston showed that the size difference is localized in a particular part of the IPL called the angular gyrus, an area associated with word meanings and associations.

Scientists have long puzzled over whether sex differences in schizophrenia are simply "modulations" in how the illness is expressed or are central to its very nature, says Jill Goldstein, a clinical neuroscientist at Harvard Medical School. The Hopkins findings indicate the latter, she says.

The findings bring researchers "closer to understanding schizophrenia in terms of brain pathology," Pearlson believes. Ultimately, he says, "we may be able to split [schizophrenia] into a series of diseases."

Heavy Hitter



Rowland

Atmospheric chemist F. Sherwood Rowland this week was named an outstanding "scholar-athlete" by GTE, the telecommunications giant. He'll be inducted into the company's Academic All-America Hall of Fame at a May ceremony in Boston. Rowland, it seems, won letters in basketball and baseball at Ohio Wesleyan University, and even managed a semipro baseball team while in graduate school at the University of Chicago. "I last competed in intercollegiate athletics almost 50 years ago, so having it come up at this point is a little bit strange," says Rowland, now at the University of California, Irvine. One criterion for the GTE honor is community service. Rowland says his community service was describing the depletion of stratospheric ozone, for which he won a Nobel in 1995.

CREDITS: (TOP) PAT REDMAN; (MIDDLE) HILLEL BURGER/THE BOTANICAL MUSEUM OF HARVARD UNIVERSITY; (BOTTOM) RICK KOZAK