Briefings

edited by CONSTANCE HOLDEN

McKnight and Tjian Go Fishing

At any big meeting of molecular biologists these days, you can't throw a test tube without hitting somebody who has a big stake in a biotech firm. What's not so common, however, is for a top academic researcher to give up his academic lab altogether and head for the profit sector.

Steve McKnight

That's why the molecular biology community has been buzzing in the past few weeks over the news that Steve McKnight will leave the Carnegie Institution of Baltimore to become scientific director of a biotech startup whose other principals are Robert Tjian of UC Berkeley and David Goeddel of Genentech.

McKnight's departure from Carnegie came as a surprise in part because he's considered one of the very top researchers in the field of gene transcription, which will form the scientific basis of the new company, Tularik, scheduled to open its doors in south San Francisco next August. The move was doubly startling because McKnight has become a symbol of "small-lab science" at its best—a hands-on guy who still works at the bench alongside his carefully chosen group of postdocs and students.

That kind of benchwork doesn't usually go along with being the scientific director of a corporation. McKnight says, however, that he intends to be found working elbow to elbow with the other scientists at Tularik just as he was in his own lab.

The company will focus on transcription factors—the gene-regulating proteins that both Tjian and McKnight have devoted their careers to studying. Its approach, says McKnight, will be to discover drugs that target these factors. The goal is to develop new treatments for heart ailments, viral diseases, cancer, and other disorders, which will treat diseases by turning off the genes that cause them or activating genes that can reverse them.

Tularik's unusual name comes from the Alaska River that is Tjian and Goeddel's favorite fishing spot. In giving it that name, they clearly were hoping to bring in a good catch—and in hooking McKnight they've got a bigger fish than they had any reason to expect.

Koprowski Sues Wistar Institute

Immunologist and vaccine specialist Hilary Koprowski has filed suit against Philadelphia's Wistar Institute, claiming that the organization, where he has worked for 35 years, improperly removed him as director. The charge is related to prior age discrimination complaints he has filed with the Equal Employment Opportunity Commission and a state agency.

Koprowski argues that he is still scientifically productive and that age is the only reason he was removed and replaced by Giovanni Rovera, an oncologist at the institute. His suit claims that he never received a negative performance review in his tenure as director before the Wistar board of managers demoted him a year ago to the rank of a tenured "institute professor."

Koprowski has an impressive scientific résumé that includes development of the first safe and effective oral polio vaccine, an important modification of the rabies vaccine, and an immunotherapeutic serum for gastrointestinal cancer. In his suit, Koprowski argues that since he took the helm in 1957, Wistar has been transformed from a six-lab, 11-scientist outfit into a world-class institute with 50 labs and 195 staff scientists and postdocs.

Wistar has filed a response denying any procedural or legal improprieties but refused further comment to *Science*. Recent press reports, however, have quoted institute officials as saying Koprowski was forced out for management and budgetary reasons.

The Polish-born Koprowski, a member of the National Academy of Sciences, has quite a few supporters in his corner. After his demotion last year, 10 eminent colleagues—including Nobel laureates James Watson and Baruj Benacerraf—co-signed a letter decrying Wistar's "shabby treatment" of Koprowski. They also criticized Wistar for selecting Rovera without a search. One of the things Koprowski's suit demands, in addition to a cash settlement, is that he be returned as director until a "bona fide transition recruitment" takes place.

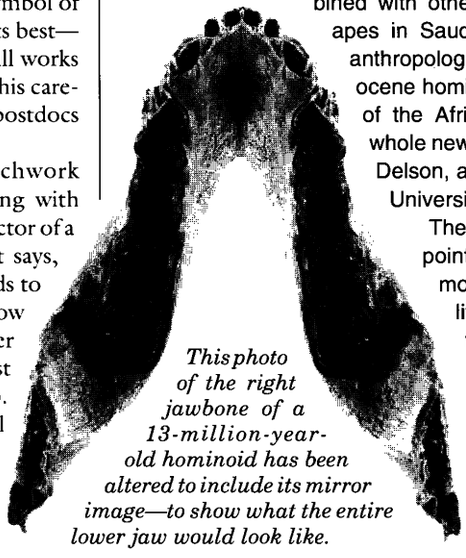
Jaws of Early Life

Anthropologist Martin Pickford of the French National Museum of Natural History had been sifting through the rubble of an old mine in Namibia for barely 15 minutes last summer when he made an extraordinary discovery: the jawbone of a long-extinct ape that may have been a close relative of the last common ancestor of modern apes and humans. Pickford's find could have a dramatic impact on anthropologists' picture of the hominoids—the "superfamily" that includes both apes and human beings.

The mandible, which still has some teeth embedded in it, came from a young adult who lived 13 million years ago, during the Miocene epoch. Now that the discoverers have had time to study the mandible, they say (in *Nature*) that it is the remains of a new species and a new genus of Miocene ape—one that they have named *Otavipithecus namibiensis*, in honor of the Otavi mountains in northern Namibia.

Although Miocene ape bones have been found near the equator in Africa, as well as in Europe and Asia, the find provides a surprise: The apes were also present in southern Africa. "We never expected to find middle Miocene apes there," says expedition leader Glenn C. Conroy, a Washington University Medical School paleoanthropologist. Combined with other new discoveries of Miocene apes in Saudi Arabia and northern Kenya, anthropologists now have evidence that Miocene hominoids lived along the full length of the African continent. "It opens up a whole new area geographically," says Eric Delson, a paleoanthropologist at the City University of New York.

There are still too few fossils to pinpoint when and where the last common ancestor of apes and humans lived, but the new fossil enlarges the area that anthropologists will have to consider. "One could certainly at least begin to entertain the view that the predecessors of the African ape and modern humans may have been in South Africa," says Conroy.



This photo of the right jawbone of a 13-million-year-old hominoid has been altered to include its mirror image—to show what the entire lower jaw would look like.

NASA Mystery Man

President Bush last week announced his choice to succeed Richard Truly as leader of the National Aeronautics and Space Administration (NASA)—and it was a surprise to almost everyone in Washington, D.C., because the nominee is essentially unknown there. He is Daniel S. Goldin, a manager of space technology programs at TRW who until now has kept the lowest of low profiles. Said to be

Daniel S. Goldin

the choice of Vice President Dan Quayle's National Space Council, Goldin has spent much of his career in the classified world of spy satellites. Even spy expert Jeffrey Richelson, author of *America's Secret Eyes in Space*, concedes: "I've never heard of him."

Goldin, 51, is a New York native and a 1962 engineering graduate from the City College of New York. He has worked as a research scientist at NASA, and since 1987 has been vice president and general manager of the TRW Space and Technology Group in Redondo Beach, California, which develops secret payloads for the military as well as robot research devices for NASA. Projects in TRW's "black" portfolio are parts of the KH-11 imaging spy satellite, the MILSTAR satellite communications system, and the Strategic Defense Initiative Organization's "Brilliant Pebbles" anti-missile package. TRW also gets credit for its work on NASA's highly successful Compton Gamma Ray Observatory, the Tracking and Data Relay Satellites, and the still unfinished Advanced X-ray Astrophysical Observatory. Although his background is in robotics, Goldin is also said to favor programs that would send humans to Mars and beyond.

There is some concern on Capitol Hill about Goldin's lack of political experience. "This guy comes from a defense world where you don't talk about what you're doing or why you're doing it," says one congressional aide, adding that "the head of NASA needs to have a political profile, to be an advocate." Still, the aide says he anticipates no "overt opposition to the nomination."

Strange Bugfellows

What do you call it when a pest-control company sponsors a museum's display of insects? Cognitive dissonance? Or maybe just financial necessity. That's what led the Smithsonian Institution to accept the sponsorship of the Orkin Pest Control Co. for their popular insect zoo. The firm, whose motto is "We destroy them all," has given $500,000 to the museum for a much-needed renovation.

The Washington Post quotes Frank Talbot, director of the National Museum of Natural History, to the effect that "what we're doing is creating a public-private partnership," which, he says, is the only way to get things done "with the current budgetary crisis." And Orkin is happy for the chance to show its eco-side—"We share the philosophy that insects are a vital part of nature," says a spokesperson.

The newly named O. Orkin Insect Zoo will re-open in September 1993 with several new exhibits, including a Florida mangrove swamp habitat, a rain forest, and a desert habitat. Those won't be the only new features of the zoo. Also on show will be the Orkin corporate logo—breaking from the Smithsonian's old policy, which barred the display of corporate emblems in permanent exhibits.

Needleman Redux

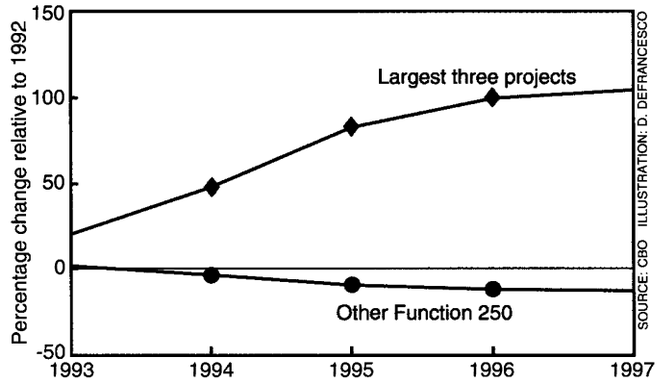
Psychiatrist Herbert Needleman of the University of Pittsburgh, widely known for work linking childhood lead exposure to lowered IQs, is back in the news. A university panel that has been looking into charges of scientific misconduct by Needleman has determined that a formal investigation is appropriate.

The charges relate to a paper by Needleman and colleagues that was published in the 29 March 1979 issue of *The New England Journal of Medicine*. Regarded as a landmark in the field, it showed that increased childhood exposure to environmental lead, as measured by lead levels in baby teeth, correlated with subsequent behavioral and intelligence deficits. Although the research results have been replicated, critics such as Claire Ernhart of Case Western Reserve University and Sandra Scarr of the University of Virginia have repeatedly raised questions about the criteria Needleman used to select his subjects and statistical methods used in the paper (*Science*, 23 August 1991, p. 253). Late last year, the NIH Office of Scientific Integrity asked the University of Pittsburgh to determine whether a formal investigation was necessary.

Needleman maintains that the allegations are purely the result of a lead industry effort to discredit his research. He has asked that Pittsburgh make public the typically confidential investigation process, and says he is confident that he will be completely cleared. While the preliminary inquiry concluded there may be methodological problems with the paper, Needleman says the inquiry determined that he did not "fabricate, falsify or plagiarize," when conducting the original research.

According to Jerome Rosenberg, research integrity officer for the university, the investigation should be completed by mid-May.

Small Science Squeeze



If practitioners of "small science" are looking for confirmation of their fear that "big science" is threatening their livelihood, they will find it in a staff memorandum prepared by the Congressional Budget Office (CBO). CBO points out that the three biggest civilian science and technology projects—the space station, the Earth Observing System, and the Superconducting Super Collider—account for two-thirds of the Administration's proposed fiscal year 1993 increase in the budget category known as Function 250, which includes the National Science Foundation, much of the National Aeronautics and Space Administration, and the general science programs of the Department of Energy. What's worse for small science devotees is that this year's proposal may be only the thin end of the wedge. CBO projects that the annual budgetary needs of the three mammoth projects will double between 1992 and 1997—yet the Administration's budget assumes flat funding for Function 250 beyond 1993. If those projections turn out to be correct—a big if—the result isn't hard to figure: Small science gets squeezed (see chart). Some relief would come from allowing Function 250 to grow. But, as CBO points out, there will be increasing pressure to cut total government spending to hold down the ballooning federal deficit, with the result that "by 1995, the cumulative cuts will be so large that Function 250 is unlikely to escape without any reduction."