plains, that the micrographs were made at such a high magnification that they don't show the larger brain structures that would permit mouse brain to be readily distinguishable from human.

But the problems didn't stem solely from the published photos. Alzheimer's researchers who saw the original tissue samples about a month after the paper came out also became concerned that there might be a problem with them, according to George Martin, who as scientific director of the NIA is Higgins' boss. Those researchers include Selkoe, who visited Higgins' lab in mid-January, originally intending to set up a collaboration, and another long-time Alzheimer's researcher, neuropathologist Donald Price of Johns Hopkins University School of Medicine and his colleague Lary Walker, who looked at the samples at Higgins' request. The concerns expressed by those investigators led NIH officials to undertake the inquiry.

So now it will be up to the inquiry committee, which will be headed by neurologist Dale McFarlin of the National Institute of Neurological Diseases and Stroke to examine the evidence, including the original tissue samples, to determine whether the facts warrant a misconduct investigation. If such an investigation occurs, it would be carried out by the NIH Office of Scientific Integrity (presuming that office hasn't been supplanted—see "Sciencescope," p. 1199).

McFarlin estimates that the inquiry phase will take weeks. "NIH takes matters like this very seriously," he says. And with good reason. If misconduct should be found, the penalty could be as benign as a letter of reprimand. But it could also be as serious as a loss of a job.

Higgins says he welcomes the inquiry. "If there is an independent review, that's the way to handle the matter," he asserts. He is also insistent that no misconduct occurred. "I can assure them [the misconduct allegations] to be groundless," he says.

Higgins originally got involved in the transgenic mouse research, he says, back in the summer of 1991, when Gordon called and asked for his help with in situ hybridization studies for locating the areas of the mouse brains where the human amyloid gene was active. In addition, Higgins, who is a neuroanatomist and molecular biologist (not a pathologist as *Science* erroneously reported last week) did silver staining of the tissue samples with the aid of a poctdoc who is a neuropathologist. "We saw plaques and tangles in some pieces of tissue," he says. The results from two of these animals were described in the *Nature* paper.

But when Higgins began looking at brain tissue from additional transgenic animals of the same line, he did not see silver staining of plaques and tangles. That was even before the paper came out, and Higgins says he suggested to Gordon that they add a statement to the paper indicating that transgenic animals show varying degrees of the pathology. "My first concern was to notify the community to let them know about the variability," he says. (This doesn't jibe with Selkoe's memory of events, but by the time *Science* got the information from Selkoe, Higgins had left his lab for his family's vacation home in Vermont and could no longer be reached for comment.)

By Higgins' account, however, Gordon, who is the transgenic animal expert of the group, said it wasn't necessary to add a note on variability because people familiar with transgenic animals know how variable they are. When *Science* contacted Gordon and Mt. Sinai spokesman Mel Granick for a response to Higgins' assertion, both declined to comment at this time. "Our position is that we think it's inappropriate to comment pending the outcome of the inquiry," Granick says. And the retraction letter is not much help with regard to the question of when the researchers began finding that the histopathological results were not reproducible. It says simply they have not detected them in any of 12 "recently studied" transgenic animals and therefore believe that it is prudent to retract those results. Meanwhile, they say, the issue of whether their transgenic animals constitute a useful Alzheimer's model remains to be assessed by further study.

And there matters will rest, until the inquiry committee completes its deliberations. But at least for people familiar with the seemingly endless misconduct investigations that have made headlines in recent years, there may be one consolation. It should be somewhat easier to sort out the facts in this case than, say, to pin down the origins of an AIDS virus strain that was isolated 8 years ago. Even though human and mouse brain samples may be hard to distinguish visually, immunological and genetic techniques should be up to the job. ■ JEAN MARX

Canadian Science Wins—and Loses

In the United States the budget deficit all but dominates the budget process, and many U.S. scientists have marveled at the annual funding hikes research (particularly National Science Foundation-sponsored work) has received through the 1980s and into the 1990s. If only it had been so in Canada. Little noticed among U.S. scientists, the Canadian budget deficit is actually larger on a per capita basis than the U.S. shortfall. And in the past few years, Canadian research funding has suffered. Not so this year. For the first time since 1984-85, real growth for university-based research in Canada could exceed the inflation rate. Says Minister of Science William Winegard, "We can be very optimistic."

This year's budget, announced by the government on 25 February, included increases for the Canadian university granting councils (which provide most funds for basic research) of 4% for fiscal year 1992-93. This translates into a hike for the Natural Sciences and Engineering Research Council (NSERC) of $17.2 million to $500.8 million.

Science's winners in this year's budget include the Canadian Space Agency, which will receive an increase of $110 million (36%)—$46 million for Canada's participation in the international space station and $32 million for new headquarters. And $230 million over the next 5 years will go to improve the administration of the government's generous—but complex—research and development tax credit system.

Not all the news in the budget was greeted by applause from the scientific community, though. One contentious move was elimination of the Science Council of Canada, an advisory agency on science and technology policy. The government maintains that elimination of the council, along with 45 other nonscience agencies, was needed to streamline government. Prime Minister Brian Mulroney has said his own blue-ribbon panel, the National Advisory Board on Science and Technology, can do the work of the council.

Some critics, however, including researchers, university administrators, and members of the Liberal Party, think the disappearance of the council was due to the Conservative government's discomfort with the only independent science policy agency in the country. Recently, for example, the NSERC publicly criticized the government's decision to contribute $236 million toward the planned KAON particle accelerator at the University of British Columbia, arguing that the benefits weren't proportional to the cost in this Canadian version of big science.

Disappointment over the science council aside, however, most proponents of Canadian science funding were pleased with this year's budget, because it suggests that, after years of stagnation, federal spending on science and technology programs may finally exceed inflation rates. ■ DOUG POWELL

Doug Powell is with the Information Technology Research Centre at the University of Waterloo in Ontario.