



Eric T. Poehlman won acclaim at the Université de Montréal and other schools for his work on obesity and metabolism. (Univ. De Montreal)

Researcher admits fraud in grant data

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Ex-Vermont scientist won nearly \$3m from US

By Carey Goldberg and Scott Allen, Globe Staff | March 18, 2005

In the worst case of scientific fakery to come to light in two decades, a top obesity researcher who long worked at the University of Vermont admitted yesterday that he fabricated data in 17 applications for federal grants to make his work seem more promising, helping him win nearly \$3 million in government funding.

Eric T. Poehlman, a leading specialist on metabolic changes during aging, acknowledged that he altered and made up research results from 1992 to 2002, including findings published in medical journals that overstated the effect of menopause on women's health.

Under a plea agreement with federal prosecutors, Poehlman, 49, will be barred for life from receiving federal funding, pay back \$180,000, and plead guilty to a criminal charge of fraud that could bring jail time. He agreed to ask scientific journals to retract and correct 10 articles they published by him.

"Dr. Poehlman fraudulently diverted millions of dollars," said David V. Kirby, the US attorney for Vermont. "This in turn siphoned millions of dollars from the pool of resources available for valid scientific research proposals. As this prosecution proves, such conduct will not be tolerated."

The fraud charge carries up to five years in prison, but lawyers involved in the case said Poehlman would ask for leniency and would probably get a lesser sentence or possibly no prison time at all.

Poehlman's misconduct was detected and exposed by a former University of Vermont lab technician, Walter F. DeNino, who once viewed Poehlman as his mentor.

Poehlman was a star among obesity researchers. For years at the Universities of Vermont and Maryland and, since 2001, at the Université de Montréal, he won

millions in grant dollars, copious prizes, and accolades from the students he mentored.

Over two decades in which he published more than 200 journal articles, he built a reputation as a leading authority on the metabolic changes that come with aging, particularly during menopause. He also studied the genetics of obesity and the impact of exercise, often following human subjects over time to document how their physiology changed.

Now that stellar career has unraveled. Poehlman resigned from the Université de Montréal in January. He did not respond to requests left at his Montreal home and with his attorney to be interviewed.

Some colleagues speculated that Poehlman buckled to an exaggerated perception of the pressure to publish papers and win grants to keep his laboratory going. Or perhaps he was so sure he knew the right answers that he cut corners to get to them, they said.

DeNino, the lab technician, said in an interview that he does not know what Poehlman was thinking, but the benefits were clear: The fabricated data made his grant proposals more appealing and his papers more publishable, helping Poehlman become one of the better-funded researchers at the University of Vermont.

Poehlman's work was not so groundbreaking that the fabrication will require rethinking any major doctrines on obesity or aging, several colleagues said. But scientists must now wonder which parts of Poehlman's work they can rely on, according to Susan Roberts, a metabolism specialist at Tufts University, who said news of the fabrication left her saddened and disbelieving. "Some of his work was pretty influential," particularly on the physical decline that comes with aging, she said.

"I have a book chapter I'm revising right now which, the last time around, had a lot of references to him," she said in an e-mail. "We are going to pull them all to be on the safe side, hoping that in the future we can put back in those that prove to be OK."

Poehlman's is the most serious case of research fraud since a mid-1980s investigation led to an admission from University of Pittsburgh psychologist Stephen Breuning that he had falsified data on the use of stimulants in children, said Chris Pascal, director of the federal Office of Research Integrity, which investigates research fraud. Breuning was sentenced to 60 days in prison.

Serious research fraud is exceedingly rare, Pascal said, although cases serious enough to warrant barring a researcher from receiving federal funds for a while come up several times a year.

In fall 1997, Poehlman hired DeNino, then a University of Vermont senior, to work part time while he tried to make the US Olympic triathlon team. Poehlman also mentored him, inviting him to coauthor papers and analyze data for him.

"I thought of Dr. Poehlman as someone who would be instrumental in my future," said DeNino, who planned to eventually go on to medical school.

DeNino said he did not notice anything amiss until October 2000, when Poehlman asked DeNino to analyze some preliminary results from a project called the Vermont Longitudinal Study of Aging. DeNino said Poehlman reacted strangely when he turned in his analysis of test results on about 150 women after menopause.

Contrary to Poehlman's expectation that the women's health would broadly decline, some women actually saw improvements in their cholesterol levels and blood pressure.

Poehlman took a computer disk of the data home for the weekend, ostensibly to look for clerical errors and statistical anomalies, and when he gave it back to

DeNino for reanalysis, the data painted a much darker picture of post-menopausal health, DeNino said.

At first, DeNino assumed he had made the mistake. But when he compared the original data against the revised data from Poehlman, he could see that, in women who seemed to be getting healthier over time, Poehlman had reversed the order of test results, making it appear that cholesterol levels and blood pressure readings had gotten worse, not better. "He was trying to exaggerate the age-related deterioration of menopause," DeNino said.

DeNino presented his concerns to Poehlman, who responded in two separate memos that the changes were just an effort to correct clerical mistakes and other problems. DeNino was not persuaded and reported Poehlman to university officials. "I could not escape the fact that a powerful, respected scientist was obviously struggling to explain his actions by layering lie upon lie," said DeNino.

DeNino says that at least four University of Vermont researchers told him privately that they had concerns as well about some of Poehlman's work. However, no one else had spoken up to university authorities. "I was in a unique position to act," DeNino said. "I did not rely on Dr. Poehlman for funding, a post doc [research position], or a salary."

The University of Vermont took DeNino's accusations seriously, he said, but he quickly realized the difficulty of being a whistle-blower against someone as powerful as Poehlman. Other colleagues in Poehlman's lab doubted DeNino's claims, while Poehlman's attorney threatened to sue him if he spoke against Poehlman outside of the investigation.

Poehlman managed to keep DeNino's allegations against him quiet for several years. In 2001, as the University of Vermont was investigating DeNino's accusations, he resigned his tenured professorship and took a step up in the academic world. He accepted an endowed chair -- a high honor usually reserved for very senior professors -- at the Université de Montréal, which apparently knew nothing of the charges.

In recent days, some colleagues and friends who were aware of the federal investigation defended Poehlman.

One, David B. Allison, an obesity researcher and professor at the University of Alabama at Birmingham, said that based on the facts of the case from the initial university investigation, he believes that Poehlman "committed no act of scientific misconduct."

"I believe he's innocent, and I believe that he is being broken financially to the point where he's ready to give up the fight because he has no more money to fight with, and that's the way the game works," he said.

The University of Vermont investigation concluded that Poehlman had fabricated most of the data used in a six-year study of changes in 35 women after menopause, which was published in *The Annals of Internal Medicine* in 1995. In 2003, the journal retracted the paper.

It also found that Poehlman had used fraudulent data in applying for one federal grant, and that triggered a broader investigation by the US attorney's office in Burlington, Vt., and the Office of Research Integrity, which resulted in yesterday's agreement.

Poehlman is expected to be arraigned and plead guilty to fraud within weeks. Federal prosecutors have promised to take no position on his request for a more lenient sentence because he has recently cooperated with authorities.

Under the federal whistle-blower protection statute, DeNino will receive \$21,600 before taxes and his legal fees will be paid, but he scoffs at the notion that he pursued the case for money. He only formally applied for the reward in 2004 when he retained attorney Philip Michael to protect him in the final stages of the federal investigation.

DeNino, now 28 and a post-graduate student at Columbia University in New York City, said he considers his long fight "an accomplishment for the process that

is in place to ensure that truth in science is preserved."

"Funding should be appropriated to those who deserve it," he said.

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