

Danish neuroscientist challenges fraud findings

A committee investigating Milena Penkowa suspects misconduct in 15 papers.

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A prominent Danish neuroscientist could lose her PhD and medical sciences doctorate, after a committee investigating her oeuvre found evidence that she may have falsified data in 15 papers.

The [report](#) by an international committee assembled by the University of Copenhagen concludes that there are significant indications that Milena Penkowa misrepresented both the number of animals used in experiments and data that measured the level of proteins in tissues. A leaked version of the same report was posted on a Danish news website in late July (see '[Leaked report implicates Danish neuroscientist in misconduct case](#)').

The university has passed the report to the Danish Committees on Scientific Dishonesty (DCSD), a government office that investigates research misconduct and will officially rule on whether misconduct took place. The university's academic council for the faculty of health sciences will also now consider the report; it has the authority to withdraw the PhD and medical sciences doctorate that Penkowa earned at Copenhagen if it concludes that she is guilty.

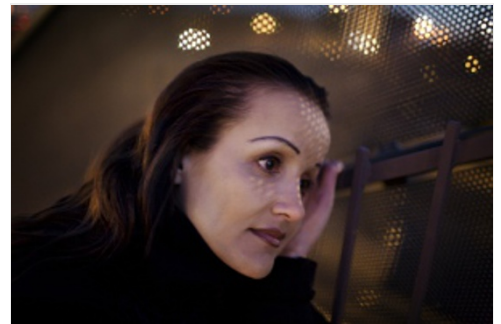
The law firm representing Penkowa has not yet responded to *Nature's* request for comment, but in a response appended to the report, Penkowa says that the committee's conclusions "are not based upon evidence".

High profile

Penkowa, who studied mechanisms of brain repair in animal models of multiple sclerosis, shot to prominence in the late 1990s and early 2000s, making numerous media appearances and winning accolades and awards from the Danish government and private funders.

In early 2010, she was suspended from the University of Copenhagen after she was charged with embezzling the equivalent of US\$5,200 from a Danish neuroscience society. Accusations of scientific misconduct and mispending grants soon followed, and Penkowa resigned from the university in December 2010. The misconduct allegations sparked an investigation by the DCSD, which will report its conclusions later this month. In February 2011, the university asked an independent committee to look into Penkowa's entire career. A Danish court found Penkowa guilty of embezzlement in early 2011.

The committee examined 79 papers and a total of 472 questionnaires on data in the papers, completed by 124 co-authors. The panel,



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Milena Penkowa stands to lose her PhD if misconduct charges are upheld.

chaired by Hans Lassmann, a multiple-sclerosis researcher at the Medical University of Vienna, also sifted through Penkowa's available lab archives, including microscope slides, lab books and animal records.

Lassmann's committee found evidence for "potentially intentional misconduct" in 15 of those papers, falling under three broad categories. Two papers reported animal experiments that could not be squared with records at the animal facilities that Penkowa used. Five papers relied on experiments that measured the levels of proteins called cytokines expressed by different tissues; Lassmann says that these experiments require rigorous controls, which could not be found in Penkowa's lab archive. And 11 papers out of the 15 contained quantitative data from such experiments that did not correspond to the microscope slides in the archive.

Gaps in the record?

Lassmann says that he and his team looked through all the data and material from Penkowa's lab that were available, but he cannot be sure that the archive included all relevant material. "Many of the things we found that were suspicious were done between 2000 and 2005, a long time ago," he says. "We cannot exclude that there is somewhere additional material that could prove some of our suspicions are not valid."

In the response appended to the report, Penkowa says that the committee did not have access to material in two freezers and a refrigerator, or to some important documentation. "Accordingly, the contents of the report are based upon assumptions, guessing and uncertainty as to what sections and tissues belong to which project, not to mention which publication," she notes.

Penkowa also charges that the head of her department, neurologist and neuroscientist Albert Gjedde, who she says initiated the actions against her, "knew what to remove from my department in order to harm me most with regards to his accusations".

Gjedde, however, denies the charge. "There's absolutely no substance to that accusation," he told *Nature*. After Penkowa resigned from the university, her laboratory in the Panum Institute, home to the university's faculty of health sciences, was sealed and all material was later moved to a locked archive in the building's basement. Gjedde says that Lassmann's committee had access to "everything in the Panum Institute that is in any way related to her".

Lassmann says that his report found no evidence that Penkowa's co-authors were responsible for any of the potential misconduct. The University of Copenhagen has passed the report on to the co-authors and to the journals that published Penkowa's work. So far, two of her papers^{1,2} not flagged by the committee have been retracted and a third³ is subject to a notice of concern.

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References

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3. Penkowa, M., Keller, C., Keller, P., Jauffred, S. & Pedersen, B. K. *FASEB J.* **17**, 2166–2168 (2003).