

Beware! Scientific Misconduct is on the Rise

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Scientific misconduct is an upsetting discovery in the scientific world, that has effects within as well as outside the scientific community. What is more shocking is its rising number in the academic world. It clearly rings a warning bell for the researchers to pull up their socks and become more cautious about their findings.

Researcher Receives Two-year Funding Ban Due to Scientific Misconduct

The rising number of cases of plagiarism and retraction show how deep the roots of scientific misconduct have spread into the academic community. Recently another such incident happened when a researcher, found guilty of scientific misconduct, received a two-year funding ban. The [Leibniz Association Executive Board reprimanded](#) its Director of Fritz Lipmann Institute in Jena, Prof. Karl Lenhard Rudolph. The Board also suspended funding to all the institutions under him for three consecutive years. It cited gross scientific misconduct in 11 of Rudolph's published works from 2001 to 2006. The Board has asked Rudolph for a retraction of a single publication and corrections on the other 10. The reprisal of Prof. Rudolph set a motion for investigation by the German

Research Foundation.

The Investigation that Proved Rudolph Guilty

In July through a press release, the Leibniz Association announced its intention to refill Prof. Rudolph's position after learning about his scientific misconduct.

The [Foundation found Rudolph](#) culpable on 14th of December. It noted that three of Rudolph's studies it had funded were questionable. Although the Foundation remains private about its wordings, it cited misinterpretation in the three German Research Foundation funded papers. The Foundation has since given him a written reprimand and slammed him with a 2-year ban on the right to request for funding.

However, the Foundation noted that the three publications had nothing to do with falsification of data. It also emphasized that the reprimand did not affect the Gottfried Wilhelm Leibniz Prize it awarded to Rudolph for his ground-breaking research in 2009. This is because the three papers in question appeared after 2009. Some of Prof. Rudolph's papers appear simultaneously on the EMBO journal, *PubPeer*, and other journals. Collectively, his 11 articles have 522 citations.

The Errata Issued by Rudolph

Rudolph and co-researchers issued the errata as recommended by the Leibniz Association Executive Board targeting the three German Research Foundation funded studies. [One paper, published in the Cell](#), had incorrect images due to errors in data collection. The [second corrected paper](#), published in *The EMBO Journal*, also had errors in the images and their labelling. The [last paper is the one published](#) on 18th September 2014 in *Nature*. The paper has not received any errata or reprints. In the two corrected papers, Prof. Rudolph and the team have noted that the magnitude of errors in the publications did not in any way affect the conclusion of the three studies. Collectively, the three studies had 201 citations.

Rudolph's Reaction to the Verdict

Based on his [responsibility and position](#) as the last author, Rudolph accepted the German Research Foundation decision. However, he regretted that he could not notice the errors in the data in the three Foundation funded projects. As a person of his stature, he admitted he did a disservice to his responsibility. He welcomed the Foundations verdict and took it as a challenge.

Rudolph stated that the Commission had not provided any evidence of gross scientific misconduct such as fabrication or manipulation of data. However, he pointed out that he will examine the publication and correct any errors therein. He also promised to take the initiative to prevent such anomalies in future. Meanwhile, he stepped aside as the FLI Director and resumed his duties as a full-time scientist.

Swedish Scientists Commit Scientific Fraud

Earlier in the year, another such event occurred when [marine biologist Oona Lönnstedt and limnologist Peter Eklöv](#) were found guilty of scientific misconduct. They published a paper in *Nature* that claimed that microplastic elements had an adverse effect on juvenile fish on an island in the Baltic Sea. Unfortunately, Lönnstedt falsified data and her supervisor, Eklöv, failed to check the data. Some researchers questioned the non-disclosure of the data and the details of Lönnstedt's experiments. The paper thankfully went to Sweden's Central Ethical Review Board (CEPN) for review, letting out their scientific misconduct.

Discovering Lönnstedt and Eklöv's Scientific Misconduct

CEPN found both scientists guilty of scientific misconduct and declared their results on 7th of December. Lönnstedt and Eklöv violated several of the [essential ethical rules in research](#) and upended the entire scientific process. Seven researchers, including Fredrik Jutfelt from Norwegian University of Science and Technology and Josefin Sundin from Uppsala University denounced Lönnstedt and Eklöv's data in a scientific paper of their own. They accused Lönnstedt of not performing the experiments she claimed she had. Timothy Clark, another researcher and ecologist at the Deakin University in Australia, also questioned the validity of Lönnstedt's results. The scientists were relieved at the final verdict of CEPN, which proved Lönnstedt's scientific misconduct.

Response of the Accused

When asked about the [board's investigations and review](#), Eklöv, one of the authors found guilty of scientific misconduct, [expressed his disappointment on Lönnstedt](#). He made a statement in *Science*, where he mentioned being shocked to find that his colleague actually did fabricate data, which was a very serious offence. No response could be recorded on the end of Lönnstedt regarding the board's verdict. *Science* retracted Lönnstedt and Eklöv's paper in April 2017 when the authors requested it.

[Scientific misconduct has its effects](#) within as well as outside the scientific world. As for the scientific community, the researchers lose their reputation and their papers may get retracted. On the other hand, a common man loses his confidence on science on learning about the cases of scientific misconduct. Now more than ever, people expect science to be truthful – one of the things that they can count on.

What are the measures that the scientific community must take to reduce the cases of scientific misconduct? Please share your thoughts with us in the comments section below.

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