ETH zürich

Press Release

Findings of investigative report now available

Conducted properly – published incorrectly

- ETH Zurich has had the criticised figures from Professor Olivier Voinnet's research publications investigated comprehensively by an independent commission of inquiry.
- The commission criticised numerous incorrect figures in the publications.
- However, in the publications in which incorrect figures were used, the scientific conclusions are fully substantiated by the available raw data.
- Based on the findings of the commission of inquiry, the Executive Board of ETH Zurich has concluded that this is not a case of scientific misconduct as defined in ETH Zurich's Rules of Procedure.
- Olivier Voinnet breached his duty of care and will receive an admonition in relation to his conduct.
- The Executive Board of ETH Zurich takes the incidents very seriously and states that it does not tolerate such errors in publications.

Zurich, 10 July 2015

In early 2015, Olivier Voinnet, ETH Zurich professor for RNA Biology, was accused in online discussion forums of manipulating figures in his publications. The Executive Board of ETH Zurich is now publishing the report of the independent commission of inquiry into the accusations made against the ETH professor. According to the report, Voinnet breached his duty of care in the handling of figures as well as in his supervisory duties as a research director. ETH is taking appropriate measures to address the issue.

The central mandate given to the commission by the Executive Board was to investigate whether the figures being criticised indicated scientific misconduct within the meaning of the Procedure to address

allegations of research misconduct at the ETH Zurich. Art. 3 of the Rules of Procedure identifies as misconduct any cases in which "intentional misrepresentations are made, intellectual property rights of others are intentionally or negligently infringed, or the research activities of others are otherwise intentionally or negligently impaired". In the assessment of whether scientific misconduct has taken place, only the publications that Voinnet has made since assuming his professorship at ETH Zurich were considered as relevant. Previously, Voinnet was a researcher at the French National Center for Scientific Research (CNRS) in Strasbourg and has retained his association with that institution. In order to make a comprehensive and appropriate assessment of the matter, the commission examined and analysed figures from a total of 32 research publications. Errors of varying severity were encountered in 20 publications.

Findings of the report

In the publications produced at ETH Zurich, the commission found errors in a total of five publications, ranging from the "beautification" of figures to the mere confusion of correct and incorrect figures. Serious errors were identified in two of these five publications. In some cases, the figures had been edited for internal use and then published in error. The commission examined raw data and documentation from the experiments that were carried out; these were complete and correct and substantiated the scientific conclusions made in the publications. Therefore, the processing of the figures led to no scientific advantage. Based on the findings of the commission of inquiry, the Executive Board of ETH Zurich has concluded that this is not a case of scientific misconduct as defined by the Rules of Procedure.

However, the researcher has breached ETH Zurich's binding Guidelines for Research Integrity and Good Scientific Practice at the ETH Zurich. The guidelines state that project managers should take an active role in the management and supervision of junior scientists as part of their research. In this regard, and in the handling of figures, Voinnet clearly breached his duty of care. For this conduct, Voinnet will receive an admonition from the president of ETH Zurich.

Researcher issues apology

Olivier Voinnet takes complete responsibility for the errors made in the publications, saying: "I very much regret not exercising the necessary care during the publication process, and I take complete responsibility for all errors. I sincerely apologise for the uncertainty and difficulty this has caused members of my group and my colleagues. In future, I will work with the utmost care when publishing data. I would like to express my deep gratitude to ETH Zurich for its comprehensive investigation of the accusations against me, and for supporting me despite these errors. The university has placed its trust in me and I will not let them down." Voinnet has begun to submit corrigenda relating to publications with erroneous figures, some of which have already been accepted. Two publications have been retracted in recent months based on the commission's recommendation.

Active support and monitoring of measures

The Executive Board of ETH Zurich takes these events seriously and states that errors of this kind must not occur in publications. Professor Detlef Günther, Vice President for Research and Corporate Relations at ETH Zurich, expresses his opinion: "It must be clear to all researchers at ETH that we do not tolerate conduct of this kind. Voinnet failed to exercise the same care in publishing the data as he

did when conducting and validating the experiments." In Voinnet's case, the Executive Board takes into account the fact that the experiments were performed correctly and, therefore, that the scientific conclusions in the publications are not being called into question. In addition, Voinnet has cooperated with the investigation from the start, has made his own proposals for correcting the problematic conduct, seriously regrets the errors he made and has contributed to a resolution of the errors by supplying the associated raw data. ETH Vice President Günther explains the Executive Board's position as follows: "For these reasons, the measures focus on facilitating the group's continued research activities, but also on rectifying the obvious shortcomings in the handling of figures."

Measures:

- Reduction of Voinnet's activities at the CNRS. A focus on his group at ETH Zurich in order that he can concentrate adequately on the changes to working practices in the group.
- The erroneous publications are to be issued with corrigenda or, if necessary, retracted in coordination and by agreement with the participating authors.
- Voinnet's group is to be provided with an external advisor for the necessary changes in working practices.
- The Executive Board of ETH Zurich encourages the introduction of electronic laboratory notebooks in the group's laboratories. These contribute to reliability and precision in the collection, storage and supply of research data and support error-free publication.

The Department Executive Committee and the Executive Board will take an active role in monitoring and reviewing future publishing activities and the implementation of all the above measures.

Link
Report of the Commission

Further information

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Rules of Procedure

Where misconduct is suspected, the Executive Board of ETH Zurich may appoint a commission of inquiry. Under ETH Zurich's Rules of Procedure, this must consist of the head of the relevant department, one further member of this department and two external experts. In this case, the commission consisted of Witold Filipowicz (Professor of Biochemistry at the Friedrich Miescher Institute) in the role of chairman, Edward Farmer (Professor at the Department of Plant Molecular Biology at the University of Lausanne), Matthias Peter (Professor of Biochemistry and Head of the Department of Biology at ETH Zurich) and Yves Barral (Professor of Biochemistry at ETH Zurich). The commission of inquiry issues a written report stating whether misconduct under Art. 3 has taken place according to its investigations. On the basis of the findings, the Executive Board decides on the subsequent procedure and the measures to be taken, which should be proportionate.

Olivier Voinnet

Olivier Voinnet has been a Full Professor of RNA Biology at ETH Zurich since 2010. His field of research is RNA interference, a natural mechanism that plants and animals use at the cellular level to control their metabolism and to combat certain viruses. Voinnet has made important contributions to the fundamental research in this area, in particular to an understanding of RNA interference in plants and their natural ability to ward off attacks by plant viruses, and the strategies used by plant viruses to bypass this defence mechanism. In a paper published two years ago, Voinnet showed that not only plants and invertebrates use RNA interference as a defence mechanism against viruses, but also mammals. Voinnet has received several awards for his work, including two grants from the European Research Council (ERC).