

DECISION

Date Reg. no 6 December 2017 UFV 2016/1074

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DECISION ON COMPLAINT OF MISCONDUCT IN RESEARCH

Background

On 20 June 2016, Uppsala University received a complaint of misconduct in research against Oona Lönnstedt and Peter Eklöv. Lönnstedt and Eklöv both hold positions at the Department of Ecology and Genetics at Uppsala University. The suspicions concerned the article "Environmentally relevant concentrations of microplastic particles influence larval fish ecology", published in June 2016 in the journal *Science*.

The research project concerned involves a study of how fish larvae and fish fry are affected by microplastic particles. The results of the study were published in the journal *Science*. This article reported that microplastic particles in an aquatic environment had a clear effect on fish fry. For example, those that had been exposed to microplastic particles were less active than those that had not been exposed and they did not seek to avoid predators in the same way as those that had not been exposed to microplastic influence.

The complainants requested that the Expert Group for Misconduct in Research at the Central Ethical Review Board ('the Expert Group') should give an opinion on the complaint, and on 27 June 2016 Vice-Rector Johan Tysk requested an opinion from the Expert Group.

In accordance with the guidelines in force at the time – the Regulations about the procedure in case of a person being accused of scientific misconduct (UFV 2010/664) – Vice-Rector Johan Tysk also decided, on 5 July 2016, to initiate a preliminary investigation. The preliminary investigation delivered its final report on 31 August 2016. The report concluded that the investigators had not found evidence that misconduct in research had occurred.

The Expert Group delivered its opinion to Uppsala University on 21 April 2017. The Expert Group found that the researchers against whom the complaint was made were guilty of research

misconduct. On 11 May 2017, having considered the opinion, the Vice-Rector decided to turn the matter over to the Vice-Chancellor for a decision.

In accordance with the current Guidelines on the procedure for handling alleged misconduct in research (UFV 2016/1079), the Vice-Chancellor decided on 29 May 2017 to forward the complaint and the Expert Group's opinion to the Board for Investigation of Misconduct in Research at Uppsala University ('the Board') for further investigation before a decision by the Vice-Chancellor

The Board delivered a report on its investigation to the Vice-Chancellor on 6 December 2017. On the basis of Uppsala University's former guidelines on the procedure for handling alleged misconduct in research, and the definition of misconduct in the guidelines, the Board's assessment is that the respondents, Oona Lönnstedt and Peter Eklöv, are guilty of misconduct in research. Eklöv has committed misconduct in research by violating the regulations on ethical approval for animal experimentation. Lönnstedt has committed misconduct in research by violating the regulations on ethical approval for animal experimentation and by reporting results from experiments that cannot have been carried out, which means that the results reported are fabricated.

Decision

Oona Lönnstedt and Peter Eklöv are guilty of misconduct in research, Eklöv in that he has violated the regulations on ethical approval for animal experimentation, and Lönnstedt in that she has violated the regulations on ethical approval for animal experimentation and because the experiments were not conducted as described in the article in the scholarly journal and are therefore fabricated.

Grounds

The assessment is based on the Board's investigation report and the guidelines in force at the time when the experiments were conducted and reported on in the research article. Under these guidelines, liability presupposes intent.

The experiments were conducted without the existence of ethical approval for animal experimentation. The responsibility for this rests with both Lönnstedt, who had the main responsibility for the conduct of the experiments, and Eklöv,

who had a special responsibility to obtain approval. The misconduct in research was intentional.

The investigation also indicates that the experiments were not conducted during the period and to the extent stated in the research article. This means that Lönnstedt has fabricated the results. Lönnstedt was aware of this when the article was published and the misconduct must therefore be considered to have been committed intentionally on her part. As co-author, senior researcher and supervisor, Eklöv had a responsibility to check that the research was carried out as described in the research article. He failed to do this and can therefore not escape criticism. However, his failure in this respect cannot be considered to entail a finding of responsibility for intentional misconduct in research.

The decision in this matter was taken by the undersigned Vice-Chancellor, following a presentation of the matter by Erik Lempert, legally qualified member and chair of the Board. Chief Legal Officer Per Abrahamsson was also present.

Eva Åkesson

Erik Lempert