Npof.

Date: 14 March 2022
Ref.: 3.2-21 0165/168

Decision regarding research misconduct

Decision

The National Board for Assessment of Research Misconduct ("the Board" or "NPOF") finds [redacted] and [redacted] not guilty of research misconduct.

Background

On 13 December 2021, two reports on alleged research misconduct were received by the Board. The allegations concern a research project, on amide proton transfer weighted magnetic resonance imaging (APTw MRI) for brain tumour diagnosis, conducted with Scania Regional Council (Region Skåne) as the entity responsible for the research. The report also mentions an article, *Assessment of Amide proton transfer weighted (APTw) MRI for pre-surgical prediction of final diagnosis in gliomas*, by [redacted] published in *PLoS ONE* (2020), 15(12): e0244003.

[redacted] (ref. 3.2-21 0165), and [redacted] and [redacted] (ref. 3.2-21 0168), the complainants, assert that two of the participating patients in the study did not have the diagnosis or undergo the treatment listed in the criteria that are specified for the various patient categories to be included in the study. The allegations concern falsification of data since the complainants believe the results are misleading, being based on patients who neither received the diagnosis nor were given the treatment that was to have been analysed.

[redacted] is the principal investigator in charge of the project, and [redacted] and [redacted] are participating researchers. They have all been given the chance to express themselves in the case.

[redacted] has submitted a written statement to the Board. She contests the allegation of data falsification and explains that studies similar to the one reported can be divided into several stages. She states that patients who do not meet all the criteria in the first stage (data collection) may occasionally be included, but this does not then automatically mean that they are included in the subsequent stages (the second and third being analysis and publication respectively). She believes that in the second stage, a thorough review is carried out to ensure that all the patients included meet the criteria that were specified for the research study.

The allegations reported to the Board mention two patients that [redacted] asserts were not included in the analysis or the publication. One patient was invited to join the study too late for inclusion in the publication mentioned in the allegation. The other was not included, nor is she in any research database either since she declined to take part. [redacted] emphasises that no patients' clinical follow-ups, radiological investigations or treatments were affected by their participation in the study. Furthermore, she asserts that she herself is not the person who proposes which patients should be invited to take part in the study. Rather, she says this is done by the doctors involved in their treatment, but states that she has reminded them of the study's inclusion criteria.

[redacted] has submitted a written statement to the Board. She believes that there is no reason to suspect that there has been falsification. She confirms [redacted] contentions in her statement that the patients mentioned in the report did not take part in the study, and that for the patients who did take part in the study, participation did not affect the treatment they received. She also explains that, as a medical radiation physicist, she was not involved in recruiting participants.

[redacted], too, has sent a written statement to the Board. He denies that cheating in or falsification of research, in the form of manipulation of participants in experiments, took place; nor, he states, had there been any intention of the kind. He describes a visit to one of the patients mentioned, but says that the patient's participation in the study reported was not discussed at the time. He thinks the patient was invited to take part by another doctor, at a later date, without his knowledge. For the second patient mentioned, [redacted] claims that he was not involved in terms of taking part in studies or treatment. He confirms the other respondents' statements that the two patients in question had not been included in the publication or study, and that treatment and follow-up were implemented without reference to the current research project.

[redacted] has written a statement for the Board, in which he expresses his view that there is no indication that breaches of good research practice took place. Being a medical radiation physicist, he was not included in the participant selection for the study.

[redacted] has also written a statement for the Board, in which she says she has not collaborated in the study since 2017.

The Board has examined the case with respect only to the two patients mentioned in the allegations.

Grounds for decision

Legal regulation

Under the Swedish Act (2019:504) on responsibility for good research practice and the examination of research misconduct ("the Act"), the Board is tasked to investigate issues of research misconduct. Section 2 of the Act defines research misconduct as a serious breach of good research practice in the form of fabrication, falsification or

plagiarism, committed with intent or through gross negligence, in the planning, conduct or reporting of research.

Fabrication, falsification or plagiarism

The Board's remit is to investigate three forms of research misconduct: fabrication, falsification and plagiarism. These terms are not defined by law, but are described in research ethics codes (codices) and guidelines, such as *The European Code of Conduct for Research Integrity*.[1,2] They are also explained in the Swedish Research Council's publication *Good Research Practice*.[3] Fabrication is often described as making up results and documenting them as if they were real. Falsification refers to manipulation of research materials, equipment or processes, or unjustified alteration, omission or suppression of information or results. Finally, plagiarism is defined as a researcher's use of other people's texts, ideas or work without duly acknowledging the original source.[4]

It emerges from the documents that none of the patients mentioned in the allegations were included in any analysis or publication related to the research project reported. The Board confirms that, as stated, it is not uncommon for patients to be invited to join a research study at an early stage, but that this does not imply certainty that they will be included in subsequent analysis, results, publication or follow-up.

In summary, the Board finds that there are no grounds for the allegations that falsification, in the form of incorrect inclusion of the research participants specified in the allegations, took place. The Board therefore finds [redacted] and [redacted] not guilty of research misconduct.

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The Board has made a decision in this matter, following a presentation by caseworker Sofia Ramstedt.

Catarina Barketorp
President

Sofia Ramstedt
Caseworker

[1] *The European Code of Conduct for Research Integrity*, revised edition. Berlin: All European Academies (ALLEA); 2018, section 3.1.
[2] Government Bill 2018/19:58, pp. 45, 100.
[3] *Good Research Practice*, Swedish Research Council; 2017, Chapter 8.
[4] Government Bill 2018/19:58, pp. 45, 100.