

CASE OF RESEARCH INTEGRITY

2020

VARIOUS VIOLATIONS

Erasmus University Rotterdam

1. Subject of the complaint

Various violations including data fabrication, cherry picking and contract fraud

2. Description of facts

Remit

The Executive Board decided to establish a "Committee [...]", with effect from [date]. The Committee was established to investigate a complaint received by email regarding possible violation of research integrity by [name]. The complaint came from an external source and was originally anonymous. The complaint gave rise to the following questions:

- *Is there a conflict of interest due to sideline activities, ancillary positions and/or side interests within the research group around the complainee?*
- *Have steps been taken to influence research results and/or is there data fabrication of research results and/or improper use of research funds or authorships in relation to the articles: [list of publications]?*
- *Is there a research culture around/created by the complainee in which relevant (statutory) regulations, codes of conduct and protocols are not (adequately) complied with, in which irresponsible research practices are facilitated and early-stage researchers and doctoral candidates are insufficiently qualified and also inadequately supervised by appropriately qualified researchers?*

In relation to the above question, the complainant in any event named the following persons: [name], [name] and involved person 1.

The Committee was asked to investigate the proposal, design, execution and reporting of the research in relation to the research funds awarded and the production of the publications specified above. The Committee was also asked to investigate the research culture around/created by the complainee and to assess to what extent there may have been a violation of research integrity. This violation could include:

- Failure to disclose sideline activities
- Conflict of interest
- Data fabrication and/or cherry picking
- Non-compliance with rules for authorships
- Non-compliance with rules for good mentorship
- Non-compliance with rules for correct use of research materials



Background and complaint

The Department [...] has employed a researcher from [country] since [date]: [name] (hereinafter: "the complainee"). The complainee reports directly to [name], Head of [...] (hereinafter: "the manager"). After obtaining his doctorate, the complainee received multiple research grants and project funds. He is a prolific publisher and also supervises several doctoral candidates, mainly from [country]. These researchers mostly come to [...] with a scholarship from [...]. Two of these doctoral candidates, hereinafter: "involved person 1" and "involved person 2", were also given a post-doctoral research position in the department after obtaining their doctorate. The complainee's lines of research cover two main fields: [...] (the field on which involved person 1 focuses, among others) and [...] (the field on which involved person 2 focuses, among others). The complainee recently received a [...] scholarship under the [...], having previously been awarded a [...] under the [...]. The complainee himself has informed the Committee that he no longer undertakes any [...].

In [date], the [organization] and Erasmus University Rotterdam received an anonymous complaint regarding the work of the complainee and his post-doctoral researchers. The complaint was forwarded by both bodies to the Secretary for Research Integrity. On [date], the Secretary asked the complainant to identify himself. After the complainant gave his identity on [date], and stated his position and relationship to the complainee, he was requested to provide additional information. The complaint related to, among other things, failure to report sideline activities, conflict of interests, data fabrication and cherry picking of data. On [date], the Executive Board asked the Secretary for Research Integrity to form a Committee and to formulate a draft remit for the Committee's activities. On [date] and [date], further emails containing allegations against the complainee were received. On [date], the complainant sent an email informing the Secretary for Research Integrity that the complainee had confronted him about the complaint that was filed and that he therefore preferred not to have any further contact. On [date], the Dean appointed the Committee.

Even at the start of the Committee's investigation, it was clear there was considerable unrest in the Department. Not only due to the complaint itself, but also due to the prevailing impression in the Department that one of its employees [hereinafter: "involved person 3"], was the complainant ('whistleblower'). Involved person 3 had mailed the complainee on [date], accusing him of misuse of personal data and alleging that he had insufficient substantive knowledge in his role as a supervisor.

In the light of the unrest that had arisen, the Committee informed the head of Department concerned that it could say nothing regarding the identity of the complainant. The Committee stated that it could therefore neither confirm nor deny that the person named by the head of Department was the complainant.

The head of Department concerned stated during the investigation by the Committee that he wished to suspend involved person 3, on the grounds that mandatory confidentiality had been breached (as an example). The Committee responded that it considered it unwise to link any suspension of the person concerned to the current investigation into research integrity being carried out in the department.



Procedure

The Committee conducted its work in accordance with the Scientific Integrity Complaints Procedure [...]. The applicable codes of conduct for the research period that was investigated were the Dutch Code of Conduct for Academic Practice (until October 2018) and the Dutch Code of Conduct for Research Integrity (from October 2018). The Committee met on [date], [date], [date], [date], [date], [date], [date] and [date].

At the meeting held on [date], the following persons were interviewed: involved person 2, the complainee and the manager. Transcripts of these interviews were prepared and forwarded to the persons concerned on [date], with the request to provide any comments, additions and/or corrections by [date] at the latest.

On [date], part of the Committee held a second interview with involved person 2, and on [date] an interview was held with involved person 1, again with part of the Committee. During this interview part of the large quantity of research data, both raw and processed, used in the articles was discussed in detail on the basis of random selection. This investigation covered the following publications: [list of publications].

On [date], additional questions were put to involved person 2 in writing. He replied to them in writing on [date].

On [date], after further analysis of involved person 1's data, additional questions were put in writing to him, with written replies received from him on [date]. [date], additional questions were put to the complainee, involved person 1 and the manager regarding the articles. These questions were answered by the complainee and involved person 1 on [date].

The Committee emailed the complainant on [date] and [date], inviting him for an interview on [date]. The complainant did not reply to these emails. The Committee additionally invited another possible witness, involved person 3, on [date] and [date], for an interview on [date]. He, too, initially did not take up the invitation. However, he eventually replied on [date], at which time the Committee repeated its invitation. This request was accepted and the ensuing interview took place on [date]. On [date], the Committee forwarded a transcript of the interview to involved person 3, with a request to provide any comments, additions and/or corrections by [date] at the latest. He responded with some additions and corrections on [date].

A concept version of the investigation report was sent to the complainee with a request to respond to any factual inaccuracies. He responded with some minor additions and clarifications. The complainant was notified a concept version was available on request. The complainant did not respond.

The Committee additionally requested various documents and details from the complainee and the interviewed witnesses. The documents concerned are as follows:

- the [...] application filed by complainee
- complainee's contract with [...]
- a Standard Operating Procedure of the Department [...]



- induction documents of the department
- appointment details of various students
- registration details of various students from the Administrations Office
- appointment details of various students at other institutions
- the email correspondence between the complainee and involved person 3
- the messages posted by involved person 3 on Wechat plus the complainee's translation
- the raw and processed data for three articles.

Much was discussed during the interviews conducted by the Committee. Nonetheless, this report is limited to what is relevant for addressing the remit formulated above.

Findings

The Committee notes that the investigation of this matter was difficult to perform in the given circumstances. There are cultural differences between Dutch and [...] researchers, particularly with regard to reputational damage. Where in the Netherlands it is a general rule that a person is innocent until proven guilty, [...] researchers apparently hold the view that a reputation has already been damaged even before an investigation has begun. An additional problem was the physical absence of the two post-doctoral researchers mentioned in the complaint, as their cooperation was essential, for example, in the investigation into the scientific publications allegedly involving a violation of research integrity. Involved person 2 was on [...] leave in [...] during the investigation and involved person 1 is now working as a post-doctoral researcher in [...]. In addition, communication (and later the lack thereof) with the complainant via email was difficult.

Further, involved person 3's complaints about the complainee coincided with the complaint filed with the Committee, leading to the assumption by the respective department that involved person 3 was the whistleblower. As a result, the interviewed persons were convinced that the Committee's investigation was initiated on the basis of involved person 3's complaint. This created considerable confusion and tension in the department, hampering (and possibly prejudicing) the interviews.

Failure to disclose sideline activities

Complaint

The complainant alleged on [date], that the complainee had been contracted to [...] since [date], for which he receives 1 million [...] per year. It was claimed that the contract also included an obligation to publish 4 articles a year on behalf of [...]. In addition, it was claimed that the complainee would also arrange a scientific appointment at [...] for his PhD students, with the complainee receiving 100,000 [...] for each student appointed to carry out research at [...] for [...].

Interviews

During the interview with the complainee, he was asked about his activities in [...]. The complainee replied that he was appointed as an adviser and visiting professor in [date] and had also received payment for this activity since [year]. He also said that the department and the manager were aware of this. He stated that this money must also be used for students in the future. Students had a letter of appointment from [...], but did not receive any remuneration in that regard. This did allow them to publish under a dual affiliation,



however. The Committee asked the complainee whether he had also notified/registered his contract with [...], to which the complainee replied that he had not. He was not aware that this was necessary. He additionally said that the time he spends working for [...] is not at the expense of the time he spends working at [...]. He spent his holidays in [...], with the aim of setting up a research centre there.

The manager said he was aware that the complainee had an appointment in [...]. He said that it was his (the manager's) idea to use this appointment for the purpose of pre-selecting [...] students, given the problems there had been in the past. The appointment had yet to yield anything, other than that one of the doctoral candidates, [name], had become a researcher there. The manager did not think the complainee received any payment for this. If the complainee did receive income from [...], other than an expense allowance, the manager would not be pleased because he was not aware of it. There are official documents of scientific appointments at [...] for various people at the laboratory. The manager did not know the precise contents of the appointment papers. The documents that the manager submitted later were in [foreign language].

Documentation

The Committee has seen the contract between the complainee and [...], in its original [...] version as well as the English translation of it made by [...]. The term stated in the contract is [date], to [date]. Under 'Working conditions', the contract mentions an amount of 200,000 [...] per year by way of 'annual remuneration'. The contract does not include any agreements on publications or appointments and/or payment of students.

Conflict of interests

Complaint

The complainee uses funding and lab space provided by [...] and Dutch financial backers to publish in the name of [...]. The complainant asserted that the financing of publications [...] (see 1.1 Remit) was incorrect. Research was carried out in, and paid for by, [...], but published as if it were by [...].

Interviews

Both the complainee and the manager stated that several researchers with a [...] scholarship had a letter of appointment from [...] allowing them to publish on behalf of [...]. As far as they were both aware, nothing further was received in return.

Involved person 3 stated in his interview that he was aware of his letter of appointment at [...], but that he was not pleased with it. Involved person 3 said that he had discussed this matter with the manager and indicated that he did not want this scientific appointment, since he already had links with his former employer in [...] and intended to return there after obtaining his doctorate.

Documentation

Publications [...] were reviewed as regards their affiliations. Article 1 was allegedly prepared using resources provided by [...]. The first named author of the article was [name] and the last author the complainee. Both stated that they publish on behalf of [...] and [...]. [...] is not named as the organisation funding the research on which the publication is based; instead



the '[...]' is named. According to the information provided by human resources of [...] ('HR'), [...] works under a hosting agreement at [...] and his salary is paid from 'his own resources'.

Article 2 is a 'letter to the editor' with just two authors. The first named author has no connection with [...] or [...]. The last author, the complainee, lists both institutes. The article does not include any practical work.

Article 3 was allegedly prepared using resources provided by [...]. The first named author of the article is [name] and the last author the complainee. Both state that they publish on behalf of [...] and [...]. The sources of funding are stated as, among other things, a [...] grant for the complainee and a [...] fellowship for [name]. According to the information provided by HR, [name] works under a hosting agreement on a [...] grant.

Article 4 was allegedly prepared using resources provided by [...]. The first named author of the article is [name] and the last author the complainee. Both state that they publish on behalf of [...] and [...]. The sources of funding are stated as, among others, [...] and [...]. According to the information provided by HR, [name] works under a hosting agreement on a [...] grant.

Article 5 was allegedly prepared using resources provided by [...]. The first named author of the article is [name] and the last author the complainee. Both state that they publish on behalf of [...] and [...]. The sources of funding are stated as, among others, the [...] for a career development grant, an [...] grant and a [...] fellowship. [name] worked under a hosting agreement in [...] until [date]. HR has no information on how his work was funded.

Article 6 was allegedly prepared using resources provided by [...]. The first named author is involved person 3 and the last author the complainee. Both state that they publish on behalf of [...] and [...]. The source of funding is stated as the [...]. According to the information provided by HR, involved person 3 works under a hosting agreement in [...] and his salary is paid by [...].

The Committee has received the letters of appointment at [...] for [name], [name], [name] and involved person 3 from the manager. The appointments all run from [year] to [year]. The manager additionally added information in writing on sideline activities of which he was aware/informed: [name] had stated that he was affiliated with [...] in an analysis of [...]. [name] had stated that he was affiliated with the same center in a project [...]. Both projects are carried out in mutual collaboration. [name] was appointed to a position at [...] after obtaining his doctorate, and currently works in a company. The manager reported that involved person 3 had not yet had a progress review at which to disclose any sideline activities. He stated that, as far as he was aware, involved person 3 had a document of appointment at [...]. There is, however, no difference in the documents of the other students and that of involved person 3 that were shown. Also, the [...] was not mentioned by the manager, despite the information provided by HR showing that they pay his salary.



Data fabrication and/or cherry picking

Complaint

The complainant alleges that in involved person 2's publication [...], there is cherry picking by involved person 2 on the instructions of the complainee. In the publications by involved person 1 [...], it is alleged there is data fabrication on the direct instructions of the complainee, specifically in [multiple items] of article [...] and [multiple items] of article [...].

Interviews

The Committee asked the complainee whether he knew why he was being accused of data fabrication. The complainee answered that the question should be put to the person who produced the data. He no longer performed work in the laboratory, and probably would no longer be able to retrieve the raw data. Everything ought to be on the network drive. He said that all the data were discussed fortnightly and presented at working meetings, so he (and the manager) see all the data before publication.

Involved person 2 said that all his data were discussed during working meetings. According to involved person 2, all the raw data can be shown at these working meetings, although not everything is presented: 'if we think it is not necessary'. According to involved person 2, the manager says that there are always data that can be shown, but it is up to the PhD students to decide when they want to discuss which raw data in detail. There is no cherry picking, involved person 2 said. For the type of [work] he carries out [...], it is simply not possible anyway. 100% of the data are needed. Negative results are also included. However, [...] are excluded. Involved person 2 put this figure at roughly 5%.

The manager considered the accusation of data fabrication or cherry picking to be implausible: the two post-doctoral researchers, involved person 2 and involved person 1, did not have an abnormal output. He had also never seen data that "are too good to be true". He said he suspected he knew why these two people had been singled out: they (alone) were appointed as post-doctoral researchers, in order to gain more 'control' over the research group and also to send a signal that [...] students can move ahead in the lab. He had underestimated the consequences of appointing involved person 1 and involved person 2; others felt aggrieved and were jealous.

Involved person 1 assured the Committee that he had not fabricated any data for his publications. According to involved person 1, he would never have appeared before the Committee (he travelled from [...]) if that were the case. Involved person 1 said that he had only saved the [...]. They are in his personal folders on the network drive. He did not know for how long these types of file are kept. He could retrieve them (during the interview he was still able to log in using his [...]), but was not allowed to take them to [...].

Analysis of the data

The Committee tried to obtain the raw data prior to the interviews by asking the [...] to assist. On [date], [...] made a back-up of the available network data, which included the most recent data on the computers of the [...] not connected to the network. The Committee was unable to obtain these data for the purpose of examination, however, because, according to the [...], that would violate the code of conduct on the use of computer facilities.



Nevertheless, in order to enable the Committee to carry out an analysis of the data, the Committee asked the [...] of the Department [...] for access to the personal folders on the network drive. These personal folders were not part of the data that [...] was able to secure by means of back-up. The Department [...] has its own data administrators who have complete control over the permissions structure of their data area, without [...] having the authority or possibility to make a back-up on its own account.

However, as neither post-doctoral researcher was present in the Netherlands, it was a long time before the data could actually be assessed. There were no hard-copy [...] notebooks available. Experimental data are collected by employees and saved via a department laptop that is connected to the [...] network. All the employees have a personal folder on the network drive in which data can be saved. Employees are free to save the documents in folders named by them under any name they choose.

No [...] logbooks were available for inspection, other than the [year] logbook that was being used. As the data from the publications to which the complaint related were (mostly) collected prior to [year], the [year] logbook provided no useful information.

Random check of involved person 2's data

As a random check of the available data, the Committee asked involved person 2 to show the primary data forming the basis of [multiple items] in the article [...]. The Committee asked for the data files to be provided as they were published, as well as the data files showing that the data were representative of the actual results obtained i.e. that multiple comparable experiments were performed. Lastly, the Committee asked involved person 2 to explain how an important conclusion of the article, appearing on page [number] [...] is supported by multiple experiments, so that cherry picking can be excluded.

In response to the Committee's request, involved person 2 retrieved the relevant data and forwarded the responses to the Committee's questions in [...]. The files referred to by involved person 2 were held in the personal network folder and the last date on which the files were edited corresponded to the time period in which the data were collected. The original data were generally easy to retrieve and gave no indication of cherry picking.

It was noticeable nonetheless that the comparable experiments referred to by involved person 2 in [item] and [item] are [...] of the same [...] on the same date. As this did not provide a satisfactory answer to the Committee's question, involved person 2 was asked to explain further why the article mentions $n=3$, while there only appears to be information available on 1 [...]. If more [...] were observed, where are the data on these [...], and do they show the same effects? Additionally, was this same [...] used in other [items]? If not, which [...] were used for the other [items]? The Committee members also had doubts regarding the correct use of statistics.

Involved person 2's response

In response to these questions, involved person 2 provided the [...] of four [...]. He also stated that the [items] shown in the article were a confirmation of previously published results by a different research group who had previously published in [...]. Therefore, he was not the first person to show these findings in [...]. All the [...] he included showed the same



results, he said. To back this up, he sent two [items] of comparable results in other [...]. He also stated that the data on the [...] in [item] was also used for [item].

Random check of involved person 1's data

As a random check of available data, the Committee asked involved person 1, to show the raw data of [item] and [item] from the article by involved person 1, [...], and of the [item] from the article by involved person 1, [...]. During the interview, involved person 1 had little difficulty in finding the original [...] files and opening them to show the raw data. The last date on which these files were edited corresponded to the time period in which the data were collected. The quantity of data in the [...] files appeared to be broadly in line with the quantity of data needed for the respective publication. In addition, the structure of the [...] files appear to correspond to the data produced by, and imported from, [...]. Large-scale data fabrication therefore appeared unlikely.

As the raw data could not be directly linked to the published graphs, the Committee subsequently examined and linked the data to the tables that were used for published [items]. Regarding the [...] file data for [item], it was found that there were no data for the [...] of two alternative controls. Additionally, data in a table used to [...] contained exactly the same numbers.

The data table accompanying [item] included 4 measurements of various individual factors and 1 measurement to examine a possible synergistic effect between these combined factors. Although, the values of these combined measurements were present in the respective files for these 4 measurements, data from a 5th measurement was actually used in the relevant published [item], with the combined experimental result being far higher than would be the case if only the other 4 measurements had been used.

In the same data table, it appeared that a combination of 4 results was made, which did not actually belong together, since the row titles differed in the accompanying [...] file.

The Committee presented these findings to involved person 1 for his response.

Involved person 1's response

Involved person 1 explained that in the case of [item] the alternative experimental controls were actually not good, and that he only performed the [...], but that this was omitted due to the way the [items] were presented. According to involved person 1, this did not affect the interpretation of the [item], as the [...] cannot produce [...].

Regarding [item], involved person 1 explained that he performed the 5th measurement because he did not believe the combined result of the 4 previous measurements was correct - a single measurement was made [...], so that the [...] was comparable. However, the resulting [...] was not correct. The 5th experiment was intended to correct for this and used [...].

In addition, the data table did indeed include an error, with the wrong combination of data being incorporated into the [itme]. Involved person 1 explained, however, that this had no effect on the results.



Further analysis of involved person 1's data

The Committee additionally examined the other [items] in the publications. The findings of this analysis indicate, among other things:

Article 1:

- In [...], the values for [...] and [...] were reversed relative to the raw data.
- In [...], an additional value with a deviating name was included for [...], but was excluded in the remaining panels (present in the raw data, but not used in the [...]).
- [...] includes numbers that could not be found in the raw data.
- In [...] panel 2, the value of [...] was identical to that of [...], while the value was far lower in the raw data.
- In [...] panel 2, there were more results in the raw data than in the graph. There were gaps in the data table used for the graph.
- In [...], there were more results in the raw data than in the graph. There were gaps in the data table used for the graph.
- The raw data for [...] included results for [...] and [...] that were marked in red. These results were not included in the data table used for the graph. The values in the raw data not used in the the graph were divergent (lower) than the other results.
- [...] included numbers that could not be found in the raw data.
- In [...], it appeared that the wrong row of data had been used for [...] and [...] - the data from [...] had been used instead. As a result, [...] and [...] were identical [...] and [...].
- In [...] and [...], additional raw data were available, but not included in the graph. These measurements are divergent (lower) than the other results.
- In [...], instead of the [...], the [...] data were used as [...] in three of the four measurements. In the fourth measurement the correct data were used, although for [...] the result for [...] was incorrectly labelled with the result for [...].
- The same applies to [...]: [...] and [...] data were incorrectly labelled, except for the [...] where [...] and [...] were incorrectly labelled.
- In [...], the results of [...] and [...] were incorrectly labelled.
- In [...], there are more results in the raw data than in the graph. There are gaps in the data table used for the graph.
- In [...], the results for [...] and [...] were incorrectly labelled.
- The raw data for [...] did not indicate any concentration for [...] and [...], and these data were used interchangeably and inconsistently in the data table used for the graph.
- [...] included numbers that could not be found in the raw data.
- In [...], the values for [...] and [...] were incorrectly labelled. For [...] and [...], results for [...] and '[...]' in the raw data were used in the [...] as [...] and [...] results.
- [...] included numbers that could not be found in the raw data.

Article 2:

- Most of the results in [...] could not be found in the raw data.



- In [...], the result of [...] were included in the results of [...]. The reported result for [...] could not be found in the raw data. For [...], the result of [...] was incorrectly labelled with that of [...].

The complainee's and involved person 1's response to the further analysis

The complainee and involved person 1 sent a detailed response to the above findings, in which they agreed that the data contained lots of flaws and inaccuracies. They believed that this was caused by the fact that copy-pasting from [...] to [...] was error-prone. Occasionally, [...] errors could be blamed, these were recognised, but not saved correctly in the respective [...] file. They said that they currently suspected as much, but were unable to provide proof.

The fact that the Committee was unable to find certain data could be largely explained by the fact that the data concerned were not generated by involved person 1, but by other doctoral candidates/students and were therefore saved on multiple personal network drives. The Committee has not gained (or requested) access, to these drives. The response of involved person 1 and the complainee consisted of the explanations set out below, additional data (from doctoral candidates/students who collaborated on the article), and also of a letter showing that they have requested a rectification at the journal where publication 1 was published. The responses to the above questions are summarised below:

Article 1:

- It is correct that the values in [...] are reversed, but if we correct them it will have no effect on the conclusions. The new figure still shows a robust [...].
- In [...], an additional value is included for [...], but removal of this value will have no effect on the conclusions.
- The missing data for [...] are available in the following files: [...].
- In [...], the low raw value of [...] was not included because we did not trust it. The fact that this value is identical in the [...] to that of [...] is probably no more than a simple copy-paste error. Even though it has no effect on the conclusions, we have nonetheless passed this on to the journal for the purpose of correction.
- In [...], there are more results in the raw data than in the graph because we eliminated the data we did not trust. Sometimes this was because the [...].
- In [...], there are more results in the raw data than in the graph because we eliminated the data we did not trust.
- It is correct that the raw data for [...] include results for [...] and [...] that are marked. We did not include them in the graph table because we did not trust them.
- The missing raw data for [...] can be found in the files: [...].
- It is correct that the wrong row of data was used in [...]. We re-analysed the data with the correct information, and this had no effect on our conclusions. We have nonetheless passed this on to the relevant journal for the purpose of correction.
- It is correct that the deviating data points were not included in [...], because we did not trust them.



- It is correct that there was a mix-up in the results in [...]. In this case, re-analysis did not lead to any other conclusions, but we have nonetheless also passed this information onto the journal for the purpose of correction.
- In [...], the fact that the results of [...] and [...] were mixed up has no effect on the conclusions. It is also possible, however, that this mix-up happened during [...].
- It is correct that the deviating data points were not included in [...], because we did not trust them.
- In [...], the mix-up had no effect on the conclusions, but it is possible that here also there was not a copy-paste error, but rather a mix-up with [...].
- In [...], we made an error in indicating the correct [...]; we have passed this on to the journal for the purpose of correction.
- [...] includes numbers that we also cannot retrieve in the raw data at this moment in time. Their removal has no effect on our conclusions.
- In [...], the mix-ups have no effect on the conclusions. It is possible that there was no copy-paste error, but rather a mix-up with [...]. For [...] and [...], we did, after checking, use the correct data.
- The numbers for [...] can be found in the following files: [...]

Article 2:

- Most of the results in [...] cannot be found in the raw data because they were collected by PhD students and saved in their personal areas of the network drive. We have attached the data of these students, but we cannot precisely determine at this moment where the correct data can be found in this mass of files.
- In [...], a mix-up does not have any effect on the conclusions of the experiments. We are uncertain whether there was a mix-up or a [...] error.

Non-compliance with rules for authorships

Complaint

The complainant alleges that the first author of article [...] did not make any substantive contribution to the article.

Documentation

Article [...] is an opinion article in the form of a letter with three authors. Like the complaine, the first author, [name], stated that she was publishing on behalf of [...] and [...]. The allegation that the first author 'did not need to do anything' for this publication is difficult to prove, since no practical work was carried out in the form of experiments. [name], incidentally, does not appear as a (former) employee of [...] in HR's system and therefore appears to have wrongly indicated that she was publishing on behalf of [...]. Given the scope of its remit, the Committee did not conduct any further investigation into this matter.



Non-compliance with rules for good mentorship

Complaint

According to the complainant, the complainee illegally introduced too many [...] students into his research group. In doing so, he exploited the fact that he did not need to pay the students. Further, as he cannot not properly supervise every single one of these students, he may even leave their supervision to other PhD students (in any event involved person 1), whose names are then allowed to appear as 'corresponding author' on the publication. Also, the students who are admitted are not sufficiently qualified. An English language test is mandatory, but is failed by many students. Examples include [name] and [name], who failed to obtain the mandatory IELTS score of 7.0. In addition, the complainee falsified documents to help involved person 1 into a postdoctoral position.

Interviews

The complainee was unable to give a direct answer to the question of how many students he supervises. He said he could provide the Committee with a list after the interview. More than 10, in any event. He did not automatically consider the students who came into the department via the [...] as 'his' students, as this was often decided at a later stage. It was not always clear which student was assigned to which supervisor. He himself did not think there was any supervision problem in relation to 'his' students. The research team included two research groups, who had fortnightly working meetings. Everyone was given a turn to speak at these meetings. In addition, his door was always open to anyone wanting to talk 1-on-1. Students with a [...] scholarship were of sufficient quality to perform well at the [...]. He received lots of applications for these students, but he also felt free to turn them down. The language used in the departmental [...] is English. All notes and documents are in English. Much private conversation is conducted in [...], however.

Involved person 2 said that he initially found it quite difficult to integrate into the [...], but saw no problems at the moment, neither for him nor for other students. He commented that [...] people are used to having a bit less contact with other [...] staff. The supervision was good, he was able to discuss his data every second week. He has never been pressured to discard data. Involved person 2 said he knew there was a 'code of conduct', but he didn't really know what was in it. He had never attended a course on Research Integrity.

Involved person 1 said that he had never had any reason to complain about the supervision. He had never been a supervisor of any student, although he had, of course, taught new students to use certain techniques. Involved person 1 said there was really no possibility to commit fraud for his postdoctoral research in [...]: the proposal was jointly written by people from [...], using a standard format. He had signed documents that he could show.

Involved person 3 said in his interview that the supervision by the complainee was very difficult. In involved person 3's opinion, the complainee failed to explain properly how his work could be improved. The complainee's instructions were not specific enough for that purpose. This also resulted in involved person 3 being assigned a different co-supervisor, meaning that involved person 3 now only maintains contact with the manager.

The manager said that the [...] had some 60 doctoral candidates in total. He is the (doctoral thesis) supervisor for roughly half of them. The complainee in turn is co-supervisor for some



of the doctoral candidates. He did not think that he (the manager) had too many doctoral candidates. He deliberately chose to make the [...] an 'open house' - many researchers brought their own funding and this therefore made lots of research possible. These researchers are given a doctorate plan following a standard induction programme for the department, after which they are assigned a supervisor and registered in [...].

He said that in the interest of balance he nonetheless wanted to restrict admissions to 4 [...] students a year. The supervision of [...] students started with the International Office. Following admission, they were placed in the department under a hosting agreement. There they start with an English language course and the department's induction programme. A lead [...] first assessed the new students' knowledge and expertise. After this a doctorate plan was prepared. They were not formally doctoral candidates until they had been registered in [...], and they were then invited to the correct working meetings and performance reviews.

The manager said that the department had its own 'code of conduct', known as the 'little red book', to inform new employees about the department's practices. They had to sign after receiving this, with the secretariat keeping the signed booklets. Students were accepted under a hosting agreement. If the research was not completed after 4 years, the department provided an allowance, so everyone under a hosting agreement received income. He remarked, additionally, that he would have noticed if something was wrong with the culture. He thought there was adequate social control. In addition, enough activities were organised for the [...] students to take part in.

Documentation

The complainee provided the Committee with details of the composition of his research group. He limited the information to students with a [...] scholarship. This group consisted of 10 people, excluding the post-doctoral researchers involved person 2 and involved person 1.

The manager provided the Committee with a list of all the people that were registered in [...] at the time of the interview and for whom he is performing or performed the role of 1st supervisor. The list included 19 students who were yet to obtain their doctorate. [...] students were not specifically selected.

HR provided the Committee with a list of the [...] staff members in the Department [...]. The list included 33 names, three of whom were permanent staff members, with the remaining 30 all on hosting agreements. Seventeen of these 30 had their salary paid by the [...]. Others had their salary paid by other [...] (research) institutions or companies.

The International Office provided the Committee with the registration details of all the students named in the complaint. There was no information available on [name]. According to HR's records, this student was not appointed under a [...] scholarship. The Admissions Office stated that it was yet to approve involved person 3's and [name] admission to the doctoral programme due to their failure to meet the language requirement. The Committee also received the files of [name], [name], [name] and [name]. [name] has an IELTS score of 6.5. His file makes clear that the Admissions Office did not consider this any reason not to admit him. [name] also has an IELTS score of 6.5. This score also was accepted. No IELTS score is known for [name]. The manager wrote a letter to the Admissions Office in which he



states that [name] is sufficiently proficient in English. The Admissions Office agreed to this. The same applies to [name]: no IELTS score, but a letter from the manager.

The documents provided by involved person 1 about his post-doctoral research appointment consisted of two letters of recommendation, one from the manager and one from [name] (Deputy Head of the Department [...]), and a support letter from [name], under whose supervision he works in [...]. The position is a Post-graduate fellowship [...]. The conditions for this fellowship are a PhD/MD degree and not more than two years' postgraduate experience. The Committee could not detect any irregularities in these documents.

The 'little red book' is a 39-page document in English. It contains general rules for working at a [...] (working hours, sickness absence, holiday, safety regulations), more specific rules for the Department [...] (for [...], [...], [...], [...]), and rules on dealing with [...] and [...]. This document does not include any reference to the [...] Research Codes. It does not appear that the Research Code is brought to the attention of early-stage researchers in any planned or structural sense.

Non-compliance with rules for correct use of research materials

Complaint

The complainee illegally dispatched [...], generated in [...] or bought with money from [...] / [...], to [...]. In addition, he asked involved person 1, in return for the promise of/in exchange for an Associate Professorship, to transfer [...] and technology from the [...] study in [...] to [...]. As the latter allegation concerns a different research institute, the Committee did not investigate this matter any further.

Interviews

The complainee stated that he never dispatches anything illegal. He exchanges materials on the basis of collaborations. He said that this mainly concerned [...], but in principle, these are [...] that can be bought by anyone. The [...], of which they have many, were all made "in house". Collaborative research makes it unnecessary to draw up specific MTAs with collaborators. We publish jointly.

Involved person 2 said he had no links to [...] or any other [...] university. He never sent anything, except for [...] for [...].

The manager said that there had been occasional problems with the dispatch of materials that are not related to the complaint. The manager said that a visit from the General Intelligence and Security Service recently prompted the drafting of a SOP to address the issue. This matter was raised with the persons involved. This had nothing to do with [...]. Model systems for [...] and [...] were dispatched, in response to a reasonable request. This was done on the basis of MTAs arranged with [...]. Any exchange of [...] must be approved by him, and require his signature.

Documentation

The manager provided the Committee with the newly drafted SOP '[...]'. However, this SOP is only available in Dutch. The SOP focuses primarily on how [...] should be packaged and



dispatched to comply with the applicable legislation. The SOP says nothing about the need, if any, to enter into MTAs.

3. Advice of the Research Integrity Committee

Regulations

The Committee investigates complaints about (possible) violations of research integrity ('research misconduct') on the basis of the Complaints Procedure, which has been declared applicable to this matter. The Committee is issuing an advisory report in this case to the Executive Board of [...]. As the complaint (for the most part) concerns events and publications prior to October 2018, violation of research integrity should be defined as acts or omissions in violation of the Dutch Code of Conduct for Academic Practice (2014), including in any case:

- a. Falsifying data;
- b. Secretly discarding unwanted results;
- c. Entering fictitious data;
- d. Intentionally misusing statistical methods to reach conclusions other than those justified by the data;
- e. Intentionally misinterpreting results and conclusions;
- f. Plagiarism of the results or publications of others;
- g. Unjustified presentation of oneself as an author or co-author or the deliberate omission of other authors;
- h. Disregarding careful research procedures and protocols;
- i. Theft of intellectual property.

Violation of standards or codes of conduct does not necessarily lead to violation of research integrity ('research misconduct'). Negligence or carelessness may occur without this automatically resulting in violation of research integrity. Not every unintentional error or instance of negligence should be interpreted as a violation of research integrity.

Considerations

Was there a failure to disclose the complainee's sideline activities?

The complainee has a significant ancillary position. The department is aware of this. He is paid for this position, something which neither his manager nor HR were aware of at the time of the interview. Article 9 of the CAO [...] provides that employees are, in principle, permitted to perform sideline activities, unless those sideline activities could affect the interests of the UMC and/or the proper performance of their job. In accordance with Article 9.3(3) of the CAO [...], the condition may be attached to consent for sideline activities that income that an employee earns from sideline activities and that exceeds EUR 2,200 a year must be paid to [...]. No discussion on this ever took place, since the complainee's manager was not aware of the amount of income earned from the sideline activities. The Committee therefore concludes that the question of whether the complainee's sideline activities were not disclosed must be answered (partly) in the affirmative.

The conditions referred to by the complainant regarding the use to which the financial compensation attached to the appointment at [...] is to be put do not appear in the contract.



The Committee assumes that these conditions were therefore not agreed on, and the income earned from the sideline activities may be used by the complainee at his discretion.

The complainant also alleged that the complainee received an amount for every [...] student at [...] with an ancillary appointment at [...]. The Committee did not find any evidence of this in the contract with [...] provided by the complainee.

Is there a conflict of interests?

The complainee's ancillary position does not appear to lead directly to a conflict of interests with respect to his activities or duties at [...]. His activities for [...] take place for the most part during his holiday(s) and there do not appear to be any activities carried out at the expense of his work performance at [...]. His manager agrees to his activities and the time spent on his activities for [...]. The Committee's investigation has yet to find any indications or evidence that the complainee misused research funds or subsidies.

The Committee has the impression nonetheless that the complainee appears to actively recruit others for an ancillary appointment at [...]. Although, contrary to what is alleged in the complaint, the research is not solely published as if it originated from or was carried out under the responsibility of [...], [...]'s (financial or intellectual) contribution to these publications is unclear, as is the benefit to the students concerned of the ancillary appointment at [...]. Regarding the ancillary appointment of several [...] students at [...], the department head concerned initially accepted documents in [...], without any translation or further explanation, so that it was unclear to him under what conditions they had accepted their ancillary appointment and precisely what type of work they were expected to perform for [...].

The mention of involend person 3's ancillary appointment at [...] under Article [...] is unusual, given that involved person 3 has links with another hospital in [...] and has let it be known that he has no need for an affiliation with [...].

The Committee concludes that a conflict of interests cannot be demonstrated. However, the ancillary appointment of a large number of PhD students from the same department at another university creates close ties with an external organisation, the benefits of which to [...] are not immediately clear. This is a risk factor for the existence of a conflict of interests, and the advantages and disadvantages to [...] of the collaboration do not appear to have been carefully weighed in this regard.

Is there evidence of data fabrication and/or cherry picking?

Cherry picking, the selective omission of information and/or results, is difficult to prove. The Committee concludes that there appears to be no indication of cherry picking in the case of involved person 2's publication. Having said that, there seems to be little comparable research material available, however. The conclusions seem at times to be based on only 1 [...] or just a few [...]. The Committee also questions the students' knowledge regarding the statistical methods used. The Committee recommends that a statistician be directly involved in such research.

In the case of involved person 1's publications there appears to be no evidence of data fabrication on a structural basis, although in both articles that were examined involved



person 1's data contain many flaws and inaccuracies. The answers provided by the complainee and involved person 1 are not 100% satisfactory. Some data are still not present in the files referred to, and even the complainee and involved person 1 conclude that they cannot retrieve all the data. The large volume of data per publication is a complicating factor in retrieving the original data. Furthermore, involved person 1 and the complainee admit that certain data were disregarded as they did not trust them. The lack of proper documentation for the data collection means that the Committee was unable to determine whether or not some data were correctly discarded. As a result, cherry picking cannot be proven for these articles, but neither can it be excluded.

The Committee concludes that the principle of 'scrupulousness' as set out in Article 1.6 of the Code of Conduct:

"Scrupulousness is expressed through precision and nuance in academic instruction and research, in publishing research results and in other forms of knowledge transfer."

was not adequately complied with in this case. The Committee only investigated the articles mentioned by the complainant. The Committee wonders to what extent these flaws and inaccuracies in data processing were limited to these publications by the research group.

The Code of Conduct defines verifiability as follows: "Conduct is verifiable when it is possible for others to assess whether it complies with relevant standards (for instance of quality or reliability). The Committee concludes that within this principle under Article 3.2:

"The quality of data collection, data input, data storage and data processing are closely guarded. All steps taken must be properly reported and their execution must be properly monitored (lab journals, progress reports, documentation of arrangements and decisions, etc.)."

was not adequately complied with in this case. The Committee finds that data (certainly in the first instance) are not readily available for verification. Data are spread across various personal folders on the network drive. Even the lead author and supervisor have difficulty in gathering all the data together (and are not fully able to do so). Enquiries reveal that failed experiments are often not reported, or are incorrectly reported, in the documentation accompanying the experiments.

The Committee finds that work was conducted with insufficient attention to scrupulousness, but that there was no intent in the instances of carelessness that have been established and they are not sufficiently serious to accuse the complainee, as involved person 1's supervisor, of violation of research integrity in that regard.

Was there inadequate compliance with the rules for authorships?

The Committee is not able to establish in this case that [name] did not make any substantive contribution to this opinion article and therefore concludes that there is insufficient evidence that the rules for authorships have been infringed in this case.



Is there non-compliance with rules for good mentorship?

The Committee has established that several students working in the department do not meet the requirement of an IELTS score of 7.0 or higher. However, a score of 6.5 is apparently allowed in practice (by the Admissions Office of [...]). There are also letters from the manager in which he states that the doctoral candidates are sufficiently proficient in English. Failure to meet language requirements might impede communication in the department, especially where several people in the department share the same mother tongue but have insufficient command of English.

The Committee has no indications that the complainee infringed any rules with the fellowship application for involved person 1. As far as the Committee can establish, the award of the [...] fellowship does not include any conditions that involved person 1 did not allegedly meet.

The Committee is concerned about the lax attitude in the department regarding the supervision of doctoral candidates. Of the 10 people named by the complainee as students under his supervision, only 3 appear in the list provided by the manager. The remaining 7 students could, in theory, have a different 1st supervisor. It is also possible, however, that these people are therefore not yet registered in [...]. One of the students named by the complainee does not appear in the list kept by HR. The large number of students working under a Hosting Agreement in the department appears to be at odds with responsible academic practice. Nonetheless, this cannot be considered as research misconduct, since it is not clearly laid down in any code or formal rules what constitutes a responsible number of doctoral candidates for each supervisor. This may also vary from one field to the next. There is a large number of doctoral candidates in the department that appear to receive little in the way of supervision, however, and whose progress in their PhD programme does not appear to be tracked and registered in [...] in the usual manner. The complainee is, by his own account, not present in the [...] and consequently not able to monitor the correct performance of research activities by others, nor is he able to supervise them in their work. This can increase the risk of research misconduct.

Supervision takes the form of fortnightly group meetings, where PhD students (whether or not registered in [...]) can decide to show data and can discuss their research. This is a reactive type of supervision at the instigation of the PhD students themselves.

Although overseas PhD students receive mainly practical information on the [...]’s working practices in the form of 'the little red book' on starting their work, the department does not seem to draw new PhD students' attention, on a structural and consistent basis, to the Code of Conduct for Research Integrity that applies to research conducted at [...], for instance. [...] journals are not kept in a uniform and structured way in the department, nor are PhD students instructed in this regard. This leads the Committee to wonder whether the flaws and inaccuracies found in the data processing for involved person 1's research were perhaps not limited solely to the publications examined in this investigation.

Is there non-compliance with rules for correct use of research materials?

The Committee did not find any evidence that research materials were unlawfully or wrongly exchanged or dispatched, but notes also that this was difficult to verify. The information provided as standard to new employees does not include clear instructions on how materials should be dispatched in terms of laying down agreements in material transfer agreements.



Responsibility for these agreements will generally lie with the senior researchers and not with new employees, however.

The Committee's other considerations

The Committee finds that the complainant has not sufficiently substantiated and made concrete his position that the complainee violated research integrity. The complainant has not submitted any documents showing that the complainee (or involved person 1 or 2) committed data fabrication or engaged in cherry picking.

The Committee's conclusion

The Committee concludes, in the light of the above, that there is a lack of compliance with standards and principles as formulated in the Code of Conduct. The term 'research misconduct' would seem too heavy, however, for the instances of carelessness found in the research carried out by involved person 1 and 2, since the Committee was unable to establish intent and the instances of carelessness had no positive effect on the results of the research. The Committee is nonetheless of the opinion that the conduct and reporting of the research could have been better.

Committee's initial opinion and advice

In the light of the above, the Committee advises the Executive Board to declare the complaint unfounded, in the sense that there has been no violation of research integrity by the complainee. The Committee advises that it also be noted that the complainee, as well as the manager and the department where the complainee works, should have been more careful in this matter to ensure compliance with the standards and principles set out in the Code of Conduct, especially with regard to scrupulousness and verifiability.

4. Initial decision of the Executive Board on March 12, 2020

The Executive Board of the [...] has decided to follow the advice of the Committee and therefore concludes that the allegations against the complainee are unfounded i.e. the Committee has found no compelling evidence to uphold the complaints against the complainee.

However, based on the Committee's findings, the research group as a whole must undertake a critical review of current practices regarding the monitoring of data management and mentorship policies. The [...] is the starting point for conducting honest research and sets a framework for how we should conduct ourselves in research. The Executive Board urges the complainee to work according to this Code and to share and discuss this document with his coworkers. The Board requests the complainee to draw up a plan of action for this purpose and to discuss this with the Head of his Department.

5. LOWI

The case was not submitted to the LOWI.

6. Final decision of the Executive Board on April 23, 2020

The (initial) decision of the Executive Board of March 12, 2020 became the final decision on April 23, 2020.