

Report of the findings of the Committee of Inquire to investigate allegations of possible scientific misconduct by researchers at the University of Lisbon.

Introduction.

The Rector of the University of Lisbon, Professor António da Nóvoa on February 27, 2012, received a letter dated February 21 (attachment #1) from Diane Lipscombe, Chair of the Scientific Publications Committee of the Society of Neuroscience (SfN) of the US informing of "possible scientific misconduct relating to two articles (attachment #2) published in *The Journal of Neuroscience* on which the authors, Ana M. Sebastião, Sofia Cristovão-Ferreira, Natalia Assaife-Lopes, Joaquim A. Ribeiro, Vasco C. Sousa, and Sandra H. Vaz list the University of Lisbon as their institutional affiliation". Furthermore she added that "on the basis of preliminary findings the Society for Neuroscience's Scientific Publications Committee agreed unanimously that a more detailed investigation was warranted. On behalf of the committee and in keeping with SfN guidelines for dealing with possible scientific misconduct I request that such an investigation be convened by your institution."

Taking this allegation very seriously the Rector, after some internal consultations, appointed a Committee of Inquire on March 20 to investigate this matter. This Committee was constituted by Professors Fernando Lopes da Silva (University of Amsterdam), Arsélio Pato de Carvalho (University of Coimbra) and João Lobo Antunes (University of Lisbon).

After analyzing the pertinent documents the Committee asked the Rector's office to send an official letter to all the authors of both articles published in the Journal of Neuroscience, requesting a written statement concerning the alleged possible scientific misconduct. Furthermore the authors affiliated to the University of Lisbon, whose names are mentioned in the letter of the SfN, were invited to depose before the Committee; this took place on April 9¹ at the Rector's premises.

Conclusions.

1. The Committee reached unanimously the conclusion that the misrepresentations of the figures that were detected by the Editor of the Journal of Neuroscience in the two articles in question did not result from scientific misconduct, i.e. these faults cannot be attributed, to intentional fabrication or falsification. On the contrary, the errors seem to have occurred in good faith and in no way did these affect the scientific content of the articles and their conclusions. The erroneous parts of the figures which aimed to illustrate examples of Western Blots were not used for data quantification.

2. Nonetheless the Committee recognizes that these misrepresentations resulted from a careless action of 2 PhD students (NAL and SCF) who admitted that at the time of preparing the final manuscripts had to work under great time pressure. Further the Committee acknowledges that the senior author (AMS) should take the main responsibility for not having detected the mistakes that occurred in the figures in both articles. All authors assumed their share of responsibility.

3. According to the guidelines² of the Society of Neuroscience, the "... Society also recognizes that the guidelines deal with matters of varying seriousness and that honest errors can sometimes occur. Thus, for the purposes of this document, the term "misconduct" is limited to instances of intentional fabrication, falsification, or plagiarism by authors".

The Committee concludes that the errors made in these two articles should not be considered as cases of "misconduct", and in no way belong to the traditional categories of "fabrication, falsification or plagiarism". The errors in this case belong to the category of "**honest errors**".

¹ Since two co-authors (NAL and VCS) were abroad at the time of the hearing, the interview with the Committee took place via Skype. A report of the interviews was made by Dr. Luís Guimarães de Carvalho, Head of the Rector's cabinet.

² Society for Neuroscience Guidelines: 6. Dealing with Possible Scientific Misconduct:

Excerpt from these guidelines: "The Society also recognizes that the guidelines deal with matters of varying seriousness and that honest errors can sometimes occur. Thus, for the purposes of this document, the term "misconduct" is limited to instances of intentional fabrication, falsification, or plagiarism by authors, reviewers, or editors".

(http://www.sfn.org/index.aspx?pagename=responsibleConduct_dealingWithPossibleScientificMisconduct).



4. The Committee recommends that the Journal of Neuroscience, in the light of the conclusions mentioned above, reconsiders the editorial decision to subject "the authors to a moratorium on submitting papers to The Journal of Neuroscience, abstracts to The Society for Neuroscience's annual meeting, and on all scientific communication with the Society", since none of these scientists can be blamed for scientific misconduct.

5. The Committee further suggests that the Journal of Neuroscience consider placing the errata in a forthcoming issue of the Journal, as proposed by the senior author already in November 2011.

Justification.

The Committee was happy to realize that in no way the scientific integrity of the authors and the validity of the articles was put in doubt neither by the Editorial Board nor by the Scientific Publications Committee of the Society of Neuroscience. This is reinforced by the fact that the work was done in collaboration involving scientists from different countries: from Lisbon, Barcelona, Pamplona, Ancona and New York. Part of the experimental work was repeated in laboratories outside Portugal and the results confirmed. The statements of these scientists working outside Portugal are unequivocal in their appraisal of the scientific integrity of the Portuguese colleagues who are the main object of this inquire.

The written statements and the hearings allowed the Committee to make a reconstruction of what may have gone wrong with the misrepresentation of the 3 questionable figures. In the case of Figures 1a and 4a of the paper by Assaife-Lopes et al. (2010), where the same images of a Western blot are repeated for two different conditions, the 1st author admitted that this occurred due to faulty "cut and paste" of very similar pictures. In the case of Figure 4f of the paper by Cristovão-Ferreira et al. (2011) the Western blots of Tubulin that were repeated resulted from using the selected part of the blot twice in the final figure. The Committee members examined the original blots to better understand what went wrong. This fault occurred at the last moment after the manuscript had been revised and was being prepared to be re-submitted. Apparently this was done under great time pressure to re-submit the manuscript. Most co-authors received this last version at the same moment as it was being sent to the Journal, and thus did not see the very final version before resubmission.

The senior author Ana Sebastião, however, reviewed the last versions of both manuscripts although the misrepresented parts of the figures escaped her notice, as well as that of the other co-authors, as much as that of the Journal's reviewers and editorial staff. We should add that the Committee consulted two independent researchers, experienced in the techniques used in the articles, who had also great difficulty in spotting the faults, even knowing that faults had been previously detected. Notwithstanding the difficulties in reviewing these kind of images, the Committee emphasizes that the senior author has the great responsibility of conveying to the PhD students that appear as 1st authors the earnest of always working with the greatest care down to the details of the final presentation of the scientific communication.

Lisbon, April 12, 2012

Fernando Lopes da Silva (Coordinator)

Arsélio Pato de Carvalho



UNIVERSIDADE
DE LISBOA

A handwritten signature in blue ink, appearing to read 'João Lobo Antunes'.

João Lobo Antunes

Attachments:

1. Letter from Diane Lipscombe, Chair of the Scientific Publications Committee of the Society of Neuroscience (SfN) of the US.
2. Two articles published in *The Journal of Neuroscience*.