



UCL procedure for investigating and resolving allegations of misconduct in academic research: Dr Jatinder Ahluwalia

The large-conductance Ca²⁺-activated K⁺ channel is essential for innate immunity (Ahluwalia J, Tinker A, Clapp LH, Duchon MR, Abramov AY, Pope S, Nobles M, Segal AW) – *Nature*, 2004 (Feb 26;427(6977):853-8)

- 1 University College London (UCL), in common with UK higher education institutions generally, operates a procedure for investigating and resolving allegations of misconduct in academic research (<http://www.ucl.ac.uk/academic-services/resgov/research-misconduct-procedure-september-2009>). The scope of the procedure extends to allegations regarding any research conducted on UCL property, regardless of whether the individual about whom allegations are made is a current employee of UCL or has left the employment of UCL. UCL's Director of Academic Services is the officer responsible for ensuring the integrity of any proceedings conducted under the research misconduct procedure.
- 2 In September 2008, Professor Anthony Segal, Charles Dent Professor of Medicine at UCL, in a letter to the Director of Academic Services, formally initiated allegations of research misconduct on the part of Dr Jatinder Ahluwalia, who had previously been employed as a member of research staff at UCL and who was alleged by Professor Segal to have committed research misconduct during his time as an employee of UCL and on UCL property.
- 3 According to the UCL research misconduct procedure, the Director of Academic Services set up a screening panel, consisting of three senior UCL academics, to consider the evidence presented in support of these allegations. The screening panel concluded that the allegations were sufficiently serious, and had sufficient substance, to merit a formal investigation.
- 4 On receipt of the screening panel's recommendation, the Director of Academic Services set up a research misconduct panel which was charged to carry out a full investigation of the allegations. According to the UCL procedure, the panel included: as chair, a lay member of UCL's governing body, the Council; an academic specialist in the general area within which the misconduct was alleged to have taken place, from outside UCL; and a senior member of UCL staff from the relevant faculty.

- 5 The research misconduct panel's investigations culminated in a hearing in February 2010. Dr Ahluwalia was invited to attend the hearing and to submit evidence for its consideration but did neither.
- 6 The panel considered allegations that Dr Jatinder Ahluwalia, while employed as a researcher at UCL:
 - 6.1 falsified the results of experiments conducted by him, on UCL premises, thereby committing research fraud, as defined by paragraph 1.1.iv of the *UCL Procedure for Investigating and Resolving Allegations of Misconduct in Academic Research*. It was alleged that Dr Ahluwalia altered the numbering of files of research results so as to misrepresent the results of experiments conducted by him;
 - 6.2 further falsified and misrepresented the results of experiments conducted by him, on UCL premises, by the use of materials other than those specified in the reports of the results of those experiments, thereby committing research fraud, as defined by paragraph 1.1.iv of the *UCL Procedure for Investigating and Resolving Allegations of Misconduct in Academic Research*;
 - 6.3 interfered with the experiments of others so as to distort their results, thus falsifying the results of research experiments conducted by others employed by UCL on UCL premises, thereby committing research fraud, as defined in paragraph 1.1.iv of the *UCL Procedure for Investigating and Resolving Allegations of Misconduct in Academic Research*. It was alleged that Dr Ahluwalia deliberately contaminated chemicals used by other researchers in their experiments so as to falsify the results of those experiments, in order to conceal the falsification by him of the results of his own experiments.
- 7 The findings of the research misconduct panel were as follows, in relation to each of the three allegations respectively.
 - 7.1 The panel unanimously concluded that the first charge was proven beyond reasonable doubt. This conclusion was drawn from the following evidence:
 - 7.1.1 that the handwritten record containing file names that Dr Ahluwalia gave to Professor Lucie Clapp did not match the original computer files. These discrepancies only occurred for cell series that Dr Ahluwalia thought were to be used for publication; it was therefore concluded that Dr Ahluwalia deliberately renumbered the files to deceive Professor Clapp as to the results of his patch clamping experiments. The fact that incorrect file names only occurred in the note given to Professor Clapp and did not occur elsewhere in Dr Ahluwalia's records suggests that this renaming was a deliberate act rather than an accidental error;
 - 7.1.2 that the witness statement received from another member of academic staff noted that the results achieved by Dr Ahluwalia from the patch clamping experiments were impossible because it was not feasible to conduct the frequency and / or type of experiments on a single cell in the time frame that Dr Ahluwalia suggested in the relabeled files;
 - 7.1.3 that Dr Ahluwalia admitted to relabeling the files during a meeting with Professor Segal and Professor Andrew Tinker.

- 7.2 The panel unanimously concluded that on the balance of probabilities it was highly confident that the second charge was proven. This conclusion was drawn from the following evidence:
- 7.2.1 that two laboratories outside UCL and in different countries were unable to reproduce the experiments conducted by Dr Ahluwalia and achieve the same results;
 - 7.2.2 that once Dr Ahluwalia had left UCL's employment staff in Professor Segal's laboratory at UCL could not replicate the experiments reported in the 2004 paper published in *Nature*;
 - 7.2.3 that when mass spectroscopy analysis was carried out on samples of iberiotoxin and paxilline some samples were found to contain DPI which would not occur naturally and, given the strict laboratory procedures followed by staff, would be highly unlikely to have occurred accidentally.
- 7.3 The panel unanimously concluded that on the balance of probabilities it was confident that the third charge was proven. This conclusion was drawn from the following evidence:
- 7.3.1 that the results obtained in the iberiotoxin and paxilline experiments carried out by a laboratory technician and by a senior technician/laboratory manager produced different results when new batches of chemical stocks were used to when stocks of materials that had been stored in the freezer were used; some of these stocks were subsequently found to have been contaminated with DPI as described in 7.2.3 above;
 - 7.3.2 that the cells supplied to a senior research fellow colleague for the patch clamping experiments were most likely not eosinophils as Dr Ahluwalia had informed this colleague because the results the colleague found could not be replicated when eosinophils were used; Dr Ahluwalia was the only person to have been involved in preparing the cells;
 - 7.3.3 that, as noted above at 7.2.3, the mass spectrometry data showed that some samples had been contaminated with DPI;
 - 7.3.4 that no other staff in the laboratory had a motive for contaminating samples and as noted at (iv) above none of Dr Ahluwalia's experiments could be replicated.
- 8 The panel was unanimous in its conclusion that no other staff in Professor Segal's, Professor Tinker's or Professor Clapp's laboratories were in any way implicated in any of the research misconduct noted above; that Dr Ahluwalia acted wholly independently; and that other laboratory staff acted in good faith based on the information and materials supplied to them by Dr Ahluwalia.
- 9 The panel commended Professors Segal, Tinker and Clapp and their laboratory staff for their rigorous forensic investigations to explain the aberrant results of Dr Ahluwalia that had led to the uncovering of this serious fraud.
- 10 According to the UCL research misconduct procedure, Dr Ahluwalia was given the opportunity to appeal against the findings of the research misconduct panel. Dr Ahluwalia submitted a written appeal. According to the UCL procedure, the

Vice-Provost (Research) appointed a person from among a panel of nominees approved by the UCL Council, to consider the evidence submitted by way of appeal. The latter considered the evidence and advised that there were no grounds for an appeal to proceed.

Note

On 9 November 2010 Dr Ahluwalia was given notice in writing of UCL's intention to publish the above statement on the UCL website and was invited to send any comments on the statement to UCL by 23 November 2010. UCL has not received any response from Dr Ahluwalia.

26 November 2010