

RESEARCH INTEGRITY ANNUAL REPORT 2017-18

A Paper by the College Secretary

INTRODUCTION

1. As a signatory to the UK Concordat to Support Research Integrity, the College is committed to “*maintaining the highest standards of rigour and integrity in all aspects of research*”, and “*ensuring that research is conducted according to appropriate ethical, legal and professional frameworks, obligations and standards*”. Accordingly, the College not only provides support and guidance for researchers so that research is conducted according to appropriate ethical, legal and professional frameworks, obligations and standards, it also has robust processes in place to deal with allegations of research misconduct when they arise.

2. The Concordat also includes the following commitments and recommendations for research organisations, with which the College also complies:

“employers of researchers should present a short annual statement to their own governing body that [...] provides a high-level statement on any formal investigations of research misconduct that have been undertaken ... To improve accountability, and provide assurances that measures being taken continue to support consistently high standards of research integrity, this statement should be made publicly available”

“employers of researchers should identify a senior member of staff to oversee research integrity and to act as first point of contact for anyone wanting more information on matters of research integrity.”

“employers of researchers should provide a named point of contact or recognise an appropriate third party to act as confidential liaison for whistleblowers or any other person wishing to raise concerns about the integrity of research being conducted under their auspices.”

3. The College confirms on its [Research Integrity](#) webpages that the senior member of staff with leadership oversight for research integrity at the College is the Vice-Provost (Research and Enterprise), Professor Nick Jennings; and that the named point of contact for any person wishing to raise concerns about the integrity of research conducted at Imperial College is the College Secretary, John Neilson, who is both the Chair of the College’s Research Misconduct Response Group (RMRG), and the designated person to receive Public Interest Disclosures under the College’s whistleblowing procedures.

4. In accordance with its obligations under the Concordat, the College also considers an annual report on research integrity and misconduct. This is the fifth such annual report from the RMRG about the College's support for research integrity, and it describes the investigations of research misconduct that have been undertaken in the last academic year. As well as providing the Provost's Board with a detailed update on the actions taken to support research integrity, and to investigate concerns about research in the last year, this report will form the basis of the annual high-level statement on research integrity to be made to the Council in accordance with the College's commitments under the Concordat. A copy of the annual report to the Council will also be published on the College's Research Integrity webpages.

RESEARCH INTEGRITY

5. The College's reputation and success in research are underpinned both by the quality and expertise of the individuals within the College, and by the standards of research governance and integrity that the College expects all researchers to meet. To this end, the College has adopted the Council for Science and Technology's Universal Ethical Code for Scientists and upholds its three principles, which are:

- Rigour, Honesty and Integrity
- Respect for Life, the Law and the Public Good
- Responsible Communications: Listening and Informing

6. The Vice-Provost (Research and Enterprise), Nick Jennings, has leadership oversight for the research environment, including Ethics and Integrity. The Research Office's responsibilities now also encompass an Ethics and Integrity function that will be reviewing gaps in the College's provision in this area. To support research integrity, the College provides training and guidance to its researchers, and additional information and guidance on the following areas of research integrity is also made available on the College website:

- Ethics
- Health and Safety
- Research Misconduct
- Equipment sharing
- Animal research
- Authorship
- Open Access
- Data Collection and Retention
- Public Interest Disclosures
- Peer Review
- Conflicts Of Interest
- Intellectual Property
- Our Responsibilities

7. In addition to the College's online resources and training opportunities, this year a new induction programme for new fellows and clinicians has been piloted. The half-day induction aims to equip the new starters with a wide range of information and tools to help

them start their careers at Imperial. The induction programme includes a specific introduction to research integrity at the College.

8. Advice and guidance on research integrity is provided for postgraduate students by the Graduate School. The online plagiarism course was developed in conjunction with the Library, and is intended to equip Imperial PhD students with a working knowledge of the concept of plagiarism and how to avoid it. The Plagiarism Awareness course is compulsory for all 1st year Doctoral students and must be completed before the 9 month Early Stage Assessment. A similar mandatory course is also provided for Masters level students.

9. The Graduate School has also developed a Supervisors' Guide, which is available online, and also as a printable handbook. The guide sets out the College's requirements for the continuing professional development of supervisors, and contains information about the recruitment of research degree students, the roles and responsibilities of supervisors and Imperial's research degree milestones. The guide is also intended to support the effective development of student supervisor partnerships, a key part of the effective development of future researchers.

10. Although undergraduate and Master level projects are routinely checked for plagiarism using tools such as Turnitin, the same process is not currently applied to PhD projects. Last year the Provost's Board agreed that PhD theses should also be routinely checked for plagiarism as part of the submission process, although it was noted that appropriate arrangements for introducing this requirement, and for training, would have to be put in place. The RMRG has established a working group with representation from each of the Faculties, which is developing a plan for implementing this requirement for PhD students.

RESEARCH MISCONDUCT

11. Allegations of research misconduct are considered under Ordinance D17, *the Investigation of Allegations of Research Misconduct*, which align closely with the requirements of the Concordat and with the UK Research Integrity Office's model procedures for the investigation of misconduct in research.

12. Under these procedures, allegations of research misconduct are made in confidence to the College Secretary, as Chair of the RMRG. The other members of the RMRG are the Vice-Provost (Research and Enterprise), the Director of the Research Office and the Director of HR. If the RMRG agree that an allegation constitutes research misconduct, it will arrange for a screening investigation to be conducted. The purpose of the screening investigation is

to determine if there is a *prima facie* case of research misconduct. There are normally three possible outcomes from a screening investigation:

- a. That a *prima facie* case has not been established, in which case the case will normally be dismissed.
- b. If the screening investigation determines that there is some substance to the allegations, but it is judged that they are minor or there is lack of intention to deceive then the allegation may be dealt with through informal resolution.
- c. That there is a *prima facie* case for further investigation. In such cases, the Provost will convene an investigation panel, which must include an independent, external member, to conduct a formal investigation and reach a conclusion on whether the allegations are founded, based on the balance of probabilities. Where an allegation is upheld, it will then be referred to a disciplinary panel, which will determine the appropriate penalty to apply.

13. Earlier this year, the Russell Group Research Integrity Forum agreed a statement of co-operation in respect of cross-institutional research misconduct allegations. The statement set out the extent to which institutions will co-operate on allegations concerning research at more than one institution, and also proposed that there should be more co-operation and information sharing on research misconduct investigations. The statement underlined the commitment of all Russell Group universities to research integrity and transparency, and a copy of the statement was submitted as evidence to the Parliamentary Science and Technology Committee's inquiry into research integrity (see below). A copy of the statement is attached at Annex B. The College endorsed the statement of co-operation, and the RMRG prepared revisions to the research misconduct procedures to take account of the additional commitments on the investigation of cross-institutional investigations set out in the statement. The proposed revisions were approved by the Council and incorporated into the College's procedures in July.

14. The Chair of the RMRG, the Director of the Research Office and the Head of Central Secretariat meet on a weekly basis to monitor progress with all research misconduct investigations. In 2017-18 the College received eight allegations of research misconduct, which is broadly in line with the number of complaints received in previous years. In accordance with the Concordat the outcome of all cases that are referred for full investigation are reported to the Council. One case has recently been referred for full investigation, although the formal investigation has yet to commence. Further information on research misconduct cases in 2017-18 is attached at Annex A.

15. An increasing number of allegations are being made anonymously, either by individuals who do not wish to be identified, or under the pseudonym '*Claire Francis*'.⁽¹⁾ For example, in December 2017 the College received 18 separate but related allegations from the '*Claire Francis*' pseudonym. The allegations concerned potential image manipulation in papers published over several years, with some of the papers being almost twenty years old. The RMRG has to exercise particular care when dealing with anonymous allegations, as it also has a duty to protect researchers at the College from ill-founded, frivolous, mischievous or malicious complaints. In this case, the allegations were treated as a single case for the purposes of investigation.

TYPES OF OFFENCES

Plagiarism

16. A common feature of several allegations since 2012, including one in 2017-18, is the inclusion of plagiarised material in manuscripts presented for publication. In a number of these cases, this was not the result of an intention to deceive or to claim credit for another person's work, but rather a result of poor working practices. In some cases the researchers claimed that they had included copied material as 'placeholders' in the manuscript which they had intended to rewrite at a later date. In other cases the plagiarism appears to have been the result of poor referencing practices, and/or a failure to acknowledge the contribution made by previous researchers in the subject field.

Data Fabrication and Manipulation

17. A growing number of allegations concern the manipulation and/or duplication or fabrication of data in research papers and proposals, including four of the twelve allegations made in the previous year 2016-17. These allegations often centre on the use of western blots. Two of the cases referred for investigation this year were concerned with the alleged fabrication or manipulation of data.

Authorship

18. The majority of allegations received in 2017-18 were concerned with disputes over the inclusion or exclusion of researchers as listed co-authors on papers. While it is true that there are differences in authorship conventions between different subject areas, it is clear

1. '*Clare Francis*' is the pseudonym used by a person (or group of people) since 2010 to call attention to suspected cases of plagiarism and fabricated or duplicated figures in research publications. Although some of the complaints have resulted in retractions, there have also been concerns from journals and universities that 'her' claims are often unparticularised, difficult to verify and can often be a waste of time to investigate.

from these complaints that not all researchers understand these conventions, or how they might apply to their own published research. In order to avoid authorship disputes, departments and principal investigators are encouraged to confirm at the outset that only those researchers who have made a significant intellectual or practical contribution to the work should be listed as a co-author, and that all authors should abide by the College's authorship guidelines.

RESEARCH MISCONDUCT INVESTIGATIONS

19. The conduct of research misconduct investigations is challenging; the investigation must be rigorous, but also fair to both the complainant and respondent. Investigations can also be extremely stressful for both the person accused of research misconduct, whose career and reputation will be on the line, and for the complainant. The College recognises this, and provides support for all of those involved in a research misconduct investigation. The Central Secretariat and HR have developed a training programme for investigators to assist them in the conduct of research misconduct investigations. The training programme is intended to provide the College with a cadre of trained investigators who can carry out future investigations. A number of training sessions for staff across the College have been held since they were introduced in 2016. Further sessions will be provided in 2019, the aim being to train a number of academics across all of the College Faculties.

WIDER SECTORAL CONCERNS

20. As noted above, the Concordat to support research integrity, to which the College is a signatory, was first established in 2012. This set out a coordinated national policy statement on what different stakeholders need to do to help promote good research practice, and the responsibilities of each party when it comes to dealing with allegations of misconduct. In the period since then, there has been increasing national scrutiny on the extent to which universities and other research organisations are: a) complying with the Concordat; and b) actively investigating instances of research misconduct.

21. In January 2017, the House of Commons Science and Technology Committee launched an inquiry into research integrity, with a particular focus on: the extent of the research integrity problem; the causes and drivers of recent trends; the effectiveness of controls/regulation (formal and informal), and what further measures if any were needed; and what matters should be for the research/academic community to deal with, and which for Government. The College responded to the Committee's request for information in 2017. The Committee published its findings in July 2018.

22. The Committee recognised that the vast majority of research undertaken in the UK is of high quality and high integrity, but was concerned about a lack of transparency and a

significant degree of non-compliance with the Concordat, some six years after it was introduced:

“The 2012 Concordat to Support Research Integrity provided a set of high-level commitments in this vein, but, six years on, while all the most research intensive-universities are complying with key recommendations of the Concordat, around a quarter of universities overall are not fulfilling the basic Concordat recommendation of producing an annual report on research integrity.”

“The current lack of consistent transparency means that it is impossible to assess the scale of the research integrity issue, leading to accusations that parts of the sector are policing themselves in a secretive way in order to maintain its reputation or, worse, a perception that investigations are not conducted properly in order to avoid embarrassment. Meanwhile, there is a risk that a future high-profile scandal could expose any weaknesses in this arrangement. Fraud appears to be rare, but the number of institutions reporting no investigations each year does not tally with other available information—the self-reported pressures on researchers to compromise on standards, an increase in the rate of journal articles being retracted, and a growth in image manipulation in articles.”

23. The Committee made a number of recommendations to strengthen the Concordat so that compliance can be more easily assessed, with a timetabled route-map to securing 100% compliance. It also recommended that consideration be given to the establishment of national committee that could *“provide a means of independently verifying whether a research institution has followed appropriate processes in investigating misconduct”*, following similar models in Canada and Australia. While the primary responsibility to investigate misconduct would remain with institutions, the Committee would check that an appropriate process has been followed, and could recommend to UKRI that funding be restricted or reclaimed where appropriate processes in responding to research misconduct have not been followed.

24. The Government’s response to these recommendations supports the proposed revisions to the Concordat and the inclusion of external members on misconduct investigation panels (something which is already a feature of the College’s procedures). However, the Government is more cautious about the establishment of a national committee (*“the Government must be assured that such a committee would be appropriate in the overall UK context, proportionate and represent value for money”*), and has asked that UKRI undertake more research on this proposal. It is also cautious about the recommendation to share information about investigations more widely, noting that there will be implications for data protection and employment rights.

25. The Research Councils and other funding bodies such as the Wellcome Trust have also been taking an increased interest in reports on research and other types of misconduct. Typically universities have in the past informed the Research Councils and other funders of allegations of research misconduct only when a formal investigation is commenced (i.e. only after a prima facie case has been established as a result of a screening investigation). However, these funding bodies are now consulting on new guidelines that would require universities instead to report allegations at the screening stage rather than when a prima facie case has been established. The Wellcome Trust has also recently asked that universities inform them of any bullying allegations made against researchers holding Wellcome Trust grants, and have indicated that they will, in future, refuse to fund researchers against whom such allegations have been made. This represents a significant extension of universities' reporting responsibilities, and could also result in funding bodies being informed of many more cases than at present, the majority of which will either be dismissed following screening, or which may result in an informal resolution. There are concerns that this could have an impact on an individual researcher's grant applications, if the funding bodies are made aware of allegations concerning them that are under investigation, but where no determination has yet been made on whether or not there is a prima facie case of misconduct.

26. A common feature of the recommendations being made by the Government and other funding bodies is an increased expectation that universities will provide more training on research integrity for its researchers, including in some cases mandatory training for all research staff. The Research Office is currently reviewing the provision of research integrity training, with a view to strengthening the College's provision in the coming year.

27. The RMRG will continue to engage with these wider sectoral discussions and will monitor external developments in relation to research integrity and misconduct.

John Neilson
October 2018

RESEARCH MISCONDUCT

The following charts show the number of allegations of research misconduct received since 2012, as well as the outcomes from investigations conducted in 2017-18.

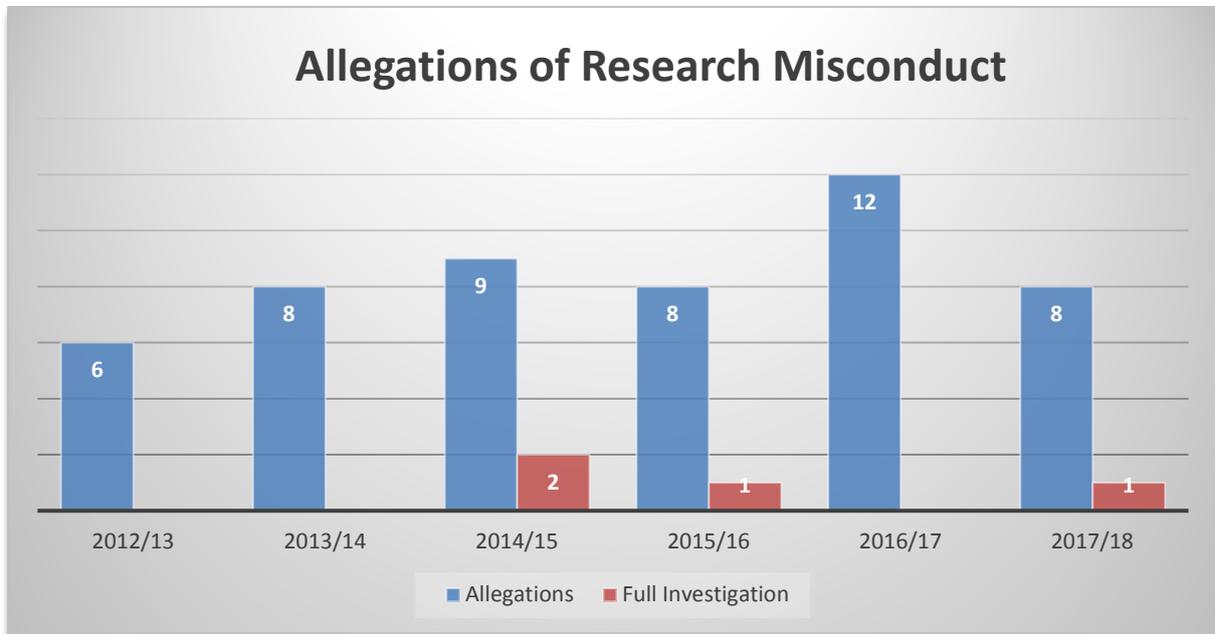


Figure 1. Allegations of research misconduct 2012 – 2018

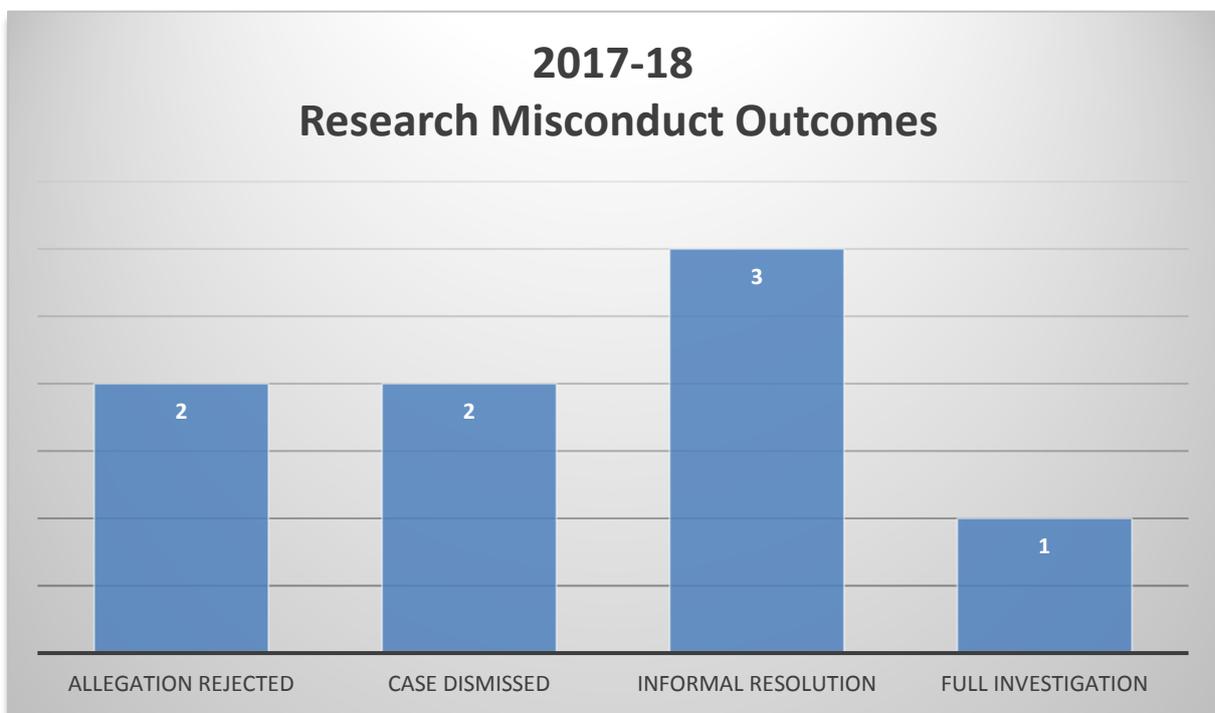


Figure 2. Outcome from research misconduct allegations 2017-18

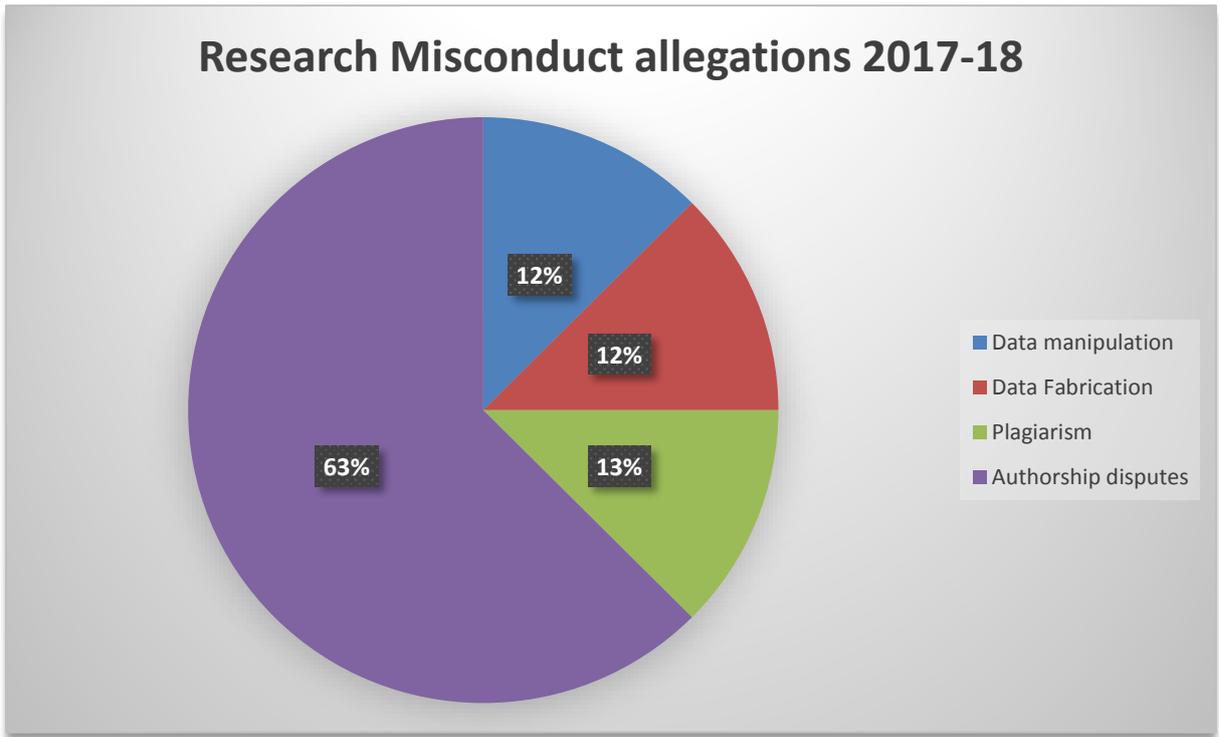


Figure 3. Nature of research misconduct allegations made in 2017-18.

Russell Group Statement of Cooperation in respect of cross-institutional research misconduct allegations

1. Summary

- 1.1 The purpose of The Russell Group is to provide strategic direction, policy development and communications for 24 major research-intensive universities in the UK; we aim to ensure that policy development in a wide range of issues relating to higher education is underpinned by a robust evidence base and a commitment to civic responsibility, improving life chances, raising aspirations and contributing to economic prosperity and innovation. We welcome the opportunity to provide evidence to this inquiry.
- 1.2 A Statement of Cooperation in respect of cross-institutional research misconduct allegations has been developed by the Russell Group Research Integrity Forum on behalf of Russell Group universities. This Forum was established in 2013 and is a network of the professionals with lead responsibility within their universities for supporting the efforts of their researcher communities to foster research integrity (also known as good practice in research or the responsible conduct of research).
- 1.3 The text of the Statement is at Annex A.

May 2018

Annex A

Russell Group Statement of Cooperation in respect of cross-institutional research misconduct allegations

Introduction

1. This Statement of Cooperation acts as a public acknowledgement of the principles agreed between the Russell Group Universities¹ in respect of managing investigations of alleged research misconduct. It also sets out the desired standards for cross-institutional investigations between Russell Group members and other universities and/or research organisations (including those outside the UK).
2. This Statement is intended as a set of principles regarding the approach to *managing the review* of cross-institutional research misconduct allegations. It is not intended to direct how the review process itself is conducted as this is dictated by the relevant institutions policies.
3. **Note:** The term 'investigation' is used in its broadest sense and refers to the whole process, from receipt of an allegation to completion of the process.

Purpose

4. Institutions have a responsibility to properly consider all allegations of potential research misconduct, in order to ensure the integrity of research undertaken in their name.
5. Investigating allegations of research misconduct is a complex, challenging and highly sensitive process that, because of the risk of lasting and damaging effects on careers and reputations, impacts upon the emotional and mental wellbeing of those involved and others associated with the work, including those involved with the investigation process. It is therefore essential that the process is managed thoroughly and efficiently, in a timely manner, and with due care and regard for the wellbeing of all individuals. This includes providing clarity regarding their right to confidentiality and the extent to which this might be overridden by an institution's duty to uphold the integrity of research carried out in its name.
6. The process of considering allegations of research misconduct becomes more challenging when investigations cross institutional boundaries; such as when individuals (staff members or students) move to another institution, or a staff member or project is based at multiple institutions. These factors naturally increase the complexity of the process as well as potentially extend the time frame for completion. Institutions have a responsibility to work together towards an efficient conclusion of the matter, while ensuring the integrity of the process.

Objectives

7. When in receipt of an allegation of research misconduct that crosses institutional boundaries Russell Group members will:
 - Endeavour to ensure that allegations are considered fully, proportionately and fairly;

¹ <http://russellgroup.ac.uk/about/our-universities/>

- Maintain respectful cooperation and communication between all institutions involved;
- Be open and transparent while ensuring that legal obligations and duty of care to staff are maintained;
- Avoid unnecessary duplication;
- Be supportive to enable each institution to meet their responsibilities in respect of reviewing misconduct allegations, as well as the responsibilities they bear as an employer of any individual against whom allegations are being considered;
- Ensure that all individuals involved, affected institutions and relevant research funders are kept apprised of progress, as required.

8. To support this, when allegations arise, members of the Russell Group will:

- Contact the party institution(s);
- Agree from the outset whether it would be most appropriate for a single institutional process, separate processes, or a combination of processes to be followed.
- Where a single institutional process is to be followed, agree what involvement the other institutions will have in the process (for example, providing observers or panel members, approving Terms of Reference of any formal investigation panel);
- Where appropriate, agree a lead institution, with clear lines of responsibility for and within each institution, including contact points;
- Contact relevant funders (at the stage required by the funder) and other third parties who may need to be notified (e.g. regulators, hospital trusts) to inform them of an allegation/investigation;
- Agree clear lines of communication between the institutions for both during and after the review process, including contact points and agreements on relevant data sharing;
- Agree clear lines and points of communication during and after the review process, both to those involved in the process, as well as those affected, such as funders (in accordance with funders' policies), journals and other third parties as necessary. This would include agreeing what information is shared, as well as with and by whom it is shared, prior to any information sharing (with due regard for responsibilities under relevant data protection and employment legislation and any contractual agreements).
- Agree timescales regarding the investigation process as well as agreed points of communication as stated above, including informing the relevant institutions and individuals of any need to extend timelines.