Scientists and scientific institutions routinely work on common projects across countries and continents, to their mutual benefit and to the benefit of science. In recent years, misconduct in research (for example, fabrication, falsification, and plagiarism) has become an issue of increasing concern. Because misconduct damages the scientific enterprise, is a misuse of public funds, and undermines the trust of citizens in science and in government, many administrations and institutions are taking steps to prevent its occurrence and to deal responsibly with allegations that are made. However, differences within and between national policies create new challenges. To address these, the Global Science Forum of the Organisation for Economic Co-operation and Development established an international coordinating committee of government-nominated experts. This Practical Guide is the result of their work. It provides actionable recommendations and tools to help persons who are concerned with investigation of possible cases of misconduct in international research collaborations. It includes a short “Boilerplate” text, which can be inserted into any international agreement document.
Introduction

Research is increasingly a multi-national endeavour. International collaborations, peer review by international scientists, or human subject research conducted in another country for example, are now current practices. However, differences within and between national policies create new challenges in such a context: What happens when allegations of misconduct are raised against international collaborations? Which country conducts the investigation, or should all? How far should countries go in assisting other countries’ investigations? And, perhaps an even more overarching question: what happens when two relevant national policies are at odds with each other?

An agreement for collaborative research involving parties from more than one country should address the promotion of good practice in research and describe the principles, standards and procedures for the investigation of allegations of research misconduct within the project. Agreement on these matters among the parties could be embodied in the formal documents that establish the collaborative research project. Appropriately experienced individuals should be responsible for implementing these requirements.
This document was produced by an international coordinating committee of experts nominated by OECD Global Science Forum delegations. Its focus was to produce practical recommendations and tools to help in the investigation of possible cases of research misconduct in international research collaborations. While a harmonisation of national procedures on research misconduct investigations could be useful, the committee agreed that such a goal was highly unlikely to be achieved, and could even be undesirable, due to the diversity of national research systems. A main objective was rather the definition of core principles directly related to international research misconduct investigations, as well as the promotion of increased international awareness on this issue and of networking among experts and institutions.
1. **Boilerplate Text for International Collaborative Research Projects**

When a written agreement is developed for collaborative research involving parties from more than one country, the agreement could include the following boilerplate text, and, as appropriate, should be complemented by a more specific document that describes the policies and procedures to be applied in case of alleged scientific misconduct.

We, ( ), agree:

- to conduct our research according to the standards of research integrity, as defined in “Investigating Research Misconduct Allegations in International Collaborative Research Projects (www.oecd.org/sti/gsf)” and other appropriate documents, including: (specify the national codes of conduct and disciplinary or national ethical guidelines that apply);

- that any suspected deviation from these standards, in particular alleged research misconduct, will be brought to the immediate attention of (all designated contact point(s)) and investigated according to the policies and procedures of (to be filled in with the body with primary responsibility), while respecting the laws and sovereignty of the states of all participating parties;

- to cooperate in and support any such investigations; and

- to accept (subject to any appeal process) the conclusions of any such investigation and to take appropriate actions.
2. Requirements for misconduct investigation agreements in international research collaborations

Promoting responsible research practices

1. The agreement should specify the principles and good practices for research required by interested parties, typically: researchers, research managers, employers, sponsors, funders and other national or international bodies. Successful implementation should include the incorporation by all parties of instruction covering responsible conduct of research in curricula and in the training of academic (faculty), staff and technical personnel.³

Compliance with national laws

2. Agreements for such research projects must acknowledge the sovereignty of the states taking part in the research project and the requirement of individuals and organisations to comply with the laws and regulations of the states where the:
   - Individual is employed;
   - Individual is based;
   - Research takes place; or
   - Facilities and infrastructure for the project may be located and where, as a result, the legal requirements of that country might apply.

3. All parties to the agreement should agree to the standards and principles for the conduct of the project.⁴

Standard procedures for investigating allegations of misconduct in research:

4. Agreements should specify where responsibility for investigating allegations of research misconduct⁵ lies, stating which entity (for example national organisation, institutional office or independent body) should lead and/or manage any investigation. All parties should designate an appropriately experienced and/or trained individual or office to receive concerns and/or allegations of misconduct. Such a contact point should be accessible to all those who might wish to raise a concern. All those responsible for procedures to investigate research misconduct (in national organisations or employers) should have received training in the application of the procedures and/or be experienced in their use.

5. All parties to the agreement should provide assistance with investigations of research misconduct related to work under the agreement, regardless of whether the allegation and/or the investigation concerns research conducted by other parties and/or in other countries.

6. The parties should agree on procedures for investigating research misconduct prior to taking part in the project. Where a party or parties to the agreement do not have such procedures in place, and for the purposes of the agreement, the parties may adopt an established procedure in accordance with the principles described in chapter 3.

7. Agreements should specify a basic procedure for investigating such allegations (see chapter 4). Those procedures should be based on principles of good practice, such as those described in chapter 3. Agreements may specify the adoption of more exacting principles.

8. Allegations made about research conducted in a country which may not be party to the agreement and which has no members on the research team should be investigated with due regard for such laws, standards, and principles for research as may exist in that country. Investigation committees should consider including representation from that country. Parties to the agreement should also act
in accordance with this document when taking action in response to the findings of investigations performed by the country in which the research is taking place or has been conducted.

**Dissemination**

9. The agreement should outline the approaches to communication with all those taking part in the project and specify the individuals and/or roles with responsibility for promoting and disseminating the principles for and good practice in research and other relevant information on the project to all taking part. The parties should devote efforts to accomplish the tasks and responsibilities detailed in chapter 5 proportionate to the size and scope of the project.

**Notes**

1) A project or programme is defined as a collaborative research effort involving parties from two or more countries in which there is an agreement articulating principles and procedures by which the research will be conducted.

2) Parties may include individuals conducting research, entities representing government, educational and research organisations (universities) and commercial organisations. Self employed individuals and other small organisations should be included as part of a larger organisation in the agreement and formally agree to abide by their rules.

3) The individual responsible for taking forward the inclusion of these matters in the agreement may be the Project Manager, Principal Investigator or an experienced individual in the administration of an organisation party to the agreement.

4) It is recognised that the laws, principles, standards and procedures covering research in states party to such an agreement may differ. Parties to the agreement may agree to adopt different standards for the project to those which apply in any nation party to the agreement. However, it should be recognised that these may not be binding.

5) Research misconduct (such as fabrication, falsification, plagiarism) damages the scientific enterprise, constitutes misuse of public funds, and weakens the trust of citizens in science and in government. The OECD Global Science Forum held a workshop to explore ways of dealing with allegations of misconduct, and to extract lessons learned and good practices. The OECD report on best practices can be downloaded from http://www.oecd.org/dataoecd/37/17/40188303.pdf.
3. Overarching Principles for Investigating Research Misconduct Allegations in International Collaborative Projects

Investigations of allegations of research misconduct should be consistent with the national laws of the country in which the investigations are conducted and should develop solutions to overlapping regulations, administrative processes, as well as civil or criminal investigative matters. Investigations should follow an agreed, standardised and clearly defined procedure and must be conducted with appropriate transparency and in accordance with the highest standards of:

- Integrity;
- Fairness; and
- Confidentiality.

And with a commitment to there being:

- no Detriment; and
- a Balanced approach.

**Integrity**

- Investigations into research misconduct allegations must be fair, comprehensive and conducted expeditiously but without compromising accuracy, objectivity, and thoroughness.
- Those parties involved in the procedure must ensure that any interests they have which might constitute a conflict of interest are disclosed and managed.
- Detailed and confidential records will be maintained on all aspects of the procedure.

**Fairness**

- Investigation of research misconduct allegations should be conducted in a manner that is fair to all parties and in accordance with relevant laws.
- Persons accused of research misconduct must be given full details of the allegation(s) in writing and allowed a fair process for responding to allegations, asking questions, presenting evidence, calling witnesses, and providing responses to information presented.
- Allow witnesses to be accompanied by or seek advice and assistance from anyone of their choosing.

**Confidentiality**

- The procedure should be conducted as confidentially as possible, in order to protect those involved in the investigation. Such confidentiality should be maintained provided this does not compromise the investigation of the allegation, health and safety, or the safety of participants in research.
- Where possible any disclosure to third parties should be made on a confidential basis.
- If the organisation and/or its staff have legal obligations to inform third parties of research misconduct allegations, those obligations must be fulfilled at the appropriate time through the correct mechanisms.
No Detriment

- Anyone accused of research misconduct is presumed innocent.
- No person should suffer any unnecessary penalty when accused of research misconduct before the allegation is proven.
- No person should suffer any penalty for making an allegation of research misconduct *in good faith*, but action should be taken against persons found to have made allegations in bad faith.
- Any action(s) taken should be subject to appeal.

Balance

- Occasionally the investigators may need to strike a balance between disclosure of identities and confidentiality. Such decisions should be made keeping in mind that the primary goal of this procedure is to determine the truth of the allegation.
- Consideration should be given to reasonably and appropriately restore reputations.
- Proportionate action should be taken against persons found to have committed research misconduct.
4. Procedures for Investigating Research Misconduct Allegations in International Collaborative Research Projects

This section contains recommendations for concepts and procedural steps that should be incorporated into policies and procedures for investigations of research misconduct allegations. Such implementation should make reference to the principles detailed in chapter 3. In general procedure(s) used for such investigations should:

- Have an appropriate structure;
- Define the scope and limitations for investigations and include (agreed) definitions of misconduct;
- Provide a clear sequence of steps for the investigation of an allegation;
- Provide clearly defined procedures for investigative and decision making phases and associated time guidelines; and
- Describe reporting and distribution requirements.

A) Structural Requirements for an Investigation Procedure:

When developing the procedure for the investigation of misconduct the following criteria should be addressed:

**Receiving concerns and allegations** - The procedure for initial receipt and handling of allegations, should address the following:

- Whether anonymous allegations will be accepted;
- From whom allegations will be accepted;
- In what form allegations will be received (orally, written, electronic);
- Identify whom or what body an individual should first approach with an allegation or concern and consider the access to:
  - Individuals or offices identified as receiving allegations; and
  - Policies and details of the processes for investigation.

**Participation** - the Procedure should incorporate the following provisions:

- Duty and obligation of all parties to participate in all parts of the process whether as subject, complainant, witness, investigator; decision maker, or those enforcing decisions;
- Obligation of all parties to support an investigation by making available materials and information relevant to that investigation. This should include but is not restricted to: data from that project, research notebooks, written and recorded (any format) testimony and access to appropriate project staff;
- Obligation to facilitate an investigation through structural support (where practical) which might include space and resources to assist an investigation;
- Duty to report poor conduct in research; and
- A commitment to collect and preserve information and data relevant to the investigation.

**Investigation management** - Procedures should be structured to address the following:

- Ensure that the process is conducted with an appropriate level of confidentiality for parties involved (subject, complainant, witnesses);
- Ensure independence of the investigation;
- Ensure the process is conducted with appropriate transparency and that evidence is disclosed where and/as required;
- Manage, reduce or eliminate conflict of interests;
- Determine the need for standing or ad hoc investigative committees;
• Ensure the process is accurate, complete, objective, fair, and impartial;
• Ensure the process to recruit investigatory panel members affords an appropriate mixture of relevant experience (relevant to the subject area and process of investigation); and
• Ensure the procedures describe when it might be appropriate to apply interim steps to protect staff, individuals, animals, the environment and/or research funds.

B) Scope and Clearly Framed Definitions:

Procedures should include clear, consistent definitions of appropriate terms. Codes of conduct produced by societies or other sources, or those included in the OECD Global Science Forum Consensus Report can serve as source material for the definitions to be used. These definitions may include:

• Research: Research includes all original investigations to gain knowledge and understanding including that related to commerce, industry, the public, and voluntary sectors, as well as the invention and generation of ideas, images, performances, artefacts including design, where these lead to new or substantially improved insights; and the use of existing knowledge in experimental development to produce new or substantially improved materials, devices, products and processes, including design and construction. Research includes research in natural sciences, mathematics, life sciences, engineering, behavioural and social sciences, and humanities.
• Research record: The record of data or results that embody the facts and observations arising through the study of the subject, and includes but is not limited to research proposals, laboratory and study records both physical and electronic, artefacts, images and models, progress reports, abstracts, theses, oral presentations, internal reports and official publications.
• Definition of Research Misconduct: Research Misconduct can be narrowly defined as fabrication, falsification, plagiarism or expanded to include other concepts as appropriate for international agreements. For example: terms such as misrepresentation of data and/or interests and/or authorship in research as covered by international agreements, research practices that endanger human or animal subjects or the environment may be important to include. All terms should be clearly defined.

The OECD Consensus Report on Scientific Integrity¹ might serve as a model for the procedures. It includes the following definitions: “Research misconduct is defined as fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.”

It continues with the following:

**Fabrication** is making up results and recording or reporting them. **Falsification** is manipulating research, materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record. **Plagiarism** is the appropriation of another person’s ideas, processes, results, or words without giving appropriate credit, including those obtained through confidential review of others’ research proposals and manuscripts.

It further explains that: “Research misconduct does not include honest error or honest differences of opinions.”

• Minimum level of intent: The procedure should identify the minimum level of intent required for a case of research misconduct. Policies might follow a typical interpretation of gross negligence or recklessness in carrying out the research protocol.
• Burden of proof for both the act and intent: The procedure should identify the minimum burden of proof the investigation must meet when assessing the act and the intent with which it was committed for reaching a conclusion of research misconduct. Typically policies establish that a preponderance of the evidence constitutes a burden of proof for administrative investigations such as those into research misconduct.

C) Allegation Evaluation:

The Procedures should detail steps for gathering of information relevant to the case and to support the fair and sufficient evaluation of allegations. This might include:

- Assessment of the allegation: Allegations should be evaluated for:
  - The seriousness of the matter;
  - Whether other authorities should be notified;
  - The nature of the matter (is it included within a definition of misconduct or a questionable research practice); and
  - Whether there is sufficient evidence to support an inquiry or investigation.

- Inquiry and investigation: In these phases both the allegation is assessed in greater detail in order to determine if research misconduct was committed. This assessment should be based on an established burden of proof.
  - Act: Typically an inquiry will establish if there is substance to the allegation. Any subsequent investigation will determine how serious the action was, to respond to the question: Is the act sufficiently serious in scope, impact (on public, research record), or effect to be considered research misconduct?
  - Intent: The investigation should evaluate the evidence to assess the level of intent with which the act was committed and determine if that level meets the minimum threshold for a finding of research misconduct.
  - Burden of Proof: The process should determine if both the assessments of the act and the intent meet the agreed minimum burden of proof for a finding of research misconduct.
  - The investigation process should be designed to collect as much relevant information as reasonably possible (considering the importance of gathering oral or written information from the main actors (subjects, complainants, witnesses) by the investigating team). This may require rapid action to secure information, including information from those against whom the allegations are made.
  - Provisions should be included to allow the temporary suspension of the individual(s) implicated in the allegation or otherwise restrict their activities while the investigation is being conducted.
  - Determine if there is a pattern of behaviour.
D) Clearly defined procedure for investigations and timeframes:

There should be distinctly separate investigative and adjudicative phases with clearly defined criteria for the beginning and end of each phase. Actions in each phase should be designed to reach decisions based on sufficient and competent evidence. Policy designers should consider incorporating the following concepts:

- Investigative phases include:
  - Receipt and initial evaluation of allegation;
  - Screening inquiry; and
  - Detailed Investigation.

- Adjudicative phase should ensure that actions and/or sanctions are proportionate to the offence, consistent between cases, proportionate against individuals no matter their country of origin or employer. This phase should include provisions for:
  - Adjudication/formal disciplinary hearing; and
  - Appeals (criteria, such as the submission of new evidence or significant procedural errors, should be specified by which the individual qualifies for an appeal hearing).

- Each phase should:
  - Involve individuals organisationally independent from each other;
  - Follow guidelines on the timeframe; and
  - Observe due process.

E) Reporting:

It is recommended that information should be provided to all relevant parties defined or identified in the collaborative agreement. As such, developers should consider incorporating the following elements:

- Informing funders, national offices, institutions or other interested organizations as described in the agreement;
- Clear descriptions of the reports expected at each phase of the investigation specifying to whom they should be made available;
- Descriptions of the general format for reporting and for any recommendations that might be appropriate;
- General timeframes for the completion of stages of reports and receipt of responses to reports;
- Identify to whom (subject, complainant, supervisors) reports will be provided;
- Identify to which organisations (institutions, funding bodies, societies, journals) reports will be provided;
- Where applicable, notification to a national database of misconduct held by the national office of the country; and
- Steps to correct the research record.

Notes:

5. Communication Strategy

Each agreement should have in place a clear Communication Strategy that disseminates information about policies and procedures that are to be followed to promote the governance of research and for the fair investigation of allegations of research misconduct. The Strategy should provide clear information about how allegations regarding the conduct of research should be raised and to whom those concerns should be directed.

In developing a Communication Strategy, the following points should be considered, and implemented in a way consistent with the size and scope of the project. Specifically, it should address the following points:

1) Access to information on the:
   - Procedure(s) for the reporting concerns (whistle-blowing);
   - Procedure used for investigating concerns and allegations of misconduct in research; and
   - Standards by which the research will be conducted.

2) Tailored and proportionate to the:
   - Impact the work might have in the field;
   - Profile of the field of activity; and
   - Size of the project.

3) Ensure that the information is:
   - Available to laypeople who may need access to it and not written or provided in jargon; and
   - Available, when appropriate, to those not directly taking part in the project (but able to offer an informed view of the research).

4) Awareness and Education: All those taking part in a project must be made aware of the:
   - Agreed contact point(s) with whom concerns over the conduct of research should be raised;
   - Agreed mechanisms to resolve disputes arising on the project;
   - Agreed procedure to investigate allegations of misconduct in research that might arise; and
   - Fact that where necessary, investigations may lead to actions through appropriate disciplinary and appeals procedures.

5) The (new) adoption by a nation or an employer of any policies and procedures relating either to standards for research or the investigation of allegations of misconduct in research must be communicated to all parties including employees of that employer by appropriate means, proportionate to the size and scale of the activity.
Scientists and scientific institutions routinely work on common projects across countries and continents, to their mutual benefit and to the benefit of science. In recent years, misconduct in research (for example, fabrication, falsification, and plagiarism) has become an issue of increasing concern. Because misconduct damages the scientific enterprise, is a misuse of public funds, and undermines the trust of citizens in science and in government, many administrations and institutions are taking steps to prevent its occurrence and to deal responsibly with allegations that are made. However, differences within and between national policies create new challenges. To address these, the Global Science Forum of the Organisation for Economic Co-operation and Development established an international coordinating committee of government-nominated experts. This Practical Guide is the result of their work. It provides actionable recommendations and tools to help persons who are concerned with investigation of possible cases of misconduct in international research collaborations. It includes a short “Boilerplate” text, which can be inserted into any international agreement document.