

NTU Policy on Research Integrity and the Responsible Conduct of Research

Introduction:

The NTU Policy on Research Integrity and the Responsible Conduct of Research has been approved by the Presidents Coordinating Group and the Provosts and Deans Group in 2012.

This updated version is dated [December 2013] and is aligned with the Whistle Blowing Policy and the Framework for Investigation and Disciplinary Proceedings for Faculty and Research Staff, the Academic Honour Code and incorporates the Singapore Statement on Research Integrity, 2010.

All those undertaking research in NTU, at whatever level, whether undergraduate or postgraduate students, technical and research staff or faculty including visiting researchers or collaborators in NTU should make themselves fully aware of the policy as enunciated below together and with the procedures which will take place when an allegation of misconduct is received.

In particular, attention is drawn to the need to subscribe to the values set out in this policy, including the principles and responsibilities of a researcher in the Singapore Statement on Research Integrity, to abide by all the norms of good research practice and ethical behaviour and with the commitment to conduct research with care, rigour, honesty and respect for all and everything involved, which are the marks of good scholarship. It also includes abiding by all other relevant policies, statute and regulations including the NTU Code of Conduct for students (see <http://www.ntu.edu.sg/SAO/Pages/HonourCode.aspx>), the policies set out for the use of animals in research through the Guidelines on the Care and Use of Animals for Scientific Purposes as set out by the National Advisory Committee for Laboratory Animal Research (see <http://www3.ntu.edu.sg/Research2/Grants%20Handbook/NACLAR-guide%20Lines.pdf>) and the NTU Institutional Animal Care and Use Committee – IACUC (see Application Procedure for Animal Research Facility), research involving human participants/subjects – Institutional Review Board (NTU-IRB: see <http://research.ntu.edu.sg/GuidelinesnForms/Pages/default.aspx>), use of controlled drugs, biosafety, Health and Safety, Computer Misuse, Privacy and Conflict of Interest policies.

This also covers the obligations to maintain full and accurate records of research and their storage in NTU, both in hard copy and as electronic records; to ensure that all those concerned or quoted are given appropriate credit and recognition; to respect all matters relating to privacy; and to comply fully with all relevant laws and codes of ethical behavior appertaining to research.

NTU Research Integrity Policy and Procedures

President's Office

Nanyang Technological University

June 2012

Revised December 2013

University Policy

1. *Preamble*

NTU is committed to the pursuit of research excellence and equally committed to the maintenance of the highest standards of integrity and ethical behaviour in all its research endeavours and does not tolerate any departure from these standards. It fully subscribes to the Singapore Statement on Research Integrity and its constituent four principles of honesty, accountability, professional courtesy and fairness and good stewardship and the 14 responsibilities of a professional researcher which is set out in the Singapore Statement on Research Integrity.

Integrity and the responsible conduct of research is the basis of NTU's research activities and is necessary in order to build a relationship of trust between research colleagues (whether they be at NTU or elsewhere), funders and research collaborators. It is also necessary in building trust between NTU research and society at large. Therefore, it is a fundamental obligation of all concerned within NTU's research community whether this be students at undergraduate or postgraduate level or employees (technical and research staff and faculty) or visiting researchers or collaborators to ensure that their actions are of the highest integrity and do not tarnish NTU's reputation. Breaches of these standards are considered as disciplinary matters and all those concerned with research at NTU must accept this obligation. On appointment, all persons involved in research at NTU shall sign a declaration of commitment to the upholding of the highest standards of research integrity.

2. *Applicability and Scope*

This Policy and the associated procedures apply to all individuals directly or indirectly engaged in any research, research-training or research-related grant or cooperative/collaborative agreement at or for NTU. This Policy applies to any person paid by, under the control of, or affiliated with NTU, such as scientists, trainees, technicians and other staff members, students, fellows, guest researchers (including Visiting Professors), and collaborators at NTU or in any research collaboration arrangement. It also covers the supervision of research students and the authorship, especially joint authorship of research papers.

3. *Responsible Conduct of Research*

The responsible conduct of research covers research behaviour in all its aspects and commits the researcher to conduct his research with care, rigour, honesty and respect for all and everything involved and which are the marks of good scholarship and are in accordance with the Singapore Statement on Research Integrity. This covers the obligations to maintain full and accurate records of research and their storage in NTU, both in hard copy and as electronic records (NTU further obliges research output to be stored and maintained at NTU for a minimum period of 10 years after publication or patenting and this also applies to PhD data and laboratory notebooks); to ensure that all those concerned or quoted are given appropriate credit and recognition; to respect all matters relating to privacy; and to comply fully with all relevant laws and codes of ethical behaviour appertaining to research.

4. *Responsibility to Report Research Misconduct*

With these obligations in the conduct of research comes the corollary that there is also an obligation of those concerned to report observed, suspected or apparent misconduct, malpractices and/or non-compliance with the University's codes of conduct and discipline.

Submission of allegations to RIO shall be in writing to the following email address: rio@ntu.edu.sg or in a sealed envelope marked "Confidential" and addressed to:

**Research Integrity Officer
President's Office
Nanyang Technological University
50 Nanyang Avenue**

All employees or other persons in the community of NTU engaged in research should report to the **RIO**, promptly and in good faith any observed, suspected, or apparent Research Misconduct. If any person is unsure whether a suspected incident constitutes Research Misconduct, he may consult the RIO. Each College, School and Institute also has Research Integrity Points of Contact (RIPOCs) who may also be consulted and may offer advice. If the circumstances described by the person do not constitute Research Misconduct, the RIO may refer the person or Allegation to the appropriate office to consider the matter. While Allegations, whether anonymous or not, will be investigated, Complainants are encouraged to identify themselves to provide legitimacy to the Allegations and to facilitate and expedite Investigations. At any time, a member of the NTU community may have confidential discussions and consultations with the RIO about concerns of possible Research Misconduct and will be counselled about appropriate procedures for reporting Allegations.

Cooperation with Committees of Inquiry and Investigations

All NTU employees have a duty to cooperate with the RIO and other employees or officers of NTU or other persons engaged by NTU in the review of Allegations and the conduct of Investigations and Preliminary or Committee of Inquiries. The employees have an obligation to provide relevant evidence to the RIO or other persons authorised by NTU in relation to Investigations and Preliminary or Committee of Inquiries.

5. *Mentoring and Training*

NTU is committed to the development of and provision of education and training on the needs of responsible conduct of research and on research integrity and ethical behaviour. Faculty members are also encouraged to join such courses in order to be able to provide mentoring to their junior colleagues. All faculty and research staff on appointment to NTU as well as all PhD students will be required to sign a declaration that they will abide by NTU's research integrity policy and the Singapore Statement on Research Integrity.

Singapore Statement on Research Integrity

Preamble: The value and benefits of research are vitally dependent on the integrity of research. While there can be and are national and disciplinary differences in the way research is organized and conducted, there are also principles and professional responsibilities that are fundamental to the integrity of research wherever it is undertaken

Principles

Honesty in all aspects of research

Accountability in the conduct of research *Professional courtesy and fairness* in working with others *Good stewardship* of research on behalf of others

Responsibilities

- 1. Integrity:** Researchers should take responsibility for the trustworthiness of their research.
- 2. Adherence to Regulations:** Researchers should be aware of and adhere to regulations and policies related to research.
- 3. Research Methods:** Researchers should employ appropriate research methods, base conclusions on critical analysis of the evidence and report findings and interpretations fully and objectively.
- 4. Research Records:** Researchers should keep clear, accurate records of all research in ways that will allow verification and replication of their work by others.
- 5. Research Findings:** Researchers should share data and findings openly and promptly, as soon as they have had an opportunity to establish priority and ownership claims.
- 6. Authorship:** Researchers should take responsibility for their contributions to all publications, funding applications, reports and other representations of their research. Lists of authors should include all those and only those who meet applicable authorship criteria.
- 7. Publication Acknowledgement:** Researchers should acknowledge in publications the names and roles of those who made significant contributions to the research, including writers, funders, sponsors, and others, but do not meet authorship criteria.
- 8. Peer Review:** Researchers should provide fair, prompt and rigorous evaluations and respect confidentiality when reviewing others' work.
- 9. Conflict of Interest:** Researchers should disclose financial and other conflicts of interest that could compromise the trustworthiness of their work in research proposals, publications and public communications as well as in all review activities.
- 10. Public Communication:** Researchers should limit professional comments to their

recognized expertise when engaged in public discussions about the application and importance of research findings and clearly distinguish professional comments from opinions based on personal views.

11. Reporting Irresponsible Research Practices: Researchers should report to the appropriate authorities any suspected research misconduct, including fabrication, falsification or plagiarism, and other irresponsible research practices that undermine the trustworthiness of research, such as carelessness, improperly listing authors, failing to report conflicting data, or the use of misleading analytical methods.

12. Responding to Irresponsible Research Practices: Research institutions, as well as journals, professional organizations and agencies that have commitments to research, should have procedures for responding to allegations of misconduct and other irresponsible research practices and for protecting those who report such behaviour in good faith. When misconduct or other irresponsible research practice is confirmed, appropriate actions should be taken promptly, including correcting the research record.

13. Research Environments: Research institutions should create and sustain environments that encourage integrity through education, clear policies, and reasonable standards for advancement, while fostering work environments that support research integrity.

14. Societal Considerations: Researchers and research institutions should recognize that they have an ethical obligation to weigh societal benefits against risks inherent their work.

The Singapore Statement is also available in 20 other languages including Bahasa Melayu, Bahasa Indonesia, Mandarin and Tamil, which may be downloaded from the Statement web site at;

www.singaporestatement.org

Procedures for Responding to Allegations of Research Misconduct:

1. *Scope*

These procedures should be followed when an allegation of possible misconduct in research is received by NTU. However, particular circumstances may dictate deviation from the normal procedure when deemed by the Provost or any person authorised by him to decide, to be in the best interests of NTU. Any deviation from the normal procedure must also ensure fair treatment to the subject of the allegation, inquiry or investigation.

2. *Definitions*

A. *Allegation/Complaint* means any written or oral statement or other form of indication of possible Research Misconduct, made to NTU.

B. *Committee of Inquiry* (“COI”) means the Committee appointed by the Provost pursuant to paragraph 3 of these Procedures under the Framework for Investigation and Disciplinary Proceedings for NTU staff or the NTU Student Board of Discipline. Members of the Committee will be senior members of the faculty, including those with expertise in the matters being considered. External members may also be appointed.

C. *Conflict of Interest* means the real or apparent interference of a person's own interests with the interests of another person or NTU, or where potential bias may occur due to prior, existing or future personal or professional relationships and must be declared.

D. *Good Faith Allegation* means an Allegation made with the honest belief that Research Misconduct, as defined in Paragraph 2F below, may have occurred. An Allegation is not made in good faith if it is made with reckless disregard for or willful ignorance of facts that may disprove the Allegation.

E. *Investigation* means gathering information and initial fact-finding to determine whether an Allegation warrants investigation under a Preliminary Inquiry.

F. *Research Misconduct* includes fabrication, falsification or misrepresentation of data, plagiarism or other wrongdoing in printing, designing, performing, recording, supervising or reviewing research or in reporting research results or in breaching other relevant national legislation, rules and guidelines. It also includes self-plagiarism with the undisclosed publication of similar papers in different journals. It does not include honest error or honest differences in interpretations or judgments of data.

G. *RIO* means Research Integrity Officer, being the employee or officer of NTU appointed to assess Allegations, determine when such Allegations warrant investigation or inquiry and to oversee Investigations and Inquiries. The RIO will be a senior employee or officer of NTU appointed by the Provost.

H. *President* means the President of NTU.

I. *Provost* means the Provost of NTU.

J. NTU Student Disciplinary Board means NTU Student Board of Discipline set up under the NTU Regulation on Student Discipline.

K. *Research Record* means any data, document, computer file, computer storage device, or any other written or non-written account or object that provides or may reasonably be expected to provide evidence or information regarding the proposed, conducted, or reported research that constitutes or relates to the subject of an Allegation. A Research Record includes, but is not limited to, grant or contract applications, whether funded or unfunded; grant or contract progress and other reports; laboratory notebooks; notes; correspondence; videos; photographs; X-ray film; slides; biological materials; computer files and printouts; manuscripts and publications; equipment use logs; laboratory procurement records; animal facility records; human and animal subject protocols; consent forms; medical charts; and patient research files.

L. *Respondent* means the person or persons against whom an Allegation is directed or the person or persons whose actions are the subject of the Investigation or COI or NTU Student Disciplinary Board.

M. *Retaliation* means any action that adversely affects the employment or other institutional status of a person that is taken by NTU because the person has made an Allegation or of inadequate institutional response thereto or has cooperated in the Investigation or COI or NTU Student Disciplinary Board, notwithstanding that such Allegation shall have been made or such co-operation shall have been rendered in good faith.

N. *Whistleblower/Complainant* means a person who makes an Allegation/complaint.

3. *Roles, Rights and Responsibilities of RIO*

The RIO, who is appointed by the Provost (see paragraph 2G above) will have responsibility, under the Provost's direction, for the implementation of these procedures. The RIO may, at his/her discretion, seek advice from internal/external experts.

Upon NTU's receipt of an Allegation, the RIO will assess the Allegation to determine whether there is sufficient evidence to warrant an Investigation and whether external applications for funding are involved. Upon completion of Preliminary Inquiry/Investigation, the RIO will report his/her findings to the Provost who will, in turn, decide whether to appoint a COI to consider the Allegation under the Framework for Investigation and Disciplinary Proceedings or if the Respondent is a student to refer to the NTU Student Disciplinary Board or take any other appropriate action.

4. *Conducting the Investigation and Inquiry*

A. *Initiation and Purpose of the Investigation*

Preliminary Inquiry

Upon receipt of the complaint, the RIO or a nominated person from Senior Management is to undertake a preliminary inquiry into the matter that has been reported.

At the completion of the preliminary inquiry, which should, on a best endeavours basis, be carried out within 45 days or as soon as practicable, the RIO or nominated person is to decide on one of the following actions, and inform the Respondent (where applicable) and Complainant of the outcome.

If, following his/her preliminary assessment, the RIO determines that an Allegation provides sufficient information to warrant action on the part of NTU, the RIO will as soon as practicable report to the Provost with recommendations as follows:

- a) Recommend dismissal of the Complaint;
- b) Recommend minor sanctions on the Respondent to be imposed by the Provost, who will also inform the Dean and School Chair or other appropriate person;
- c) Where the Respondent admitted to the Allegations to recommend appropriate sanctions in consultation with the Dean and School Chair or other appropriate person; or
- c) Recommend that there is presumptive evidence which warrants a formal disciplinary inquiry proceeding.

The Provost, will then determine the appropriate sanctions or if the case should be referred to a Committee of Inquiry or NTU Student Disciplinary Board. In his/her report to the Provost, the RIO should identify clearly the original Allegation and any related issues that should be evaluated. The purpose of the Investigation is to make an evaluation of the available evidence to determine whether there is sufficient evidence of possible Research Misconduct to warrant the establishment of a Committee of Inquiry or NTU Student Disciplinary Board or any other appropriate action. The findings of the Investigation must be documented in an investigation report.

B. Sequestration of the Research Records

When the Respondent is determined to be guilty of Research Misconduct, the RIO or nominated person must ensure that all original Research Records and/or copies of the same if originals shall not be available, are immediately secured.

C Committee of Inquiry (“COI”)

Details of a duly convened COI, including its procedure, are contained in the Framework for Investigation and Disciplinary Proceedings for Faculty and for Research Staff.

D. Termination of University Employment by Resignation Prior to Completion of Investigation/Preliminary or COI

If the Respondent, without admitting to the Allegation, elects to resign his/her position prior to completion of an Investigation/Preliminary Inquiry or COI, but after an Allegation has been reported. NTU may at its discretion, proceed nevertheless. Even if the Respondent refuses to participate in an Investigation/Preliminary Inquiry or COI, the RIO, Dean or Centre Director and the COI may use their best efforts to reach a conclusion concerning the

Allegation, noting in its report the Respondent's failure to cooperate and its effect on the Committee's review of all the evidence. Failure of the Respondent to assist or cooperate with RIO or Preliminary Inquiry or a COI shall be taken into account.

E. Applicability of Sections 3 and 5 in the Framework for Investigation and Disciplinary Proceedings

The details of the University's rights for interim suspension and administrative Action; and the general applications of confidentiality and protection of complainant are in Section 3 and Section 5 of the Framework for Investigation and Disciplinary Proceedings respectively.

5. *Record Keeping and Retention and Reporting*

After completion of an Investigation or a COI or NTU Student Disciplinary Board proceedings and all ensuing related actions, the RIO will prepare a complete file, including the records of any Investigation or Inquiry and copies of all documents and other materials furnished to the RIO. The file, after completion of the case, will be deposited in NTU's archives, to permit later assessment of the case as necessary.

NTU will report, annually, to the Audit and Risk Committee of the Board of Trustees, through the President's Coordinating Group, on any Allegations and inquiries completed during the preceding year and these may be published in the interests of transparency and the protection of NTU's reputation and interests.

6. *Liability*

Nothing in this Policy is intended nor shall be taken as rendering any employee or officer of NTU or other person appointed or authorised by NTU personally liable in respect of or arising from any Investigation or Inquiry or proceedings.

Acknowledgement: NTU is grateful for the advice of Professor Nick Steneck, University of Michigan, in the preparation of this Policy and procedures for conducting investigations. These are based largely on the model procedures and guidance issued by the US Office of Research Integrity.