

Research

Code of Practice

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Contents

1. Purpose, Scope and Oversight

- 1.1. Introduction
- 1.2. Purpose
- 1.3. Scope and definition of research
- 1.4. Oversight

2. Nature and Scope of Research Integrity

- 2.1. Definition of 'Research Integrity'
- 2.2. Roles and responsibilities regarding Research Integrity
- 2.3. Academic freedom

3. Planning and Conducting Research

- 3.1. Practical planning
- 3.2. Sources of research funding
- 3.3. Conflicts of interest
- 3.4. Collaborative and international research
- 3.5. Research ethics and governance
- 3.6. Insurance for research activities
- 3.7. Maintaining quality, consistency and authenticity
- 3.8. Use of generative artificial intelligence in research

4. Sharing Research

- 4.1. Research outputs
- 4.2. Recognition and authorship
- 4.3. Open access outputs and research data

5. Evaluating Research

- 5.1. Peer review
- 5.2. Other mechanisms of monitoring and review

6. Commercialising Research

6.1. Intellectual property

7. Addressing Research Misconduct

- 7.1. Definition of 'Research Misconduct'
- 7.2 Allegations of research misconduct

Annex A: Relevant Policies, Guidelines and Concordats

Annex B: Procedure for the Investigation of Misconduct in Research

1. Purpose, Scope and Oversight

1.1. Introduction

1.1.1. Established as a place of useful learning, the University of Strathclyde (hereafter 'the University') is committed to delivering world-leading research in accordance with the highest standards of research quality and integrity. As stated in the <u>University's Strategic Plan</u> (Vision 2025), "we take it as our responsibility to research, teach and be of benefit to society – to reach outside the University to make the world better-educated, sustainable, prosperous, healthy, fair and secure."

1.2. Purpose

- 1.2.1. The chief aim of this Research Code of Practice (hereafter the 'Code') is to promote the production and dissemination of research of the highest quality across the whole University. The Code also aims to prevent research misconduct through the clear articulation of standards for research practice.
- 1.2.2. This Code defines the core principles of research integrity (Section 2) and details the implementation of those principles throughout the research lifecycle (Sections 3-6). Where these principles are not maintained and research practice falls below the standards outlined in this Code, individuals may be subject to the procedures for investigating allegations of misconduct (as described in Section 7).

1.3. Scope and definition of research

- 1.3.1. The Code applies to and must be observed by:
 - i. All University staff (regardless of contract type) engaging in research activities.
 - ii. All University students engaging in research activities.
 - iii. Any individuals who do not fall within (i) and (ii) above but who are otherwise associated with the University and are authorised to use the University's name, facilities and/or services when engaging in research activities (such persons would include, for example, those holding visiting, honorary or emeritus status).

All of the above shall be referred to as 'Researchers' throughout the Code.

1.3.2. For the purposes of this Code, the definition of 'research' is as set out in the <u>Research Excellence</u> <u>Framework (REF) 2021 Guidance on Submissions</u>, (Annex C, para.261, published in 2019 and revised October 2020):

"'Research' is defined as a process of investigation leading to new insights, effectively shared."

- 1.3.3. Where knowledge exchange activities are aimed at generating and/or disseminating new knowledge, these activities are within scope of this Code in accordance with the definition of research above.
- 1.3.4. The Code applies to research conducted in all fields, for any purpose.

1.4. Oversight

- 1.4.1. To ensure alignment with relevant regulations, legislation and sector best practice, at a minimum the Code is reviewed on an annual basis, with updates and revisions made as and when required. This process is overseen by the Research Policy and Information Team based in the Research and Knowledge Exchange Services Directorate (hereafter 'RKES'). Any queries or feedback on the Code should be directed to researchpolicy@strath.ac.uk.
- 1.4.2. The University Research and Knowledge Exchange Committee (hereafter 'RKEC') is responsible for reviewing and recommending any changes to the Code to University Senate for approval.

2. Nature and Scope of Research Integrity

2.1. Definition of 'Research Integrity'

- 2.1.1. The University expects all Researchers to conduct their research activities in accordance with <u>The</u> <u>Concordat to Support Research Integrity</u> (hereafter 'the Research Integrity Concordat'). This Concordat provides a framework for good research practice and defines research integrity via five principles:
 - i. **Honesty** in all aspects of research, including in the presentation of research goals, intentions and findings; in reporting on research methods and procedures; in gathering data; in using and acknowledging the work of other Researchers; and in conveying valid interpretations and making justifiable claims based on research findings.
 - ii. **Rigour**, in line with prevailing norms and standards in the Researcher's research area, and in performing research and using appropriate methods; in adhering to an agreed protocol where appropriate; in drawing interpretations and conclusions from the research; and in communicating the results.
 - iii. **Transparency and open communication** in declaring potential competing interests; in the reporting of research data collection methods; in the analysis and interpretation of data; in making research findings widely available, which includes publishing or otherwise sharing negative or null results to recognise their value as part of the research process; in preserving and sharing data whenever possible; and in presenting the work to other Researchers and to the public.
 - iv. **Care and respect** for all involved in research, and for the subjects/participants, users and beneficiaries of research, including humans, animals, the environment and cultural objects. Those engaged with research must also show care and respect for the integrity of the research record.
 - v. **Accountability** of funders, employers and Researchers to collectively create a research environment in which individuals and organisations are empowered and enabled to own the research process. Those engaged with research must also ensure that individuals and organisations are held to account when behaviour falls short of the standards set by the Research Integrity Concordat.
- 2.1.2. These principles apply throughout the research lifecycle, from preparation and submission of project proposals to dissemination and application of research findings. The core elements also apply to the review on the proposals or publication of others' research (i.e. peer review).
- 2.1.3. In addition to the <u>Research Integrity Concordat</u> (2012; 2019), the University is committed to a range of research-related concordats and agreements between universities, funders and/or sector bodies, including: <u>Concordat to Support the Career Development of Researchers</u> (2008; 2019) (hereafter 'the Researcher Development Concordat'); <u>Concordat for the Advancement of Knowledge Exchange in Higher Education</u> (2020); <u>Concordat on Open Research Data</u> (2016); <u>Concordat on Openness in Animal Research</u> (2014); <u>Concordat for Engaging the Public with Research</u> (2010); <u>Technician Commitment</u> (2017); <u>Guidance for Safeguarding in International Development Research</u> (2020); <u>San Francisco Declaration on Research Assessment</u> (DORA) (2013); <u>Leiden Manifesto on Research Metrics</u> (2015); and <u>Agreement on Reforming Research Assessment</u> (2022).

A short description for each initiative is given in **Annex A**. **Annex A** also sets out key areas where legislation shapes good research practice, internal policies that Researchers must adhere to in their research activities, and broader national and international policies and guidelines that affect the University's approach to research integrity.

2.1.4. The Code and associated <u>Guide to Good Research Practice</u> are designed to complement these existing frameworks and support Researchers to meet the expectations placed on them. Researchers should ensure they are familiar with the expectations for good research practice as set out in the documents

referenced in **Annex A**, as applicable to their research, and maintain up-to-date knowledge of these expectations in line with developing norms or standards of their research area.

2.1.5. Additional discipline-specific policies, guidelines and concordats are not provided here. As outlined above and in the Research Integrity Concordat, it is the responsibility of Researchers to keep up-to-date knowledge of and comply with professional standards that apply to their work. Guidance on discipline-specific expectations can be sought from managers and research leads in the Researcher's discipline.

2.2. Roles and responsibilities regarding Research Integrity

Researchers

- 2.2.1. The Research Integrity Concordat states that the primary responsibility for ensuring that research is conducted in accordance with the principles of research integrity lies with the individual Researcher. Researchers have a responsibility to ensure that they are familiar and compliant with all policies governing their research, including this Code and wider University policies as well as any other ethical, legal and professional frameworks, obligations or standards.
- 2.2.2. Researchers must take responsibility for the integrity of their own actions, ensuring that they have the necessary skills and knowledge to undertake activities in line with the University's expectations and requirements of their role, or raising any needs with their line manager where they do not.
- 2.2.3. In addition, Researchers must highlight any deviation from required standards in their own work, or in the work of others, as soon as it is identified, using the procedures set out in Section 7.
- 2.2.4. Guidance and support for Researchers on adhering to the standards set out in the Code is available on the <u>University website</u> and <u>RKES Portal</u>, including a <u>Guide to Good Research Practice</u>. Confidential advice related to research integrity or research misconduct can be sought from the Research Policy and Information team in RKES via email to <u>research-integrity@strath.ac.uk</u>.

Senior Staff

- 2.2.5. For the purposes of the Code, Senior staff is considered to be all staff whose role assigns responsibility for setting and facilitating the strategic direction of the University. This includes but is not limited to: The Principal; The Vice-Principal; The Associate and Deputy Associate Principals for Research and Knowledge Exchange; The Executive Deans; Other Executive Officers; Faculty Vice Deans and Associate Deans for Research and Knowledge Exchange; Heads of Departments and Schools and Directors of Research; and Directors of relevant professional services directorates.
- 2.2.6. It is the responsibility of those in authority to maintain a research culture which enables Researchers to act in accordance with the principles of research integrity at all times.

Research Leads (including Principal Investigators/ Supervisors)

- 2.2.7. Overall responsibility for the standard of research practice within a research project or research area lies with the Research Lead, or with the student's primary Supervisor in the case of student projects. This responsibility applies to all staff named as the Principal Investigator, Co-Principal Investigator, Chief Investigator, Co-Chief Investigator or Co-Investigator on a grant or project, whether externally funded or internally supported.
- 2.2.8. These individuals are responsible for ensuring that Researchers involved in the research are aware of and understand all policies governing the research, including this Code and wider University policies as well as any other ethical, legal and professional frameworks, obligations or standards. Deviation from these required standards must be highlighted as soon as it is identified.

2.2.9. Principal Investigators and Supervisors should also ensure that Researchers are able to access training, resources and support to allow them to achieve the required standards of research practice and the expectations of their role.

2.3. Academic freedom

- 2.3.1. This Code recognises that academic freedom is necessary to ensure the integrity of research. Researchers must be able to exercise freedom in their academic choices, including questioning and testing received wisdom; studying areas or topics that lead them to explore and/or collect research material of a sensitive or controversial nature; using methods of research that are controversial or sensitive; and, sharing new, controversial or unpopular views. The University supports its Researchers in undertaking legitimate research of this nature and provides protective processes to ensure that this research is not unnecessarily disrupted through unwarranted attention.
- 2.3.2. Academic freedom is given on the condition that it is used lawfully and in respect of the academic freedom of others, and that views shared are the end results of adherence to high research standards of procedure, evidence and proof shared by the academic community of which the Researcher is a member. It should be noted that Researchers are not protected from the normal constraints of the law by appeal to academic freedom as such. Furthermore, limitations to academic freedom may be imposed if there is considered to be a high risk that the research will result in a breach of legal, ethical, or contractual requirements.
- 2.3.3. It is the ethical responsibility of Researchers to recognise and acknowledge the scope of their professional competence and not wilfully offer interpretations of data which go beyond the limits of that expertise without signalling the lay status of such statements. Not to respect such a distinction is laying false claims to expertise, which is an ethical abuse and could lead to the instigation of disciplinary procedure (e.g. by the University as employer) and possibly litigation (e.g. by a funder).
- 2.3.4. Differing opinions and perspectives expressed as part of academic debate should be expressed respectfully, in line with the University's <u>Dignity and Respect Policy</u>.

3. Planning and Conducting Research

3.1. Practical planning

- 3.1.1. When planning research, Researchers should consider key factors that may affect the success of the project and/or their adherence to the standards outlined in the Code. These may include researcher training, ethical approval, data protection considerations, and collaboration agreements. Researchers are encouraged to use the <u>UKRIO Checklist for Researchers</u> to support their planning.
- 3.1.2. Researchers are encouraged to consider at an early stage of the project whether they, or other Researchers, may be able to reuse the data and plan accordingly. Decisions made concerning data throughout the project lifecycle should be recorded in the project Data Management Plan (required for all PGR student and staff research projects see the Research Data Management and Sharing Policy). Reuse of data requires the data to be prepared and have the proper consents in place before long-term storage and/or sharing to avoid breaches of legal, ethical, funder or contractual requirements. In some instances, these requirements may be such that reuse of data is not possible. For studies involving human participants, the purposes for which you intend to use participants' personal data (that is, data that relates to an identifiable living individual) must be included in the ethics application and all participant information and consent to participate forms, in particular any intended re-use or sharing of personal data (including pseudonymised data). Participants must also be provided with a Privacy Notice explaining how their personal data will be used and processed in accordance with data protection

legislation. If you only intend to re-use or share fully-anonymised data, there are no data protection implications to sharing this data, however, in line with the <u>Code of Practice on Investigations Involving</u> <u>Human Beings</u>, the University Ethics Committee considers it good practice to tell participants about this when recruiting them to the study. Researchers should acquaint themselves with the legal obligations around collecting and analysing 'personal data' in their research by reviewing the University's <u>Data</u> <u>Protection Policy</u>; the <u>Information Governance Unit's guidance on Data Protection and Research</u>, and completing <u>Data Protection training</u>, accordingly. If there is an intention to share personal data with a third party appropriate <u>data sharing agreements</u> or clauses should be in place.

3.1.3. Due regard must be given to the risk of misuse of research when planning activities. This includes concerns related to Trusted Research and Innovation (see clauses 3.4.2.-3.4.3), as well as considerations about how research findings and/or data could be used to cause harm. Where significant risks are identified, mitigations should be put in place in consultation with the Researchers' Head of Department/School, with recognition of any ethical, funder or contractual requirements for the research. This could include amending the research design or limiting dissemination.

3.2. Sources of research funding

- 3.2.1. The University will only support ethically justifiable research funded by bona fide organisations. There is a duty of disclosure on all Researchers to reveal, prior to agreeing a research contract, any material fact that might influence the University's wish to become associated with a particular research project or funder. These include, but are not limited to legal, reputational and ethical issues, conflicts of interest, security considerations, and funder conditions.
- 3.2.2. Where a Researcher has any such concern, this should be reported to the Head of Department/School within which the research project is being conducted and to RKES if negotiations are under way with a potential funder or if an Agreement has been signed with the funder. Any decision of the University to terminate an ongoing project could be a breach of contract, and the University could be liable for certain losses upon termination.
- 3.2.3. The ethical propriety of all sources of research support and engagement must be considered before any agreement to undertake a research project for a funder or to license University Intellectual Property is reached and confirmed. The University will assess the motives of a potential funder in the light of the generally accepted ethical norms of the day and be satisfied that they are being asked to undertake a piece of ethically justifiable research.

3.3. Conflicts of interest

3.3.1. Conflicts of interest can compromise research integrity if not fully disclosed and addressed from the outset of a research project. Researchers have a responsibility to declare conflicts of interest at the outset of any research. Failure to declare a conflict of interest can lead to research misconduct stemming from issues such as undeclared financial gain, non-competitive procurement or suspect employment arrangements. Guidance on the circumstances in which conflicts of interest may arise and how to manage them is provided in the University's <u>Code of Practice on Conflicts of Interest</u>.

3.4. Collaborative and international research

3.4.1. Collaborations between Researchers, disciplines, universities, organisations and communities are a key part of research and knowledge exchange. Nonetheless, it can raise additional considerations relating to regulations and expectations for good research practice. Where research is being conducted collaboratively, and particularly within interdisciplinary or international partnerships, there needs to be clear agreement on and articulation of the standards and frameworks that will apply to the work.

International research should be compliant with all relevant national and local regulatory systems in the host country/countries where the work is conducted, in addition to the expectations outlined in this Code.

- 3.4.2. Researchers involved in external collaborations should familiarise themselves with the <u>three principles of</u> <u>Trusted Research & Innovation (TR&I) outlined by UKRI</u>. As defined by the <u>National Protective Security</u> <u>Authority (NPSA)</u>, TR&I refers to the idea of protecting "*the integrity of the system of international research collaboration*" by supporting Researchers, UK universities and industry partners to identify potential risks and respond appropriately. Due to its extensive portfolio of industrial collaborations, the University's approach to TR&I takes in a broader view of collaboration with external parties, whether commercial organisations, universities, research institutes and other organisations based abroad. This approach relies on ensuring a trusted and protected approach to both University and partner contributions, to get the most out of collaborations whilst protecting intellectual property, sensitive research and personal information. For more information on the University's approach to TR&I, <u>visit the</u> <u>RKES Portal</u>.
- 3.4.3. Questions posed by TR&I should be part of the normal research design process and best practice. This includes: the appropriateness of other institutions/Researchers involved in the research; the potential applications of the research; the appropriate levels of security for data; ensuring separation of Intellectual Property between projects; and conflicts of interest in receiving funding. In particular, Researchers involved in informal collaborations, i.e. those that do not have an associated research grant or take place in the context of an institutional Memorandum of Understanding or agreement with International Strategic Partners, should be vigilant to TR&I concerns and email trusted-research@strath.ac.uk with any queries, as this type of activity does not typically involve due diligence checks by RKES. Even where no TR&I concerns are present at the outset of a project, Researchers should maintain an awareness of the ongoing context in which they work and seek support via email to trusted-research@strath.ac.uk if they think work may be moving into a relevant area.
- 3.4.4. When Researchers are collaborating with other laboratories, or where animal facilities are provided by outside bodies, they should satisfy themselves that welfare standards are consistent with the principles of UK legislation, the Animals (Scientific Procedures) Act 1986 (ASPA), revised in the light of European Directive 2010/63/EU on the protection of animals used for scientific purposes. The revised legislation came into force on 1 January 2013. They should also notify the <u>University's Animal Welfare and Ethical Review Body (AWERB)</u>.

3.5. Research ethics and governance

- 3.5.1. All research carried out at the University must comply with relevant legal, regulatory, professional and ethical requirements and standards, including but not limited to: <u>Animals (Scientific Procedures) Act (1986)</u>; <u>Human Tissue Act (2004) and Human Tissue (Scotland) Act (2006)</u>; <u>Declarations of Helsinki, UK Policy Framework for Health and Social Care Research</u>; <u>data protection legislation</u>; and <u>Nagoya Protocol on Access and Benefit-sharing (2014)</u>. Researchers should be familiar with, and know how to access, such requirements including University ethical guidance and policies. Researchers who are unsure whether such requirements apply to their projects should seek advice. All appropriate licences, permissions and approvals must be in place before research starts and be updated as necessary if plans change.
- 3.5.2. Ethical approval is required for all research involving human beings as participants, their data, and the use and/or collection of human biological tissue and/or fluid. Ethical approval is also required for use of secondary data if these include personal data, and under certain circumstances, is required for data relating to deceased human subjects. Ethical approval must be in place prior to the research project starting. This means that the process of recruiting research participants and collecting their data must not

begin until approvals are in place. No approval may be granted retrospectively for data collection that has taken place in the absence of ethical and sponsorship approval. Details of the procedures by which the University makes ethical judgements can be found in the <u>Code of Practice on Investigations Involving</u> <u>Human Beings</u>.

- 3.5.3. All investigations requiring ethical approval must also be reviewed for management risk and sponsorship via procedures outlined in the Code of Practice on Investigations Involving Human Beings. The research project must not start until a formal letter/statement confirming sponsorship is received from the designated sponsor. Research meeting specific criteria, such as working with the NHS or in clinical settings, may also be subject to the approval of an appropriate national or international body after securing University Sponsorship.
- 3.5.4. For research with relevant material under the Human Tissue Act (2004) and the Human Tissue (Scotland) Act (2006), the University requires Researchers to take all appropriate steps to ascertain whether any human tissue samples they plan to obtain, use or store need to be held under a Human Tissue Authority licence and in accordance with relevant Standard Operating Procedures and the standards of the Human Tissue Authority. Planned activity involving the University's Human Tissue Authority licences must be notified in advance to the relevant Person Designate or Designated Individual.
- 3.5.5. Research involving animals requires a project license. In addition, Researchers must undertake appropriate education and training before applying for a personal licence. Both licences are issued by the Home Office. Researchers must consult the Animal Welfare and Ethical Review Body (AWERB) when planning research involving animals, in order to obtain advice about the proper conduct of research involving animals and obtain project review. Guidance on procedures for research involving animals, including the University's Policy on Animal Research, is available from the <u>University's Biomedical Research webpage</u>.
- 3.5.6. Research utilising non-human genetic resources (defined as "any material of plant, animal, microbial or other origin containing functional unit of heredity") or associated traditional knowledge (aTK) is subject to the <u>UK Access and Benefit Sharing Regulations (ABS)</u>. This legislation relates to the <u>Nagova Protocol</u> of the <u>Convention on Biological Diversity</u> which provides a framework to ensure the fair and equitable sharing of benefits arising out of the utilisation of genetic resources. To comply with the regulations, the University is required to seek, keep and transfer all relevant documentation to prove that projects are either a) conducted in compliance with UK ABS compliance measures (as required by Article 4(3) of the UK ABS Regulation), or b) out of scope. To be in scope, genetic resources will have been accessed on or after 12 October 2015 from a country that is party to the Nagoya Protocol and has access and benefit sharing (ABS) legislation (assuming that they are not already governed by a specialised international instrument).
- 3.5.7. Accordingly, Researchers involved in research which does or may utilise non-human genetic resources or associated traditional knowledge should:
 - i. Familiarise themselves with the UK Department for Environment, Food and Rural Affairs (Defra) <u>Guidance on the UK Access and Benefit Sharing Regulations</u> (2022) and seek advice from RKES if required. Queries can be directed to <u>research-integrity@strath.ac.uk</u> in the first instance.
 - ii. Conduct due diligence prior to project commencement and the acquisition of any genetic resources (whether from the UK or overseas) to determine if a project is in scope of the UK ABS Regulations. This can be done using the Office for Product Safety & Standards (OPSS) Self-Assessment Tool which can be downloaded from the <u>UK Government ABS Guidance webpage</u>. This includes a link to the <u>ABS Clearing House</u> which can be used to identify if a country is party to the Nagoya Protocol.

- iii. Retain all relevant documentation (including that which proves that a project is out of scope) and submit a copy to RKES via email to <u>research-integrity@strath.ac.uk</u>. Relevant documentation is likely to include completed due diligence forms and evidence of the intended use and source of genetic resources (e.g. project proposals, agreements and reports; correspondence with suppliers or research partners, purchase orders and delivery notes).
- iv. If the research involves genetic modification, submit a risk assessment and the relevant due diligence paperwork to the <u>Genetic Modification Safety Committee (GMSC)</u> in accordance with the <u>University Occupational Health and Safety Standard on Genetic Modification</u>.
- 3.5.8. Other pieces of legislation governing the use of non-human genetic resources, such as the <u>Genetically</u> <u>Modified Organisms (Contained Use) Regulations 2014</u>, should be consulted and followed if applicable.

3.6. Insurance for research activities

- 3.6.1. The University maintains a range of covers and insurances that can provide indemnity and compensation to staff and students if they are held liable for injury or damage occurring in the course of their University activities, or if they themselves are injured during the course of their University activities. Researchers should satisfy themselves that a research project has appropriate coverage by checking <u>the Insurance webpage</u> and emailing <u>insurance-services@strath.ac.uk</u> with any queries. For research involving human participants, coverage is confirmed as part of the sponsorship and ethical review process (see clauses 3.5.2-3.5.3). For research involving medical clinical trials or the evaluation and/or manufacture of medical equipment (such as protheses), queries related to coverage should be directed to <u>ethics@strath.ac.uk</u>.
- 3.6.2. Insurance services must also be notified about research involving aviation products (such as aeroplanes and their equipment) and the nuclear, gas or oil industries. These research activities may not involve human participants and therefore may not have coverage confirmed through ethical review. In this instance, Researchers should contact insurance-services@strath.ac.uk for advice.

3.7. Maintaining quality, consistency and authenticity

- 3.7.1. In a research project, there should always be a robust and reliable audit trail, which can be followed to establish the authenticity of any discovery or invention and to defend the results of genuine research endeavour. The authenticity of records, their provenance and date, must be defendable to support claims of originality. This is in the interests of protecting both research integrity and inventorship, and in clarifying resulting ownership of copyright and intellectual property. Examples of good record-keeping in research include retaining master copies of data and applying a systemic version-control strategy for subsequent versions (iterations); appropriately marking-up revisions without deleting content; developing a data management plan to document ongoing decisions about data (file) management; and employing robust quality-control procedures.
- 3.7.2. The need to protect authenticity puts an obligation on the Researcher to maintain records in such a way that they can be investigated and understood by anyone with a legitimate right to enquire. In particular, Researchers are encouraged to preserve data and make them available (in an appropriate form, e.g. anonymised or aggregate) whenever possible to support the validity of their research finding, for example, in response to requests from publishers or others in the academic community. Where research is covered by ethical approval, and intention to re-use or share data was not included in the participant documentation or ethics application, Researchers must submit a request to the ethics committee that approved the research to amend their approved ethics protocol in order to re-use or share participant data, even if it has been fully anonymised. Where there are legal, ethical and/or commercial constraints that prohibit the long-term storage and/or sharing of data, this should be made clear in outputs of the

research. If a request to access data for verification purposes has been received and cannot be fulfilled, Researchers should contact <u>research-integrity@strath.ac.uk</u>.

- 3.7.3. Proper research data management is a key part of ensuring the integrity of the research record. Researchers are responsible for looking after the data they collect/generate, as well as ensuring they adhere to any contractual/ethical agreements and data protection legislation. Researchers should be familiar with the requirements for research data management, as outlined in the <u>Research Data Management and Sharing Policy</u>, and data protection, as outlined in the <u>University's Data Protection policy</u>. This includes a requirement for all staff and PGR students to have a Data Management Plan in place prior to the commencement of the research, even where there are no funder data requirements/ terms and conditions of the award, to ensure the responsible management of research data. Doctoral research students are not expected to have a Data Management Plan (DMP) in place prior to commencing their studies but they should implement a project DMP in line with Departmental requirements for PGR progression review, or just prior to commencing the collection/generation of research data, whichever comes first. Poor data management practices, such as inadequate storage security or inappropriate disclosures of personal data, can lead to allegations of research misconduct.
- 3.7.4. Researchers have a responsibility to ensure that any inconsistencies or errors in their published material are corrected in an appropriate and timely manner to protect the research record. The University will support Researchers where honest inconsistencies or errors are reported to journals resulting in a retraction. A retraction in this circumstance will not trigger an investigation. However, if the University receives allegations of misconduct relating to published material, it has a duty to investigate and, if necessary, rectify any errors or inconsistencies. The University makes a clear distinction between retractions that result from honest errors being corrected and retractions that result from misconduct.

3.8. Use of generative artificial intelligence in research

- 3.8.1. Generative artificial intelligence is a type of artificial intelligence (AI) that can produce textual, visual and audio content in response to user prompts or requests. It has the potential to accelerate scientific discovery and improve the efficiency and effectiveness of research. However, it is important that researchers use these tools in accordance with the principles of research integrity. While the University does permit the use of generative AI in research and research outputs, Researchers must do so transparently by acknowledging its use, and must not claim work generated by AI as their own original work.
- 3.8.2. To support Researchers in using Generative AI, the University has adopted the <u>Living Guidelines on the</u> <u>Responsible Use of Generative AI in Research</u> produced by the European Research Area (ERA) Forum stakeholders and published by the European Commission. These Guidelines recommend that Researchers:
 - *i. "Remain ultimately responsible for the scientific output.*
 - ii. Use generative AI transparently.
 - *iii.* Pay particular attention to issues related to privacy, confidentiality and intellectual property rights when sharing sensitive or protected information with AI tools.
 - *iv.* When using generative AI, respect applicable national, EU and international legislation, as in their regular activities.
 - v. Continuously learn how to use generative AI tools properly to maximise their benefits, including by undertaking training.
 - vi. Refrain from using generative AI tools substantially in sensitive activities that could impact other researchers or organisations (for example peer review, evaluation of research proposals, etc.)."

- 3.8.3. With regards to point 3.8.2.iii, Researchers must not input personal data, such as identifiable participant information, into generative AI tools, as tools may not be compliant with UK data protection legislation.
- 3.8.4. Further guidance on the use of generative AI in research can be found on the RKES Portal [link to be added when available]. The University will continue to monitor the development and use of generative AI in research to ensure guidance remains up-to-date.

4. Sharing Research

4.1. Research outputs

- 4.1.1. It is the duty of Researchers to share the insights gained from their research effectively. Informed by disciplinary practice, this can be done through various means including short and long form publications (such as journal articles, conference contributions and books), research reports for external bodies, databases, devices and products, exhibitions, software and patents. Researchers must ensure that information about their research outputs is entered into <u>Pure</u>, kept up-to-date, and, wherever possible, upload a copy of the accepted author manuscript.
- 4.1.2. It is the responsibility of Researchers to ensure that requirements on the dissemination of research outputs, as stipulated by research funders (e.g. UKRI) and the University, are met in full. These requirements may include but are not limited to: use of <u>ORCID</u> (Open Researcher and Contributor ID), accurate institutional affiliation, acknowledgement of research funding, research data access statements and specific open access requirements. Full details of these requirements are set out in the <u>University Research Publications Guidance</u>. UKRI research councils also require that Researchers report on research outputs and outcomes via <u>Researchfish</u>.
- 4.1.3. An increasing number of research funders, including Wellcome and UKRI, require the inclusion of a <u>Rights Retention Statement</u> in manuscripts arising from their funded projects that are published via the Green Open Access route, thereby allowing Researchers to maintain rights on their work. This approach is the University's preference as it promotes the deposit of full-text accepted manuscripts in institutional systems upon manuscript acceptance under no embargo and under a Creative Commons licence. All authors or co-authors affiliated to the University of Strathclyde, including postgraduate research students, are encouraged to include a Rights Retention Statement in articles (including conference proceedings and any third-party content where rights in that content have been secured) published while they are a member of staff or student at Strathclyde, in line with the requirements of the <u>Institutional Rights Retention Policy for Research Publications</u>.
- 4.1.4. Collaborators, clients and funders should respect the duty of Researchers to publish their research and the findings of their research. Where Researchers believe undue influence is being exerted on their research outputs, they should contact <u>research-integrity@strath.ac.uk</u> for advice and support. Collaborators, clients and funders must not discourage or suppress appropriate publication practices or attempt to influence the presentation or interpretation of findings inappropriately. Influence over the content and or timing of publications should be properly approved by the University in instances where it is required to protect privacy, commercially sensitive proprietary information, or patentable inventions.

4.2. Recognition and authorship

4.2.1. Contributions by all parties involved in a research project should be valued and recognised. Considerations of recognition and authorship go beyond publication to include, for example, naming on grant applications; association with research projects in Pure; and assignment as 'data creator' for datasets. As a common area of research misconduct, specific guidance on authorship practices for

publications is given below; however, advice and support on matters relating to all aspects of recognition and authorship can be obtained via email to <u>research-integrity@strath.ac.uk</u>.

- 4.2.2. The University expects that Researchers will follow good practice, accepting that the details may vary slightly from one discipline to another. In particular, Researchers must follow the authorship guidelines provided by the journals or conference proceedings in which an article is published.
- 4.2.3. A widely used approach to judging whether an individual should be named as author on a publication is to use the following four criteria for authorship provided by the <u>International Committee of Medical Journal</u> <u>Editors</u> (ICMJE). Using this approach, all those who meet the four criteria should be identified as authors.
 - *i.* "Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND
 - ii. Drafting the work or revising it critically for important intellectual content; AND
 - iii. Final approval of the version to be published; AND
 - iv. Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved."
- 4.2.4. All listed authors should have confidence in the integrity of the contributions of their co-authors. In addition to being accountable for the parts of the work they have done, an author should be able to identify which co-authors are responsible for specific other parts of the work.
- 4.2.5. Convention on the order of authors listed on an output will vary between different disciplines. Seniority is not, on its own, a valid reason for being given a significant authorship position. Journals and conferences may give guidance on authorship and may even ask that the authors sign that they have agreed to the order.
- 4.2.6. Honorary authorship, which is authorship given to an individual despite a lack of substantial contributions to a research project, including gift, guest and coercive authorship, is unacceptable and considered a form of research misconduct.
- 4.2.7. The University encourages Researchers to recognise and thank others for their work which does not merit authorship. This usually can be realised via acknowledgements (i.e. of editorial, technical, financial, material or other support) or citation (to give due recognition to external sources of information and/or publications drawn on). It may also be a funder or journal requirement to recognise funders in the acknowledgements. This is standard practice and includes a reference in the manuscript acknowledgements section to the research funder's full name and grant number.

4.3. Open access outputs and research data

4.3.1. Arranging for immediate open access to publications is a requirement of many funders, including <u>UKRI</u>. Many publishers also have a policy on open access and open access to certain submitted research outputs is required by the <u>Research Excellence Framework</u> (REF). Researchers must comply with any open access requirements relevant to their research. Even where it is not externally required, the University strongly encourages all Researchers to make their outputs and data open access whenever possible.

5. Evaluating Research

5.1. Peer review

5.1.1. Researchers carrying out peer review of the work of others must follow the guidelines of the organisation requesting the peer review, recognising the requirements for peer reviewers to be thorough, objective, honest and fair. Any potential conflicts of interest should be identified to the requesting organisation.

Researchers should ensure that they have sufficient knowledge of peer review requirements and should only accept requests for which they have appropriate expertise. Researchers carrying out peer review must treat the process as confidential and should not take advantage of any new data or privileged information, including for the purposes of furthering their own research.

5.1.2. While carrying out peer review, Researchers may become aware of possible misconduct, such as plagiarism, fabrication or falsification, or have ethical concerns about the research. In such cases, they should inform an appropriate representative of the requesting organisation. If this relates to an internal peer review, the procedure for allegations of misconduct (see Section 7) should be followed.

5.2. Other mechanisms of monitoring and review

5.2.1. Research may be reviewed by funders or other relevant bodies as part of their monitoring or quality assurance processes or in response to allegations of misconduct. Researchers must comply with any monitoring or audit requirements by applicable bodies and are encouraged to familiarise themselves with relevant sector requirements. This includes maintaining an awareness of and contributing as appropriate to preparations for the next <u>Research Excellence Framework</u> (REF).

6. Commercialising Research

6.1. Intellectual property

- 6.1.1. Employees and Students of the University generate Intellectual Property (IP) in the course of their employment and studies respectively. This IP makes a valuable contribution to the body of knowledge relating to a wide range of disciplines. However, under certain circumstances research findings should not be published without first speaking with Innovation and Industry Engagement (IIE) or RKES. These circumstances are as follows:
 - disclosure of information (including information of a commercially sensitive nature) related to, generated or disclosed in the course of certain funded research projects may result in a breach of the funding contract. Advice should always be sought from the relevant Contracts Manager in RKES who helped to negotiate the contract, to ascertain whether such information can be disclosed;
 - ii. where there is commercial value in a Researcher's research findings, such findings must be kept confidential and not disclosed prior to a patent being filed. Open publication of any concept before a patent application has been filed constitutes a disclosure and can harm the patentability of inventions based on that concept. Similarly, disclosure of any novel process or idea to a potential funder, without the necessary contractual safeguard of a Confidentiality Agreement being signed by both parties prior to disclosure, can also constitute disclosure. In order to protect the University's intellectual property it is essential that staff consult with IIE before making disclosure of potentially valuable intellectual property. IIE has processes in place to assist Researchers with protection of inventions with commercial potential.
- 6.1.2. Where there is Potentially Exploitable IP, publication and dissemination may be deferred for a short time pending decision on patent protection and exploitation. Researchers should maintain the confidentiality of IP that they create until it has been decided if it is Potentially Exploitable IP. The full process of disclosure and assessment of inventions is detailed in the Intellectual Property & Commercialisation Policy. This process includes an expectation for University Employees and Postgraduate Research Students to disclose inventions to the University. Data that relate to an invention disclosure must not be uploaded to Pure.
- 6.1.3. Only Postgraduate Research Students are required to assign to the University (as a condition of admission) Commercial Rights created either in the course of research activity carried out as part of the

applicable research programme or using a University contribution. Therefore, it is of paramount importance, when involving a student other than Postgraduate Research Students on a research project likely to generate intellectual property of commercial importance and/or importance to the supervisor's future research plans, for the supervisor (in discussion with the Responsible Person in the Faculty or Department and using the services of the IP and Commercialisation team in IIE) to ensure that the student assigns their intellectual rights to the University before their formal involvement in the project commences. This is of particular concern in instances where a student is working on a project funded by a third party. Unless the University formally has the student agree to abide by the contractual terms that the University has entered into with the third party, in relation to such issues as confidentiality and ownership of intellectual property, the University could find itself in breach of contract.

7. Addressing Research Misconduct

7.1. Definition of 'Research Misconduct'

- 7.1.1. In line with the <u>Research Integrity Concordat</u> definition, the University defines misconduct in research as *"behaviours or actions that fall short of the standards of ethics, research and scholarship required to ensure that the integrity of research is upheld"*. Responsibility for ensuring that no misconduct occurs rests primarily with individual Researchers.
- 7.1.2. Research misconduct can take many forms, including but not limited to:
 - i. **fabrication:** making up results, other outputs (for example, artefacts) or aspects of research, including documentation and participant consent, and presenting and/or recording them as if they were real.
 - ii. **falsification:** inappropriately manipulating and/or selecting research processes, materials, equipment, data, imagery and/or consents.
 - iii. **plagiarism:** using other people's ideas, intellectual property or work (written or otherwise) without acknowledgement or permission.
 - iv. failure to meet: legal, ethical and professional obligations, for example:
 - not observing legal, ethical and other requirements for human research participants, animal subjects, or human organs or tissue used in research, or for the protection of the environment;
 - breach of duty of care for humans involved in research whether deliberately, recklessly or by gross negligence, including failure to obtain appropriate informed consent;
 - misuse of personal data, including inappropriate disclosures of the identity of research participants and other breaches of confidentiality;
 - improper conduct in peer review of research proposals, results or manuscripts submitted for publication. This includes failure to disclose conflicts of interest; inadequate disclosure of clearly limited competence; misappropriation of the content of material; and breach of confidentiality or abuse of material provided in confidence for the purposes of peer review.

v. misrepresentation of:

- data, including suppression of relevant results/data or knowingly, recklessly or by gross negligence presenting a flawed interpretation of data;
- involvement, including inappropriate claims to authorship or attribution of work and denial of authorship/attribution to persons who have made an appropriate contribution;
- interests, including failure to declare competing interests of Researchers or funders of a study;
- qualifications, experience and/or credentials;

- publication history, through undisclosed duplication of publication, including undisclosed duplicate submission of manuscripts for publication;
- risk, including to research participants, Researchers and funders of a study, or of reputational damage to the University or other sponsoring organisation.
- vi. improper dealing with allegations of misconduct: failing to address possible infringements, such as attempts to cover up misconduct and reprisals against whistle-blowers, or failing to adhere appropriately to agreed procedures in the investigation of alleged research misconduct accepted as a condition of funding. Improper dealing with allegations of misconduct includes the inappropriate censoring of parties through the use of legal instruments, such as non-disclosure agreements.
 Honest errors and differences in, for example, research methodology or interpretations do not constitute research misconduct.
- 7.1.3. The University takes a proportionate approach to research misconduct and recognises that, even when the expected standards of rigour and integrity are understood, honest mistakes can occur. The preferred approach to dealing with such mistakes, made unintentionally, unknowingly and without the intention of causing harm, is through tailored training and/or mentoring, as appropriate.
- 7.1.4. In order to promote best practice in research and enhance research culture within the University and beyond, Researchers are encouraged to identify and challenge detrimental research practices even if they are considered a disciplinary norm and do not constitute research misconduct. As well as directly shaping research practice, this allows for improved guidance, training, and support to be put in place through the effective sharing of lessons learned.

7.2. Allegations of research misconduct

- 7.2.1. Any allegation of research misconduct involving a Researcher at the University is treated as a serious matter and is investigated according to the processes outlined in subsequent clauses.
- 7.2.2. Allegations of research misconduct concerning registered University students will be considered under the terms of the University's <u>Student Discipline Procedure: Academic Misconduct</u>.
- 7.2.3. Allegations of research misconduct concerning University staff will be investigated according to the process described in **Annex B** of this Code.
- 7.2.4. Allegations of research misconduct concerning any individual with visiting, honorary or emeritus status at the University should be addressed in writing to the relevant Dean who will undertake an initial assessment of the allegations, confidentially undertaking informal enquiries as necessary to clarify the nature of the allegations. The Dean may delegate the undertaking of informal enquiries, ensuring that such input avoids conflicts of interest and provides an appropriate level of expertise in the scientific area. As those with visiting, honorary or emeritus status are not University employees, workers or registered students, the process for any further investigation required and for determining subsequent actions will be determined on a case-by-case basis by the relevant Dean.
- 7.2.5. The University also has a <u>Public Interest Disclosure Policy</u> which can be invoked in certain circumstances and under which an investigation may be carried out to determine if any impropriety or breach of University regulations has occurred.

Annex A: Relevant Policies, Guidelines and Concordats

Document	Owner	Relevance
Concordats and agre	ements	
Concordat to Support Research Integrity	Universities UK	This concordat provides a national framework for good research practice and governance. As a member of Universities UK, the University is committed to the principles outlined in this document (and listed in 1.1.1).
Concordat to Support the Career Development of Researchers	Universities UK	This concordat is an agreement to improve the employment and support for Researchers and Researcher careers in higher education in the UK. This includes a commitment to recognising and valuing the contributions of all. As a signatory to this concordat, the University has made commitments to supporting the professional development of Researchers. In particular, the Strategic Objective to 'Champion and embed a positive Research Culture' is of relevance to this Code.
Concordat on Open Research Data	UKRI	This concordat seeks to ensure that the research data gathered and generated by members of the UK research community is made openly available for use by others wherever possible, made openly available for use by others in a manner consistent with relevant legal, ethical and regulatory frameworks and disciplinary norms, and with due regard to the costs involved. As a member of Universities UK, the University is committed to supporting Open Research.
<u>Concordat on</u> <u>Openness on Animal</u> <u>Research in the UK</u>	Understanding Animal Research	This concordat is a set of commitments for UK-based life science organisations to enhance their animal research communications. As a signatory, the University has committed to being open about the use of animals in research.
Concordat for Engaging the Public with Research	UKRI	The aim of the Concordat is to inspire Universities to embed support for activities which foster public engagement with their research in their strategies and to encourage Researchers to commit fully to public engagement activities as part of their professional development. In line with the Concordat to Support the Career Development of Researchers, it seeks to ensure that public engagement is recognised and valued. The University is a supporter of this Concordat and a signatory to the related Manifesto for Public Engagement.
Concordat for the Advancement of Knowledge Exchange in Higher Education	Universities UK	The knowledge exchange (KE) concordat seeks to improve KE within universities through the exchange of good practice, highlight the good practice that exists and act as a catalyst for collaboration between universities and with employers. As a signatory to this concordat, the University participated in a self-evaluation and developed an action plan to enhance KE practice.
Technician Commitment	The Gatsby Charitable Foundation	This commitment is a university and research institution initiative, supported by the Science Council. The Commitment aims to ensure visibility, recognition, career development and sustainability for technicians working in higher education and research, across all disciplines. As a signatory, the University has pledged to support its technical staff. For the purposes of the Code, no distinction is made between Researchers and Technicians as university staff engaging in research activities.
Guidance for Safeguarding in International	UK Collaborative on Development Research	This guidance was developed to protect everyone involved in the international development research chain, from research funders, planners and practitioners to local community members. It provides guidance to inform actions by all those involved in research processes to anticipate, mitigate and address potential and actual

	RESEARCH CODE OF PRACTICE: ANNEX A		
Development Research		harms in the funding, design, delivery and dissemination of research. The University conducts a significant level of international development research and the safeguarding of all involved must take priority in this.	
San Francisco Declaration on Research Assessment (DORA)	DORA	This declaration aims to improve the ways in which research outputs are evaluated by eliminating the use of journal-based metrics. As a signatory, the University recognises the need for the responsible use of metrics to assess research on its own merits and strives for transparency and inclusivity in its research evaluation.	
Leiden Manifesto on Research Metrics	Hicks, Wouters, Waltman, Rijcke & Rafols	Written by scientometricians and science policy analysts, the Leiden Manifesto sets out ten principles for the responsible use of quantitative indicators in research evaluation. The University agrees with these principles and seeks to align its research evaluation activities with this Manifesto.	
Agreement on Reforming Research Assessment	Coalition for Advancing Research Assessment (CoARA)	As outlined in its preamble, this Agreement 'sets a shared direction for changes in assessment practices for research, Researchers and research performing organisations, with the overarching goal to maximise the quality and impact of research. The Agreement includes the principles, commitments and timeframe for reforms and lays out the principles for a Coalition of organisations willing to work together in implementing the changes'.	
Legislation shaping	good research practice		
<u>Academic</u> <u>Technology Approval</u> <u>Scheme (ATAS)</u>	Foreign, Commonwealth & Development Officer, UK Government	The ATAS requires non-UK/EU/EEA nationals to gain permission to study certain topics at masters and doctoral level. Guidance for students on the ATAS is available <u>on the University webpage</u> . Since 21 May 2021, this scheme also applies to academic Researchers employed or visiting the university from certain countries to work in certain research areas. While a prospective employee requires an ATAS certificate to obtain a UK visa, visitors do not need this and the institution is obligated to check the certificate prior to starting research. Guidance for staff on whether an ATAS certificate is required and how to apply is available <u>on the UK Government Website</u> .	
Export Control	Export Control Joint Unit & Department for International Trade, UK Government	Statutory controls apply to the transfer, directly or indirectly, outside of the UK, of technology which is either linked to items in a consolidated list of strategic military and dual-use items ¹ or where there is reason to suspect that the recipient of the technology intends to use it for weapons of mass destruction (WMD) purposes, in combination with any one of the following conditions:	
		work not being carried out in the public domain;	
		 work being applied rather than basic research (basic research characterised as Technology Readiness Levels 1-3); 	
		 work being classed as one of high-risk STEM disciplines²; 	
		 recipient intends to use or send technology or information outside of the EU; and 	
		online research or other open source checks indicate the recipient is potentially involved in suspicious activity.	
		'Technology' includes assets such as equipment, information and know-how (i.e. the knowledge and skills required to be able to do something correctly) and 'export' includes transmission, e.g., by carrying a laptop or	

¹ See UK Government list of strategic military and dual-use items that require export authorisation

² aeronautical and space technology, applied chemistry, biochemistry and chemical engineering, applied physics, biotechnology, electrical and mechanical engineering, instrumentation and sensors, materials technology, nuclear technologies, production and process technology, telecommunications and information technology.

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		storage device overseas, or accessing networked resources in the UK from overseas. Indirect export may occur by transmission within the UK (e.g. via teaching or supervision) to a person associated with an overseas WMD programme.
National Security and Investment Act 2021	Department for Business, Energy & Industrial Strategy, UK Government	The NSI Act enables the Secretary of State to 'call-in' for review acquisitions of sensitive entities or the grant of right to use or control sensitive assets where there may be a potential for immediate or future harm to UK national security, including risks to governmental and defence assets (infrastructure, technologies and capabilities). Where call-ins result in a national security risk being present, sanctions for the Acquirer (entity and individual directors/management) include criminal and civil penalties as well as the voiding of the original transaction. As an example relevant to the University, the sale of a spinout to another party could be a reason for the University to make a voluntary notification to ensure that the transaction would not be later declared invalid. Should guidance be required on compliance with the Act please email <u>nsi-act@strath.ac.uk</u> in the first instance.
Animals (Scientific Procedures) Act (1986)	Home Office, UK Government	This Act regulates the use of protected animals in any experimental or other scientific procedure which may cause pain, suffering, distress or lasting harm to the animal. Protected animals under the Act are any living veterbrae other than man and any living cephalopod. At the heart of this act is the requirement to:
		only use animals in research when there are no alternatives
		use the minimum number of animals needed
		only cause the minimum necessary pain, suffering, distress or lasting harm to animals
		The regulated procedures covered by this Act are controlled using a triple licensing system enforced by the Home Office.
<u>Human Tissue Act</u> (2004) and the <u>Human Tissue</u> (Scotland) Act (2006)	Human Tissue Authority, Department of Health and Social Care, UK Government	The Human Tissue Act 2004 (HT Act) applies in its entirety in England, Wales and Northern Ireland; with Section 45 on consent and DNA analysis implemented UK wide (including Scotland). Section 45 of the HT Act applies to 'bodily material' from the living or from the deceased. This guidance also applies to RNA analysis when used to provide information about DNA for research.
		The Human Tissue (Scotland) Act 2006 sets out provisions for the removal, retention and use of 'organs, tissue and tissue samples' from the deceased, i.e. body parts or bodily fluids (including any derivative of skin) removed post mortem, and subsequently used for research.
<u>UK Policy</u> <u>Framework for</u> <u>Health and Social</u> <u>Care Research</u>	Health Research Authority (HRA), UK Government	This policy framework sets out principles of good practice in the management and conduct of health and social care research that take account of legal requirements and other standards. These principles protect and promote the interests of patients, service users and the public in health and social care research, by describing ethical conduct and proportionate, assurance-based management of health and social care research, so as to support and facilitate high-quality research in the UK that has the confidence of patients, service users and the public.
		This means having an approach to mitigating risks that gives at least the same consideration to the risks that arise if the research does not take place as to those that arise if it does, and the same consideration to their likelihood as to their impact. The risk appetite should favour the research taking place. The prevailing focus should be on the risks to the potential participants and the target population, not on the reputational risks.
Data protection legislation	Department for Science, Innovation and Technology	The legislation governs how organisations must process personal data, i.e. information relating to identified/identifiable living individuals. It is based around seven key principles, which organisations must adhere to when processing personal data.

<u>UK Access and</u> <u>Benefit Sharing</u> <u>Regulations (ABS)</u>	Department for Business, Energy & Industrial Strategy, Office for Product Safety & Standards & Department for Environment, Food & Rural Affairs, UK Government	This legislation relates to the <u>Nagoya Protocol</u> of the <u>Convention on Biological Diversity</u> which provides a framework to ensure the fair and equitable sharing of benefits arising out of the utilisation of genetic resources. To comply with the regulations, the University is required to seek, keep and transfer all relevant documentation to prove that projects are either a) conducted in compliance with UK ABS compliance measures (as required by Article 4(3) of the UK ABS Regulation), or b) out of scope. To be in scope, genetic resources will have been accessed on or after 12 October 2015 from a country that is party to the Nagoya Protocol and has access and benefit sharing (ABS) legislation (assuming that they are not already governed by a specialised international instrument).
Genetically modified organisms (contained use) regulations 2014	Health and Safety Executive, UK Government	 These regulations set out the containment measures and other controls that need to be considered when working with GMOs in contained facilities. The guidance covers the key requirements of: carrying out the risk assessment classifying the contained use work notifying to the competent authority applying the relevant control measures accident reporting
University policies a	nd guidance	
Guide to Good Research Practice	University of Strathclyde Research and Knowledge Exchange Committee (Author: RKES)	The Guide to Good Research Practice is designed to complement Research Code of Practice – with links to clauses in the Research Code of Practice provided for specific topics - but contains additional guidance and signposting to support as appropriate. This Guide to Good Research Practice is aimed at promoting best practice above and beyond the avoidance of research misconduct.
Code of Practice on Investigations Involving Human Beings	University of Strathclyde Senate (Author: University Ethics Committee)	Investigations involving human beings as participants are undertaken in the course of teaching and research. The University seeks to ensure that the conduct of all its staff and students carrying out such work, whether biological, psychological or sociological, conforms to standards set by professional bodies, and is known to do so. The guidelines within the Code of Practice describe the overall principles and procedures by which the University makes ethical judgements on teaching and research investigations that involve human beings as participants.
Code of Practice for Postgraduate Research Study	University of Strathclyde Senate (Author: Education Enhancement)	This Code recognises that research students make a vital contribution to the University's research culture and international reputation and that the University of Strathclyde is committed to providing the highest quality of provision and support for its postgraduate research students to assist in all stages of their career. This Code sets out the University's expectations for institution-wide standards relating to all its postgraduate research provision and outlines the responsibilities of all parties involved in this provision.
Research Data Management and Sharing Policy	University of Strathclyde Senate (Author: RKES & the Library)	The Research Data Management and Sharing Policy establishes a framework to facilitate consistent good practice in research data management. Key to this are enhanced requirements around data management planning to ensure the highest standards of data collection, organisation, storage, sharing and preservation. To this end, the policy requires that all staff and PGR student projects have a data management plan (DMP) – proportionate to the research being undertaken - in place prior to commencement and maintain it throughout the research lifecycle.

Institutional Rights Retention Policy	University of Strathclyde Senate (Author: RKES & the Library)	The Institutional Rights Retention Policy recognises that it is not necessary for an author to sign over their copyright or grant an exclusive licence to a publisher in order for their scholarly work to be published or disseminated. This policy sets out the steps authors should take to retain control over their published research to enable full Open Access.
Dignity and Respect Policy	University of Strathclyde Senate (Author: Human Resources)	This policy confirms the University's commitment to providing an environment in which all staff, students and visitors are treated with dignity and respect at all times and to providing an environment which is based on a sense of community and which is free from discrimination, harassment, bullying and victimisation. The policy demonstrates the University's compliance with the Equality Act 2010.
Equality, Diversity, and Inclusion Policy	University of Strathclyde Senate (Author: Access, Equality and Inclusion)	This policy outlines the principles that support the University to embed equality, diversity and inclusion across all areas of its work. It enables staff, students and other relevant parties to understand their rights and responsibilities and to assist the University in promoting equality of opportunity, diversity and preventing discrimination. The policy assists the University in carrying out the duties of the public sector equality duty in Scotland.
Code of Practice on Conflicts of Interest	University of Strathclyde Court (Author: Governance & Public Policy)	The purpose of this code is to provide guidance to employees of the University and those acting on behalf of the University, such as members of Court, who may find themselves in a situation that could give rise to a conflict of interest, whether actual or perceived, and the procedures to be followed for disclosing such information.
Health and Safety Policy	University of Strathclyde Court (Author: Safety, Health and Wellbeing)	This Policy sets out the roles and responsibilities for ensuring the health, safety and wellbeing of all University employees and those affected by its work, including students, visitors, members of the public, third parties and contractors. It applies to every aspect of the University's business, including all research and knowledge exchange, commercial and management activities.
Records Management Policy	University of Strathclyde Senate (Author: Information Governance Unit)	This policy provides a framework for the creation, management and disposition of records within the University of Strathclyde. Records are defined as: recorded information, in any form and regardless of media, created or received by the University, in the transaction of business or conduct of affairs and retained as evidence (for a set period) of such activities.
Intellectual Property & Commercialisation Policy	University of Strathclyde Senate (Author: Innovation & Industry Engagement)	This policy provides guidance on the early identification of University Intellectual Property (IP), sets out appropriate IP protection strategies and describes routes to commercialisation. The policy applies to all Employees and Postgraduate Research Students of the University.
Data Protection Policy	University of Strathclyde Senate (Author: Information Governance Unit	This policy sets out the University's commitment to comply with data protection legislation and describes the responsibilities of the University and those who process personal data on its behalf.
Research Publications Guidance	University of Strathclyde Research and Knowledge Exchange Committee (Author: Scholarly Publications and	This guidance formalises the University's institutional commitment to the effective management of research publications by its Researchers and seeks to ensure best practice is observed by Researchers when publishing.

	Research Data Team, Library)	
National and internat	ional policies and guide	lines related to research integrity
<u>UK Research</u> Integrity Office's Code of Practice for Research	UK Research Integrity Office	This code is designed to encourage good research practice and help prevent misconduct, in order to assist organisations and Researchers to conduct research of the highest quality. It provides general principles and standards for good practice in research, applicable to both individual Researchers and to organisations that carry out, fund, host or are otherwise involved in research. As a document of sector-wide significance, the principles and standards in this code have been used to inform the University's approach to Research Integrity.
UKRI Policy on the Governance of Good Research Practice	UKRI	Building on UKRI's commitments as a signatory to the Research Integrity Concordat, the policy sets out UKRI's approach to the establishment and maintenance of good research practice and specifies the Research Councils' expectations. As a key funder for the University, these expectations have been used to inform the University's approach to Research Integrity.
European Code of Conduct for Research Integrity	All European Academies (ALLEA)	Similar to the frameworks above, this code describes professional, legal and ethical responsibilities for Researchers and institutions to promote good research practice.
<u>The Declarations of</u> <u>Helsinki</u>	World Medical Association	This Declaration is a statement of ethical principles for medical research involving human subjects, including research on identifiable human material and data. This states that while the primary purpose of medical research is to generate new knowledge, this goal can never take precedence over the rights and interests of individual research subjects.



Procedure for the Investigation of Misconduct in Research

1. Introduction

- 1.1 This Procedure recognises that the investigation of allegations of research misconduct can involve complex issues and seeks to discharge the University of Strathclyde's responsibilities in a sensitive and fair manner. It outlines the procedure to be followed when allegations of misconduct in research are brought against a member of University staff in relation to research conducted under the auspices of the University.
- 1.2 The procedure for handling allegations of misconduct involving Postgraduate Research Students is laid out in the University's <u>Student Discipline Procedure: Academic Misconduct</u>.
- 1.3 Allegations of research misconduct concerning University staff should be reported in writing to the Associate Principal responsible for research who has designated responsibility as the 'Named Person' for ensuring that the University responds to and upholds <u>The Concordat to Support Research Integrity</u> (2019). The Named Person will act in accordance with this procedure.
- 1.4 Concerns regarding the conduct of research may be raised informally with the Named Person if the basis for making an allegation is unclear. The raising of a concern does not constitute an allegation of research misconduct. However, the Named Person may progress an informal concern to the Receipt of Allegations Stage if they consider that further consideration of the conduct in question is required.
- 2. Definition of 'research misconduct' (as outlined in the Research Code of Practice, clause 7.1)
- 2.1 In line with the <u>Research Integrity Concordat</u> definition, the University defines misconduct in research as *"behaviours or actions that fall short of the standards of ethics, research and scholarship required to ensure that the integrity of research is upheld"*. Responsibility for ensuring that no misconduct occurs rests primarily with individual Researchers.
- 2.2 Research misconduct can take many forms, including but not limited to:
 - i. **fabrication:** making up results, other outputs (for example, artefacts) or aspects of research, including documentation and participant consent, and presenting and/or recording them as if they were real.
 - ii. **falsification:** inappropriately manipulating and/or selecting research processes, materials, equipment, data, imagery and/or consents.
 - iii. **plagiarism:** using other people's ideas, intellectual property or work (written or otherwise) without acknowledgement or permission.
 - iv. failure to meet: legal, ethical and professional obligations, for example:
 - not observing legal, ethical and other requirements for human research participants, animal subjects, or human organs or tissue used in research, or for the protection of the environment;
 - breach of duty of care for humans involved in research whether deliberately, recklessly or by gross negligence, including failure to obtain appropriate informed consent;
 - misuse of personal data, including inappropriate disclosures of the identity of research participants and other breaches of confidentiality;

 improper conduct in peer review of research proposals, results or manuscripts submitted for publication. This includes failure to disclose conflicts of interest; inadequate disclosure of clearly limited competence; misappropriation of the content of material; and breach of confidentiality or abuse of material provided in confidence for the purposes of peer review.

v. misrepresentation of:

- data, including suppression of relevant results/data or knowingly, recklessly or by gross negligence presenting a flawed interpretation of data;
- involvement, including inappropriate claims to authorship or attribution of work and denial of authorship/attribution to persons who have made an appropriate contribution;
- interests, including failure to declare competing interests of Researchers or funders of a study;
- qualifications, experience and/or credentials;
- publication history, through undisclosed duplication of publication, including undisclosed duplicate submission of manuscripts for publication.
- vi. **improper dealing with allegations of misconduct:** failing to address possible infringements, such as attempts to cover up misconduct and reprisals against whistle-blowers, or failing to adhere appropriately to agreed procedures in the investigation of alleged research misconduct accepted as a condition of funding. Improper dealing with allegations of misconduct includes the inappropriate censoring of parties through the use of legal instruments, such as non-disclosure agreements.
- 2.3 Honest errors and differences in, for example, research methodology or interpretations do not constitute research misconduct.

3. Receipt of Allegations Stage

- 3.1 The purpose of the Receipt of Allegations Stage is to assess an allegation of research misconduct that has been received by the University, in order to determine the most appropriate process to investigate or otherwise address it. The primary aim is to determine whether the matter falls under the institutional procedure for investigating misconduct in research (in terms of both the matter raised and the individuals identified).
- 3.2 Allegations reported to the Named Person that are not considered to be serious in nature might be resolved by informal discussion, training and guidance, and/or arbitration and/or dispute resolution, without the requirement for a formal investigation. The Named Person may delegate this work to Faculty or Departmental level as appropriate.
- 3.3 On receipt of an allegation, the Named Person will consult with the Research Standards Advisory Group (RSAG) to come to a preliminary view on the following:
 - i. Whether the nature of the allegations are such that they could legitimately be considered as related to research misconduct as defined under the University's Research Code of Practice.
 - ii. Whether the allegations are of a frivolous, vexatious or malicious nature, or have been subject to earlier investigation through an alternative process (e.g. the Staff Grievance Procedure).
 - iii. Whether the allegations are relatively minor and can be dealt with through training and guidance.
 - iv. Whether an evidential basis exists for the allegations.
- 3.4 The Research Standards Advisory Group will comprise: The Named Person (or nominee); the Director of Research and Knowledge Exchange Services (or nominee); the Chief People Officer (or nominee); and The Executive Dean from the relevant Faculty (or nominee).

- 3.5 The RSAG may at this stage need to seek further documentary evidence from the relevant Faculty and/or Professional Services. The RSAG should advise the respondent that an allegation has been made and the nature of this allegation and invite the submission of any evidence that might provide further insight in the circumstances surrounding the allegation. They may, in exceptional circumstances, request an initial meeting with the complainant and/or respondent.
- 3.6 The RSAG may take the following actions at this stage:
 - i. Where the nature of the allegations is not considered to meet the definition of research misconduct, the RSAG may refer to an alternative process such as the Staff Grievance or Disciplinary procedures.
 - ii. Where the allegations are considered to be of a frivolous, vexatious or malicious nature or where there is no evidence to substantiate the claims, the RSAG may confirm to the complainant that the matter will not be investigated with reference to the relevant policy where appropriate.
 - iii. Where the nature of the allegations is considered to meet the definition of research misconduct and there is an evidential basis, RSAG will refer the matter to the Initial Investigation Stage below and appoint an Investigating Officer(s).
 - iv. For allegations that have any relation to UKRI, the Director of RKES will make arrangement to report the allegations to UKRI at the conclusion of the preliminary stage where the recommendation is to move to a Stage 1 investigation.
 - v. Where the allegation refers to an ongoing project with a different funder, then the Director of RKES should consider whether it is appropriate to inform them at this stage, or to wait until the outcome of the Full Investigation Stage.
- 3.7 Arrangements will be made to advise both the Complainant(s) and Respondent(s) of the next steps.

4. Initial Investigation stage

- 4.1 The purpose of the Initial Investigation Stage is to determine whether there is sufficient evidence of research misconduct to warrant a Full Investigation of the allegation or whether alternative action(s) should be taken.
- 4.2 The RSAG will appoint an Investigating Officer who will be supported in conducting the initial investigation by a member of the HR team. Exceptionally, in very serious and/or complex cases the RSAG may appoint a small panel to undertake the initial investigation.
- 4.3 The Investigating Officer (Initial Stage) should meet with complainant(s) and respondent(s) and review documentary evidence. Where appropriate the Investigation Team will meet with other relevant internal colleagues who may be able to input further evidence to the investigatory process and, exceptionally, external parties where relevant.
- 4.4 The Investigating Officer (Initial Stage) will draft a report of the findings from the investigation and may make the following recommendations to the Named Person at this stage:
 - i. On further investigation the nature of the allegations are not considered to meet the definition of research misconduct and the investigation should be referred to an alternative process such as the disciplinary process.
 - ii. On further investigation the allegations are considered to be of a frivolous, vexatious or malicious nature and the complainant may be investigated for potential misconduct.
 - iii. On further investigation, the allegations should be dismissed.
 - iv. On further investigation, the allegations should be upheld or upheld in part, but are of a sufficiently minor nature as could be addressed via education, training and supervision.

- v. An evidential basis for research misconduct has been found by the Investigating Officer(s) and it is recommended that the allegation is progressed to the Full Investigation Stage.
- 4.5 The Named Person will consider the findings of the Investigation Officer (Initial Stage) and determine the appropriateness of the recommendations made.

5. Full Investigation Stage

- 5.1 The purpose of the Full Investigation Stage is to review all the relevant evidence and: (a) conclude whether an allegation of misconduct in research is upheld in full, upheld in part or not upheld; and (b) make recommendations, for consideration by the appropriate University authorities, regarding any further action the RSAG deems necessary to: address any misconduct it may have found; correct the record of research, and/or address other matters uncovered during the course of its work.
- 5.2 Where the Investigating Officer (Initial Stage) has made a recommendation that there is sufficient evidence that research misconduct has taken place this should be referred to the RSAG for further consideration. The RSAG may at this stage choose to engage with internal or external discipline specialists to assist them in their deliberations.
- 5.3 During the Full Investigation Stage, RSAG will undertake the following activity:
 - i. A review of the evidence presented by the Investigating Officer (Initial Stage) and whether this is sufficient to come to a judgement on the case.
 - ii. Where the evidence is deemed insufficient or where there are additional points of clarification to be sought, the RSAG may choose to conduct further evidence gathering activity.
 - iii. The RSAG may choose to meet with the Complainant(s) and Respondent(s) at this stage or with additional witnesses.
- 5.4 The potential outcomes from the Full Investigation Stage are as follows:
 - i. The RSAG determines that research misconduct is not in evidence and the allegations are not upheld.
 - ii. The allegations are upheld in full or upheld in part and the RSAG determines what actions should be taken as a result of the Full Investigation Stage findings. This may include:
 - a. Referral to a disciplinary process
 - b. Further education, training or supervision.
 - iii. Findings of the Full Investigation Stage are circulated to all relevant parties including the Respondent(s) and Complainant(s)
 - iv. Where appropriate, UKRI or other external body, is advised of the outcome of the formal process and any corrective action taken (for example, raising concerns with relevant journals).

6. Timescales

- 6.1 The University will endeavour to undertake the Initial Investigation Stage within 3 weeks (or 15 working days) from receipt of an allegation and the Full Investigation Stage within three months (or 70 working days) from conclusion of the Initial Investigation Stage. Following completion of the Full Investigation Stage appeals will be accepted by the University when received within 21 days.
- 6.2 Where these timescales cannot be met it will be because greater speed would jeopardise the principles of the procedure and the University commits to proceeding as quickly as possible without compromising the quality of the investigation.