Code of Good Practice in Research

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Glossary of Terms

CRediT: CRediT (Contributor Roles Taxonomy) is a high-level classification, including 14 roles, that can be used to represent the roles typically played by contributors to research outputs. The roles describe each contributor's specific contribution to the scholarly output.

Data Management Plan (DMP): A formal statement describing how research data will be managed and documented throughout a research project and the terms regarding the subsequent deposit of the data with a data repository for long-term management and preservation.

Dual-use technologies: Dual-use technologies are non-military technologies that may be used for military or security purposes, including weapons of mass destruction (WMD).

Graduate School: Within a College, the Graduate School's function is to implement strategy, policy, and practice in relation to postgraduate researchers. It is led by the Dean of Graduate Studies.

Indigenous data sovereignty: Indigenous data sovereignty is the right of Indigenous peoples and nations to "govern the collection, ownership, and application of data about their peoples, lands, and resources."[1]

Intellectual property (IP): Intellectual property (IP) refers to original work (e.g., the results of a program of research) which can be treated as an asset or physical property. Intellectual property rights fall principally into five main areas: patents, trade secrets, copyright, trademark, design rights, but other forms of IP exist. Patents and trade secrets form the cornerstones of the modern knowledge economy. All forms of IP are covered by university policy.

Lead Investigator (Non-clinical research): See definition of "**Principal Investigator (PI) – Non-clinical research**".

Lead Investigator (Clinical research): See definition of "**Principal Investigator (PI) – Clinical research**".

Named Veterinary Surgeon (NVS): The Animals (Scientific Procedures) Act 1986 (as amended in 2012 to take account of the requirements of European Directive 2010/63/EU) requires that a NVS is identified on the Establishment Licence. The NVS is a designated veterinarian with expertise in relevant experimental animal medicine, charged with advisory duties in relation to the well-being and treatment of the animals. Exceptionally, a suitably qualified expert may be appointed where more appropriate.

[1] Source: Hummel, P. et al (2021) https://doi.org/10.1177/2053951720982012

Named Training and Competency Officer (NTCO): The Animals (Scientific Procedures) Act 1986 (as amended in 2012 to take account of the requirements of European Directive 2010/63/EU) requires that a NTCO is identified on the Establishment Licence. The NTCO is responsible for ensuring that staff are adequately educated, competent and continuously trained and that they are supervised until they have demonstrated the requisite competency.

Notifiable acquisition: A notifiable acquisition relates to the situation where a party is planning an acquisition of a qualifying entity in one of the 17 defined sensitive areas of the UK economy for which they may be legally required to get approval from the government before they can complete that acquisition (section 5.8).

Open access: Open access to research publications and data means that the results of research are freely available to be viewed and downloaded by anybody with an internet connection, anywhere in the world under conditions that enable them to be re-used and built upon.

Open research: Open research refers to practices that share research early and wide from different stages of the research process. This includes methods, materials, design and analysis, protocols, data, software, educational resources, reviews, and publication. It supports replication and transparency of research and allows different stakeholders to access and participate in the work.

ORCID: An ORCID (Open Researcher and Contributor ID) provides researchers with a unique ID which allows them to be uniquely identified and connected to their research activities so that their work is clearly identifiable from that of other researchers. A person's ORCID will follow them throughout their career and can be linked to their outputs, research funding and other research-related activities.

PGR: Postgraduate researcher (see definition of 'Postgraduate researcher (PGR)').

Postgraduate researcher (PGR): A postgraduate researcher is a student enrolled on a research degree at the university. Research degrees may be at Masters or Doctoral level. A "research degree" or a "higher Degree by Research" is any higher degree offered by the University of Glasgow involving a substantial research period and production of a thesis for examination.

Principal Investigator (PI) - Non-clinical research: The Principal Investigator (PI) is the person who is responsible for managing and directing the research and is the lead investigator for the research project. The Principal investigator is responsible for managing and developing the researchers with whom they are working.

Principal Investigator (PI) - Clinical research: For clinical research, a Principal investigator (PI) is defined as the individual responsible for the conduct of the research at a research site. The Principal investigator is responsible for managing and developing the researchers with whom they are working. There should be one PI for each research site. In the case of a single-site study, the chief investigator and the PI will normally be the same person. The chief investigator is the overall lead researcher for a research project. In addition to their responsibilities, if they are members of a research team, chief investigators are responsible for the overall conduct of a research project.[2]

Public disclosure: A public disclosure is any disclosure made without a Confidentiality Agreement (also known as a Non-Disclosure Agreement). Public disclosures can severely (often fatally) damage our ability to protect your innovation with appropriate IP, such as a patent. Such disclosures can take any form, from academic journal articles, conference posters, meetings with industry, and many other instances. Ideally you will discuss your innovation with the IP & Commercialisation Team before any public disclosure.

Research: This is broadly activity that involves the generation of new knowledge. There are a number of specific definitions of research. This is the one used in Chapter 2 of the Frascati Manual[3]:

> 'Research and experimental development (R&D) comprise creative and systematic work undertaken in order to increase the stock of knowledge – including knowledge of humankind, culture and society – and to devise new applications of available knowledge […]
>
> The term R&D covers three types of activity: basic research, applied research and experimental development. **Basic research** is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any particular application or use in view. **Applied research** is original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific, practical aim or objective. **Experimental development** is systematic work, drawing on knowledge gained from research and practical experience and producing additional knowledge, which is directed to producing new products or processes or to improving existing products or processes.'

Research data: Data that are used as primary sources to support technical or scientific enquiry, research, scholarship, or artistic activity, and that are used as evidence in the research process and/or are commonly accepted in the research community as necessary to validate research findings and results. All other digital and non-digital content have the potential of becoming research data. Research data may be experimental data, observational data, operational data, third party data, public sector data, monitoring data, processed data, or repurposed data.

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[2] Source: Roles and Responsibilities – Health Research Authority https://www.hra.nhs.uk/planning-and-improving-research/research-planning/roles-and-responsibilities/#chief

[3] Frascati Manual 2015, Guidelines for Collecting and Reporting Data on Research and Experimental Development. This publication can be downloaded from the OECD Website - https://www.oecd.org/sti/frascati-manual-2015-9789264239012-en.htm

Research Data Management: Data Management refers to the storage, access and preservation of data produced from a given investigation. Data management practices cover the entire lifecycle of the data, from planning the investigation to conducting it, and from backing up data as it is created and used to long term preservation of data deliverables after the research investigation has concluded. Specific activities and issues that fall within the category of data management include: File naming (the proper way to name computer files); data quality control and quality assurance; data access; data documentation (including levels of uncertainty); metadata creation and controlled vocabularies; data storage; data archiving and preservation; data sharing and reuse; data integrity; data security; data privacy; data rights; notebook protocols (lab or field).

Researchers: In this Code, the word 'Researchers' includes all staff, including technical staff and other support staff, students and those with honorary positions, who are involved in carrying out research at, or on behalf of, the University.

Research outputs: In addition to printed academic work, research outputs may include, but are not limited to: new materials, devices, images, artefacts, products and buildings; confidential or technical reports; intellectual property, whether in patents or other forms; performances, exhibits or events; protocols; study pre-registrations; and work published in non-print media.[4]

Retraction: In academic publishing, a retraction is the action by which a published paper in an academic journal is removed from the journal.

STEM subjects: Subjects in the areas of Science, Technology, Engineering and Mathematics.

Associated traditional knowledge (aTK): Traditional Knowledge held by an indigenous or local community that is relevant for the utilisation of genetic resources and that is as such described in the mutually agreed terms applying to the utilisation of genetic resources[5]

Translational funding: Translational funding, such as grants, can be used to bridge the gap in development between early-stage technology resulting from university research, and its commercialisation.

[4] Source: definition of output, para 217 of REF2021 Panel Criteria and Working Methods, https://archive.ref.ac.uk/publications-and-reports/guidance-on-submissions-201901/

[5] Source: UK Government Regulations on Nagoya Protocol, https://www.gov.uk/guidance/abs; definition via the self-assessment tool

1. INTRODUCTION

1.1. As a research-led institution, the University of Glasgow is committed to providing an environment that recognises and supports research that is conducted to the highest standards of academic rigour, to increase the quality of, and trust in, the research record. This **Code of Good Practice in Research** provides information and support available to ensure the University's research practice meets these standards. This Code applies to:

1.1.1. All individuals carrying out research for the University including, without limitation, all University employees, irrespective of whether their current place of work is on or outside University premises.

1.1.2. All visiting researchers of the University, irrespective of whether they are employed by the University, including persons with honorary positions conducting research within, or on behalf of, the University.

1.1.3. Matriculated postgraduate research (PGR) students.

1.1.4. Visiting PGR students undertaking research associated with the University.

1.1.5. Contractors engaged by the University who are conducting research within, or on behalf of, the University.

1.2. The University conducts its research in accordance with the Concordat to Support Research Integrity (2019)[6]. This Concordat sets out a framework for good research conduct and its governance in the UK; it is pertinent to all research disciplines and places an emphasis on the responsibilities and accountabilities of all research stakeholders.

1.3. The five core principles of the Concordat which should be considered in all aspects of research are:

1.3.1. **Honesty**, 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.

1.3.2. **Rigour** in line with prevailing disciplinary norms and standards; 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.

1.3.3. **Transparency and open communication** in declaring conflicts of interest; in the reporting of research data collection methods; in the analysis and interpretation of data; in making research findings widely available, which includes sharing negative results as appropriate; and in presenting the work to other researchers and to the general public.

[6] The Concordat to Support Research Integrity - https://www.universitiesuk.ac.uk/topics/research-and-innovation/concordat-support-research-integrity

1.3.4. **Care and respect** for all participants in and subjects of research, including humans, animals, the environment and cultural objects. Those engaged in research must also show care and respect for the stewardship of research and scholarship for future generations.

1.3.5. **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 concordat.

1.4. The Institutional Strategic Priorities for Research Culture 2020-2025 [7] which set out the University's action plan in respect to research culture detail five themes: Collegiality, Career development, Research recognition, Open research, and Research integrity. These research culture priorities are intertwined with the conduct set out in this Code; adhering to good research practice is part of creating a positive research culture.

1.5. In addition, the University's values should be incorporated into our research practice. Our values are:

1.5.1. **Ambition and Excellence** – pursuing excellence in all we do, building the infrastructure in support of these and providing encouragement and development for everybody in the organisation.

1.5.2. **Curiosity and Discovery** – embracing new thinking and innovation in a spirit of open-minded collaboration that positively impacts on ourselves, our University, our city, society and the world.

1.5.3. **Integrity and Truth** – doing the right thing, not the easy thing and doing everything with integrity or not at all. Trusting people to do what they are skilled to do and taking responsibility.

1.5.4. **An Inclusive Community** – Embracing diversity universally and putting people at the heart of everything we do, collaborating internally and externally in pursuit of our mission and uncompromising in achieving fairness and equity of opportunity for all.

1.6. The following sections details the implementation of the principles and priorities noted above, in compliance with the Concordat.

2. COMPLIANCE AND POLICIES

2.1. All staff and students should be familiar with the University policies and procedures that govern the research process. These policies are referred to throughout this Code and can also be accessed via the links provided in the footnotes or the list in section 11.

[7] Institutional Strategic Priorities for Research Culture 2020-2025 - https://www.gla.ac.uk/myglasgow/ris/researchculture/researchcultureactionplan/

2.2. In addition, the University expects researchers to observe the standards of practice set out in any relevant legislation and the guidelines published by funders and relevant professional bodies. The receipt of funding from external agencies requires the University to confirm compliance with their terms and conditions; it is therefore essential that all researchers are aware of their responsibility to observe these standards during their work.

2.3. Researchers should ensure that collaborators are also made aware of their obligations where relevant to the project.

3. RESPONSIBILITIES FOR GOOD RESEARCH PRACTICE

Responsibilities of Researchers

3.1. All individuals involved in research on behalf of the University have a responsibility to ensure they are familiar and compliant with the University's and their funders' policies, and they meet the expected standards of rigour and integrity relevant to their research. Postgraduate researchers must comply with the PGR Code of Practice[8] which details the roles and responsibilities of postgraduate researchers, their supervisors, and the Institution.

3.2. The Concordat to Support the Career Development of Researchers[9] emphasises that researchers should take a proactive role in their own personal development. Researchers must ensure that they undertake appropriate training to enable them to meet these requirements. As well as taking advantage of the range of training and development opportunities provided across the University, postgraduate researchers are required to attend workshops in core skills, including research integrity training and data management training as directed by their Graduate School.

Responsibilities of a Principal Investigator/Supervisors

3.3. Overall accountability for good research practice within a research area lies with the lead academic or Principal Investigator (PI) or research student's supervisor. These individuals should create a research environment of mutual co-operation, in which all members of a research area are encouraged to develop their skills and supported to reflect best practice in relation to ethical, legal and professional requirements.

3.4. PIs/Supervisors should ensure that every member of their research group is aware of the University's and their funders' policies and provide people in their charge with opportunities to undertake relevant training. The PGR Code of Practice details the roles and responsibilities of students and supervisors as well as those of the school and graduate school. Staff supervising postgraduate researchers are required to comply with the PGR Code of Practice and undertake training provided via an online Moodle course every five years. New supervisors should complete the course before supervising students.

[8] PGR Code of Practice - https://www.gla.ac.uk/research/ourresearchenvironment/prs/pgrcodeofpractice/
[9] The Concordat to Support the Career Development of Researchers - https://researcherdevelopmentconcordat.ac.uk/

Responsibilities of Senior Staff

3.5. Individuals in authority set the culture and tone within any organisation. It is the responsibility of the Principal, Vice Principals / Heads of College, Deans of Research, Heads of School and other staff to ensure that a climate is created which allows research to be conducted in accordance with good research practice.

3.6. Within each College nominated senior academic colleagues, and the Good Research Practice Champions and Advisers have a role in promoting good research practice and may investigate repeated errors or mistakes to determine what remedial action is required.

Conflicts of Interest

3.7. It is the responsibility of researchers, team leaders, Heads of School and other senior staff to identify and declare any conflicts of interest, whether of a legal, ethical, moral, financial, personal or other nature, so that it does not become a complicating or actionable issue. The University's Conflicts of Interest Policy[10] and Personal Relationship Policy [11] provides detailed guidance on this matter.

Sustainability

3.8. The University of Glasgow declared a climate emergency in 2019 and has since published an ambitious Climate Change Strategy[12] that commits us to being net zero for greenhouse gas for the next 10 years, in line with United Nations Environment Programme recommendations with what is required globally to prevent warming of greater than 1.5oC.

3.9. All parts of the research community should consider the wider environmental impact of their activities and should recognise the need for responsible resource consumption that supports a circular economy, the protection of the natural environment and the mitigation of greenhouse gas emissions. Staff should use the University of Glasgow Carbon Footprint Tool for Researchers to determine the carbon footprint of either a research project or group. The tool will help you explore pathways for reducing the overall environmental impact of your research activities. Laboratory- based staff should also participate in our Sustainable Laboratories Programme, which will help you understand the environmental impact of day-to-day laboratory operation and provide you with a framework for reducing these effects. Finally, all staff should comply with our Sustainable Business Travel Guidance[13] and ensure that all research-related travel is justifiable.

3.10. Further information and support is available by contacting the Centre for Sustainable Solutions.

[10] Conflict of Interest Policy - https://www.gla.ac.uk/research/strategy/ourpolicies/conflictsofinterest/

[11] Personal Relationships Policy - https://www.gla.ac.uk/myglasgow/humanresources/equalitydiversity/policy/prp/

[12] Climate Change Strategy - https://www.gla.ac.uk/myglasgow/sustainability/glasgowgreen/

[13] Sustainable Business Travel Guidance - https://www.gla.ac.uk/myglasgow/sustainability/travel/business/

4. SUBMISSION OF RESEARCH PROPOSALS

4.1. Principal/Lead Investigators must take all reasonable measures to ensure the accuracy and completeness of information that is contained in applications for funding. It is the Principal/Lead Investigator's responsibility to ensure that the planned research is robust and properly financed. All Data Protection Act 2018[14] and General Data Protection Regulations (GDPR) compliance preparation must be undertaken prior to submission of applications. This includes (but is not limited to):

4.1.1. Familiarisation of all aspects of the above legislation and statutory requirements for the processing of personal data. This includes where Principal/Lead Investigators believe data to be anonymised.

4.1.2. Identify 'Lawful Basis' for processing personal data

4.1.3. Completion of Data Protection Impact Assessment

4.1.4. Where necessary, also the completion of:
- Privacy Notice
- Data Sharing Agreements

4.1.5. Consent forms for data subjects where 'consent' has been identified as the Lawful Basis for processing Personal Data and Special Category Personal Data

4.2. Data management plans and costs are often requirements for funding applications. Information on how to develop these can be found in section 7: Managing Research Data.

5. ETHICAL, REGULATORY AND COMPLIANCE ISSUES

5.1. All ethical and regulatory considerations must be considered before any research work commences.

Ethics: Non-clinical research

5.2. The University of Glasgow requires ethical review of all non-clinical research involving human subjects and human data[15] whether undertaken by University staff, students or by external researchers using University facilities or participants. College and School Ethics Committees exist within each College to look at all non-clinical research projects involving human subjects and/or personal data, on a mandatory basis. Ethical approval must be obtained before you can start any research project involving human participants, material or data (including social media data); researchers are responsible for contacting their local ethics committee to check if approval is required before commencing a project.

[14] Data Protection Act 2018 - https://www.legislation.gov.uk/ukpga/2018/12/contents/enacted

[15] Ethical Issues Arising from Non-Clinical Research with Human Subjects, Human Material or Data - https://www.gla.ac.uk/media/Media_228063_smxx.pdf

Ethics: Clinical research involving humans and human tissue

5.3. For any research that involves NHS staff, facilities, patients, samples, tissue or data, the approval of an appropriate NHS research ethics committee and or NHS Management approval must be gained before commencement. There is support available for research involving humans and human tissue. For information on the different roles involved in clinical research, planning and working with sites, and protocols please see the NHS Health Research Authority website.

5.4. If your research is clinical in nature, please contact the MVLS Research Regulation Compliance team.

Ethics: Research involving Animals

5.5. The University of Glasgow is a signatory of the Concordat on Openness on Animal Research in the UK[16] and is committed to openness and transparency about the research conducted using animals. There are currently two ethical review paths that must be followed if a researcher is planning a research project that involves working with animals. In advance of any plans to undertake research involving animals at the University, researchers must contact Biological Services for advice and support to determine which process will need to be followed.

5.6. **Home Office Licence**: If the research project has the potential to cause Pain, Suffering, Distress or Lasting Harm (PSDLH), there is a clear process in place for obtaining appropriate permissions and licences according to the Animals Scientific Procedures Act (1986). This is a three-tiered Home Office licensing system for the Institution (PEL), the Project (PPL) and the Person (PIL). All project licences are rigorously reviewed by the University of Glasgow Animal Welfare and Ethical Review Board for a Harm/Benefit analysis and assessment of the 3Rs (Replace, Reduce and Refine) prior to submission to the Home Office.

5.7. Following licence approval, a Glasgow Experimental Request Form must be completed and reviewed by the Named Veterinary Surgeon (NVS) and Named Training and Competency Officer (NTCO) in advance of any experiments starting, to ensure that all steps are covered by the PPL and performed by trained and competent staff. The process for obtaining the appropriate licences from the Home Office can take a significant amount of time (approximately 6-9 months), so it is important to factor this into any research plans.

5.8. **Ethical approval for other animal research projects**: If the research project is not expected to cause PSDLH, and does not require a Home Office licence, ethical review is still required to consider the use of animals for a specific scientific project. An application form must be submitted to the School Ethical and Welfare Committee (for review prior to any study commencing (this includes student projects) in order to gain ethical approval for the use of animals. Further information on the School of Biodiversity, One Health & Veterinary Medicine ethical approval is available.

[16] Concordat on Openness on Animal Research in the UK - https://concordatopenness.org.uk/

Safeguarding

5.9. Safeguarding is also known as 'preventing harm'. Researchers who come into contact with children and vulnerable adults during the course of their research have a safeguarding responsibility for those people, and they must follow the University's Policy for the Safeguarding and Protection of Children, Young People and Vulnerable Adults[17] and undertake the necessary training.

5.10. The University has a safeguarding researchers policy Preventing Harm (Safeguarding) Researchers in Research and Innovation Activities: Responsibilities of Key Stakeholders.[18] This policy is for staff and students carrying out fieldwork who may be at risk of harm, due to the physical environment but also the emotionally demanding nature of fieldwork itself or of some types of research (e.g. in relation to trauma). It is also noted that some research environments may have power imbalances or poor working cultures, which may also lead to harm to researchers, including abuse, bullying, harassment and sexual misconduct. This policy includes information on the roles and responsibilities for researchers (staff or students), line managers or supervisors, Schools and the Institution. It is primarily the job of the Supervisor or line manager to ensure that a comprehensive risk assessment and mitigation plan is in place for non-desk based research, and to understand the level of experience of the individual undertaking fieldwork, and what support is required. However, if they do not have the right experience or knowledge, they must support their student or staff member to identify and access support or training from other sources, while continuing to be approachable, respectful and supportive as the risk assessment and planning process evolve. In the case of PGR fieldwork, PGRs are considered to be partners in the risk assessment process.It is primarily the job of the Supervisor or line manager to ensure that a comprehensive risk assessment and mitigation plan is in place for non-desk based research, and to understand the level of experience of the individual undertaking fieldwork, and what support is required. However, if they do not have the right experience or knowledge, they must support their student or staff member to identify and access support or training from other sources, while continuing to be approachable, respectful and supportive as the risk assessment and planning process evolve. In the case of PGR fieldwork, PGRs are considered to be partners in the risk assessment process.

Material Transfer Arrangements

5.11. MTAs are contracts that govern the transfer of materials from a provider to a recipient who intends to use those materials for their own research purposes (i.e., non-commercial use). This could be from academia to industry or another institute and vice versa. This agreement typically covers biological materials such as reagents, cell lines and plasmids but can also be used for chemical compounds and software, or anything else with scientific or commercial value. All of which come under the term 'materials.'

5.12. Additional purposes of an MTA are to:

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[17] Policy for the Safeguarding and Protection of Children, Young People and Vulnerable Adults - https://www.gla.ac.uk/myglasgow/apg/policies/studentsupport/safeguardingpolicy/

[18] Preventing Harm (Safeguarding) Researchers in Research and Innovation Activities: Responsibilities of Key Stakeholders - https://www.gla.ac.uk/research/strategy/ourpolicies/safeguardinginresearch/

5.12.1. Define and negotiate the ownership rights of any resulting intellectual property (IP), inventorship, publications and confidentiality;

5.12.2. Provide information regarding which party owns the original material;

5.12.3. Disclose each party's access to outputs from the agreement;

5.12.4. Put the requirements in place for what happens to a material at the end of the agreement;

5.12.5. Specify any risks involved and identify any legal provisions.

5.13. For additional information, please see this MTA guidance or contact the Contracts Team.

Trusted Research Agenda and International Partnerships

5.14. Trusted Research is a cross-government and research and innovation sector term that aims to protect UK research and IP from security-related risks. It is particularly relevant to researchers in STEM subjects, dual-use technologies, emerging technologies, and commercially sensitive research areas. Internationally collaborative research is vulnerable to misuse by organisations and institutions who operate in nations whose democratic and ethical values are different from our own. It allows those organisations and institutions to work with experts in a field of cutting-edge research and innovation, and obtain the resulting output of that work, without having to steal it (e.g., through cyber espionage).

5.15. There are serious financial, reputational and research integrity risks to engaging with the wrong collaborator. Therefore, it is important that the appropriate due diligence is conducted on any international partnerships (formal or informal) that you may have. These checks may result in you being able to proceed as you normally would, having to apply for export control licences (section 5.16), declaring to the government your acquisitions (section 5.20), or you may not be able to continue with the partnership.

Export Control and Sanctions

5.16. UK export control legislation refers to a set of legal restrictions on the transfer of certain goods, equipment, materials, software and technology from the UK to a destination or destinations outside the UK with the aim of protecting national security and preventing conflict, human rights abuse, weapons of mass destruction (WMD) proliferation and terrorism. Other reasons for controls include foreign policy and international treaty commitments (e.g., trade sanctions or arms embargoes).

5.17. Export control regulations apply to both the transfer of physical items and the transfer of information (including software, data, designs, knowledge or knowhow) whether this be physically, electronically or verbally. Export controls may apply due to partner restrictions rather than the export type, so it is important to check if restrictions apply due to either of these.

5.18. The University understands the importance of export control compliance and takes its responsibilities in respect of export control very seriously and has an Export Control

and Sanctions Policy and Compliance Procedure.[19] The University is committed to ensuring its people comply with applicable national and international export control and sanctions legislation, regulations and procedures. The expectation is that all researchers are aware of the risks and mitigations around export control regulations, and of their personal responsibilities.

5.19. Some countries have sanctions against them. In the UK, failure to comply with export control and sanctions legislation is a criminal offence. The legislation for export controls and sanctions is constantly evolving. If you suspect export controls may apply to your research or commercialisation work, please contact the Research Governance and Integrity Team.

National Security and Investment Act

5.20. The National Security and Investment Act (NSI Act) allows the government to scrutinise and intervene in certain acquisitions made by anyone that could harm the UK's national security.

5.21. Subject to certain criteria, since November 2020 a party is legally required to tell the government about acquisitions of certain entities in 17 sensitive areas of the economy (called 'notifiable acquisitions'). If an entity they are acquiring performs a certain activity, it could put them in scope of the NSI Act and they may be legally required to tell the government about it (known as a 'mandatory notification'). Higher Education Institutions and other research organisations work within many of these sensitive areas.[20]

5.22. To determine if the NSI Act applies to your work, the control, acquirer, and target (subject) risk must be considered. If you suspect the NSI Act applies to your research or commercialisation work, please contact the Research Governance and Integrity Team.

Nagoya Protocol

5.23. The Nagoya Protocol requires all research and development projects involving genetic resources and/or traditional knowledge (TK) (as defined by the Protocol) to exercise due diligence to demonstrate that the resources and/or traditional knowledge are accessed and utilised in accordance with the legislation of the source country.

5.24. All recipients of research funding involving the utilisation of genetic resources and TK must submit a due diligence declaration. The declaration must be made after the first tranche of funding is received and all genetic resources and TK obtained, and prior to the submission of the final report or project end.

5.25. If you believe your research is covered by the Nagoya Protocol, please contact the

[19] Export Control and Sanctions Policy and Compliance Procedure - https://www.gla.ac.uk/media/Media_845299_smxx.pdf

[20] National Security and Investment Act: Guidance for the higher education and research-intensive sectors - https://www.gov.uk/government/publications/national-security-and-investment-act-guidance-for-the-higher-education-and-research-intensive-sectors/national-security-and-investment-act-guidance-for-the-higher-education-and-research-intensive-sectors

Research Governance and Integrity Team.

Academic Technology Approval Scheme (ATAS)

5.26. The Academic Technology Approval Scheme (ATAS) is a scheme operated by the Foreign, Commonwealth and Development Office (FCDO). It requires certain individuals subject to immigration control to apply for and obtain an ATAS certificate before being able to study or research certain sensitive subjects. According to the FCDO, these are subjects and research areas where knowledge could be used in programmes to develop Advanced Conventional Military Technology (ACMT), weapons of mass destruction (WMDs), or their means of delivery. All international students (including PGRs), and from 2021, researchers and non-sponsored visiting academic researchers (apart from exempt nationals) must apply for an ATAS visa before they can study or start research at the University in these sensitive subject areas.

5.27. If you require further information on the ATAS scheme for staff, please contact People and Organisational Development.

6. INTELLECTUAL PROPERTY AND COMMERCIALISATION

6.1. Researchers should be aware of, and seek university support to protect, any useful intellectual property (IP) arising from their work. Prior to publication or public disclosure[21] consideration should be given to the novelty and inventiveness of the results so that any intellectual property can be evaluated for protection by the filing of a patent application. Once published or publicly disclosed, results may have restricted or minimal potential for patent filing or other forms of intellectual property protection.

6.2. For many fields, the protection of results via a patent filing plays an important role in securing translational funding and the generation of impact beyond academia via licensing to an existing business or through the creation of a spin-out venture. The University wishes to encourage the development and exploitation of its IP rights, through whichever means is most appropriate, to the benefit of the University, its staff and as part of its contribution to society.

6.3. Researchers, including students and their supervisors, should be aware of the University's Policy for Intellectual Property and Rewarding Participation in Commercialisation,[22] updated in December 2021, which includes details of employee intellectual property ownership, internal support available for commercialisation, employee revenue sharing from licensing income and the founding equity, available to employees in spin-out ventures created. Researchers must also pay close attention to any external grant funders' terms and conditions as these can constrain some IP-related activities.

[21] See definition of "Public disclosure" in the Glossary of Terms on page 4

[22] Policy for Intellectual Property and Rewarding Participation in Commercialisation - https://www.gla.ac.uk/research/strategy/ourpolicies/ipandcommercialisation/

7. MANAGEMENT OF RESEARCH DATA

Research Data

7.1. Publicly funded research data are produced in the public interest and should be made openly available with as few restrictions as possible in a timely and responsible manner that does not harm intellectual property. There are increasing pressures to make research data openly available to validate research results, to increase impact, and to facilitate re-use to create new knowledge. The University follows an 'open as possible but closed as necessary' principle on research data and similar outputs.

7.2. Research data should be interpreted as any material (digital or physical) required to underpin research. For different disciplines this may include raw data captured from instruments or collection systems, derived data, documents, spreadsheets and databases, research notebooks, visualisations, models, software, images, measurements, and numbers.

7.3. Researchers must familiarise themselves with relevant funder data policies and expectations, and their published results should always include sufficient metadata (information about the data) to put the data into context to ensure others can discover it and if permissible re-use it. Guidance on generating metadata is available from the Research Data Management (RDM) Service.

Managing Research Data

7.4. Researchers should work with RDM Service to undertake sound research data management and to identify research data outputs that must be retained to enable validation and possible reuse (e.g., data that underpin a publication or thesis, or that will form the basis of a future funding application. A data management plan (DMP) must be prepared using DMPonline for all research projects that will generate, use or re-use data. Costs associated with good research management can be included in grant applications, and researchers should consult the RDM Service for guidance. Researchers should ensure that sufficient time and funding is in place to carry out research data archiving, and the RDM Service has information about costs for storage available to assist with your planning.

7.5. Researchers are required to keep clear and accurate records of the procedures followed and of the results obtained, including interim results. This is not only proper research practice but is also necessary in case questions are subsequently asked about the conduct of the research or the results obtained, and to comply with the funders' data access policy.

7.6. It is important to clearly state who owns the data that are being generated through research activity. Where this is not clear, researchers will work with Intellectual Property specialists in Research and Innovation Services and the Library, to verify data ownership as early as possible in the research data lifecycle.

Storing Data and its Future use

7.7. Data of long-term value must be securely held and accessible by the University fora period of ten years after the completion of a research project, or for longer if specified by the research funder or sponsor, regardless of (a) the ownership of any IP; (b) whether a student completes their studies; or (c) whether a staff member has left the University. In some cases, funders have a requirement that data must be available, for example, from 10 years from the last date of access, so researchers must check with their funder to ensure they comply with their terms and conditions. This policy aligns with the current need to retain laboratory books for 10 years after a project has ended.

7.8. When the 10 years retention is coming to an end, and there are no other contractual or funder obligations to retain the data for longer, the research supervisor or department must make a judgement of the data's value, as well as utilising various other metrics, for example the number of times the dataset has been downloaded, accessed, or cited in other publications, to assess whether the data should be kept for longer.

7.9. The University is committed to ensuring that data derived from publicly funded research is made available to other organisations and individuals. The University expects researchers to deposit data in a trusted repository prior to publication for long-term safekeeping and, subject to any restrictions by the funder or due to legal, ethical or commercial sensitivity, make the data openly available. IT services can provide guidance on storing data during a research project in accordance with funder requirements, and advice on secure storage of data after a research project has ended. Sensitive data must be properly managed, as per the University of Glasgow Data Protection Policy[23] and Confidential Data Policy.[24]

7.10. Data retained outside of the University, for example in a disciplinary data service, must also be recorded with Enlighten: Research Data to facilitate discovery of the dataset via the University web pages and bulk uploading of research outputs to reporting systems. Researchers must notify the RDM Service when they deposit data in an external repository.

8. PUBLISHING RESEARCH

Expectations Placed on Researchers

8.1. Researchers have an obligation to communicate their research findings; indeed, it is usually a condition of research funding that the results are published in an appropriate form. One of the best systems for communicating research results is for them to be peer-reviewed through the refereeing process and communicated to the research community for verification or replication.

[23] Data Protection Policy - https://www.gla.ac.uk/myglasgow/dpfoioffice/policiesandprocedures/dpa-policy/#d.en.37470

[24] Confidential Data Policy - https://www.gla.ac.uk/myglasgow/it/informationsecurity/confidentialdata/

8.2. Publishing authors must authorise publication of results and the inclusion of a data statement. Authorisation should cover both the content of the paper — integrity of results, adequacy of internal peer review, appropriate authorship — and the intended place of publication. Prior to publication or public disclosure[25] consideration should be given to the novelty and inventiveness of the results so that any intellectual property with economic impact potential can be evaluated for protection by the filing of a patent application. Once published or publicly disclosed, the results may have restricted or minimal potential for patent protection. A data statement must be included in all published work, including theses, in the interests of supporting the reproducibility and transparency of research.

Authorship

8.3. Clarity on what constitutes authorship is important in the context of good research practice, and it is important to define the roles of authors and contributors. The University expects authorship credit to be based on[26]:

8.3.1. Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND

8.3.2. Drafting the work or revising it critically for important intellectual content; AND

8.3.3. Final approval of the version to be published; AND

8.3.4. 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.

8.4. 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. Authors ought also to have confidence in the integrity of the contributions of their co-authors.

8.5. The University expects that a CRediT (Contributor Roles Taxonomy) statement is included in a research publication wherever possible. All co-authors should review and confirm the roles and this information should be provided to the publisher. The practice of granting honorary authorship or acknowledgment is not acceptable. Conversely, all individuals who make a substantial contribution to a paper must be listed on the publication. Contributions to the work that do not qualify for authorship must be acknowledged formally. Financial support from funders and sponsors that has directly supported the research must also be acknowledged; conversely, funders should not be named if they did not support the research, even if authors are recipients of funding for other projects. Authors are responsible for obtaining written permission from persons acknowledged by name.

8.6. Authors should ensure good practice in authorship affiliation.

[25] See definition of "Public disclosure" in the Glossary of Terms on page 4

[26] Defining the Role of Authors and Contributors, International Committee of Medical Journal Editors https://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html

8.7. Authors should ensure that their affiliation to the University of Glasgow is accurately worded in the publication, using an address of the format below and a University of Glasgow email address. If publishers place constraints on the available space, the phrase "University of Glasgow" must be prioritised.

8.7.1. Dr A. N. Other, School of X, College of Y, University of Glasgow, Name.surname@glasgow.ac.uk

8.8. Participants of collaborative projects should agree at the outset on what to do if an authorship dispute arise. In the first instance, it is expected that an internal discussion would take place between the collaborators. If this fails to lead to a resolution, advice should be sought from a Good Research Practice Adviser or senior academic that is external to the project. The process should ensure that junior researchers feel able to raise any concerns in the knowledge that the issue will be treated as a dispute rather than as misconduct.

8.9. It is essential that authors are aware of the risks of copying ideas, data or text of others without permission or acknowledgement. In addition, self-plagiarism, the act of verbatim copying and reusing one's own research results in multiple publications, without attribution, is not acceptable. This policy is not intended to preclude the routine sharing of ideas or results, nor the advancement of knowledge based on appropriately referenced existing data or results. Staff should be guided by practice in their field and the terms of re-use of any data, text or results that they access.

8.10. Further guidance on authorship is available from the UK Research Integrity Office.

ORCID

8.11. All research colleagues should sign up to ORCID (Open Researcher and Contributor ID) to ensure that their work is recognised and not confused with work by others of the same name. ORCID identifiers are also increasingly being required by funders and publishers and ORCID support is available from the Library. Colleagues who have an ORCID must notify the Library of their ID to allow it to be added to their Enlighten (online publications repository) record.

Open Research

8.12. Open research refers to practices that share research early and widely from different stages of the research process. This includes methods, materials, design and analysis, protocols, data, software, educational resources, reviews, and publication. It supports replication and transparency of research and allows different stakeholders to access the work which increases its visibility.

8.13. The University strongly encourages the adoption of open research practices, particularly to enable reproducibility, where appropriate for the discipline.

8.14. Our funders are committed to open access publications and data. Certain major research funders have introduced open access policies which require grant-holders to make their research outputs open access upon publication and to be openly licenced under a Creative Commons attribution licence (CC BY)). Researchers should therefore consider the open access options offered by potential publishers of their research, and how these align with the open access requirements of funders and research assessment exercises. Staff are encouraged to make their research outputs

open access regardless of whether these result from funded research.

8.15. All researchers are required to comply with the Research Publications and Copyright Policy.

8.16. When submitting a manuscript[27] for publication, all authors are required to include the following text in the acknowledgement section of the manuscript and/or any cover letter/note accompanying the initial submission:

8.16.1. *For the purpose of open access, the author(s) has applied a Creative Commons Attribution (CC BY) licence to any Author Accepted Manuscript version arising from this submission.*

8.16.2. Alternative wording with the same intended outcome can be used instead, if required by the relevant funder.

8.17. The University requires all staff who are designated as the lead University of Glasgow author for journal articles or conference proceedings to notify the Library as soon as the article has been accepted for publication. If you have received a definitive notice of acceptance from the editor, please contact the Library; do not wait until the article is finalised and published online. The Library will then work with the author to ensure that the publication complies with the funder's requirements for Open Access.

8.18. The corresponding University of Glasgow author for journal articles or conference proceedings must also ensure that a data statement is included in articles, indicating the funder name(s), the funder's official award number, and how and on what terms any underlying data can be accessed.

8.19. Authors of monographs and book chapters should similarly consider routes to open access; the Library can advise. Furthermore, staff must ensure that publications other than journal articles or conference proceedings are recorded in Enlighten by informing the Library at the acceptance stage.

Choosing the Most Appropriate Publication Venue

8.20. Selecting the most appropriate journal or publisher to approach to publish research is complicated and depends on the subject area and the specific research topic. Mentors, line managers and colleagues from the relevant disciplinary area are best placed to offer expert advice. Researchers should consider publication ethics when selecting where to publish which includes assessing the journal's reputation and business model, their author rights, the scientific rigour of the articles they publish, the peer review process and how they handle integrity and misconduct issues.

Retraction and Corrections

8.21. Researchers have a responsibility to ensure that any inconsistencies or errors in their published material are rectified in a timely manner. If you suspect that there has been an error or a correction is required you should discuss with your co-authors or supervisors in the first instance. Subsequent action will be determined by the correction requirements, the error type, and the publisher policies. If the University receives information regarding allegations of fraudulent or manipulated data

[27] A manuscript is the written work that an author submits to a publisher, editor, or producer for publication.

published by a student or staff member it has an obligation to investigate and, if necessary, rectify the errors.

Evaluating Research and the Responsible Use of Metrics

8.22. The University is signatory to the Declaration on Research Assessment (DORA) and the Hong Kong Principles for Research Assessment and these commitments sit alongside the University's previous adoption of the Leiden Manifesto for Research Metrics in 2017. The University expects all internal research evaluations to align with these principles and those of the University's Statement on the Use of Quantitative Indicators in the Assessment of Research Quality.[28]

8.23. We encourage practices that combine quantitative with qualitative indicators: the role of the metric is to inform assessment within a broader context, and not to dictate. To inform the assessment of individual research outputs, article-level metrics are more appropriate than journal-level metrics, and consequently the University will not use a Journal Impact Factor as an indicator of research output quality. Although article-level citation counts can inform the peer-review assessment of research output quality, all such indicators will be normalised to account for both publication dates and sub-discipline variations. Such normalisation is possible within several publication databases for many hundreds of sub-disciplines.

Research Excellence Framework

8.24. The Research Excellence Framework (REF) is the current system for assessing research quality in UK higher education institutions (HEIs). Conducted jointly by the UK's four funding bodies for Higher Education, the REF informs the selective allocation of government funding for research and is one of the key measures by which our research is judged by our peers. The exercise if therefore of great financial and reputational importance by the University.

8.25. REF exercises take place once every 6–7 years to assess the research quality of institutions across all academic disciplines by evaluating three dimensions: research outputs, impact, and environment.

8.26. There are open access requirements for the REF and researchers should consider this when selecting a publication route.

9. DEVELOPING RESEARCHERS

9.1. The University of Glasgow is a signatory to the Concordat to Support the Career Development of Researchers.[29] Researchers are entitled to structured support, encouragement and time to engage in a minimum of 10 days professional development pro rata per year, recognising that researchers will pursue careers across a wide range of employment sectors. The Concordat recognises that career development for staff conducting research is a shared responsibility between

[28] Statement on the Use of Quantitative Indicators in the Assessment of Research Quality - https://www.gla.ac.uk/media/Media_817785_smxx.pdf

[29] The Concordat to Support the Career Development of Researchers - https://researcherdevelopmentconcordat.ac.uk/

Researchers, their Managers, the Institution, and the Funders. There are many opportunities for development for research students, staff and supervisors.

9.2. The University aims to support all postgraduate researchers in developing a broad set of skills during their research degree studies to enhance their personal, professional and career development. The University of Glasgow PGR development approach also recognises that Doctoral Education is a shared endeavour, with responsibilities across Supervisors, Graduate Schools, the Researcher Development Team, the Funders, and wider community. The PGR Code of Practice[30] provides more details on training and development for postgraduate researchers.

10. POOR RESEARCH PRACTICE AND RESEARCH MISCONDUCT

10.1. The University strives to embed a culture of research integrity in both its staff and students and is committed to supporting a research environment that is underpinned by a culture of integrity and based on good governance, best practice and support for the development of researchers. The University's Code of Policy and Procedures for Investigating Allegations of Misconduct in Research is compliant with the principles outlined by the UK Research Integrity Office and sets out a process to enable all allegations to be investigated thoroughly, fairly and expeditiously and with care and sensitivity.

10.2. Any member of the University who has concerns about a research conduct issue or might be considering making an allegation of research misconduct should in the first instance seek advice from a Good Research Practice Adviser. Good Research Practice Advisers will, following consultation with a College Good Research Practice Champion, undertake a preliminary assessment of the concerns and advise the individual on how best to proceed in accordance with the procedures described in the Code of Policy and Procedures for Investigating Allegations of Misconduct in Research[31] An attempt should initially be made to resolve the issue informally.

10.3. In the event that the outcome of this approach is not satisfactory or if such an approach is believed to be inappropriate, a formal allegation must be made to the College Good Research Practice Champion, who will notify the Clerk of Academic Policy & Governance of the allegation as soon as possible.

10.4. If, for any reason, the individual believes that it is inappropriate for the allegation to be made to the relevant Good Research Practice Adviser or Good Research Practice Champion, a formal allegation can be made directly to the Clerk of Academic Policy & Governance using the contact details below:

10.4.1. Clerk of Academic Policy & Governance, Academic Policy & Governance Office, Gilbert Scott Building, University of Glasgow, G12 8QQ, UK. Email: research-integrity@glasgow.ac.uk

10.5. It is important to recognise that genuine errors do occur and can, in general, be managed effectively at source. Each College has nominated senior academic colleagues who have a role in promoting good research practice and may investigate repeated errors or mistakes to determine what remedial action is required. Staff and

[30] PGR Code of Practice - https://www.gla.ac.uk/research/ourresearchenvironment/prs/pgrcodeofpractice/

[31] Code of Policy and Procedures for Investigating Allegations of Misconduct in Research - https://www.gla.ac.uk/media/Media_440230_smxx.pdf

students will receive training and mentoring as required should this be deemed necessary.

10.6. In some instances, repeated poor research practice may be referred to the Clerk of Academic Policy & Governance.

11. FURTHER ADVICE AND RESOURCES

There is a wealth of advice and support available to staff and students in relation to the topics covered in this Code:

Find guidance for postgraduate researchers

Find information on research integrity including misconduct

Research governance and compliance: see how the University can support you with working with humans and human tissue, ethics, and export controls

See how the University can support you with commercialisation and IP

Find information on open access publishing

Find information and request support for management of research data

Find information on our Research Culture Activities

Find out about the University's Researcher Development Framework

If you cannot find what you are looking for, please email Research Services and your query will be directed to the appropriate team.

12. RELEVANT UNIVERSITY POLICIES AND SECTOR CONCORDATS

The Concordat to Support Research Integrity

The Concordat to Support the Career Development of Researchers

PGR Code of Practice

Conflicts of Interest Policy

Personal Relationships Policy

Policy for the Safeguarding and Protection of Children, Young People and Vulnerable Adults

Preventing Harm (Safeguarding) Researchers in Research and Innovation Activities: Responsibilities of Key Stakeholders

Ethical Issues Arising from Non-Clinical Research with Human Subjects, Human Material or Data

Export Control and Sanctions Policy and Compliance Procedure

Policy for Intellectual Property and Rewarding Participation in Commercialisation

Data Protection Policy

Data Protection Act 2018

Concordat on Openness on Animal Research in the UK

Confidential Data Policy

Statement on the Use of Quantitative Indicators in the Assessment of Research Quality

Institutional Strategic Priorities for Research Culture 2020-2025

Code of Policy and Procedures for Investigating Allegations of Misconduct in Research

13. ACKNOWLEDGEMENTS AND HISTORY

13.1. These principles and guidelines were first established in 2006 and were written in line with the 2006- 2010 University Strategy. The MRC Principles and Guidelines for Good Research Practice formed much of the initial code. It was most recently reviewed and updated in 2022 by a University of Glasgow working group. We are very grateful to all members of the group, and to all those who contributed at the consultation phase for both the initial Code and this current iteration. The principles and guidelines reflect the Concordat to Support Research Integrity (2019)[32], which is referred to extensively and was invaluable in developing these guidelines.

13.2. This document will be reviewed regularly but given the pace of change in some areas this guidance should be considered as a working document which will be updated as necessary. Please email Research Services if you think there need to be amendments or additions.

[32] The Concordat to Support Research Integrity - https://www.universitiesuk.ac.uk/topics/research-and-innovation/concordat-support-research-integrity

Version number	Reason for change	Date
3.0	Revised version: replaces the previous Version 2.6. Details of the changes are recorded in Appendix 1.	8 February 2023
3.1	Open Research: addition of new sections 8.15 and 8.16 and corresponding renumbering of subsequent sections.	8 June 2023
3.2	5.15: updated reference to other sections. 13.3: replaced with the version control tables.	8 August 2023
3.3	Updated web links (sections 4.1.4, 5.8, 5.10, 5.13, 7.9, 12.0)	12 February 2024
N/A	Updated the 'Date of next review' from Feb 2024 to Oct 2024.	26 April 2024
3.4	Renamed 'Research Integrity Champions / Advisers' to 'Good Research Practice Champions / Advisers'	29 January 2025

Appendix 1. Changes in Version 3.0 of the Code of Good Practice in Research

- This revised version of the Code of Good Practice in Research (Version 3.0) replaces the previous version of the Code (Version 2.6) which has been reordered for clarity and updated with additional information as follows:

- A **Glossary of Terms** has been introduced to provide definitions of specialist terminology used.

- Section update: **Introduction** (section 1) now includes the University values. Increased clarity on who the code applies to, taken from the Code of Policy and Procedures for Investigating Allegations of Misconduct in Research so they align.

- New section: **Responsibilities in Good Research Practice** (section 3) has been updated so the **Responsibilities of Researchers** (section 3.1) reflects the Concordat principles, and a **Sustainability** (section 3.5) is now included.

- Section update: **Ethical, Regulatory and Compliance Issues** (section 5) has been reordered and restructured for clarity and updated to include **safeguarding** (section 5.4). **Ethics: Research involving Animals** (section 5.3) has been expanded and updated. Section 5 has also been updated to reflect new regulatory and compliance requirements and increased focus on areas including **Material Transfer Agreements** (section 5.5), the **Trusted Research Agenda and International Partnerships** (section 5.6), **Export Controls** (section 5.7), **National Security and Investment Act** (section 5.8), the **Nagoya Protocol** (section 5.9), the **Academic Technology Approval Scheme** (ATAS; section 5.10).

- Section update: **Management of Research Data** (section 7) has been streamlined and reordered for clarity. Addition information has been included about storing data for future use.

- Section update: **Publishing Research** (section 8) has been streamlined to include requirements rather than advice; **Authorship** (section 8.2) has been streamlined for conciseness and the guidance for awarding authorship has been strengthened for clarity. A statement has been included regarding the expectation that the CRedIT (Contributor Roles Taxonomy) statement should be included in a research publication wherever possible. Additional information on **Evaluating Research and the Responsible Use of Metrics** has been included (section 8.6).

- New section: **Developing Researchers** (section 9) has been added to reflect concordat CPD allocations.

- New section: **Further Advice and Resources** (section 11) has been added to direct staff and students to the appropriate teams and webpages for advice.