



Research Integrity and Governance Code of Practice

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**Maintained by the Research Integrity, Governance and Ethics
Team (Research and Innovation Services)**

If you have queries about this Code of Practice, or Research Integrity and governance more generally, please contact the Research Integrity, Governance and Ethics team (resgov@cardiff.ac.uk). If you are a member of staff or student and your query relates to a discipline-specific matter or local practice, your School Research Integrity Lead or School Ethics Officer may be able to offer advice and assistance. Please refer to [Annex 1](#) for these local points of contact.

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Foreword

Our vision is to be a world-leading, research-excellent, educationally outstanding university, driven by creativity and curiosity, which fulfils its social, cultural and economic obligations to Cardiff, Wales, the UK, and the world ([The Way Forward, 2018-2023](#)).

In research, we wish to be amongst the best in generating new knowledge, tools and policies in partnership with industry, government and other major stakeholders, facilitated by a positive research culture. These research outcomes are a vital part of accelerating the contributions that we make to the health, wealth, security and well-being of future generations in Wales, in the UK and globally.

Research integrity, ethics and open research are a critical part of this vision, and as Pro Vice-Chancellor for Research, Innovation and Enterprise and Chair of the University's Open Research Integrity and Ethics Committee, I am committed to ensuring that we are seen as a leader in this area. Through our [Research Integrity Action Plan](#), we are working hard to further bolster the support we provide to researchers in this area and we are taking pro-active steps to foster an environment where good research practice is not only enabled but valued. Working with our diverse research community and talented colleagues, we are striving to achieve greater consistency in our approach to the ethical review of research projects and developing new initiatives, forums, and resources to support open research, a positive research culture and the highest standards of integrity.

Our approach to research integrity has been developed in alignment with our commitment and support of the [Concordat to Support Research Integrity](#) as well as the [UKRI Policy on the Governance of Good Research Practice](#). We have robust governance structures and arrangements to help support research integrity and we are a subscriber to the [UK Research Integrity Office](#) and an active member of the Russell Group Research Integrity Forum and [UK Reproducibility Network](#). Through these forums, and countless others, we are contributing towards sector-wide improvements and taking steps to bolster the integrity of UK research by sharing best practice and working collaboratively to influence policy makers and develop practical tools and resources.

This Research Integrity and Governance Code of Practice (Code of Practice) is our institutional framework for good research practice. It outlines our expectations and the related policies, procedures, guidance, and training resources we have developed, designed to help our staff and students deliver excellent research with integrity.

We expect all staff and students involved in research to be familiar with the Code of Practice, so please do take the time to read this document and visit the resources referenced within it. The Code of Practice is designed to help you develop a detailed understanding of best practice in research, supporting your development as a researcher or a research enabler.

By creating a research community united in our commitment to delivering the highest standards of academic achievement, we can ensure that Cardiff University remains a sector leader in research integrity.

Professor Roger Whitaker
Pro-Vice-Chancellor for Research, Innovation and Enterprise

1. Statement of Principle

1.1 Introduction

Research Integrity is another term for “good research practice”. It involves acting in a way that promotes trust and confidence in research and adhering to the legal, ethical and professional standards essential to the safe and responsible conduct of research.

The University expects all its staff and students to observe the highest standards of Research Integrity whenever they are involved in research activity and to help foster a culture of integrity and professionalism at all times. This Code of Practice is designed to promote good conduct throughout the research lifecycle and applies to all stages of a research project and all research disciplines. The University is committed to supporting its staff and students when they live up to the expectations of this Code of Practice and the [Concordat to Support Research Integrity](#) in difficult circumstances.

Breaches of this Code of Practice may be grounds for disciplinary action and/or may amount to research misconduct, depending on the nature and severity of the breach.

1.2 Scope of this Code of Practice

This Code of Practice applies to anyone conducting or supporting research under the auspices of the University. This includes, but is not limited to, all members of staff and students involved in research at the University, including staff and students conducting research outside the University but as part of their University role, as well as any persons not employed by the University but with permission to carry out research at the University (all referred to hereafter as ‘**Researchers**’).

1.3 The Objectives of Research

The primary objective of research is the deepening and broadening of knowledge and understanding by expert, responsible and professional means, including the dissemination of results through a range of tailored outputs appropriate for the targeted audience.

Research should also seek to meet the following additional objectives:

- i. The training of new Researchers in appropriate methods and professional standards;
- ii. The promotion of the interests and benefits of research;
- iii. The exploitation of results for the public good and the benefit of the University and its members of staff and students.

The University acknowledges that it may sometimes be difficult to determine whether a specific activity is “Research”, particularly in light of the abundance of definitions used across the sector and the way in which a specific activity is funded or labelled locally. Pending the development of University-level definitions and guidance in this area, Researchers should seek advice if they are unclear on whether a particular activity is “Research” and should note existing guidance on the categorisation of activity in receipt of knowledge exchange and innovation funding (see [Annex 1](#)).

1.4 Collegiality

The University is a diverse, interdisciplinary community of scholars and Researchers who are in many ways dependent upon each other. As an institution and as individuals it is important to support the notion of effective collegiality. Researchers must consider whether their activities are likely to impact other colleagues, research groups, Schools, Research Institutes, Colleges or the University as

a whole. Researchers need to be aware of the possible immediate and long-term implications of their proposed actions and aim to act in a collegiate manner at all times.

1.5 Excellence

The University expects all Researchers to strive for excellence when designing and conducting research and to produce and disseminate work of the highest quality. This Code of Practice is intended to support this goal.

1.6 Research Culture

The University is committed to promoting a research culture which is supportive, creative, collaborative, inclusive, open, transparent, and honest. The University expects all Researchers to embody these values in all of their activity, contributing towards a positive research culture which enables research to be conducted to the highest standards of integrity and enables Researchers to succeed and develop. A positive research culture is beneficial to everyone involved in research and can help improve the quality of research and attract and retain the most talented people.

Further information about the University's research culture commitments and priorities, including the "[Transforming Research Culture](#)" proposal aimed at addressing any systemic or structural issues impacting on the University's research population, is available on the intranet (see [Annex 1](#)).

1.7 Responsible Research Assessment

As a signatory of the [San Francisco Declaration on Research Assessment](#) (DORA), the University is committed to supporting and promoting the responsible use of metrics and quantitative indicators of research.

DORA commits us to assessing research in all its forms through a process of qualitative review rather than using proxy measures of quality, such as publication in journals with a high impact factor. Ensuring research outputs are assessed based on their own merit, avoiding use of journal-based metrics, helps ensure a transparent and fair consideration of research quality and researcher contributions at different career stages. It also confirms our commitment to recognising the diverse suite of research outputs when making funding, recruitment, and promotion decisions.

Further information, resources and contacts can be found on the intranet (see [Annex 1](#)).

2. Core Values and Behaviours

Reminder: This Code of Practice applies to everyone conducting or supporting research under the auspices of the University, including all members of staff and students involved in research. All such individuals are collectively referred to as "Researchers" throughout this document.

Research Integrity is underpinned by a set of core values which help to achieve and promote good research practice and maintain public trust and confidence in research. A commitment to these core values will help to ensure that Research Integrity is not purely a mechanical process but is embedded within everyday decision-making and reflection.

Researchers are expected to embody these core values and behaviours in all their academic endeavours. Upholding the highest standards of integrity is vital not only when conducting research, but also when designing and reporting on research and when conducting activity connected to the research lifecycle such as peer review, editorial functions, impact and engagement, knowledge-

exchange, innovation and consultancy. Peer review and editorial functions are addressed further at [3.17.4](#) and [3.17.5](#). Guidance and resources in the other areas referenced are contained in [Annex 1](#).

2.1 Honesty

A culture of honesty must be fostered in all areas of research activity.

Researchers must be honest in respect of their own actions and in their response to the actions of others. This includes honesty in the presentation of research goals, intentions and findings; in reporting on research methods and procedures; in gathering and analysing data; in using and acknowledging the work of others; in making valid interpretations and justifiable claims based on research findings and in disseminating research outputs. Researchers must not engage in nor conceal misconduct and have a responsibility to report potential misconduct appropriately ([see 3.18.1](#)).

2.2 Openness

Research methods, results and the data supporting those results should be open to scrutiny, discussion and debate. Subject to considerations such as confidentiality, security and protection of intellectual property rights, Researchers should be open with other Researchers and the public regarding their work and promote the open exchange of ideas and information. There should be transparent and open communication in declaring potential 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 or ‘null’ results to recognise their value as part of the research process; and in presenting work to other researchers and the public.

The University is committed to supporting its Researchers to adopt Open Research practices and has published an [Open Research Position Statement](#) summarising the key principles for the conduct and support of Open Research at Cardiff University.

The University is an Open Access University and a member of the [UK Reproducibility Network](#), the national peer-led consortium for advancing best practice in Open Research. The University supports the [Concordat on Open Research Data](#) and expects that all research outputs and data are made “*as open as possible, closed as necessary*” in accordance with FAIR data principles. Please refer to [3.4](#) and [3.17.1](#) for further information on the University’s requirements and expectations on Open Data and Open Access. Please also refer to [Annex 1](#) for further internal and external resources on Open Research and Reproducibility.

2.3 Rigour

Researchers must conduct their work according to the highest standards of rigour, in line with prevailing disciplinary norms and standards. This will help bolster the validity and reproducibility of research. Researchers must undertake appropriate training in order to conduct research to the required standards. Rigour must be applied in choosing research methods; in performing research; in adhering to agreed protocols when appropriate; in analysing research data; in drawing interpretations and conclusions from the research; in the verification of the results before publication; and in communicating the results.

2.4 Care and Respect

Care and respect must be extended to all participants and subjects of research, including humans, animals, the environment and cultural objects. Researchers must address any concerns relating to the dignity, rights, safety and well-being of all involved in research. Researchers must also show

care and respect for all members of the research team and supporting colleagues, for the stewardship of research, the integrity of the research record and scholarship for future generations.

Please note that staff and students at the University are expected to adhere to the University's broader behavioural expectations and to treat each other with respect, courtesy and consideration, as confirmed in the University's [Dignity at Work and Study Policy](#). Please refer to [Annex 1](#) for further resources relating to behaviour, dignity, and wellbeing.

Due care and attention must be paid to issues of equality and diversity throughout the research process (for further details of this and the requirements of the Equality Act 2010, see [3.6](#)).

2.5 Accountability and Responsibility

The primary responsibility for safeguarding the integrity of research lies with the individual Researcher. It is their responsibility to ensure that their work meets all relevant standards and the principles outlined in this Code of Practice and the [Concordat to Support Research Integrity](#). It is imperative that Researchers reflect on Research Integrity considerations at the design stage of a project to help ensure the research is conducted to the highest standards and to help anticipate any potential issues that might arise. Refer to [Annex 1](#) for a helpful "checklist for researchers" produced by the UK Research Integrity Office (UKRIO).

Researchers have a duty of accountability to society, to their profession, to the University and to the funders and publishers of research. This includes accepting full responsibility for the professionalism and integrity of all aspects of the design, conduct and publication of their research and the activities of any staff or students under their direction.

Researchers are responsible for taking steps to ensure the safety of those associated with the research, the financial management of the research project, and for seeking to provide optimum value for the public or private funds invested in the project. Researchers must comply with the University's policies and guidelines and any legal and policy requirements that regulate their field of research, especially the basic principles relating to ethics, data, finance and health and safety. The University has a range of policies, guidance, and resources to support Researchers in prudent financial management and in meeting health and safety requirements (refer to [Annex 1](#)).

Academic staff involved in research are expected to abide by the principles and expectations contained in the '[Cardiff Academic](#)'. Researchers who are members of a regulated profession are expected to follow the requirements and guidance of their profession.

Researchers must ensure that all work undertaken is consistent with any agreements, guidelines and/or terms and conditions related to the project and funding. This includes ensuring the work is carried out as defined in the original proposal; the finance is used solely for the purpose it was intended; reports are accurate; and adherence to any conditions regarding publication, data management and intellectual property. Failures in any of these respects, or instances of misconduct must be reported in line with the requirements of the project and of the University.

In addition to individual accountability and responsibility, the University has an institutional responsibility to embed a culture of Research Integrity and to have policies, systems, and structures that enable Researchers to achieve the highest standards of Research Integrity. This institutional responsibility, and many others, are contained in the Concordat to Support Research Integrity. The University has a range of tools, systems, and structures to meet its responsibilities under the Concordat and to support its Researchers to do the same, most of which are referenced in this Code of Practice. The University has a dedicated committee (the Open Research Integrity and Ethics Committee (ORIEC)) with specific strategic and oversight responsibilities in this area.

3. Standards for Research

Reminder: This Code of Practice applies to everyone conducting or supporting research under the auspices of the University, including all members of staff and students involved in research. All such individuals are collectively referred to as “Researchers” throughout this document.

3.1 Leadership and Supervision

It is University policy that Researchers receive adequate supervision. Researchers must familiarise themselves with the University’s supervision and oversight expectations, alongside those of their research group, School, Institute and/or College. It is normally expected that Researchers report to a Group Leader, Lead Investigator or, in the case of students, a Supervisor or Module Leader.

The lead/Supervisor of a research project is responsible for ensuring that all Researchers under their supervision/management have been apprised of their responsibilities under this Code of Practice and that they design, conduct and report research in line with its provisions. This includes ensuring that:

- i. research is designed and conducted in accordance with all relevant guidelines (including health and safety procedures), and approval obtained from all necessary bodies before the research commences (with any proposed amendments also being approved, where required);
- ii. a risk assessment of the planned project is undertaken to determine the potential risks to the organisation, the research, the safety and wellbeing of those involved in the research (e.g. participants and researchers), the environment and society more generally (e.g. security risks/a risk that the research results could be misused for harmful purposes);
- iii. the project complies with all relevant legal and ethical requirements, including ensuring the dignity, rights, welfare and safety of any research participants are maintained;
- iv. the Researcher has a thorough awareness of Equality, Diversity and Inclusion requirements and considerations and shares that knowledge with those under their leadership;
- v. research team members are qualified and experienced to fulfil their roles including ensuring that students and Researchers have adequate supervision, support and training and have undertaken appropriate checks where required, e.g. security/DBS checks;
- vi. procedures are in place to collect, store, manage and keep secure high-quality data and, subject to legal, ethical and commercial constraints, to make such data available on completion of the project. These procedures should be detailed in a data management plan;
- vii. reports on research progress/outcomes are produced on time and to an acceptable standard;
- viii. research results are disseminated promptly and fed back as appropriate to participants;
- ix. findings are open to review through accepted scientific and professional channels and research data are appropriately registered to facilitate discoverability and access;
- x. arrangements are in place to manage financial and other resources provided for the project, and any intellectual property arising from it;
- xi. the Researcher takes responsibility for all aspects of research integrity relating to the project and any publication, including reporting any discovered misconduct;
- xii. provision is made for the continued management of research data, records and samples if a Researcher leaves the University;
- xiii. where collaborations with external organisations are entered into, there is formal agreement regarding data ownership and other relevant matters prior to project commencement.

Research leaders/Supervisors are expected to foster a culture of Research Integrity and establish an atmosphere of support and co-operation in their team, fostering the open exchange of ideas and ensuring that robust management practices exist to safeguard the integrity of the research. New Researchers (including research students) must be given access to this Code of Practice, and any other appropriate guidelines on best practice. Leaders/Supervisors must ensure that Researchers are

not placed under commercial or other pressures that prevent the normal pursuit of thorough and honest investigation. Please refer to [3.2.1](#) on the expectations of research leaders/Supervisors in relation to training and development.

3.2 Training and Development

It is the personal responsibility of Researchers to ensure they have the necessary skills, knowledge, and training to carry out their research. This includes training in current good practice and any specific legal, ethical, or professional requirements relevant to their research area. Staff are also required to complete a range of mandatory training courses, a list of which are available [here](#).

The University is committed to the [Concordat to Support the Career Development of Researchers](#) which sets out three clear principles of ‘environment and culture’, ‘employment’, and ‘professional and career development’ and contains responsibilities for key stakeholder groups. The Concordat recognises that *‘a proactive and collaborative approach is required between all stakeholders, to create and develop positive environments and cultures in which all researchers can flourish and achieve their full potential’*. As a signatory to the Concordat, there is a shared responsibility between the University, its research staff, and their managers to ensure that research staff engage in a minimum of 10 days’ continuing professional development (CPD), pro rata, each year.

The University will ensure there is adequate provision for training and development to enable research staff and research students to attain necessary skills for their current role, and to support their future career development. Training in discipline-specific research related skills will generally be provided at a School, Research Institute, or research group-level, as appropriate. Particular attention should be paid to providing inexperienced Researchers with training in all the necessary skills required to undertake their work.

The Staff Development Team is responsible for supporting staff training across the University, and there is a dedicated Researcher Development sub-team who are specifically responsible for research staff. The ‘Cardiff Researcher’ programme covers all cross-discipline, transferable skills workshops provided for staff on a Research career pathway by the University’s central staff development section. This training is organised around the four domains set out in the [Researcher Development Framework](#) (developed by Vitae): knowledge and intellectual abilities; personal effectiveness; research governance and organisation; and engagement, influence and impact. Staff involved in research also have access to the broader Staff Development Programme, which is issued annually to all members of staff and includes many courses in the area of research. For further information on training and career development for Researchers refer to [Annex 1](#).

Academic Schools are responsible for ensuring that their research students have access to appropriate training. To this end, Schools are responsible for delivering or procuring the research skills, methods and techniques that are specific to their discipline and local research context. To complement transferable skills development that is imparted by Schools, the University’s Doctoral Academy provides a programme of generic research, professional and career development skills, which are mapped to the four domains set out in the [Researcher Development Framework](#) (developed by Vitae) and the different stages of the student journey. For further information refer to [Annex 1](#).

3.2.1. Responsibility of Lead Investigators/Supervisors

It is University policy that Researchers receive adequate supervision from their Lead Investigators/Supervisors, along with regular reviews of their progress. The identification of training and development requirements and the provision of careers advice constitute key components of the [Performance Development Review process](#) for staff and the Research Student [Progress Monitoring process](#). It is the responsibility of the Lead Investigator/Supervisor to work with research

staff/students to identify and document their training needs and how these will be met. In the case of Postgraduate Research students, this should be performed in accordance with the [Policy and Procedure on the Monitoring of Research Students](#) and the [Policy on the Induction and Training of Research Students](#).

It is important that Lead Investigators/Supervisors develop the appropriate skills in respect of their staff development and managerial responsibilities. The University has a range of leadership, supervision and management training courses to help with this (refer to [Annex 1](#)). Individuals with supervisory responsibilities are expected to abide by the supervisory principles and expectations contained in the '[Cardiff Academic](#)', as well as relevant student-related policies where relevant, such as the [Policy on Research Student Supervision](#) and the [Policy on Supervisor Responsibilities](#). Supervisors of students conducting research are also recommended to complete the University's online training module on research degree supervision.

In providing career support, Lead Investigators/supervisors should draw on University support services and resources and should become familiar with the University's mentoring schemes and programmes. Mentoring can be an excellent way of helping individuals to achieve their full potential and has positive cultural benefits; it gives mentees an alternative forum for open discussion about career development and an opportunity to benefit from advice from an experienced colleague and gives mentors an opportunity to reflect on their own goals and practice and to develop coaching and leadership skills. For further information and resources, including the University's Leadership and Management Framework and mentoring programmes, refer to [Annex 1](#).

3.2.2 Research Integrity Training

The University has developed a bespoke [Research Integrity online training programme](#) to assist Researchers to understand their responsibilities and ensure that research is conducted to the highest standards of integrity. The training is endorsed by ORIEC (and was originally reviewed and approved by ORIEC's predecessor committee) and completion of the training is mandatory for Academic Staff and for students completing a Doctoral, MPhil or MRes programme¹. Completion of the training is also mandatory for staff and students (plus supervisors) applying to a School Research Ethics Committee for ethical review of their research project. All other staff and students involved in research at the University are strongly encouraged to complete the training. Please note that Schools may decide to require additional categories of staff or student to complete the training on a mandatory basis.

Notwithstanding the importance of this training in helping Researchers to understand their responsibilities and in helping to embed a culture of good research practice, Researchers are responsible for ensuring they have the necessary skills and knowledge to conduct research in their particular discipline. Completion of the mandatory Research Integrity training should not replace discipline-specific training and development.

3.3 Ethical Requirements

It is the responsibility of Researchers to ensure that research is conducted to the highest ethical standards. Researchers must ensure that they are fully cognisant of, and comply with, the University's expectations for the ethical conduct of research and the ethical requirements of research funders, professional bodies, specific legislation and/or the expectations of their research discipline.

Researchers must consider all the ethical implications of their research, including the impact on: individuals involved in, or who may be affected by, the research; animals; the environment; and

¹ Please note that the staff and student groups to which this training programme is mandatory may change from time to time. Please refer to the Intranet pages contained at Annex 1 for an up-to-date list.

cultural objects. Researchers must ensure that their research design considers all relevant ethical issues and that the research seeks to maximise benefit whilst reducing the risk of harm.

As well as ensuring the safety and wellbeing of research participants and subjects, Researchers must consider their own safety and wellbeing and comply with all relevant University policies and guidance, including guidance on Lone Working. This guidance and other health and safety resources are available on the intranet (refer to [Annex 1](#)).

3.3.1 Research involving human participants, Human Material (including Human Tissue and Ancient Human Remains) or Human Data ('Human Research')

In any research involving human participants, the safety, rights and dignity of participants is paramount.

Researchers conducting Human Research must adhere to the University's [Policy on the Ethical Conduct of Human Research](#). The Policy contains the guiding principles that underpin the ethical and responsible conduct of Human Research and confirms the University's requirements for ethical review of Human Research projects by a Research Ethics Committee (REC), usually a School REC (SREC) or a recognised external ethics committee. For the avoidance of doubt, where REC review is required, a Researcher must not commence recruitment or data collection until they have received a favourable ethical opinion from the REC.

The requirements of ethics review at Cardiff University are designed to demonstrate that Researchers have given due consideration to the ethical issues surrounding the design and conduct of their research. This system will enable Researchers to apply for funding from those bodies that require such review and publication in journals that require evidence of ethical review. The University will endeavour to support Researchers in reflecting upon ethical issues in research by providing support through ORIEC, SRECs, School Ethics Officers and providing opportunities for training.

In addition to ethics, Human Research must adhere to all legal requirements and guidelines produced by the University and appropriate bodies, including but not limited to, this Code of Practice and the Code of Practice for Human Tissue Research, Data Protection legislation, The Human Tissue Act 2004, guidelines from relevant professional bodies or RECs. It is legally and ethically paramount that all information gained from research regarding individuals must be kept strictly confidential and securely stored.

Research with children and/or adults at risk (sometimes referred to as 'vulnerable adults') must be undertaken with particular care and in accordance with the University's Safeguarding Policy: Children and Adults at Risk (refer to [Annex 1](#)). This Policy contains guidance on important issues to consider when working with vulnerable groups as part of a research project and contains specific obligations for Researchers, Lead Investigators, Heads of School and others. Where relevant, Researchers may need to obtain a DBS check to enable them to conduct their research with children and/or adults at risk.

Researchers must comply with the Mental Capacity Act 2005 in all cases where research participants may not have capacity, or may lose capacity, to provide valid consent during the course of the project. In such cases, the research protocol should detail the role and responsibilities of individuals on whom the research participant is dependent (e.g. parents, carers, 'gate keepers'), and should indicate how consent is being sought from the participant ('real consent') or how the provisions of the Mental Capacity Act 2005 are being applied. Researchers who are planning to involve participants who may lack capacity (either temporarily or permanently) have a legal duty to abide by the Mental Capacity Act Code of Practice (refer to [Annex 1](#)). All research involving adults lacking capacity must be approved by an Appropriate Body. Under the Mental Capacity Act, only NHS and Social Care RECs

are deemed Appropriate Bodies. University Ethics Committees are not recognised as Appropriate Bodies and should not be approached to provide ethical approval for research where the Mental Capacity Act may apply.

If Researchers consider that human research participants are subject to unreasonable risk or harm, or if there are concerns relating to the improper and/or unlicensed use or storage of human material or Personal Data, they must report their concerns to their manager or other appropriate person in the University and where required, to the appropriate regulatory authority.

For further information regarding the above, the University's requirements for the ethical conduct of Human Research, and the University's template Participant Information Sheet and Consent Form, please refer to [Annex 1](#).

3.4 Research Data and Records

Reminder: This Code of Practice applies to everyone conducting or supporting research under the auspices of the University, including all members of staff and students involved in research. All such individuals are collectively referred to as "Researchers" throughout this document.

3.4.1 Research Data and Records Management

A primary principle of good research practice is the effective management of research data and records. The University provides guidance, training, technical support and infrastructure to assist Researchers with this. Researchers must ensure that they are fully cognisant of, and comply with, any funder policies, relevant legislation, University policies and guidelines and discipline-specific best practice concerning research data and records management.

Researchers are responsible for the meticulous recording, quality assurance and management of their research data. At the proposal stage Researchers must consider how they will actively manage their research data and records in whatever format throughout the project lifecycle, to ensure they remain secure, retain integrity and authenticity and remain available throughout the designated period of retention. Due regard must also be given to the provision of access to the research data.

As good practice (and as required by many research funders), all research projects that create or capture data must include these considerations in a formally documented data management plan (DMP). The DMP must be implemented and updated where required throughout the project lifecycle. As part of their DMP, Researchers must ensure that they have assessed the risks relating to confidentiality, integrity, availability and compliance with respect to their data and have employed appropriate security controls. Relevant resources are available on the intranet (refer to [Annex 1](#)).

The University provides a significant amount of secure digital storage to support Researchers. Each School/Research Institute is responsible for identifying where storage beyond this amount will be required and for making appropriate provision to accommodate both secure paper and digital storage space. Such storage arrangements must adhere to the Information Classification and Handling Policy and Procedures. Schools and/or Researchers should liaise with University IT for support on appropriate options where required. Please refer to [Annex 1](#) for further guidance and resources.

3.4.2 Metadata and Documentation

Researchers must ensure that research data and records are created with sufficient high-quality metadata and documentation to explain their origin, content and context, and where being made accessible externally, discoverable to others for future re-use.

Researchers will be expected to register details of their research data, and the provisions for accessing it in line with funder requirements and in accordance with any University designated method. Where funders do not have requirements concerning the registration of data, Researchers are still encouraged to log details with the University.

3.4.3 Retention

Where research is funded, research data and records must be retained in line with the retention period specified by the funder. In the absence of funder requirements, research data and records must be retained in line with the University's retention requirements (as set out in the University's [research records retention schedule](#)). If the research data and records are the subject of a patent filing, the data will need to be retained for the lifetime of the patent.

It is the University's expectation that raw data or records containing identifiable information (original questionnaires and audio tapes, for example) are retained for the full retention period in order to demonstrate good research conduct. In these circumstances, Researchers must adhere to Data Protection and confidentiality requirements throughout the retention period. However, if stringent measures can be taken to verify and ensure the integrity of anonymised data or records, or where identifiable information is not required to support the research, Researchers must take the necessary steps to remove the identifiable data. For the avoidance of doubt, signed participant consent forms must be retained for the full retention period, in their original form.

Research data and records obtained from Clinical Trials of Investigational Medicinal Products must be managed and retained in line with the relevant Standard Operating Procedure.

3.4.4 Access to Data and Data Preservation

The University supports the UK Research and Innovation position on open research, including the Concordat on Open Research Data (refer to [Annex 1](#)).

At the end of a project, subject to any legal, contractual and ethical considerations, data shall be made openly available in a timely and responsible manner. Researchers are entitled to a limited period of privileged access to work on their data, to prepare publications and to conduct commercial explorations but it is expected that data will be made available no later than publication of research outputs. Even in the absence of funder requirements, and as a matter of best practice, Researchers should seek to make data openly available wherever possible.

Research data that substantiates research findings or is likely to be of interest for future research shall be deposited for preservation to a University, national or international data service or repository, where legal, contractual and ethical considerations allow. Research data must be deposited with the appropriate metadata and documentation and shall adhere to the FAIR data principles, whereby data should be Findable, Accessible, Interoperable and Reusable (refer to [Annex 1](#)).

Where data is deposited externally care must be taken to ensure that rights are not assigned without retaining the right to make the data openly available for re-use, unless this was an original condition of the research project funding award. Where data cannot be made widely available, Researchers must provide access to third parties under appropriate legally enforceable confidentiality agreements to enable them to verify results.

3.5 Data Protection

Researchers must comply with Data Protection legislation whenever they are holding information from which a living person can be identified. This is known as '[Personal Data](#)'. Data Protection

legislation sets out principles that must be applied to the use, storage and disclosure of Personal Data (storage of research data is covered at [3.4](#)) plus the information that is to be provided to research participants. The legislation requires Researchers to have lawful grounds to use Personal Data for research purposes and a further lawful ground to use ‘Special Category’ data and Personal Data relating to criminal convictions. Special Category data includes an individuals’ health; their religious, philosophical or political beliefs; trade union membership; their racial or ethnic origin and details of their sexual life or sexual orientation.

In all research disciplines, Data Protection legislation requires a lawful basis for collecting and using information on living identifiable human participants in research. The lawful basis for most research undertaken by the University will be that the processing of the participants’ data is necessary for the performance of a public task carried out in the public interest and, for Special Category data, that processing is necessary for scientific or historical research purposes.

Whilst the principle of informed consent is an important method of helping to ensure the ethical conduct of research in many methodologies and disciplines, it should be noted that the lawful basis for processing Personal Data is separate from any ethical consent requirements. Whenever research on identifiable individuals is contemplated without the consent and/or knowledge of the research subjects, advice may be sought from School Ethics Officers and the Compliance and Risk Team in the University Secretary’s Office prior to formal ethics review.

Despite the sensitivities and constraints surrounding Personal Data, the principle of research data being “as open as possible, as closed as necessary” still applies here. While ‘raw’/unprocessed data may contain details that would, if made freely available, allow sensitive characteristics to be associated with particular individuals, it may be possible that anonymisation techniques and/or amalgamation of data would both protect the human subjects of the research and meet the goals of making underlying data available and/or providing data that could be of use to others’ research. Researchers must consider data minimisation and anonymisation techniques at the outset of a project and ensure that participants are provided with clear information about how their data will be used and shared to ensure that making data openly available is both legal and ethical.

Researchers must also handle and share Personal Data in accordance with the common law duty of confidentiality to the research participants. Where a researcher obtains Personal Data from a participant and there would be an expectation of confidentiality, permission to use this Personal Data for research purposes should be sought. The University’s template research participant information sheet will help Researchers comply with both these duties.

Further guidance and resources for Researchers on Data Protection are available (refer to [Annex 1](#)).

3.6 Equality, Diversity and Inclusion (‘EDI’)

Cardiff University has a public sector duty under the Equality Act 2010 to eliminate unlawful discrimination, harassment and victimisation, advance equality of opportunity and foster good relations in everything it does, including research. The Equality Act also provides rights to individuals in relation to discrimination, harassment and victimisation on the grounds of the ‘[protected characteristics](#)’ under the Equality Act 2010. Researchers must recognise the specific duties of the Equality Act 2010 which require the University as a public body to promote equality and diversity, eliminate unlawful discrimination and strive to ensure that no one is unlawfully disadvantaged by the way we carry out our functions. Researchers must abide by the Equality Act and the University’s policies and guidance on equality and diversity in every aspect of their work.

In addition to the above, the University requires that those in leadership positions maintain a thorough awareness of EDI requirements and share that knowledge with those under their leadership. UKRI also expect those in receipt of Research Council funding to:

- i. promote and lead cultural change in relation to equality and diversity;
- ii. engage staff at all levels with improving the promotion of equality and diversity;
- iii. ensure all members of the research workforce are trained and supported to address disincentives and indirect obstacles to recruitment, retention and progression in research careers;
- iv. provide evidence of ways in which equality and diversity issues are managed at both an institutional and department level.

Further and specific guidance on considering EDI issues in research is available from the EDI Hub (based in the Vice Chancellor's Office) and available on the University's website (refer to [Annex 1](#))

3.7 Human Tissue Research and the Human Tissue Act 2004

The Human Tissue Act 2004 (HT Act) provides a framework for regulating the removal (where appropriate), storage and use of human tissue for specific Scheduled Purposes, including research. The HT Act applies to 'Relevant Material', which is defined as material that comes from the human body and contains or consists of human cells and includes bodily fluids (e.g. saliva, blood and urine) and waste products in addition to solid sections of tissue. The HT Act is applicable to all material collected or used for research, even if it is used up or rendered acellular immediately or is collected under NHS REC approval.

If research involves the collection or use of Relevant Material, it must first be reviewed by the Human Tissue Act Compliance Team prior to submission to a REC. This is still the case where the material will be rendered acellular immediately.

All staff and students involved in the collection, storage, use or disposal of human tissue must a) read and follow the University's Code of Practice for Human Tissue Research and Standard Operating Procedures for Human Tissue Research, b) undertake the University's HT Act online training module and c) register all research projects or collections of human tissue with the local Human Tissue Officer. It is each individual member of staff/student's responsibility to ensure the appropriate documentation has been read and followed and that the project/collection has been registered.

The University's HT Act website (refer to [Annex 1](#)) provides specific information relating to the standards expected for the collection, use, storage and disposal of human tissue and provides access to the University's Code of Practice for Human Tissue Research and Standard Operating Procedures for Human Tissue Research. Further information can be sought from the Human Tissue Act Compliance Team (HTA@Cardiff.ac.uk).

3.8 Research Involving Animals

Research involving animals remains crucial in order to understand how systems work within a living body. The welfare of animals used in all research at the University is paramount, and the University has many safeguards in place. The University is committed to the highest ethical scrutiny, legal compliance and welfare standards possible. Animal research conducted at Cardiff University is aimed at neurodegenerative diseases, cancer, asthma, diabetes, glaucoma, parasites, stroke, sleep and memory disorders, vaccines and much more.

Alternatives to the use of animals in research must be sought wherever possible, and Researchers should be able to demonstrate that all alternatives have been considered. If animal involvement is

unavoidable, animal welfare concerns must be weighed against the potential gains to medical and scientific knowledge and understanding brought about by the research. Additionally, when designing the research protocol to be followed, the possible replacement, reduction or refinement of animal involvement should be continuously considered (Principle of the 3Rs). This means:

- i. the replacement of animals by non-animal methods wherever possible;
- ii. the reduction of numbers necessary to obtain valid results if replacement is not possible;
- iii. the refinement of all procedures to minimise harms and adverse effects.

When considering the use of animals for research, all legal requirements and guidelines produced by other appropriate bodies must be adhered to, in particular Home Office controls via the Animal (Scientific Procedures) Act 1986 (ASPA). As part of this, research proposals require prior approval from the relevant ethics and regulatory committees, known as the Animal Welfare and Ethical Review Body (AWERB). At Cardiff University, the AWERB takes place via the University's Biological Standards Committee. Details of regulation of animal use in scientific procedures, and current legislation, can be located at the Home Office website (refer to [Annex 1](#)).

The University holds a procedural establishment licence (PEL) for breeding, supply and research, overseen by the Establishment Licence holder. The PEL authorises the locations where research can take place and authorises certain 'named persons' who have legal responsibilities under the Act. In order for animal research to take place under authority of the PEL, further licences are required for the investigator and project. In order to apply for a licence, accredited training must be completed and assessed, and then applications can be made via the Animal Scientific Procedures electronic Licensing system. The University's Named Training and Competency Officer should be approached for guidance..

All Researchers and support staff have a duty to maintain high standards of care for the animals involved in the research, in accordance with the Code of Practice for the Housing and Care of Animals Bred, Supplied or Used for Scientific Purposes. Exemplary levels of animal husbandry and welfare under veterinary supervision are required and must be maintained. University policy and guidelines on the care and use of animals in research, including the University's "Animals@Cardiff" Policy and advice regarding Home Office Licences and other relevant approvals, can be obtained from the Biological Standards Office.

In addition to animal research that falls under the auspices of ASPA, any Researcher conducting research involving animals that is below the threshold of ASPA or outside of its remit such as working outside of the UK or with certain non-protected species, must have their proposal considered by the AWERB as a 'Non-ASPA' project. Any Researcher proposing to conduct research with animal subjects and/or animal material that is not already known to the Biological Standards Office, should contact the Director of Biological Services and Standards for initial advice and access to relevant guidelines.

Any concerns related to research projects involving animals must be reported in the first instance to any of the named persons. Concerns may be escalated to the University's Establishment Licence Holder as necessary. The Establishment Licence Holder will provide appropriate advice to ensure that all applicable licence conditions are met and, where required, that a report is made to the appropriate regulatory authority. Refer to [Annex 1](#) for further resources relevant to Animal Research.

3.9 Clinical Research and Clinical Trials

3.9.1 UK Policy Framework for Health and Social Care Research ('Policy Framework')

The [Policy Framework](#) is relevant to research conducted by or within the NHS and/or social care settings and which involves NHS and social care resources. NHS/social care resources means NHS patients (including those recruited through their association with the NHS e.g. patients' relatives and carers and those recruited through virtue of their status as former patients), those accessing certain social care services, patient tissues, data, staff, facilities or support.

All research falling within the Policy Framework requires a research governance 'Sponsor' and relevant research approvals such as approval via an appropriate Research Ethics Committee (REC) and the Health Research Authority (HRA)/Health and Care Research Wales (HCRW). It is the responsibility of Researchers to ensure that Sponsorship approval has been obtained prior to commencement of the research. As part of the Sponsorship process, the Sponsor will advise what approvals are necessary for the research project. This will vary project to project but may include seeking ethical review from an NHS or Social Care REC, seeking permission to conduct research within the NHS from the HRA/HCRW, and seeking local NHS Capacity and Capability approval to run the study in specific NHS Health Boards/Trusts. It is the responsibility of the Researcher to seek, obtain and maintain the required approvals for their study, supported by the Sponsor as appropriate.

Where Researchers are expecting Cardiff University to act as Sponsor, they must contact the Cardiff Joint Research Office (JRO). For further information about arranging Sponsorship, Researchers should contact the Research Integrity, Governance and Ethics (RIGE) team (resgov@cardiff.ac.uk). For further guidance and resources on conducting research involving the NHS refer to [Annex 1](#).

3.9.2 Medicines for Human Use (Clinical Trials) Regulations 2004 (SI 2004/1031)

The Medicines for Human Use (Clinical Trials) Regulations 2004 and subsequent amendments impose a number of legal responsibilities on Researchers and research institutions that are active in any investigation on human participants intended to:

- i. discover or verify the clinical, pharmacological or other pharmacodynamic effects of one or more medicinal products;
- ii. identify any adverse reactions to one or more such products, or;
- iii. study absorption, distribution, metabolism and/or excretion of one or more such products with the object of ascertaining the safety or efficacy of those products.

Under the Regulations, it is illegal to start a Clinical Trial of an Investigational Medicinal Product (CTIMP) in the UK until:

- i. the trial has been authorised by the Medicines and Healthcare products Regulatory Agency (MHRA); and
- ii. an ethics committee has given favourable approval of the protocol; and
- iii. a Sponsor for the trial has been agreed.

Where Researchers are expecting Cardiff University to act as Sponsor of a CTIMP, they must contact the Cardiff JRO during the funding application stage. The University is only able to consider Sponsorship of CTIMPs which involve a UKCRC-registered Clinical Trials Unit (CTU). For further information about arranging University Sponsorship for CTIMPs, Researchers should contact the JRO via resgov@cardiff.ac.uk. For further information on Clinical Trials refer to [Annex 1](#).

3.9.3 Registration of Clinical Trials and Clinical Research on Publicly Accessible Databases

All Clinical Trials must be registered on an appropriate public database. Indeed, it is best practice for all Clinical Research projects to be registered in a publicly-accessible database. In certain cases, particularly those involving Clinical Trials, registration is a condition of a favourable ethical opinion.

The [World Medical Association Declaration of Helsinki](#) states that “Every research study involving human subjects must be registered in a publicly accessible database before recruitment of the first subject” and the International Committee of Medical Journal Editors (ICMJE) considers clinical trials for publication only if registered in an appropriate registry. EU legislation requires that CTIMPs are entered in a public register (with limited exemptions for healthy volunteer studies).

The World Health Organization (WHO) defines a Clinical Trial as: *'...any research study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects on health outcomes'*. In the United Kingdom, in practice this means that registration on a public database is mandatory for the following studies:

- CTIMPs
- Clinical investigation or other study of a medical device
- Combined trials of an Investigational Medicinal Product and an investigational medical device
- Other clinical trials to study a novel intervention or randomised clinical trial to compare interventions in clinical practice.

To address compliance the following must be observed:

- **Registration** - The HRA recognises any register identified as a [WHO Primary Register](#) or an [ICMJE approved registry](#). Research deemed to be a Clinical Trial must be registered before enrolment of the first patient.
- **Maintenance** - Researchers must regularly update the trial status in the registry and ensure that any and all amendments are reflected in the information held in the registry.
- **Posting of summary results** - Summary results must be posted on every relevant registry within twelve months of the trial completion (within six months for paediatric trials) in the format prescribed by the relevant data base.

3.10 Conflicts of Interest

Reminder: This Code of Practice applies to everyone conducting or supporting research under the auspices of the University, including all members of staff and students involved in research. All such individuals are collectively referred to as “Researchers” throughout this document.

An individual researcher may undertake a range of activities in addition to research and teaching. Researchers may have external links with, and provide expert advice to, the private sector, public sector, voluntary organisations and local communities. In addition, researchers may be peer reviewers, journal editors, be involved in spin-out companies, and may be engaged in other activities in a personal capacity not related to their contract of employment with the University. Such activities extend the University's reach and influence nationally and internationally. Researchers need to reflect on any real or potential conflicts of interest that may arise from undertaking such activities.

A conflict of interest is a conflict between the private interests and the official responsibilities of a person in a position of trust. Researchers are in a ‘position of trust’ by virtue of their accountability to society, to the University, to professional bodies and to funders to ensure that research is conducted honestly and to the highest standards. As recipients of public and private funding, Researchers must uphold the principles of transparency and accountability in relation to conflicts of interest.

A conflict of interest can be ‘real’ or ‘potential’ i.e., perceived to be real. Researchers must recognise that conflicts of interest, if not managed appropriately, may have a negative impact on research and may result in a loss of public confidence in research activity (as well as reputational damage for Researchers, the University and relevant third parties (funders, journals etc)).

The primary responsibility for managing conflicts of interest, whether financial or personal/professional, rests with the individual Researcher. The fundamental requirement is that conflicts of interest, whether actual or potential, must be identified, declared and addressed as soon as they become apparent. If a Researcher is in doubt about whether they have a conflict of interest, it is best practice to disclose the potential conflict of interest.

It may be acceptable to have a conflict of interest as long as the Researcher is transparent about its existence, declares it as required and, where possible, takes steps to manage it to help ensure that it does not compromise the integrity of the project. It is important to ensure that conflicts of interest do not adversely influence professional judgment of researchers. If a conflict of interest is of a type and severity that poses a risk of seriously compromising the integrity of the research, the researcher should not proceed with the research.

The University has a [Compliance with External Conflict of Interest Requirements Policy](#) which recognises that as an institution in receipt of public and other funds, the University has a duty to fulfil the highest standards of corporate governance and to facilitate the reporting and management of conflicts of interest. This policy contains further information about specific declaration of interest requirements. Further information about this policy is also contained in the sections below.

3.10.1 Categories of Conflict

Conflicts of interest will include situations where the researcher has interests in the outcome of the project that may lead to a personal advantage (for example it would benefit themselves or member of the researcher's family and/or friends) and which could therefore compromise the integrity of the project (or be perceived to compromise the integrity of the project). Personal advantage can be financial and/or non-financial (e.g., promoting a researcher's personal and/or ideological beliefs).

The requirement to identify, declare and manage conflicts of interest relates to all actual and potential conflicts of interest, which could arise in many scenarios including (but not limited to):

- i. Receiving funding from a company: Researchers accepting funding from a company in which they (or a family member) has a significant financial interest provides a potential conflict situation, particularly small and privately-owned companies.
- ii. Commercialisation of research: where the University is involved in the commercialisation of research that results in a financial interest for the researcher. Where this arises, the resulting project or activity should involve, directly or in an oversight role, a member of staff of suitable seniority who is not connected with the company providing funding. Similarly, a member of staff receiving research support would be in conflict if they were in a position to have influence over the company's funding decisions or acceptance of University terms in a licence or contractual agreement.
- iv. Research involving Human Participants: research involving human participants or material requires special consideration of any potential conflict situations, and thus disclosure of relevant interests is particularly important. This may include disclosure of interests to research participants, as a means of safeguarding individual and institutional integrity.
- v. Other areas in which conflicts could arise are:
 - the dissemination of research findings (e.g. their timing and content);
 - the use of University resources (e.g. unfunded use of staff or facilities);
 - the maintenance of the academic culture (e.g. the rights of students being supervised);
 - technology licensing (e.g. undisclosed inventions or negotiation of licensing terms);

- the appropriateness of the sponsored research (e.g. the nature of the business of the funder, or the fit with other University, College or School activities)
- Equity interests – the University receiving an equity interest in a company. In such circumstances, it is important that the investment decisions made about that equity interest is undertaken by a process that is separate from that which makes research decisions

The University's [Compliance with External Conflict of Interest Requirements Policy](#) and Research Integrity Training provide further examples of conflicts of interest and specific considerations.

3.10.2 Declaration and Management

Conflicts of interest must be declared as soon as they become apparent. In addition to any external requirements, such as those stipulated by funding bodies, Researchers must declare conflicts of interest to the University and any ethics committee reviewing the research (internal or external).

All staff involved in research at the University must comply with the declaration procedure contained within the University's guidance on [Disclosure of Interests](#). All students involved in research at the University must declare conflicts of interest to their supervisor/tutor who can escalate the matter to the relevant Head of School.

Where a declaration is made, Researchers must comply with the direction given by the University (whether that be by a REC, Supervisor and/or the Head of School) in relation to how the conflict of interest should be managed and this should be documented.

In addition to the requirements of the University, and as referenced at the start of this section, some funders may require direct notification of certain interests, and/or reserve the right to review a plan for managing a conflict of interest, and/or prohibit grant holders from undertaking certain activities. It is important that Researchers are aware of funder requirements in this area.

The University's [Compliance with External Conflict of Interest Requirements Policy](#) provides further information about specific declaration of interest requirements including details of the specific requirements of the US Department of Health and Human Services in relation to the reporting of conflicts of interest for researchers funded via its Public Health Service (including the National Institutes of Health (NIH)). Specific requirements relating to this funding stream are detailed in this policy. Further guidance and resources in this area are also contained at [Annex 1](#).

3.11 Anti-Bribery, Counter-Fraud and Anti-Corruption

The University has a zero-tolerance policy towards any behaviour that may constitute bribery, corruption or fraud. Cardiff University, as well as its staff and students, are committed to acting professionally, fairly and with integrity, ensuring that research is conducted in an open, ethical and transparent manner. Researchers are expected to comply with these principles at all times and must not engage in any activity capable of compromising their professional integrity.

For further information, guidance and training please refer to the University's Anti-bribery Policy and Counter-Fraud Policy (refer to [Annex 1](#)) or contact the Financial Compliance team (financialcompliance@cardiff.ac.uk).

3.12 Collaborative working

The University fully supports collaborative working and collaborative research and recognises the mutual benefits and opportunities it can present. Collaboration has the potential to improve quality and efficiency and bolster diversity, but it can increase the complexity of a project and present some

challenges to project management. Researchers should try to anticipate any issues that might arise as a result of working collaboratively and agree jointly in advance how they might be addressed, communicating any decisions to all members of the research team.

In particular, Researchers must be aware of the standards and procedures followed by any organisation involved in collaborative research. Agreement should be sought on the specific roles of the researchers involved in the project and on issues such as procedural applicability, ethical frameworks and ethical review requirements, legislation, publication and authorship, data practices and intellectual property. Researchers involved in cross-boundary research collaboration are encouraged to review the [Montreal Statement on Research Integrity in Cross-Boundary Research Collaborations](#).

3.13 Conducting Research Overseas

When conducting research overseas it is important that Researchers are aware of, and abide by, any specific legal, ethical, or cultural expectations within the country (or countries) where the research is taking place. Researchers must also comply with the legal and ethical requirements existing in the UK and the University's expectations as contained in this Code of Practice, including those relating to ethics and the need for an appropriate risk assessment of planned activity.

Where possible, Researchers should seek to collaborate with a local research organisation or local experts to appraise themselves of any specific risks posed by the research and to ensure that all local requirements are understood and followed. Researchers need to consider their own personal safety and take measures to mitigate any risks wherever possible. Researchers should review the University's [Fieldwork Policy and guidance](#) document and guidance on [working overseas](#).

Where the research involves human participants or subjects, it is imperative that Researchers reflect on any project-specific ethical issues that might arise due to issues such as differing approaches to ethics, consent or data protection, language barriers, political or cultural expectations, power differentials and safety concerns. Researchers are encouraged to review the [UKRI ethics guidance on international research](#) which contains some additional ethical considerations.

3.14 Intellectual Property

Intellectual property (IP) is the product of thought, creativity and intellectual effort. In the course of research, consultancy and teaching, academic staff often generate IP (e.g. technical discoveries and methods, drawings, designs, experimental outcomes, pieces of prose and music). Funding bodies expect universities to commercialise IP arising from research they have funded (refer to [Annex 1](#)). It is important that IP generated by the University is commercially exploited, where appropriate, in order to:

- i. propagate research findings and help realise their fullest value;
- ii. aid local and national economic prosperity;
- iii. generate additional income for the University and its academic staff;
- iv. gain prestige for the University.

Although there is no guarantee of a financial return from the commercialisation of IP, where such return is realised Researchers can benefit financially through the University's revenue-sharing arrangements. Other advantages include:

- i. more opportunities for collaborative research;
- ii. entrepreneurial status and recognition;
- iii. the satisfaction of making a positive contribution to society.

Researchers must notify RIS of any IP that may have commercial value at the earliest opportunity.

3.14.1 Ownership

IP generated through research and teaching activities conducted in the normal course of employment at the University belongs to the University. This includes activities conducted outside of the normal working environment, where such activities are undertaken to fulfil, or fall within, the duties/role for which that individual is employed. Staff must notify the University of any invention or other intellectual property with potential commercial value.

Students are not employed by the University and, as such, may own IP which they are solely responsible for producing. However, in some circumstances, a student may be required to assign their ownership interest in IP to the University or to a third party. This usually applies to PGRs where the terms of their funding requires such assignment. In other circumstances, the student's Supervisor and/or other members of the research group in which the student is based will contribute to the creation of IP. In order to maximise the prospect of successfully commercialising the IP, the student will be encouraged to assign ownership rights to the University on the same basis as academic staff (which will include a share of any revenues generated from successful commercialisation).

The University will normally allow the author to own the copyright on any work to be published and waive any claim it may have to benefits arising from publication. There are exceptions to this:

- i. copyright in course materials for a course being run or to be run by the University;
- ii. copyright in any software program generated during the normal course of employment;
- iii. copyright in any works which may be necessary to protect rights in commercially exploitable IP;
- iv. copyright in any works commissioned by an external organisation where the terms and conditions of the commission require copyright to be transferred to that organisation.

IP or University expertise can also be exploited by creating spin-out companies. The University encourages and supports the establishment of appropriate spin-out companies and has developed a number of funding mechanisms for this purpose. RIS will work with staff in developing business proposals and obtaining the necessary University approvals. RIS will also assist in locating sources of finance for spin-out companies. For further information on establishing spin-out companies and similar enterprises, contact RIS.

3.14.2 Protection

Researchers should safeguard their own interests, those of the University and those of any funder or collaborating body in relation to IP. In most countries of the world, prior disclosure will invalidate any patent application and harm potential commercial benefits. Researchers must not, therefore, disclose an idea to any party not employed by the University, either verbally or in writing, until steps have been taken to protect the IP. After obtaining the appropriate protection, the idea or results may then be published in the normal way. It should be borne in mind that Undergraduates and PGRs are not employed by the University.

When a piece of research is believed to have commercial potential, immediate steps can be taken to evaluate whether the idea can be protected through filing a patent application. To be patentable, an invention must be novel, include an inventive step not immediately obvious and be capable of industrial application. RIS is responsible for managing the University's patent budget and it will discuss and agree with the inventor(s) the best means of protecting and exploiting the IP with advice from the University's Commercial Advisory Panel.

University College Cardiff Consultants Ltd (UC3) is the University's patent holding company and is the vehicle for exploiting on behalf of the University, patents and other IP Rights. When a

licensing or similar commercialisation agreement has been secured with a company, RIS must ensure its terms are complied with, monitor the receipt of royalties to the University and arrange the distribution of income to inventors, Schools and the University.

3.15 ‘Trusted Research’ and internationalisation

The University is committed to creating an environment that enables international research to flourish but acknowledges the complex and dynamic nature of some risks posed by such research.

‘Trusted Research’ refers to a UK wide campaign and framework to raise awareness of the risks involved in international research and to help facilitate the responsible conduct of such research by ensuring appropriate due diligence, governance, and the mitigation of risk wherever possible.

As experts in the relevant field, Researchers are best placed to judge the potential risks involved in proceeding with a particular project or partnership and are expected to make informed decisions about where to undertake research and who to collaborate with. Researchers are encouraged to review the [Trusted Research Guidance](#) developed by the Centre for the Protection of National Infrastructure and the [Trusted Research Checklist for Academia](#) when considering potential international research partnerships.

Further guidance on some specific pieces of legislation relevant to “Trusted Research” is contained at [3.15.1](#) and [3.16.1](#), but Researchers requiring further support and advice in this area should review the resources contained at [Annex 1](#) and then contact the Research Integrity, Governance and Ethics team (resgov@cardiff.ac.uk).

3.15.1 Export Controls and Sanctions

The UK’s Export Control regime applies to the transfer of certain strategic goods, technology, software or knowledge to a destination outside the UK (and in rare cases, to transfers within the UK).

Where the Controls apply, Researchers must obtain an Export Licence prior to transferring any relevant information, technology and/or goods. Failure to obtain an Export Licence, where one is required, may constitute a criminal offence and may even result in imprisonment for the Researcher, individuals with specific responsibility for Export Controls and/or University Senior Management.

The University is currently developing an Export Controls Policy and has specific guidance and resources for Researchers available on a dedicated intranet page, but some key points to note are:

- The Controls are most likely to apply to collaborative scientific and technical research with an actual or potential military or weapons-related application.
- The Controls are of particular relevance in the following disciplines: nuclear engineering; biological sciences involving pathogens; research involving toxic or high energy/strength material; high-spec electronics, computers, telecommunications and information security, sensors, lasers, optics and sonar; automation and control systems; artificial intelligence and robotics; cryptography; navigation; avionics; marine and submersibles; aerospace, space and propulsion.
- ‘Export’ includes not only physical transfer, but also transfer by electronic means (including email, fax, video conferencing and even telephone conversations). Carriage of a laptop containing controlled technology/software on an overseas trip can also amount to an ‘export’.
- In addition to specifically listed controlled items and technology (see [UK Strategic Export Control Lists](#) and the [Goods Checker tool](#)), there are catch-all or ‘end-use’ controls which apply to any goods or technology that could be used for military purposes or in the development of

weapons of mass destruction. Export authorisation will also be required for strategic items sent to destinations subject to sanction or embargoes.

Researchers need to be mindful of potentially receiving (or using) controlled items from another Country as this may require compliance with that country’s export control legislation. US Export Controls in particular are more restrictive than those within the UK and Europe as they are extra-territorial in nature i.e., they apply not only geographically, but also to associated nationalities. This means that if an item is prohibited under US Export Control laws from being exported to a country, it may also be prohibited from being exported to an individual who is a national (or dual-national) of that country, regardless of where they are based/residing at the time of the export. Researchers must ensure they obtain advice from the collaborator/contact in the relevant country where this applies.

For further information and resources refer to [Annex 1](#).

3.15.2 National Security and Investment Act 2021 (‘NSI’)

The NSI gives the Government powers to scrutinise and intervene in certain transactions where it reasonably suspects that the transaction poses a risk to national security. Under the NSI, the Government can “call in” for review acquisitions of “qualifying entities” or the granting of rights to “qualifying assets” in 17 defined sensitive technology sectors. These sectors are broadly as follows, albeit subject to specific definitions contained [here](#):

Advanced Materials	Critical Suppliers to Government	Quantum Technologies
Advanced Robotics	Cryptographic Authentication	Satellite and Space Technologies
Artificial Intelligence	Data Infrastructure	Suppliers to the Emergency Services
Civil Nuclear	Defence	
Communications	Energy	Synthetic Biology
Computing Hardware	Military and Dual-Use	Transport

In the context of research activity, a “qualifying entity” could include (but is not limited to) another university or subsidiary, a university spin-out company, a research organisation, and a private company. A “qualifying asset” could include (but is not limited to) designs, plans, specifications, software, databases, source code, algorithms, formulae, and equipment.

Any Researcher involved in activity or a project in one of the 17 defined sensitive technology sectors which involves acquiring an entity or granting intellectual property/licence rights to another organisation should first consult the Government’s [NSI guidance for the higher education and research intensive sectors](#) and contact the Research Integrity, Governance and Ethics team (resgov@cardiff.ac.uk) for further support.

3.16 Security-sensitive Research (‘SSR’)

Under the Counter-Terrorism and Security Act 2015, the University has a legal duty to have ‘due regard’ to the need to prevent people from being drawn into terrorism (the ‘Prevent Duty’). The University has implemented proportionate steps to meet the Prevent Duty in a research context, whilst respecting the academic freedom of Researchers to conduct legitimate research into areas such as terrorism, extremism or radicalisation.

The University’s SSR Policy (refer to [Annex 1](#)) provides a framework for the registration and management of research capable of triggering the Prevent Duty. The SSR Policy aims to ensure that such research is conducted safely and responsibly and that appropriate steps are taken to help

safeguard Researchers against the risk of radicalisation and/or the risk that their research activity might result in a misinterpretation of intent by external authorities.

Researchers are ultimately responsible for identifying whether the research they are conducting could be considered SSR and, if so, they must comply with all of the requirements of the SSR Policy, alongside any funder and/or journal requirements.

3.17 Publications and Authorship

Reminder: This Code of Practice applies to everyone conducting or supporting research under the auspices of the University, including all members of staff and students involved in research. All such individuals are collectively referred to as “Researchers” throughout this document.

3.17.1 Publication Principles

Researchers have a responsibility to publish and disseminate research in a manner that reports the research and all findings accurately, and without selection that could be misleading. This extends to reporting negative or “null” results/findings.

Research should be published wherever possible², taking into account any conditions specified by the research funder (where applicable), any security concerns and/or the protection of any intellectual property or confidential information (refer to [3.14](#)). An exception to the standard rule of first publishing through a recognised channel would be when serious public health or safety issues are involved. The safety of the general public would take precedence in these instances. It follows on from this that healthcare research findings in particular must be published as soon as possible.

All research published by Researchers at Cardiff University should always include 'Cardiff University' in the author address field (to denote affiliation). In the majority of cases, and in line with ‘Open Data’ expectations, supporting data should be made available and published research should include a short statement outlining how, and on what terms, the data may be accessed.

Authors must not submit research reports to more than one potential publisher at any given time (i.e., duplicate submission) and should not publish more than one paper based on the same set of data, except where there are full and thorough references and acknowledgements made to the earlier paper(s). A publication must contain appropriate references and acknowledge all sources used. Authors should seek permission from other authors if a significant amount of their work has been used in a publication. Any author who submits similar work to more than one publisher must ensure each publisher is aware of this at the time of submission.

Research results should be disseminated widely and in an appropriate form, thereby allowing the community at large to view, challenge and develop research results. All publications should contain enough information to allow other researchers to accurately repeat the procedures originally used, thereby improving reproducibility. As noted at [2.2](#), the University is committed to supporting Open Research practices and expects its Researchers to value the importance of Open Research and Reproducibility. Further guidance and resources in this area are contained in [Annex 1](#).

Researchers are expected to act diligently when selecting a publisher/journal/forum for publication of their research. It is important that Researchers are aware of the publication landscape for their

² It is acknowledged that not all student projects will be published. In the context of student projects, all student researchers must ensure they are familiar with the expectations of their research group/School/Institute in relation to the dissemination of their research output. Student researchers must engage with their Supervisor and research group/School/Research Institute to facilitate dissemination of their research output where appropriate. For further advice, please contact University Library Services or the Research Integrity, Governance and Ethics team.

discipline and that the publication forum selected is legitimate, trusted and appropriate for the research area. Researchers must remain vigilant against potential predatory publication practices, particularly in light of the growing number of ‘predatory’ or ‘bogus’ journals. The “[Think. Check. Submit](#)” campaign helps Researchers to understand their options and to make an informed and diligent decision when selecting a publication forum. Further information on predatory journals and avoiding predatory publishers is available in [Annex 1](#).

It is important that authors declare any potential or actual conflicts of interest in relation to their research within publications and that the research output is subject to peer review through accepted scientific and professional channels wherever possible. Please note that the University has developed guidance for Schools on the [minimum expectations for internal peer review of grant applications](#), which are intended to support Researchers with submitting competitive and rigorous grant proposals.

Authors must ensure that they meet funders’ Open Access requirements. To comply with the requirements for the Research Excellence Framework (‘REF’), authors must deposit the full text of the final accepted manuscript (‘post-print’) of their journal articles and published conference proceedings, together with metadata, in an appropriate institutional repository within 3 months of acceptance. Where publishers’ copyright permissions allow and there are no confidentiality or commercial constraints, these versions will be made Open Access. Outputs subject to an embargo will not be released publicly until the embargo period has expired.

Regardless of whether REF applies, Researchers are expected to comply with the University’s [Open Access Publications Policy](#) which contains specific expectations concerning the registration and publication of research outputs into Cardiff University’s institutional repository (ORCA). When publicising research outputs, and where applicable, Digital Object Identifiers (DOIs) should be cited to increase visibility and impact. The use of a standard identifier for authors such as ORCID is strongly encouraged to ensure outputs are correctly attributed.

Further guidance and resources relevant to publication practice are contained at [Annex 1](#).

3.17.2 Determining Authorship

Authorship is the foremost method of allocating credit and responsibility for intellectual or creative work. There are no universally accepted standards for determining authorship and the rules and conventions differ across research disciplines and organisations. Responsibility for determining authorship lies with those involved in a publication’s creation. It is therefore important to ensure that all those involved in a publication’s creation are aware of, and comply with, any requirements stipulated by funders, journals or professional bodies.

To help prevent unethical authorship practice and to avoid disputes, authorship criteria should be discussed and agreed with all those involved in a research project at an early stage and be regularly reviewed. These discussions, and any decisions made regarding authorship, should be documented.

Where there are no discipline-specific, funder or journal requirements, the general rule is that individuals should only be listed as an author if they have made a substantial intellectual contribution to the publication **and** agree to be accountable for it. The University expects anyone meeting the criteria below to be listed as an author:

- i. Someone who has made a substantial contribution to the conception or design of the research project **and/or** the analysis and interpretation of research data; **AND**
- ii. Drafted the publication and/or revised it for important intellectual content; **AND**
- iii. Approved the final version of the publication.

The above criteria is **not** intended to be used to deny authorship to those who deserve credit and all individuals who meet the first criterion should be provided with an opportunity to participate in the drafting/revision of the publication and to approve the final version.

Assisting to acquire funding or data is not sufficient to earn the title of author; neither is general supervision of a research team. Contributions of this kind should be acknowledged in the text, but not as authors. The practice of ‘honorary (or gift) authorship’ i.e. granting authorship to those that do not fulfil the relevant criteria is not acceptable, neither is the practice of ‘ghost authorship’ i.e., failing to list someone as an author who meets the relevant authorship criteria.

An author must be able to identify their specific contribution to the publication and take responsibility for ensuring its accuracy prior to publication. Once published, the authors are deemed to endorse the publication and collectively support the findings of the research. See [Annex 1](#) for further resources relevant to authorship practice.

3.17.3 Acknowledging Contributors

Researchers must acknowledge the work of all contributors (including collaborators) who do not meet the traditional criteria for authorship. The [Contributor Roles Taxonomy](#) which has been adopted by several academic journals, may be helpful in articulating the different roles and contributions of researchers. Researchers must acknowledge the source of any funding associated with the research and should acknowledge any research sponsors. This applies when publishing research findings and whenever statements are made regarding the research. Where data or samples from third parties have been used, the source of the data or samples must be acknowledged.

3.17.4 Peer Review

Peer reviewers play an important role in ensuring the integrity of the scholarly record. Staff or students who carry out peer review must do so to the highest standards of thoroughness and objectivity. Peer reviewers must act with honesty and integrity, respect confidentiality and ensure that assessments are made on scientific content rather than publication metrics. Peer reviewers must ensure they have the necessary knowledge/expertise to conduct peer review, the capacity to conduct the review within the required timeframe and must declare any potential conflicts of interest.

When conducting peer review, a reviewer may discover potential misconduct or may have ethical or other concerns about the research. In such cases, the reviewer is expected to report this, in confidence, to the organisation that requested the review. Funders and publishers may have a process for the reporting of such matters and/or other general policies governing the conduct of peer review and the resolution of disputes or concerns. Peer reviewers are expected to adhere to such policies.

Staff or students acting as peer reviewers are expected to adhere to the core values and behaviours contained in this Code of Practice and are encouraged to review the [Ethical Guidelines for Peer Review](#) produced by the Committee on Publication Ethics (COPE). COPE has many other useful resources relating to Peer review and publication ethics more broadly (refer to [Annex 1](#)).

3.17.5 Editorial Functions

Editors have a vital role in maintaining the integrity of the scholarly record. Editors are expected to encourage responsible and ethical practice and to appropriately deal with disputes or allegations of misconduct relating to the scholarly record.

Editors should endeavour to ensure that any research they publish was carried out according to relevant guidelines and should be prepared to question authors about ethical aspects of their research

and to seek assurance that ethical principles were followed. Editors must adhere to all policies and procedures of the relevant journal/publication.

Staff or students acting as editors are expected to adhere to the core values and behaviours contained in this Code of Practice and are encouraged to review the [Code of Conduct for Journal Editors](#) produced by COPE, alongside the [Ethics toolkit for a successful editorial office](#). New editors are also encouraged to review the [short guide to ethical editing for new editors](#).

3.18 Raising a concern about Research Integrity

Reminder: This Code of Practice applies to everyone conducting or supporting research under the auspices of the University, including all members of staff and students involved in research. All such individuals are collectively referred to as “Researchers” throughout this document.

Researchers must recognise that good practice in research includes reporting concerns about the conduct of research, co-operating with any investigation of those concerns, and reporting any other activity which compromises the integrity of Cardiff University research.

The University is committed to fostering a research environment which enables all staff and students, as well as those external to the University, to raise concerns about Research Integrity and/or the conduct of research. The University is committed to supporting all those who raise a legitimate concern in good faith. To facilitate this, the University has named points of contact for receipt of Research Integrity concerns, allegations of Academic Research Misconduct and whistleblowing, all of which are available [here](#). The University also has a network of local Research Integrity Leads and School Ethics Officers who may also be able to provide support, depending on the nature of the concern. Please refer to [Annex 1](#) for further information about local points of contact.

Whilst Researchers are encouraged to liaise directly with one of the University’s named points of contact, who will treat all concerns seriously and as sensitively as possible, Researchers may also seek confidential and independent advice from UKRIO’s [advisory service](#).

It is important to acknowledge that whilst the majority of Researchers and those supporting research strive to achieve the highest standards, mistakes and errors in research do happen and are a natural part of human activity. In most cases, these will be honest mistakes that can be remedied through appropriate support and training. However, in some cases, mistakes may be the result of questionable research practices or research misconduct that require more detailed investigation. Where a mistake has occurred in research that has already been published, appropriate action to correct the research record will also be required.

3.18.1 Research Misconduct

The University expects all Researchers to observe the highest standards of professional behaviour and integrity throughout their research project, including the writing up and submission of papers/theses. If any Researcher has reason to suspect misconduct in research, this should be reported. Researchers must not engage in nor conceal misconduct.

The University is committed to treating all allegations of research misconduct seriously and has procedures in place which identify the grounds on which allegations can be made and the process that will be followed to investigate and address such allegations. Researchers who have raised an allegation of research misconduct, or are the subject of an allegation, are expected to engage with this process. Researchers are also expected to work with the University to support those that raise concerns or allegations in good faith and those who have been exonerated of suspected misconduct.

The University's [Procedures for dealing with allegations of Misconduct in Academic Research](#) ('ARM Procedure') outline the action to be taken where an allegation of "Academic Research Misconduct" is brought against any present or past member of staff, including visiting academics, in respect of research undertaken while employed by or at the University. Where an allegation relates to questionable research practices or other conduct that falls short of expected standards but does not amount to "Academic Research Misconduct", the matter should be referred to the Head of School and may be treated as a disciplinary matter. Further information about questionable research practices is contained in the ARM Procedure, the University's Research Integrity Training and within the resources referenced in [Annex 1](#).

In relation to an allegation of misconduct brought against a Cardiff University student, the University's Student Conduct Regulations will apply. The Regulations refer to a range of policies and investigation procedures that apply to students, most notably in this context the Academic Integrity Policy (which includes a definition of "Academic Misconduct in Research") and the Academic Misconduct Procedures (one for Research Students and one for Taught Students). Allegations of Academic Misconduct in Research are managed in accordance with the relevant Academic Misconduct Procedure. All student regulations, policies, and procedures are contained in the University's [Academic Regulations](#) and further information about "Academic Misconduct" is available on the intranet (refer to [Annex 1](#)).

For further guidance and resources relating to research misconduct, including UKRIO short guide to research misconduct and the University's Image Integrity in Research guidance, refer to [Annex 1](#).

3.19 Leaving the University

3.19.1 Staff

Where applicable, staff leaving the University must ensure that appropriate provisions are made within their School, Institute or Department for the continued retention, storage and provision of access to their research data, records or research samples (human or otherwise). A member of School/Institute/Department staff shall be identified to take on responsibility for the research data, records or research samples. By default this responsibility will revert to the Head of School, Department or Research Institute should no other member of staff be identified.

Staff wishing to retain research data, records or research samples after they have left the University must ensure that all appropriate procedures and requirements are followed. In particular, research staff must notify and consult with their School/Institute/Department before taking away research data, records or samples and comply with the terms of any funding agreement (or other agreement) relating to intellectual property and/or the transfer of such material. Further advice in this area can be sought from Research and Innovation Services.

Where Personal Data is included in the research data or records, staff must seek approval from the principal/lead investigator of the project (or line manager, if it is the lead investigator who is leaving) who may consult with the University's Data Protection Officer (based in the University Secretary's Office) prior to the removal of originals or copies. Any Researcher wishing to retain human tissue samples, must consult with the Human Tissue Act Compliance Team.

Where applicable, staff will also need to discuss arrangements for the management of any current research grants and notify the Head of Research grants of any agreed arrangements so that appropriate contracts can be put in place. Staff must adhere to any other local policies relating to actions to be taken when leaving the University.

3.19.2 Students

Where applicable, students leaving the University must consult with their Supervisor to ensure that appropriate provisions are in place within their School, Institute or Department for the continued retention, storage and provision of access to their research data, records or research samples. A member of School/Research Institute/Department staff shall be identified to take on responsibility for any research data, records or research samples remaining at the University. By default, this responsibility will revert to the student's Supervisor if no other member of staff is identified.

As a matter of best practice, student researchers must seek to facilitate open access to their research data wherever possible and must comply with any funder requirements concerning open data. Please refer to [2.3](#) and [3.2.4](#) for further information or contact opendata@cardiff.ac.uk.

Students wishing to retain research data, records or research samples after they have left the University must ensure that there are no restrictions in their funding agreement or other agreements (e.g. with the University), which would prevent them from doing so. Students must also notify and consult with their Supervisor before taking away research data, records or samples as the ownership of (and intellectual input into the creation of) such data, records or samples is often complex. Further advice in this area can be sought from Research and Innovation Services.

Where Personal Data is included in the research data or records, students must seek approval from the principal/lead investigator or supervisor of the project who may consult with the University's Data Protection Officer (based in the University Secretary's Office) prior to the removal of originals or copies. Any research students wishing to retain human tissue samples, must consult with the Human Tissue Act Compliance Team.

Students must adhere to any other local policies relating to actions to be taken when leaving the University.

4. Concluding Statement

This Code of Practice aims to enhance the professional, open and honest culture of integrity already apparent within the University, whilst not infringing upon the fundamental pursuit of greater knowledge and understanding.

All external standards applicable to the research and any relevant stakeholder requirements should be complied with as well as the University's common law and statutory obligations.

5. Review and Acknowledgments

This Code of Practice will be reviewed at least every three years by the Research Integrity, Governance and Ethics team and the Open Research Integrity and Ethics Committee (ORIEC).

Cardiff University gratefully acknowledges UKRIO, UKRI and all organisations referenced in this Code of Practice for producing resources which will support and enable Researchers to conduct research to the highest standards of integrity and which helped with the production of this document.

Annex 1: Source Material and Related Policies and Guidelines

Broad/overarching Research Integrity resources

Concordat to Support Research Integrity
CU's Research Integrity Training
For Staff: Research integrity and governance intranet area (various resources)
For Students: Research integrity and governance intranet area (various resources)
UKRIO's Code of Practice for Research and Recommended Checklist for Researchers
UKRI's Policy on the Governance of Good Research Practice
Wellcome Trust Responsible Conduct of Research guidelines
Erasmus Universiteit Rotterdam; 'Dilemma Game: Professionalism and Integrity in Research'
The Royal Society and UKRIO's Integrity in practice toolkit

Topic-specific key resources

Topic	Code of Practice section(s)	Resources/links
Animal Research	2.4 Care and Respect 3.3 Ethical Requirements 3.8 Research Involving Animals	CU Animal Research webpage (various resources)
		Home Office guidance - Animal testing and research
		Concordat on Openness on Animal Research in the UK
Authorship and Contribution	3.17 Publications and Authorship	UKRIO's Good practice in research: Authorship
		COPE guidance - How to handle authorship disputes: a guide for new researchers and What constitutes authorship?
		The Contributor Roles Taxonomy
Behaviour See <i>Training and Supervision/Leadership</i> also	2.5 Accountability and Responsibility 3.1 Leadership and Supervision 3.2.1 Responsibility of Lead Investigators/Supervisors	Dignity at Work and Study Policy
		Student and Supervisor Responsibilities and expectations intranet page
		For Staff: the 'Cardiff Academic' and Performance Expectations
		For Staff: Wellbeing and Support intranet pages
		For Students: Health and Wellbeing intranet pages
Bribery/Fraud	3.11 Anti-Bribery, Counter-Fraud and Anti-Corruption	For Staff: Dealing with complaints and Resolving workplace issues pages
		CU Anti-Bribery Policy CU Counter-Fraud Policy
Clinical Research	3.3 Ethical Requirements 3.9 Clinical Research	UK Policy Framework for Health and Social Care Research
		For Staff: Conducting research in the NHS
		For Students: Conducting research in the NHS
		CU guidance on Clinical Trials of Investigational Medicinal Products *NOTE* The guidance contained on the above page is in the process of being updated to reflect new legislation. Please treat any University guidance relating to the Medicines for Human Use (Clinical Trials) Regulations 2004 with caution and seek advice from resgov@cardiff.ac.uk if unsure.
		Health Research Authority and Health and Care Research Wales webpages
		World Medical Association Declaration of Helsinki
		WHO List of Primary registries ICMJE list of Publicly-Accessible Databases
Collaborative working – See <i>Research Overseas</i> and <i>Trusted Research</i> sections		
Conflicts of Interest	2.2 Openness 3.10 Conflicts of Interest	For Staff: CU Disclosure of Interest Guidance
		CU's Compliance with External Conflict of Interest Requirements Policy
		ICMJE's Author Responsibilities – Conflicts of Interest
		National Research Ethics Advisor's Panel guidance on Conflict of Interests/Competing Interests

Consultancy	2 Core Values and Behaviours	For Staff: Commercialising research through providing consultancy
Data Protection See <i>Research Data and Records Management</i> also	3.4 Research Data and Records Management 3.5 Data Protection	CU's Data Protection Policy
		For Staff: Collecting personal data in research and Data Protection intranet pages (various resources)
		For Students: Managing and sharing your data page (various resources) and Guide to GDPR and Research
		What is personal data? ICO
Editorial functions – see <i>Publication</i> section below		
Engagement and Impact	2 Core Values and Behaviours	For Staff: Research Engagement and Impact pages (various resources) and Funding for impact and engagement activity webpage For Students: Public involvement and public engagement (MEDIC)
Equality and Diversity	2.4 Care and Respect 3.1 Leadership and Supervision 3.6 Equality, Diversity and Inclusion	CU's ' Equality, Diversity and Inclusion ' webpage and policy
		For Staff: Equality in Research guidance and Equality, diversity and inclusion intranet areas (various resources)
		For Students: Equality in Research guidance and Equality, diversity and inclusion intranet areas (various resources)
		EHRC guidance on protected characteristics
Ethics (general)	3.1 Leadership and Supervision 3.3 Ethical Requirements	For Staff: Research Ethics webpages (various resources) For Students: Research Ethics webpages (various resources) Both of the above include the Ethics Policy for Human Research and template Participant Information Sheet and Consent Form.
		List of School Ethics Officers/School Research Ethics Committees
		UKRI Research Ethics guidance, including the ESRC Ethics Framework
Export Controls	3.15 Export Controls	For Staff: Export controls intranet page (various resources) For Students: Export controls intranet page
		Export controls applying to academic research - GOV.UK (www.gov.uk)
		UK Government's Consolidated list of items that require export authorisation
		UK Government's Goods Checker Tool and Export Controls Organisation Helpline 020 7215 4594/ eco.help@trade.gsi.gov.uk
		BIS Guidance on Export Control Legislation for UK academics and researchers
		The Association of University Legal Practitioners and Project Alpha of King's College London's (in partnership with UK Government departments) guidance; Higher Education Guide And Toolkit On Export Controls And The ATAS Student Vetting Scheme
Financial management	2.5 Accountability and Responsibility 3.1 Leadership and Supervision	CU's Financial Regulations
		For Staff: Managing Budgets and Managing research projects intranet pages and Finance-Grant Planning training
Health, Safety and the Environment	2.4 Care and Respect 2.5 Accountability and Responsibility 3.1 Leadership and Supervision 3.3 Ethical Requirements	CU's Safety, Health and Environment webpage (various policies and resources, including the Safety, Health and Environment Policy Statement)
		For Staff: CU's Health, safety and environment procedures and guidance, Risk assessments intranet area and Health and safety training courses
		For Students: CU's Health, safety and environment procedures and guidance and Risk assessments intranet area
		Lone Working Guidance
Human Tissue (HT) Research	3.3 Ethical Requirements 3.7 Human Tissue Research 3.19 Leaving the University	For Staff: CU's Human Tissue Research webpages (various resources) For Students: CU's Human Tissue Research webpages (various resources)
Intellectual Property	3.14 Intellectual Property	For Staff: CU's ' Intellectual Property ' webpages (various resources) For Students: CU's ' Copyright and your thesis ' webpages

Knowledge-Exchange and Innovation	1.3 Objectives of Research 2 Core Values and Behaviours	For Staff: Knowledge Exchange and development programme and Classifying research activities intranet page (Knowledge Exchange and Innovation Funding content)
Local Points of Contact		List of School Ethics Officers List of School Research Integrity Leads
Mental Capacity	3.3 Ethical Requirements	Mental Capacity Act 2005
		Mental Capacity Act Statutory Code of Practice
		HRA Guidance on the application of the Mental Capacity Act in Research (includes an e-learning module)
National Security and Investment Act – see <i>Trusted Research</i> section below		
Open Research (including Reproducibility) Also see <i>Publication</i>	2.2 Openness 3.4 Research Data and Records Management 3.17 Publications and Authorship	CU's Open Research Position Statement
		For Staff: Open research intranet page
		Open Science and its role in Universities: a roadmap for cultural change
		Open Science FOSTER (fosteropenscience.eu)
		UKRN primer on pre-registration and registered reports
		Open Access-specific resources:
		CU's Routes to Open Access guidance
		CU's Open Access Publications Policy
		For Staff: Open Access - Intranet
		For Students: Open Access - Student intranet
		UKRI Policy on Open Access and other Open Research resources
		Wellcome Trust Open Access Policy
		Open Data-specific resources:
		Concordat on Open Research Data
		UKRI " Making your Research Data Open " guidance and relevant data sharing policies
		Open Research Data Task Force report
FAIR Data Principles		
Reproducibility-specific resources:		
Reproducibility in research - Research - Cardiff University		
UK Reproducibility Network (UKRN) webpage (various resources)		
Peer Review	2 Core Values and Behaviours 3.17.1 Publication principles 3.17.4 Peer Review	CU's minimum expectations for internal peer review of grant applications
		COPE's Ethical Guidelines for Peer Review and Peer review processes webpage (various resources)
		CU Institutional Repository (ORCA)
Publication See <i>Authorship, Open Research, and Peer Review</i> for other resources	2.2 Openness 3.17 Publications and Authorship	Contributor Roles Taxonomy
		COPE Code of Conduct for Journal Editors and Ethics toolkit for a successful editorial office and short guide to ethical editing for new editors.
		Think. Check. Submit. (thinkchecksubmit.org)
		Predatory publishing COPE: Committee on Publication Ethics and Avoiding predatory publishers COPE: Committee on Publication Ethics
		COPE website (various resources relating to good publication practice)
Raising concern	3.18 Raising a concern about Research Integrity	Named point of contact for Research Integrity concerns (as listed on internet page)
		Contact for Academic research misconduct (as listed on internet page)
		Contact for Whistleblowing (as listed on internet page)
		Academic regulations (student matter and contact points)
		UKRIO Advisory Service (independent advice)

Research Culture (broad)	1.6 Research Culture	Transforming Research Culture internet page
		For Staff: Transforming research culture intranet page (various resources) For Students: Transforming research culture intranet page (various resources)
		Wellcome Trust's 'Reimagine Research' initiative
		UKRI's Supporting a healthy research and innovation culture webpage (various resources)
Research Data and Records Management See <i>Data Protection</i> and <i>Open Research</i> resources also	2.2 Openness 3.1 Leadership and Supervision 3.4 Research Data and Records Management 3.5 Data Protection	CU Records Management Policy and Retention Schedules
		For Staff: Data Management webpages (various resources)
		For Students: Managing and Sharing your Data webpage (various resources)
		CU's Information Security policies For Staff: Information security intranet page (various resources) For Students: Information security intranet page (various resources)
		For Staff: CU Research Portal page
Research Misconduct	2.1 Honesty & Integrity 2.5 Accountability and Responsibility 3.1 Leadership and Supervision 3.18.1 Research Misconduct	CU Procedures for Dealing with Allegations of Misconduct in Academic Research
		CU's Academic Regulations
		CU's Image Integrity in Research guidance
		For Staff: Academic misconduct intranet page (various resources) For Students: Academic misconduct intranet page (various resources)
		UKRIO's A short guide to research misconduct and Questionable Research Practices guidance
		Russell Group Statement of cooperation on Research Misconduct Cases
Research Overseas See <i>Trusted Research</i> also	3.13 Conducting Research Overseas	CU's Fieldwork Policy and guidance
		For Staff: working overseas For Students: working overseas
		Montreal Statement on Research Integrity in Cross-Boundary Research Collaborations
		UKRI ethics guidance on international research
		San Francisco Declaration on Research Assessment
Responsible Research Assessment	1.7 Responsible Research Assessment	CU's Responsible research assessment internet page
		For Staff: Responsible Research Assessment intranet page For Students: Responsible research assessment intranet page The above pages contain various resources relevant in this area.
Security-sensitive Research	3.16 Security-sensitive Research	For Staff: CU's Policy on Security-sensitive Research For Students: CU's Policy on Security-sensitive Research
		CU Prevent Policy
Safeguarding See <i>Mental Capacity</i> also	3.1 Leadership and Supervision 3.3 Ethical Requirements	CU Safeguarding Children and Adults at Risk: Policy and Guidance
		CU Activity Specific Guidance for Researchers
		MRC/ESRC Joint Guidance on Involving Children in Research
Supervision/Leadership See <i>Behaviour/Responsibility and Training and Development</i> for more resources	3.1 Leadership and Supervision 3.2 Training 3.2.1 Responsibility of Lead Investigator / Supervisor 3.2 Training	UKRIO Recommended checklist for researchers
		For Staff: Research supervision responsibilities and Supporting your research and Manage people and projects intranet pages (various resources)
		For Staff: Leadership and Management Framework
		For Students: Responsibilities and expectations intranet page and Your Future intranet pages (various resources)
Training and Development	3.1 Leadership and Supervision	Concordat to Support Career Development of Researchers
		For Staff: How we support researcher development intranet page

See <i>Behaviour/Responsibility and Supervision/Leadership</i> for more resources	3.2 Training	For Students: Doctoral Academy intranet page
		For Staff: Mandatory training
		For Staff: Moving into Research Leadership and Leadership and Management Development Programme for Research Team Leaders
		Research Development Framework (Vitae)
		CU Policy and procedure on the Monitoring of Research Students
		CU Policy on the Induction and Training of Research Students
		For Staff: Cardiff Researcher Programme and Staff Development courses
		For Students: Doctoral Academy Training and Development webpages
		For Staff: CU Research Integrity Online Training Programme
		For Students: CU Research Integrity Online Training Programme
For Staff: CU Performance Development Review webpages		
For Staff: Becoming a staff mentor and Academic Staff Mentoring Programme and mentoring scheme for Professional Services Staff and mentoring scheme for new international staff .		
For Students: Student Mentor Scheme		
Trusted Research	3.15 Trusted Research	CPNI's Trusted Research Guidance and Trusted Research Checklist for Academia
		National Security and Investment Act: Guidance for the higher education and research-intensive sectors
		National Security and Investment Act: details of the 17 types of notifiable acquisitions - GOV.UK (www.gov.uk)

Annex 2: Glossary of abbreviations

ARM	Academic Research Misconduct
ASPA	Animal (Scientific Procedures) Act 1986
AWERB	Animal Welfare and Ethical Review Body
COPE	Committee on Publication Ethics
CPD	Continuing Professional Development
CTIMP	Clinical Trial of an Investigational Medicinal Product
CTU	Clinical Trials Unit
CU	Cardiff University
DBS	Disclosure and Barring Service
DMP	Data Management Plan
DOIs	Digital Object Identifiers
DORA	San Francisco Declaration on Research Assessment
EDI	Equality, Diversity and Inclusion
HCRW	Health and Care Research Wales
HRA	Health Research Authority
HT Act	Human Tissue Act 2004
ICMJE	International Committee of Medical Journal Editors
IP	Intellectual property
JRO	Joint Research Office
MHRA	Medicines and Healthcare products Regulatory Agency
MPhil	Master of Philosophy
MRes	Master of Research
NIH	National Institutes of Health
NSI	National Security and Investment Act 2021
ORCA	Online Research@Cardiff – the University’s institutional repository
ORCID	Open Researcher and Contributor ID
ORIEC	Open Research Integrity and Ethics Committee
PEL	Procedural Establishment Licence
REC	Research Ethics Committee
REF	Research Excellence Framework
RIGE	Research Integrity, Governance and Ethics team
RIS	Research and Innovation Services
SREC	School Research Ethics Committee
SSR	Security-sensitive Research
UC3	University College Cardiff Consultants Ltd
UKRI	UK Research and Innovation
UKRIO	UK Research Integrity Office
UKRN	UK Reproducibility Network
WHO	World Health Organization