Research Integrity and Governance Code of Practice

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Research Governance Team, Research and Innovation Services Cardiff University

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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 UK Universities, generating new knowledge, tools and policies in partnership with business, industry, government and other major stakeholders, facilitated by a vibrant and inclusive research environment. These research outcomes are a vital part of accelerating the contributions that Cardiff University makes to the health, wealth, security and well-being of future generations in Wales, in the UK and globally.

Research integrity, ethics and open research is a critical part of this vision, and as Pro Vice-Chancellor for Research, Innovation and Enterprise, I am committed to ensuring that Cardiff is seen as a leader in this area. Working with our staff and students, we are striving to achieve greater consistency in our ethical review approach across the University, developing innovative approaches to support open science and responsible use of research metrics, and ensuring our staff and students obtain high-quality training so they know how to undertake research with integrity.

Our approach to research integrity has been developed in alignment with our commitment and support of the Universities UK Concordat to Support Research Integrity as well as the Research Councils UK Policy and Guidelines on Governance of Good Research Conduct.

Cardiff University's Research Integrity and Governance Code of Practice (Code of Practice) outlines the policies, procedures and training resources we have developed, designed to help our staff and students deliver excellent research with integrity.

We expect all staff and students to have read and be familiar with the Code of Practice, and so please do take the time to read this document and visit the websites 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.

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 Kim Graham
Pro-Vice-Chancellor for Research, Innovation and Enterprise

1. Statement of Principle

1.1 Introduction

Research Integrity is the active adherence to the legal, ethical and professional standards essential to the safe and responsible conduct of research.

The University expects all of its staff and students to observe the highest standards of Research Integrity and Governance whenever they are involved in research activity; throughout the research lifecycle. This Code of Practice is designed to promote good conduct in all stages of a research project and contains a framework for good research practice. This Code of Practice aims to assist all staff and students involved in research to meet legal and ethical requirements, and help prevent misconduct, in order to facilitate high quality research.

It is the responsibility of all researchers to make themselves familiar with, and abide by, this Code of Practice. 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 all subject areas and to all members of staff and students involved in research at the University, including its 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.

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 conducting research and to produce and disseminate work of the highest quality. This Code of Practice is intended to support this goal.

2.   Core Values

2.1   Overview

Research Integrity is underpinned by a set of core values which help to promote good research practice. 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.

2.2   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 responses to the actions of other Researchers. 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 incidences of misconduct appropriately (see Section 3.17).

2.3   Openness

Research methods, results and the data supporting those results should be open to scrutiny, discussion and debate. Subject to considerations such as confidentiality 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 conflicts of interest; in the reporting of research data collection methods; in the analysis and interpretation of data; in making research findings widely available, which includes sharing negative results as appropriate; and in presenting work to other researchers and the public.

The University is an Open Access University and supports the 2016 Concordat on Open Research Data. All research outputs and data should be made "as open as possible, closed as necessary" in accordance with FAIR data principles. Please refer to Section 3.2 and Section 3.5 for further information on the University's requirements and expectations on Open Data and Open Access.

2.4   Rigour

Researchers should conduct research according to the highest standards of rigour in line with prevailing disciplinary norms and standards. 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.

2.5   Responsible Metrics

The San Francisco Declaration on Research Assessment (DORA) is a declaration universities and other organisations (publishers, funders) sign to commit to supporting and promoting the responsible use of metrics and quantitative indicators of research.

By signing DORA, Cardiff University commits to making assessments of research performance and quality based primarily on the quality of the content of the research, judged through peer review, and

not giving undue regard for bibliometrics based on the journal the research was published in. DORA commits the University to assessment of research excellence and use of this in promotion and other forms of research assessment, via consideration of scientific content rather than publication in 'high-impact' factor journals. This approach helps ensure a transparent and fair consideration of research quality/researcher contributions at different career stages.

2.6   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 the stewardship of research and scholarship for future generations.

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 Section 3.7).

2.7   Accountability and Responsibility

The primary responsibility for safeguarding the integrity of any research undertaken lies with the individual Researcher. It is his/her responsibility to ensure that the work meets all professional standards and the principles outlined in this Code of Practice.

Researchers have a duty of accountability to society, to their profession, to the University and to the funders of the research. This includes accepting full responsibility for the professionalism and integrity of all aspects of the conduct and publication of their research, the activities of any staff or students under their direction and reporting conflicts of interest (actual or potential) and suspected misconduct, in the appropriate manner.

Researchers must accept responsibility 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 also comply with the University's policies and guidelines and the legal and policy requirements that regulate their field of research, especially the basic principles relating to ethics, information, finance and health and safety. Academic staff involved in research are expected to abide by the principles and expectations contained in the 'Cardiff Academic' and 'College Performance Expectations' (refer to Annex 1). 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, specific guidelines and/or terms and conditions related to the project and grant 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 produced on schedule; and adherence to the 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.

3.   Standards for Research

3.1   Leadership and Supervision

It is University policy that Researchers receive adequate supervision and Researchers must familiarise themselves with the supervision and oversight expectations of their research group,

School, Research Institute and/or College. It is normally expected that Researchers will report to a Group Leader, Lead Investigator or, in the case of student researchers in particular, a Supervisor.

The Group Leader/Lead Investigator/Supervisor of a research project is responsible for ensuring that all Researchers under their supervision/management have been suitably apprised of their responsibilities under this Code of Practice and that they undertake research in line with its provisions. This includes ensuring that:

i. the dignity, rights, welfare and safety of any research participants is maintained;
ii. research is conducted in accordance with guidelines (including best practice and health and safety procedures), and approval obtained from all necessary bodies before research commences (with any proposed amendments to the agreed protocol also being approved);
iii. a risk assessment of the planned project is undertaken to determine the potential risks to the organisation, the research, the safety and wellbeing of the participants and researchers, the environment, and to identify the legal and ethical requirements governing the research (refer to Annex 1 for a recommended checklist for researchers);
iv. the project complies with all relevant legal and ethical requirements;
v. the Researcher has a thorough awareness of Equality, Diversity and Inclusion requirements and shares that knowledge with those under his/her leadership;
vi. 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, e.g. Disclosure and Barring Service checks and/or Baseline Personnel Security Standard checks;
vii. 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 upon completion of the research project, and that these procedures are documented in a data management plan where required;
viii. reports on research progress and outcomes are produced on time and to an acceptable standard;
ix. research results are disseminated promptly and fed back as appropriate to participants;
x. findings are open to review through accepted scientific and professional channels and research data are appropriately registered to facilitate discoverability and access;
xi. arrangements are in place to manage financial and other resources provided for the project, and any intellectual property arising from it;
xii. the Researcher accepts the key role of detecting and preventing misconduct by taking responsibility for all aspects of research integrity which relate to a particular publication;
xiii. provision is made for the continued management of research data, records and samples if a Researcher leaves the University;
xiv. where collaborations with external organisations are entered into, there is formal agreement regarding data ownership prior to project commencement.

Group Leaders/Lead Investigators/Supervisors are expected to establish an atmosphere of organisation and co-operation in their team, fostering the open exchange of ideas and ensuring that robust management practices exist to safeguard the honesty and integrity of the research conducted. New Researchers (including research students) must be given access to this Code of Practice, and any other appropriate guidelines on best practice.

Group Leaders/Lead Investigators/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 Section 3.6.2 for further information on the expectations of research Supervisors.

3.2 Research Data and Records

3.2.1 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 to manage their research data and records effectively. 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 through the Information Security Framework programme website (refer to Annex 1).

As per the Information Security Framework, the Director of Research and Innovation Services (RIS) is the Data Lead for Research Information including research data.

The University will provide a significant amount of secure electronic 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 electronic storage space.

3.2.2 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.

3.2.3 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 records retention schedule (refer to Annex 1)). 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.

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.

3.2.4   Access to Data and Data Preservation

The University supports the UK Research and Innovation position on open research, including the 2016 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.

3.3   Data Protection Legislation[1]

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 requires Researchers to have proper grounds to enable them to use personal data for research purposes and it sets out principles that must be applied to the use, storage and disclosure of that personal data (storage of research data is covered in Section 3.2). The lawful use of sensitive personal data (otherwise known as 'Special Category' data) is further restricted under the legislation. Sensitive personal data includes the state of individuals' mental or physical health; their religious, philosophical or political beliefs; trade union membership; their criminal record; their racial or ethnic origin and details of their sexual life.

A series of guidance notes for Researchers explaining Data Protection in research are available (refer to Annex 1).

3.4   Leaving the University

3.4.1   Research staff

Research 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.

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[1] Data Protection legislation includes the General Data Protection Regulation (GDPR) and will include any associated Data Protection legislation passed by the UK Parliament

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, Researchers must consult with the University's Data Protection Officer (based in the University's Strategic Planning and Governance Department) prior to the removal of originals or copies. Similarly, any Researcher wishing to retain human tissue samples, must consult with the Human Tissue Act Compliance Team.

3.4.2   Research students

Research 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 Sections 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, research students must consult with the University's Data Protection Officer (based in the University's Strategic Planning and Governance Department) prior to the removal of originals or copies. Similarly, any research students wishing to retain human tissue samples, must consult with the Human Tissue Act Compliance Team.

3.5   Publications and Authorship

3.5.1   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 results/findings.

Research should be published wherever possible[2], taking into account any conditions specified by the research funder (where applicable) and/or the protection of any intellectual property or

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[2] In the context of student research projects, all student researchers must ensure they are familiar with the expectations of their research group/School/Research Institute in relation to the storage and 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 Governance Team.

confidential information (refer to Section 3.12). 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 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 if it is substantially similar to another article(s) on the same research. 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. It is important that the research output is peer reviewed through accepted scientific and professional channels wherever possible.

Authors must ensure that they meet funders' Open Access requirements. To comply with the requirements for the Research Excellence Framework, 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 the Research Excellence Framework applies, Researchers are expected to comply with the University's Open Access Publications Policy (refer to Annex 1) 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.

3.5.2   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. 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 an individual should only be listed as an author if he/she has made a substantial intellectual contribution to the publication's creation **and** agrees to be accountable for it. As a matter of best practice, Cardiff University expects anyone meeting the criteria below to be listed as an author:

i.   Someone who has made a substantial contribution to **either** the conception or design of the research project **or** the analysis/interpretation of research data; **AND**
ii.   Drafted the publication and/or revised the publication 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' is not acceptable, neither is failing to list someone as an author who meets the relevant authorship criteria.

An author must be able to identify his/her specific contribution to the research publication. He/she is responsible for reviewing and taking responsibility for his/her contribution prior to the publication. Once published, the authors are deemed to endorse the publication and collectively support the findings of the research.

3.5.3   Acknowledging Contributors

Researchers must acknowledge the work of all contributors (including collaborators and others who have supported the research) who do not meet the criteria for authorship. Researchers must acknowledge the source of any funding associated with the research. 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.

3.6   Training

3.6.1   Overview

It is the personal responsibility of Researchers to undertake training in current good practice and the statutory requirements relevant to their research area. It is the responsibility of the University to ensure that there are adequate provisions 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. The University is fully committed to the principles of the 2008 Concordat to Support the Career Development of Researchers (refer to Annex 1) which provides 'a single, unambiguous statement of the expectations and responsibilities of Researchers, their managers, employers and funders with regard to how research careers should be managed and supported in higher education institutions (p2).'

Training in 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 to undertake their research work.

The Staff Development Team is responsible for supporting staff training across the University, and there is a designated member of staff 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 general 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 research staff 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). For further information refer to Annex 1.

3.6.2. 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 Research Student Progress Monitoring Procedure (for students). 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 (PGRs), this should be performed in accordance with the Policy and Procedure on the Monitoring of Research Students.

It is important that Lead Investigators/Supervisors develop the appropriate skills in respect of their staff development and managerial responsibilities. Individuals with supervisory responsibilities are expected to abide by the supervisory principles and expectations contained in the 'Cardiff Academic' and 'College Performance Expectations'. In providing career support, Lead Investigators/supervisors should draw on University support services and resources, including those for Research Staff and students as appropriate. For further information and resources, including the Cardiff University Leadership and Management Framework, refer to Annex 1.

3.6.3 Research Integrity Online Training Programme

An online training programme has been developed to assist Researchers to understand their responsibilities and ensure that research is conducted to the highest professional standards. The training is not intended to cover every aspect of Research Integrity; it provides an overview of the key behaviours and principles applicable across all research disciplines. Completion of the training is mandatory for all staff with responsibility for research and PGRs[3]. However, as noted above, Researchers are primarily responsible for ensuring they have the necessary skills and knowledge to conduct research in their discipline: completion of the online training programme should not replace discipline-specific training and development.

The online training programme has been approved by the University Research Integrity and Ethics Committee and is available at Annex 1.

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[3] 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.

3.7 Equality, Diversity and Inclusion

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[4]. 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.

Specific guidance on considering Equality, Diversity and Inclusion issues in research is available through the University's Strategic Planning and Governance Department, and available on the University's website (refer to Annex 1)

In addition to the above, RCUK/UKRI 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.

Furthermore, the University requires that those in leadership positions maintain a thorough awareness of Equality, Diversity and Inclusion requirements and share that knowledge with those under their leadership.

3.8 Ethical Requirements

3.8.1 Overview

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 and/or the expectations of their research discipline.

The University expects Researchers to 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 cultural objects. Researchers must ensure that their research design takes into account all relevant ethical considerations and that the research seeks to maximise benefit whilst reducing the risk of harm.

As well as ensuring the safety of research participants and subjects, Researchers must consider their own safety and wellbeing and comply with all relevant University policies and guidance, including the Lone Worker Policy (refer to Annex 1).

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[4] Under the Equality Act 2010 protected characteristics are the grounds upon which discrimination is unlawful. The protected characteristics (Section 4) under the Act are: age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief (including lack of belief), sex and sexual orientation.

3.8.2 Research Involving Human Participants, Human Material (including Ancient Human Remains) or Human Data

The following guidance sets out the principles that must be adhered to for all research involving human participants, human material (including ancient human remains) or human data.

Research must adhere to all legal requirements and guidelines produced by 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 relevant research ethics committees. It is legally and ethically paramount that all information gained from research regarding individuals must be kept strictly confidential and securely stored.

The University requires that research involving human participants, human materials (including ancient human remains) or human data be reviewed according to the relevant School Research Ethics Committee (SREC) procedures unless the research:

i. is being reviewed by a mandatory external ethics committee e.g. research involving the NHS where external ethics committees already exist to consider research proposals, and their use for such research is mandatory. In such cases neither the SREC nor the University Research Integrity and Ethics Committee (URIEC) is empowered to give the research proposal ethical approval;
ii. uses only information that is publicly and lawfully available e.g. census data, population statistics published by government departments and personal letters / diaries in public libraries.

All ethics committees are dependent on the information supplied by the Researcher to inform their decision-making. It is therefore the responsibility of the Researcher to ensure information provided to those committees is complete and accurate.

If the Researcher is unsure if ethical review is required all queries should be addressed in the first instance to the appropriate Chair of the SREC or School Ethics Officer (SEO).

If research involves the collection or use of human tissue (including saliva and other bodily fluids), it must first be reviewed by the Human Tissue Act Compliance Team prior to submission to an ethics committee. This is still the case where the material will be rendered acellular immediately.

The requirements of ethics review at Cardiff University are designed to demonstrate that Researchers have given consideration to 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 URIEC, the SRECs, the SEOs and through providing opportunities for training.

Despite the sensitivities and constraints surrounding human-related 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 a degree of anonymization and/or of 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. In order to properly allow for this, consideration of the matter must be made when producing consent forms, so that permission for making such data openly available, in a suitable format that protects the participants, is obtained at the outset.

For further information regarding the University's requirements for non-clinical research involving human participants please refer to Annex 1.

3.8.3   Research Involving Human Participants: Basic Principles

In any research involving human participants, the safety, rights and dignity of the participant must be the primary concern.

The University recognises the breadth of research methodologies in use across the academic disciplines and that ethical issues and practices may vary within the context of the methodologies as well as within context of a discipline. In all research disciplines Data Protection legislation requires a lawful ground for collecting and using information on living identifiable human participants in research (refer to Section 3.3). The lawful ground 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.

The principle of informed consent is an important method of helping to ensure the ethical conduct of research in many methodologies and disciplines. However, it should be noted that the consideration of lawful grounds to process personal data under Data Protection law are 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 the School Ethics Officers and Assurance Services in the University's Strategic Planning and Governance Department.

Research with children and/or adults at risk (sometimes referred to as 'vulnerable adults') must be undertaken with 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 Disclosure and Barring Service 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.

If Researchers consider that human participants in research 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 the improper use or storage of 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.

3.9   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 Research Ethics Committee approval.

All staff and students involved in the collection, storage, use or disposal of human tissue must a) read and follow the Cardiff University Code of Practice for Human Tissue Research and associated Standard Operating Procedures, b) undertake the CU 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 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 Cardiff University Code of Practice for Human Tissue Research and associated Standard Operating Procedures. Further information can be sought from the Human Tissue Act Compliance Team (HTA@Cardiff.ac.uk).

3.10   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. As part of this, research proposals require prior approval from the relevant ethics and regulatory committees, performed via the 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).

Research involving animals will require Home Office licences for the University, investigator and project, application forms for which are also available on the website. All Researchers and support staff have a duty to maintain high standards of care for the animals involved in the research. Exemplary levels of animal husbandry and welfare under veterinary supervision are required, and must be maintained. University guidelines on the care and use of animals in research and advice regarding Home Office Licences can be obtained from the Biological Standards Officer (BSO).

Any concerns related to research projects involving animals must be reported in the first instance to the BSO. The BSO may escalate concerns to the University's Establishment Licence Holder as necessary. The BSO and/or 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.

3.11   Clinical Research

3.11.1 UK Policy Framework for Health and Social Care Research (Policy Framework)

The Policy Framework (which has replaced the Research Governance Framework(s) for Health and Social Care) is relevant to research conducted by the NHS or using NHS resources that might have an impact on the quality of NHS services. NHS resources means NHS patients (including those recruited through their association with the NHS e.g. patients' relatives, those recruited through virtue of their status as former patients), patient tissues or data, staff, facilities or support.

All research falling within the scope of the Policy Framework requires a research governance Sponsor. It is the responsibility of Researchers to ensure that Sponsorship approval has been obtained prior to commencement of the research. Where Researchers are expecting Cardiff University to act as Sponsor, they must contact Research and Innovation Services.

For the full requirements of the Policy Framework and further guidance on conducting research involving the NHS refer to Annex 1.

3.11.2 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.

For further information on Clinical Trials refer to Annex 1.

3.11.3 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 an indicative 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:
- CTIMP
- Clinical investigation or other study of a medical device
- Combined trial of an investigational medicinal product and an investigational medical device
- Other clinical trial 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 Health Research Authority recognises any register identified as a WHO Primary Register or an ICMJE approved registry. Please refer to Annex 1. It is imperative that any research deemed to be a Clinical Trial is 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.

3.12. Intellectual Property

3.12.1 Definition and Importance

Intellectual property (IP) is the product of thought, creativity and intellectual effort. In the course of their research, consultancy and teaching, academic members of 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, therefore, 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.

At the earliest opportunity, Researchers should bring to the attention of RIS any IP that may have commercial value.

3.12.2 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.

Undergraduate and PGRs are not employed by the University and, as such, may own IP which they are solely responsible for producing. In some circumstances, however, a student will be required to assign his or her ownership interest in IP to the University or to a third party. This usually relates to PGRs where the terms of the funding for their studentship 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 the purpose of 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.

3.12.3 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.

3.13   Conflicts of Interest

An individual researcher may undertake a range of activities in addition to research and teaching. Researchers 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 remain aware of 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 professional standards. This includes upholding the principle of transparency by declaring all potential conflicts of interest.

A conflict of interest can be real or reasonably be perceived to be real (i.e. real or potential). 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 might, therefore, 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).

It may be acceptable to have a declaration/conflict(s) of interest as long as the researcher is transparent about its existence and, where appropriate, takes steps actively to manage any conflict(s) of interest effectively in order that it does not compromise the integrity of the project. Conflicts of interest should 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 initial 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 as per the procedures below.

Researchers must recognise that conflicts of interest, if managed inappropriately, 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)).

3.13.1 Categories of Conflict

This requirement relates to all actual and potential conflicts of interest, which could include:

i. Receiving funding from a company: University staff accepting research funding from a company in which they have a significant financial interest provides a potential conflict situation. This particularly applies to small and privately-owned companies and should not prevent a member of staff from receiving research support from a large, publicly-quoted company just because they or a family member owns some shares in the company.

ii. Commercialisation of research: where the University is involved in the commercialisation of research that results in a financial interest for the researcher, 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.

iii. Equity Interests: it is becoming more common for the University to receive an equity interest in a company as part of a contract or commercialisation agreement. 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.

iv. Research involving Human Participants: research involving human participants, organs or tissue 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)

3.13.2 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 (whether internal, or external to the University).

All staff involved in research at the University must comply with the declaration procedure contained within the University's guidance on Disclosure of Interests (refer to Annex 1). 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 SREC, Supervisor and/or the Head of School) in relation to how the conflict of interest should be managed and this should be documented.

3.14   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 Ani-bribery Policy and Counter-Fraud Policy (refer to Annex 1) or contact the Assurance Service team in Strategic Planning and Governance.

3.15   Export Controls

The UK's Export Controls (Controls) apply to the transfer of certain strategic goods, technology, software or knowledge leaving the UK. Where applicable, Researchers need to comply with the Controls and apply for an Export Licence (from the UK Export Controls Organisation) to transfer information, technology and/or goods outside of the UK.

Researchers need to be aware that knowledge can be transferred via conversations and by physical and electronic means.

In a research context, the Controls are most likely to apply to scientific and technical research with military, nuclear, chemical, biological, missile and aerospace applications. However all Researchers need to be aware of the Controls.

The UK Strategic Export Control Lists contains a list of the goods and technology that are subject to the Controls and require export authorisation (refer to Annex 1). The broad categories are:

i.   items that have been specially designed or modified for military use (and their components)
ii.   dual-use items, namely those that can be used for civil or military purposes which meet certain specified technical standards (and some of their components)
iii.   associated technology and software
iv.   goods that might be used for torture
v.   radioactive sources

In addition to the goods and technology controlled under the Strategic Export Control Lists, an Export Licence may still be required under catch-all or 'end-use' controls which apply to goods and technology that could be used in the development of weapons of mass destruction (WMD). Authorisation will also be required for items with a military end-use to destinations subject to sanction or embargoes.

In some cases, it is possible that the Controls will not apply even where controlled items are being exported. This is because there are some exemptions which apply in specific cases. The main exemptions are:

i.   'Basic scientific research' where the research is experimental or theoretical work undertaken principally to acquire knowledge of the fundamental principles or phenomena or observable

facts and not primarily directed towards a specific practical aim or objective (i.e. theoretical research, not applied research); and

ii.   Information already in the public domain without restriction upon further dissemination.

The exemptions do not apply where there are WMD concerns or where military end-use items are being sent to a destination subject to sanctions/embargoes. Given the specific application of the exemptions, Researchers must seek advice from the Export Control Organisation before relying on an exemption.

Researchers have a legal obligation to ensure that an Export Licence is obtained, where applicable. Failure to obtain an export licence and/or a failure to comply with its conditions may constitute a criminal offence.

Researchers should be aware that if qualifying goods or information from another country are received for a research project, this may require compliance with that country's export regulations and Researchers must ensure that advice is sought from the collaborator/contact in that country.

For further information and resources relevant to UK Export Controls, including a 'Checker Tool' and further guidance for researchers, refer to Annex 1.

3.16   Security-sensitive Research

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 Policy on Security-sensitive Research (refer to Annex 1) provides a framework for the registration and management of 'Security-sensitive Research' (SSR) capable of triggering the Prevent Duty. The Policy aims to ensure that SSR 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   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 an individual has good reason to suspect misconduct in research, this must be reported in accordance with the relevant University procedure outlined below.

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.

The University's Procedures for dealing with allegations of Misconduct in Academic Research (refer to Annex 1) outline the action to be taken where an allegation 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.

The University also has procedures in place to manage allegations of unfair practice and/or research misconduct against student researchers, such as the Cardiff University Academic Integrity Policy and Procedure (Research Students). These procedures are contained in the University's Academic Regulations (refer to Annex 1).

4.   Concluding Statement

This Research Integrity and Governance Code of Practice aims to enhance the professional, open and honest research culture 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 is reviewed annually by the University's Research Governance Team (Research and Innovation Services) and the University Research Integrity and Ethics Committee (URIEC).

Cardiff University gratefully acknowledges the following organisations for producing some aspects of this Code of Practice:

Health Research Authority	RCUK/UKRI
UK Research Integrity Office	Universities UK

Annex 1: Source Material and Related Policies and Guidelines

Topic	Code of Practice section(s)	Resources/links
Animal Research	**2.5** Care and Respect **3.8** Ethical Requirements **3.10** Research Involving Animals	Home Office guidance; <u>Animal testing and research</u>
		<u>Concordat on Openness on Animal Research in the UK</u>
		Cardiff University's (CU) <u>'Animal Research' webpages</u>
Authorship	**3.5** Publications and Authorship	UK Research Integrity Office (UKRIO) guidance; <u>Good practice in research: Authorship</u>
		Committee on Publication Ethics (COPE) guidance; <u>How to handle authorship disputes: a guide for new researchers</u> and <u>What constitutes authorship? COPE Discussion Document</u>
Behaviour/ Responsibility Also see 'Training' and 'Supervision/ Leadership'	**2.6** Accountability and Responsibility	**For Staff:** CU framework; <u>'Cardiff Academic' and 'College performance expectations'</u>
Bribery/Fraud	**3.14** Anti-Bribery, Counter-Fraud and Anti-Corruption	<u>CU Anti-Bribery Policy</u>
		<u>CU Counter-Fraud Policy</u>
Clinical Research	**3.8** Ethical Requirements **3.11** Clinical Research	<u>UK Policy Framework for Health and Social Care Research</u>
		For Staff: CU guidance; <u>Conducting research in the NHS</u> **For Students:** CU guidance; <u>Conducting research in the NHS</u>
		CU guidance on <u>Clinical Trials of Investigational Medicinal Products</u>
		<u>World Health Organisation list</u> of Publicly-Accessible Databases
		<u>International Committee of Medical Journal Editors list</u> of Publicly-Accessible Databases
Conflicts of Interest	**2.3** Openness **3.13** Conflicts of Interest	**For Staff:** CU <u>Disclosure of Interest Guidance</u>
Data Protection Also see 'Research Data and Records Management'	**3.2** Research Data and Records Management **3.3** Data Protection	CU's <u>Data Protection Policy</u>
		CU guidance; <u>Data Protection for Researchers</u> **NOTE:** At the time of writing this Code of Practice, the guidance contained on the above Intranet page was in the process of being updated in light of the General Data Protection Regulation. Please treat any University guidance relating to the Data Protection Act 1998 with caution and seek advice if unsure.
		CU guidance; <u>General Data Protection Regulation (GDPR)</u>
Equality and Diversity	**2.5** Care and Respect **3.1** Leadership and Supervision **3.7** Equality, Diversity and Inclusion	CU's <u>'Equality, Diversity and Inclusion' webpages and policy</u>
		For Staff: CU guidance; <u>Equality in Research</u> **For Students:** CU guidance; <u>Equality in Research</u>

Ethics (general)	**3.1** Leadership and Supervision **3.8** Ethical Requirements	**For Staff:** CU's 'Research Ethics' webpages and procedures **For Students:** CU's 'Research Ethics' webpages and procedures
		For Staff: CU's Lone Worker Policy **For Students:** CU's Lone Worker Policy
Export Controls	**3.15** Export Controls	Department for International Trade; UK Strategic Export Control Lists
		Export Controls 'Checker Tool' and Export Controls Organisation Helpline 020 7215 4594/eco.help@trade.gsi.gov.uk
		Department for Business Innovation and Skills and Export Control Organisation; Guidance on Export Control Legislation for academics and researchers in the UK
		The Association of University Legal Practitioners and Project Alpha of King's College London's (in partnership with the Export Control Organisation and the Foreign and Commonwealth Office) guidance; Higher Education Guide And Toolkit On Export Controls And The ATAS Student Vetting Scheme
Financial management	**2.6** Accountability and Responsibility **3.1** Leadership and Supervision	CU's Financial Regulations
Health, Safety and the Environment	**2.6** Accountability and Responsibility **2.5** Care and Respect **3.1** Leadership and Supervision	CU's Safety, Health and Environment Policy Statement
		CU's Environment Policies
		For Staff: CU's 'Health, safety and environment' procedures and guidance **For Students:** CU's 'Health, safety and environment' procedures and guidance
Human Tissue (HT) Research	**3.4** Leaving the University **3.8** Ethical Requirements **3.9** Human Tissue Research	**For Staff:** CU's 'Human Tissue Research' webpages **For Students:** CU's 'Human Tissue Research' webpages
Intellectual Property	**4.** Intellectual Property	**For Staff:** CU's 'Intellectual Property' webpages **For Students:** CU's 'Copyright and your thesis' webpages
		For Staff: CU's Intellectual Property Rights Policy
Open Access Also see 'Publication'	**2.3** Openness **3.2** Research Data and Records Management **3.5** Publications and Authorship	CU's Open Access Publications Policy
		Research Councils UK Policy on Open Access (UKRI)
		Wellcome Trust Open Access Policy
		COAF funders' Open Access Policies
Open Data Also see 'Publication'	**2.3** Openness **3.2** Research Data and Records Management **3.5** Publications and Authorship	UK Research and Innovation Data Policy and Concordat on Open Research Data
		FAIR Data Principles
Publication		CU Institutional Repository (ORCA)

Also see 'Authorship', 'Open Access', 'Open Data'	**3.5** Publications and Authorship	COPE website
Research Data and Records Management Also see 'Data Protection' and 'Open Data'	**3.1** Leadership and Supervision **3.2** Research Data and Records Management **3.3** Data Protection	CU Records Management Policy and Retention Schedules
		CU Information Security Framework
		For Staff: CU; 'Data Management' webpages **For Students:** CU; 'Managing and Sharing your Data' webpages
		CU 'Research Data & Information Management Programme' webpage
Research Misconduct	**2.2** Honesty & Integrity **2.6** Accountability and Responsibility **3.1** Leadership and Supervision **3.17** Research Misconduct	CU Procedures for Dealing with Allegations of Misconduct in Academic Research
		CU; 'Unfair Practice' webpages, including 'Academic Integrity in Research Degree Study' procedure
		CU Academic Regulations Handbook
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	**3.1** Leadership and Supervision **3.8** Ethical Requirements **3.8.2** Research Involving Human Participants: Basic Principles	CU Safeguarding Children and Adults at Risk: Policy and Guidance
		CU Activity Specific Guidance for Researchers
Supervision/ Leadership	**3.1** Leadership and Supervision **3.6.2** Responsibility of Lead Investigator / Supervisor **3.6** Training	UKRIO; Recommended checklist for researchers
		For Staff: CU guidance; 'Supervising Research'
		For Students: 'Your Future'
Training Also see 'Behaviour/ Responsibility' and 'Supervision/ Leadership'	**3.1** Leadership and Supervision **3.6** Training	Concordat to Support Career Development of Researchers
		Research Development Framework (Vitae)
		For Staff: CU Policy and procedure on the Monitoring of Research Students **For Students:** Policy and procedure on the Monitoring of Research Students
		For Staff: CU training; Cardiff Researcher Programme and Staff Development courses (research) **For Students:** CU training for PGRs; Doctoral Academy and 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

Other Research Integrity resources
Universities UK; 'Concordat to Support Research Integrity'
UKRIO; 'Code of Practice for Research'
RCUK/UKRI; 'Research Integrity' webpage and 'Policy and Guidelines on Governance of Good Research Conduct'
Erasmus Universiteit Rotterdam; 'Dilemma Game: Professionalism and Integrity in Research'

Annex 2: Research Integrity Committee structure at Cardiff University