

GOOD RESEARCH PRACTICE MANUAL

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Good Research Practice Manual

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1. Introduction and Aims of the Manual/Guide

SRUC expects all staff and students engaged in research activities to observe the highest standards of good research conduct. World leading research quality and scholarship of the highest order remain at the heart of what SRUC does.

Universities and other research institutions are responsible for safeguarding public confidence in their research and their own institution's reputation by establishing guidelines on good research conduct and instigating transparent and fair procedures for investigating allegations of research misconduct. Increasingly, funding agencies are making it a condition of eligibility for research grants that institutions have in place agreed procedures for governing good research conduct, which have been made known to, and are binding on, all their staff. For example, the UKRI policy on the governance of good research practice and the accompanying guidelines are part of UKRI's grants standard terms and conditions, and cover the promotion of good research practice, including: good practice in peer review; the need for appropriate training and development; what constitutes unacceptable research misconduct; and the investigation and reporting of unacceptable research conduct. Whilst the principles embodied in such guidelines simply reflect good practice and will be familiar to the vast majority of researchers, the conscious adherence to a published code of conduct is seen as the best preventative measure against research misconduct. Within SRUC, all those who are engaged in research and its management, should adhere to the following Professional standards.

Accountability

All staff engaged in research must ensure that the research they undertake complies with the terms and conditions of the research contract or funding body. This includes the need to carry out the research according to the research proposal, unless amendments have been agreed in writing; that finance is used solely for the purposes for which it was intended, unless permission for alternative use has been granted in writing; that reports are both timely and accurate and conditions relating to publication and ownership of intellectual property are met.

Openness

While recognising the need for staff engaged on research projects to protect their own research interests in the process of planning and executing their research, and those of



funding bodies, especially if confidentiality is explicitly required as a condition, SRUC encourages staff to be as open as possible in discussing their work with other researchers and the public. Once results have been published, researchers should make appropriate data and materials available to others on request for applicable purposes subject to intellectual property rights being honoured by any other users of the data or materials. If required as part of the terms and conditions of contract data, results and published material should be provided on an open access basis.

Honesty

All staff engaged on research are required to be honest in respect of their own actions and in their responses to the actions of others. This applies to all research work from initial formulation of concepts and hypotheses, experimental design and methods, analysis of data or ideas, publication of research and acknowledgement of the contribution of others. All staff engaged in research must refrain from plagiarism, infringement of intellectual property and the fabrication of results.

Conflict of interest

All staff engaged in research must be honest about conflict-of-interest issues whether real, potential or perceived, throughout the research process or when research is sponsored by an organisation that might have a vested interest. This is particularly important when staff are asked to assess other research proposals, or when refereeing/reviewing any material being prepared for publication.

Authorship

SRUC expects that anyone listed as an author in a publication can identify their contribution to the publication and accepts responsibility for being familiar with its contents. No member of staff should include a name of a person as an author on a paper unless permission has been received from that person. Authors should be ordered in such a way as to give proper credit to relative contributions on a project. Any person who has been involved in a substantial way in conceiving, analysing or writing up a significant part of a project should be included as an author. Any person who has not been involved in a significant way in conceiving, executing, analysing or writing up a part of the research should not be an author, but should be acknowledged where this is due.



Acknowledgement of collaborators

Contributions of formal collaborators and others who directly or indirectly assist and support the research should be acknowledged. Where appropriate the sponsors of the research should be acknowledged.

2. <u>Definition of Research and Researchers</u>

Research

For the purpose of this guide, "research" refers to the definition used by the 2021 Research Excellence Framework (REF 2021): "... research is defined as a process of investigation leading to new insights, effectively shared. It includes work of direct relevance to the needs of commerce, industry, and to the public and voluntary sectors; scholarship; the invention and generation of ideas, images, performances, artefacts including design, where these lead to new or substantially improved insights; and the use of existing knowledge in experimental development to produce new or substantially improved materials, devices, products, and processes, including design and construction. It includes research that is published, disseminated, or made publicly available in the form of assessable research outputs, and confidential report. It excludes routine testing and routine analysis of materials, components, and processes such as for the maintenance of national standards, as distinct from the development of new analytical techniques. It also excludes the development of teaching materials that do not embody original research."

Researchers

For the purpose of this guide, the UK Research Integrity Office (UKRIO) <u>Code of Practice for Research</u> definition of a "researcher" has been integrated with SRUC descriptions and are defined as: "any people who conduct research, including, but not limited to: an employee (on a research, teaching, technical or other employment contract); as an independent contractor or consultant; as a research student (SRUC-based or visiting); as a visiting or emeritus member of staff; or as a member of staff on a joint clinical or honorary contract".



3. Principles of Good Conduct in Research

a. Observation and awareness of research conduct

All individuals carrying out research for SRUC are expected to observe high standards of professional behaviour both in the practice of research and in the publication and dissemination of research. Whilst it is assumed that all researchers value research integrity as a personal goal, they are still expected to familiarise themselves with, and refresh their knowledge of, the SRUC Good Research Practice Manual and ensure that it is observed by themselves, and all those that they supervise/manage the research of, including other researchers, students, technical staff, and visitors. The SRUC Good Research Practice Manual should be drawn to the attention of newly appointed research staff and research students during their induction processes.

All existing academic and research staff will be directed to read the Manual by the Head of Research and their Faculty Deans. All new academic and research staff will be directed to read the Manual as part of the induction meeting with their line manager. All other students (e.g., taught undergraduates and postgraduates) who are undertaking research shall be made aware of the SRUC Good Research Practice Manual by their supervisor and directed to read it. Staff responsible for hosting visitors who will be actively involved in research at SRUC should draw their attention to the Manual at the beginning of their visit.

SRUC is committed to working towards the establishment of the features of good practice that are detailed in the sections below and expects its researchers to:

- Continue to endeavour to keep abreast of developments in the relevant subjects and disciplines, including their methodologies.
- Maintain a critical approach to one's own research results and an openness and responsiveness to reasoned criticism by colleagues.
- Observe the standards of practice and codes of conduct set out in guidelines
 published by funding bodies, scientific societies, government bodies, SRUC and
 other relevant professional and statutory bodies, where appropriate.
- Comply with all SRUC regulations relating to research including ethical, quality or approval processes.



b. Research Leadership, Supervision, and Development

Research Leadership

The SRUC Research Committee, Executive Leadership Team, Academic Leadership Team, and senior academic leaders such as Deans and Heads of Departments bear a critical responsibility in steering research leadership. Their role is not just administrative but also inspirational, setting the tone for a research culture steeped in good conduct, ethical practice, and positive leadership. These leaders and leadership groups are tasked with not only designing but also developing and delivering an environment that supports research activities to the highest standards of integrity and fairness.

SRUC research leaders are entrusted with the continuous review and assessment of existing practices, policies, and professional development incentives. Their goal is to ensure that these frameworks are conducive to an atmosphere of mutual co-operation, transparent research practices, and robust research integrity. This involves ongoing dialogue with academic staff, colleagues within SRUC, and external collaborators, both from academia and industry, to make certain that all levels of interaction uphold these values.

In instances where the need for reform or improvement is identified, the SRUC research leadership unites to diligently investigate and address these needs. Such efforts are always aimed at realigning SRUC with the best research practices recognised both nationally and internationally.

The effectiveness of this leadership is also extended by the collaborative spirit and conscientious practice of colleagues and collaborators. The collective insight and contributions from those within SRUC and external partners, academic and industry alike, are invaluable for creating a holistic and adaptable research culture. SRUC is committed to ensuring a positive, respectful, and dynamic research environment that encourages excellence and innovation at all levels.

Research Supervision

Following on from the leadership responsibilities at the organisational level, Research Leads, Principal Investigators, Research Student Supervisors, and Senior Colleagues have a specific mandate to guide research projects and programmes effectively. This includes ensuring comprehensive supervision for all involved—ranging from researchers and technicians to research students and other academic participants—at each phase of research, from planning and execution to analysis and publication.



Particular emphasis is placed on mentoring those who are new to the research arena, whether they are staff, postgraduate, or undergraduate students. It is vital to instil an understanding of the importance of good research conduct that is driven by personal initiative and integrity.

Acknowledging the evolving nature of research, SRUC also emphasises the continual professional development of senior researchers and supervisors. We encourage them to consistently refine their research capabilities and subject-matter expertise, thereby enhancing their ability to effectively manage and mentor others. To support this, SRUC offers tailored training programmes in areas such as supervisory skills, research integrity, and open research, ensuring that best practices are not just upheld but actively promoted throughout the organisation.

Postgraduate Research Students

The SRUC Doctoral College supports postgraduate research students and their supervisors and is responsible for the administration, development, and support of SRUC's postgraduate research provision.

Its main responsibilities are:

- Supporting the life cycle of research students, working with both postgraduate research students and staff
- Supporting student academic and professional development.
- Working across SRUC and partners to promote inter-disciplinary and entrepreneurial thinking.
- Connecting the postgraduate research community to networks of peers, academics, and professional services.
- Developing and delivering systems to support PhD progression, from application to alumni.

The Doctoral College acts as a point of contact for SRUC's research students, supervisors, and Awarding Institutions. It can provide advice, guidance, and support on all aspects of the postgraduate research journey, from application to completion. For further information contact pg.research@sruc.ac.uk.



Researcher Development

SRUC is committed to the principles of the Concordat to Support the Career Development of Researchers in accordance with good research practice by providing professional development and training opportunities where appropriate. Thus, all SRUC Postgraduate Students, researchers and academic staff have access to our dedicated study and social spaces, training, and professional development opportunities.

c. Research Funding and Award Support

Researchers should consider SRUC's public and professional reputation is not put at risk when searching for sources of research funding and that only reputable sources of research funding are pursued. It is important that proper internal procedures are followed throughout the entirety of all research funding application processes to ensure full institutional approval. Applicants for external research funding, and those responsible for authorising external applications, should take all reasonable measures to ensure the accuracy and completeness of all information submitted for internal approval prior to submission to external sponsors

Researchers should take all reasonable measures to ensure compliance with sponsor, institutional, ethical, and safety and moral obligations in managing research projects and programmes. Research project leaders must ensure that any undue pressure exerted on them by external research sponsors, which leads them to feel compromised or exposes them to a conflict of interest, is brought to the attention of the Head of Research. It is important that proper internal procedures are followed throughout the entirety of all funding award processes.

d. Risk Management

It is the responsibility of the principal investigators (PIs), and researcher leads to identify reasonably foreseeable risks associated with their research and control the risks so far as is reasonably practicable. In progressing their investigations, researchers must actively consider any risk that their research could potentially generate outcomes which could be misused for harmful purposes. The PI and lead researchers need to take responsibility for all assessments associated with their projects.



Examples of potential research risks that need to be considered include:

- **Health and Safety risks**: risks of harm to health, physical injury or psychological harm to participants or researchers.
- **Social risks**: disclosures that could affect a participant's standing in the community, their family, and/or their job.
- Legal risks: activities that could result in the participant, researchers and/or SRUC committing an offence, lead to the disclosure of criminal activity, or result in civil claims for compensation.
- Economic harm: potential financial harm to researchers, research participants or SRUC.
- Reputational risk: damage to the public and professional reputation of researchers or SRUC.

Safeguarding risks: risks to young people and vulnerable adults, as well as researchers working on the project from improper behaviour, abuse, or exploitation.

e. Research Data Management

Research funders often have their own policies on research data management and sharing. Project Data Management and Sharing Plans (DMPs) typically state what data will be created and how, and outline the plans for sharing and preservation, noting what is appropriate given the nature of the data and any restrictions that may need to be applied. DMPs are useful for:

- maximising the research potential of existing research outputs by reusing and repurposing them.
- planning and developing a strategy for issues such as data storage and long-term preservation, handling of sensitive data, data retention and sharing.
- anticipating legal, ethical, and commercial exceptions to releasing data; deciding who can have access to data in the short and long term.



 estimating the costs of your research project, which can then be included into a project's budget.

DMPs should be active documents that are revised throughout the life of a project.

Project Document storage

Data and project-related documentation for the day-to-day management of research projects is stored on SRUC's internal Research Project Hub, which has pre- and post-award areas with science and administrative areas for both.

It is good practice to ensure that results from any experiments or experimental analysis are put into electronic files as soon as the data / information becomes available.

As a general rule project related correspondence/ documents should be kept for 5 years, however this period varies by funder.

Institutional Research Data Repository

Figshare is the SRUC research project data repository. Where possible, it is recommended that researchers use Figshare to store, curate, publish, and showcase non-traditional research outputs like datasets, code, video, audio, and disciplinary specific files. Outputs can be stored in any file format and Figshare will generate a citable DOI for public outputs that adheres to funder compliance. If more appropriate for your data set(s), discipline-specific data repositories can be searched at Re3data.org. Be aware that some funders, as well as lead organisations on collaborative projects, can expect data to be deposited in specific data centres. Also consider whether any agreements with your collaborators include requirements for data deposit. If your dataset is deposited elsewhere, please create a record in Pure which references and links to the external repository.

f. Intellectual Property (IP)

Intellectual Property (IP) is defined as the results of creative work and endeavour in scientific, engineering, artistic, and literary fields where it may be possible to obtain registered and/or unregistered protection. IP includes patents, trademarks (registered and unregistered), designs (registered and unregistered), copyright, database rights, know how, and trade secrets. The protection and appropriate use of IP generated by SRUC research



activities relies on the data generated from funded research projects being appropriately organised, preserved, and documented ahead of dissemination.

Researchers at SRUC take responsibility for planning and enacting the management of appropriate IP from the start of each research project. Access to data generated by public/private funding arrangements is subject to individual collaboration agreement for each project. Such agreements are not constructed with a view to limiting access to research data, but rather to ensure that data is not released whilst being protected for IP. Where SRUC protects IP generated by public funding, SRUC undertakes to facilitate access to the protected research data for other non-commercial publicly funded research and education purposes.

g. Collection and Storage of Samples

Samples taken/provided for analysis (e.g., of animal, plant, or microbial origin) should be collected, stored, labelled and (where permission has been obtained) disposed of in compliance with all ethical and Health and Safety regulations in force

Sample Labelling: All samples should be labelled with an appropriate identifying code that enables the sample to be traced to the organism and species it was taken from, when and to what experiment, or project date, type of tissue and date of storage. The labelling system employed should ensure that samples cannot be mis-identified.

Sample Storage: Samples should be stored for the requisite period of time in an appropriate manner for a minimum of five years from the project end date (sample dependent) or the period specified by the contractor/funder. The policy for SRUC Research is that samples will be stored according to the requirements of the individual project, and it is the responsibility of the project manager to ensure that samples are appropriately stored.

Sample Recording/Logging: As well as recording as much information as possible on the actual sample, an archive/sample log should also be in place and used to record as much of the information described in point three above as possible. Maintenance of such a log is the responsibility of the project manager or delegated to a specific project team member. Where applicable, a disposal date showing when the sample can be discarded should also be recorded on the sample or in the log. Code numbers must be stored in either an accessible project notebook or electronically on SRUC's main computer system and protected and backed-up by appropriate electronic means.



h. Open Research Practice

Open research embodies good research practices by opening up participation in, and access to, the research lifecycle. Open research, also widely referred to as open science, relates to how research is performed and how knowledge is shared based on the principle that research should be **as open as possible**, **as closed as necessary**. The benefits of open research include:

- Transparency in research processes and data underpinning research outputs ensure that studies can be reproduced by other researchers in the field, and it helps facilitate interpretation and dissemination of results.
- Accessibility: Open access allows research to reach various audiences and removes cost barriers in accessing research of interest.
- Efficiency and value for money, as research processes and outputs can be shared and reused.
- **Compliance:** funders worldwide are requesting that their funded research is open and accessible so it can have the greatest possible impact.

SRUC is committed to Open research practice and expects researchers to make their work as accessible as possible to other researchers and the general public by following Open research approach:

- Publishing research results Open access
- Making the underlying research data FAIR-compliant, which is necessary for researchers to validate, replicate and reproduce one another's results
- Sharing methods, materials, and code to help increase the credibility of the research process and boost the efficiency of scientific discovery and verifiability.
- Using standard identifiers/processes which help discoverability and re-use of open outputs. We recommend using ORCID to identify the authors and acknowledge funders by adding funding ID on research outputs, and DOIs to identify and locate outputs.

Open research applies across all disciplines, but it is acknowledged that certain research data cannot be made publicly available. SRUC recognises that researchers are entitled to a



limited period of privileged access to the data they generate to permit effective publication, and that researchers must comply with the Terms and Conditions of their funder and/or partner organisation, as well as the SRUC Intellectual Property and Data Protection Policies. Researchers are recommended to make relevant data and materials available to others (consistent with consents and ethical approvals covering the data and materials, and intellectual property rights) and, where appropriate, deposit data/materials in an open repository/archive.

Researchers at SRUC should also contribute to good open research practice by keeping their Pure profile as up to date as possible by:

- Depositing all relevant research outputs and activities in Pure.
- Linking research outputs and activities to projects in Pure.

i. Publication and Authorship

Publication

In order for research to benefit wider society it is important to ensure that the results of research are published so that the outcomes and results are known and accessible to all. The PI/research lead with overall responsibility for the research programme should authorise the publication of results. Authorisation should cover both the content of the publication (including integrity of results, adequacy of internal peer review, appropriate protection of IP rights, appropriate authorship) and the intended place of publication. The SRUC Publication Policy outlines the internal review procedure for outputs intended for publication.

Issues to consider when publishing research include:

- Authorship of the paper (see section below).
- Originality and plagiarism of published work.
- Access to and retention of data presented in publication.
- Multiple, redundant, or concurrent publication(s) of the same data.
- Acknowledgement of sources, funding and otherwise.
- Disclosure and conflicts of interest.
- Reporting standards.
- Statements of compliance regarding hazards and human or animal subjects.
- Anonymisation of patient images and case details.



Authorship

Authorship should be limited to those who have made a significant contribution to the conception, design, execution, or interpretation of the published results. Transparency and accessibility about the contributions of authors is encouraged, for example in the form of a CRedit author statement. The selection and listing of the authors in a published work must be done in a way that fairly and appropriately reflects the contributions made by each and it is also essential to include the acknowledgement of contributions made by others not listed as authors. In order to minimise potential authorship disputes it is recommended that all collaborative research projects have a clear authorship and contribution policy, with individual contributor roles and provisional authorship specifically discussed, as early as possible during the project. Contributions must then be reviewed as the project progresses, with roles and authorship being revised where and when necessary, until manuscript publication. Documentation of this ongoing process allows for a final agreement from all before publication and ensures that all authors have access to read and review the final manuscript before submission. It is vital to remember that with publication authorship comes a responsibility for the integrity and accountability of the work.

j. Conflict of interest

Conflicts of interest in research, whether perceived or actual conflicts, can cause considerable damage to the reputation of both the individual concerned and SRUC. Conflicts of interest arise when a researcher's judgement is influenced, potentially influenced, or may be perceived to be influenced by secondary interests such as financial or other personal gain and personal relationships (e.g., with sponsors, industry, politicians, family). A good indication of whether a conflict of interest exists can be gained by asking the question 'Would I feel comfortable if others learnt about my secondary interest in this matter or perceived that I had one, or if that interest was disclosed in the press or on social media?' If the answer is no, then a conflict of interest probably exists.

Should a personal conflict of interest arise during the course of an individual's research, the researcher should disclose this conflict to their Head of Department and/or the Head of Research as soon as possible. Should the researcher be unsure as to whether their situation constitutes a conflict of interest or identifies that while there is no conflict others might perceive there to be one, they should also consult their Head of Department and/or Head of Research in the first instance. Where a conflict of interest is deemed to exist, the Head of Research, the Chair of the Ethics Committee and/or the Chair of the Academic Leadership



Team, in full consultation with the researcher, will agree on the appropriate course of action to be taken.

4. Research Integrity

Integrity is an essential part of good research and includes a multitude of things, such as adhering to institutional policies and protocols, using honest and verifiable methods in all stages of research and reporting findings clearly and transparently. SRUC is committed to maintaining the highest standards of research integrity in all our research and follows the UKRIO Code of Practice for Research and the Concordat to Support Research Integrity. The Concordat to Support Research Integrity sets out a framework for good research conduct and its governance in the UK and it is pertinent to all research disciplines, placing an emphasis on the responsibilities and accountabilities of all research stakeholders. By acting in accordance with this concordat, members of the research community can demonstrate that they:

- Uphold the highest standards of rigour and integrity in all aspects of research.
- Ensure that research is conducted according to appropriate ethical, legal and professional frameworks, obligations and standards.
- Support a research environment that is underpinned by a culture of integrity and based on good governance, best practice and support for the development of researchers.
- Use transparent, robust and fair processes to deal with allegations of research misconduct should they arise.
- Work together to strengthen the integrity of research and to reviewing progress regularly and openly.

SRUC expects all researchers to conduct themselves in a manner to ensure that integrity is at the heart of all research. The Concordat to Support Research Integrity defines the core elements of research integrity that should be followed to avoid research misconduct as:

• **Honesty** in the presentation of research goals, intentions, and findings; in reporting on research methods and procedures; in gathering data; in using and acknowledging the



work of other researchers; and in conveying valid interpretations and making justifiable claims based on research findings.

- Rigour in line with prevailing disciplinary norms and standards; in performing research
 and using appropriate methods; in adhering to an agreed protocol where appropriate; in
 drawing interpretations and conclusions from the research; and in communicating the
 results.
- Transparency and open communication in declaring conflicts of interest; in the reporting
 of research data collection methods; in the analysis and interpretation of data; in making
 research findings and data widely available, which includes sharing negative results as
 appropriate; and in presenting the work to other researchers and to the general public.
- Care and respect for all participants in and subjects of research, including humans, animals, the environment and cultural objects. Those engaged in research must also show care and respect for the stewardship of research and scholarship for future generations.
- Sharing responsibility all researchers should ensure that a culture of good research
 conduct and mutual co-operation is created in which all researchers, especially students
 and those who are new to the community, are encouraged to observe good research
 conduct, develop their skills and openly exchange ideas.
- Personal accountability regarding one's research activity to society; the profession; the
 institutions under the auspices of which the research is taking place; the participants,
 staff and students involved; and any other stakeholders, including, in many cases,
 research funders.

Although collaborators and other contributors carry their share of the responsibility for any research and its outcome, SRUC researchers are personally responsible for making themselves aware of, and taking all reasonable measures to ensure compliance with, funder, institutional, legal, ethical, health and safety, and moral obligations. This includes:

 Applying integrity in applying for public or private sources of funding and probity in using the funds only for purposes for which they are given.



• The strict adherence to the best contemporary legal, administrative, and ethical practices in research that involves human or animal subjects.

In alignment with all the Research Integrity values outlined above, SRUC recommends that all researchers participate in the Research Integrity Training course available to all SRUC staff and students.

5. Research Culture and Environment

SRUC is committed to promoting a positive research environment where all researchers can thrive and produce their best quality research. To best support this SRUC recognises that a positive research environment should be diverse, inclusive, supportive, and collaborative, and that a positive research culture is central to achieving this. Research culture describes the environment within which research takes place and encompasses the behaviours and expectations surrounding research practices, as well as values and attitudes towards these, within a research institute. Overall, it dictates what is considered "the norm" for best research practice and the mechanisms by which successful research is acknowledged and rewarded, and can be broadly promoted under the following themes, as suggested by the Russell Group Research Culture and Environment Toolkit:

- Research Careers
 - Stability
 - Progression
 - Recognition and reward
- Experience of working in research
 - Wellbeing, management, and support
 - Visibility, sense of community, and engagement
- Inclusive and respectful environments
 - Equality, diversity, and inclusion (EDI)
 - Preventing and addressing bullying and harassment.

SRUC is dedicated to actively contributing towards a positive research culture and provide the following initiatives in support of this:

Promoting openness and integrity in our research and innovation



- Establishment of the Equality Diversity and Inclusion (EDI) Committee to promote a supportive and inclusive environment.
- Applying an Equality Impact Assessment to all new policies, practices, processes and services, and retrospectively to existing ones
- Employing a Workload Allocation Model for all academic colleagues to facilitate equitable, consistent and transparent allocation of work and assist with transparent and fair career development
- A Mental Health and Wellbeing Support scheme including Mental Health First Aiders, an Employee Assistance Programme, and various policies covering Absence, Health, and Wellbeing

6. Research Ethics

Researchers and academics must be familiar with, and comply with, the standards of ethical conduct required by the law, external organisations (e.g., government bodies, sponsors) and SRUC. All research projects (including undergraduate research projects) require ethical approval before the research starts). Where the research also requires the approval of an external Ethics Committee this must be obtained before the components of the research project requiring such approval start. In such cases approval must be granted from both the external and internal Ethics Committees.

Researchers should pay particular attention to:

- The requirements for research involving human participants or human biological samples; this includes the need to ensure confidentiality of personal information relating to the participants in research, and that the research fulfils any legal requirements such as those of the Data Protection Act 2018 and the GDPR for Research Policy.
- The requirements for research involving animals; this includes the need to consider, at an early stage in the design of any research involving animals, the opportunities for reduction, replacement and refinement (3Rs) of animal involvement, and the need to ensure that the research complies with all Home Office regulations.



- The requirements for biological surveys overseas and subsequent research using
 organisms or samples back in the UK; this includes the need to consider the <u>Nagoya</u>
 <u>Protocol</u> governing the fair access to genetic resources in other countries; the
 organisation of permission or agreement from the host country, and the need to
 ensure that the research complies with all other appropriate regulations including UK
 import licence requirements.
- The requirements for research involving sensitive or extremism related research or terrorism-related research, including the need for the safe storage of securitysensitive research material (see UUK's October 2012 Oversight of security-sensitive research material in UK universities: guidance (universitiesuk.ac.uk) (October 2012).

SRUC Animal Ethics and role of the Animal Experiments Committee

SRUC believes that animal experimentation, within its ethical framework, is justified for the advancement of science and knowledge, which is expected to benefit animals. SRUC will use animals in research studies for the furtherance of agriculture and animal welfare (and on some occasions medical science) in adherence with the current UK legislative requirements and on the understanding that the experiments will be ethically appraised.

Research on, and working with, animals impose special obligations on those involved and is rightly a matter of public concern. Scientists, consultants, and animal care staff have legal and moral responsibilities to ensure humane treatment of animals at all times.

The Animal Experiments Committee is SRUC's designated Animal Welfare and Ethical Review Body (AWERB) which is a legal requirement for all UK establishments that work with animals under the Animals (Scientific Procedures) Act 1986 (amendment regulations 2012). The Animal Experiments Committee sets out the broad principles and mechanisms that SRUC has in place for the management and conduct of animal experiments (within an ethical framework) across the whole of SRUC and SAC Consulting.

The Animal Experiments Committee's remit:

 To ensure SRUC meets its obligations under required legislation for animal experiments. These include the Animal (Scientific Procedures) Act (for guidance on this law, <u>see here</u>)



- To ensure SRUC's policy to review all experimental work. Whether conducted under license or not, and regardless of if conducted in the UK or abroad, and irrespective of previous ethical approval by another institute, all research undertakes internal review by the Animal Experiments Committee.
- To champion ethical animal experiments and consideration of the 3R's (Reduce, Replace, Refine, e.g. https://nc3rs.org.uk/who-we-are/3rs) in all animal research internally and externally.
- Ensure compliance with SRUC Code of Practice and Policies on the Ethics of Animal Experimentation, which explains SRUC's approach to animal experiments.
- Annually review the standards of SRUC animal accommodations and identify areas to improve.

Role of Researchers:

- Anyone using animals in their work must study and comply with the relevant legal controls and local practices as defined by the SRUC Statement of Principle and this Code of Practice
- Supervisors of students, or line managers of relevant staff, are responsible for ensuring that their students or staff follow this Code of Practice.
- SRUC requires all its employees to report to the AEC their involvement in ANY
 activity involving animal experimentation, whether or not regulated by Home Office
 license, whether at SRUC or elsewhere in the UK or abroad and irrespective of
 source of funding (i.e. Government, Agency, Commercial).

Consideration of the 3R's (Replace, Reduce, Refine) in experimental design. Further information is available here: Research operations & culture | SRUC.

Social Science Ethics and role of the Social Science Ethics Committee

SRUC believes that appropriate social science investigations involving human subjects must carry out a review of their proposed work within SRUC's ethical framework and is justified for the advancement of science and knowledge, the outputs of which would be expected to



benefit both the social sciences and humankind. Therefore, all research that involves human research subjects should be subject to Social Science Ethical Review.

It includes the following (this is not a comprehensive list):

- Surveys of particular populations, including e.g. the public, farmers, students etc.
- Conducting interviews, workshops, focus groups or other forms of participatory research.
- Conducting economic/behavioural or sensory experiments.

The Social Science Ethics Committee's remit is concerned to protect:

- Human rights and the health, safety, dignity, and privacy of research participants.
- The health and safety of researchers.
- The reputation of the College as a centre of expertise for properly conducted and high-quality research.

Role of the Researcher:

- To be aware of Good Practice in research, and their individual responsibility to keep informed. A useful document that also contains a checklist for researchers is the UKRIO Code of Practice for Research.
- To act ethically in order to avoid a detrimental effect on participants, researchers,
 Higher Education Institutions which are involved in the research and the general public.
- To comply with General Data Protection Regulation (GDPR) which is of great importance for SRUC's research integrity. Many GDPR requirements include an ethical dimension (for example, right to informed consent and rights to data).
- To request an ethical review if the research involves human subjects.
- To consider any potential ethical issues in their project before any work starts and to obtain ethical approval before any data is collected.
- To be aware of SRUC, professional, legal and funder expectations and requirements, as appropriate.



- To review projects as they progress: Projects change and so can ethical issues.
 The social science ethics committee should be updated of changes (in case a
 further review is required) and new drafts of documents should be uploaded on
 PURE.
- To be aware of who is responsible within the project team and with project partners, as appropriate.
- To apply for ethical approval in a timely manner, ideally at least 1 month before data collection in the project is due to start.

The named PI or lead researcher will have responsibility for overseeing ethical principles are approved.

Further information available here: Research operations & culture | SRUC.

7. Research Misconduct

a. <u>Definition of Misconduct in Research</u>

Misconduct in research can have serious consequences for individual researchers, employers, funders, research participants, and the wider public, and can damage public trust in research, as well as harming the reputation of individual researchers and/or their research institute. In broad terms, research misconduct can be defined as "wilful behaviour that deliberately or recklessly falls short of the standards expected in the conduct of research, thereby breaching the principles of research integrity". It covers all stages of the research cycle from initial ideas, the peer review process, experimental design and administration, through to reporting outcomes. Research misconduct is a spectrum rather than a hard and fast line; for the purposes of SRUC's Disciplinary Procedures 'research misconduct' is the wilful failure to comply with the requirements noted below. Research funders also have expected standards in the conduct of research put in place, as do academic and learned bodies for their specific disciplines. For the avoidance of doubt, the UK Research Integrity Office presents the following as examples of research misconduct:

 Using other people's ideas, intellectual property, or work without their permission and/or acknowledging their input (<u>plagiarism</u>)



- Breaching legal, ethical and professional requirements needed for research, for
 example those needed for human research participants, animals, or human organs or
 tissue used in research, or for the protection of the environment. An example of this
 includes proceeding with research without ethical approval or not obtaining informed
 consent.
- Proceeding with research without necessary permissions and approvals in place
- Making up data or results, or other aspect of the research such as patient consent (<u>fabrication</u>)
- Manipulating and/or selecting research processes, materials, equipment, data etc. to present a false impression or outcome (<u>falsification</u>)
- Misrepresenting data or other information
- Failing to declare or appropriately manage conflicts of interest.

Poor behaviour outside of these examples is known as questionable research practice (QRP). QRP is best described as poor behaviour that does not meet the ideal standard but does not quite reach the definition of research misconduct. For example, genuine errors and reasonable differences in approaches and methodology are <u>not</u> research misconduct. This includes honest errors or differences in the design, execution, interpretation or judgement in evaluating research methods or results and the use of QRPs can be reduced through the increased practice of research transparency (see <u>Open Research Practice</u>). Although research misconduct does not include poor research unless this encompasses the intention to deceive, researchers should actively avoid QRPs such as data dredging, HARK-ing (Hypothesizing After the Results are Known), P-hacking, selective reporting, or failing to disclose sampling strategy (<u>see here</u> for up to date definitions of QRPs). UKRIO provides helpful <u>resources on QRPs</u>, including an infographic on QRPs and the "<u>slippery slope to research misconduct</u>" and a short article "<u>Defining the Spectrum of Questionable Research Practices</u>".

b. Reporting and acting upon allegations of Research Misconduct

All stakeholders involved in research, including all academic staff, technical support staff, administrative support staff and students, have responsibility for reporting any suspicions of research misconduct. Allegations of research misconduct should be made, as the person



making the allegation deems appropriate, to the Named Person for investigating allegations of research misconduct, the Provost and Deputy Principal, Professor Jamie Newbold (Jamie.Newbold@sruc.ac.uk). When this is not possible, allegations should instead be made to the Named Deputy, Head of Research, Professor Eileen Wall (Eileen.Wall@sruc.ac.uk). If for any reason either of these is deemed to be inappropriate the allegation should be made to the Chair of the SRUC Board. Details of the allegation and investigation procedure are outlined in the SRUC Public Interest Disclosure (Whistleblowing: Code of Practice and Procedure, and include information on Protection, Confidentiality, Malicious Allegations, Anonymous Allegations, and Retraction of Allegations.

Any allegation made under this procedure will normally be the subject of a preliminary investigation either by the person to whom the allegation is made or, more usually, by a person or persons appointed by them; investigations are not carried out by the person who may ultimately have to reach a decision on the matter. Where no investigation is to be carried out, and the allegation is effectively dismissed, the person making the allegation will be informed and given the opportunity to remake the allegation to some other person or authority within SRUC. This need not be done where an allegation is dismissed after an investigation. Where an allegation is made and an investigation is to be carried out, the person or persons against whom the allegations were made must be told of the allegation, the evidence supporting it, and be allowed to comment before the investigation is concluded and a report made. The results of all investigations will be reported to the Audit Committee. UKRIO offer free and impartial advice on all aspects of research misconduct allegations, such as this short guide to research misconduct and a research misconduct reporting checklist.

8. SRUC Policies and Risk Assessments

A list of all SRUC Policies and Risk Assessments referred to in the Good Research Practice Manual are available to SRUC staff and students internally.

9. Glossary of Terms

The definitions given against the following terms are provided for the purpose of this document only and are not necessarily applied or adopted across SRUC.



Research: "A process of systematic enquiry leading to new insights which contribute to a body of knowledge, effectively shared." This definition adopts that given for the Research Excellence Framework, published in the Guidance on Submissions document in 2019.

Researchers: Following the UK Research Integrity Office Code of Practice for Research (2009), "researchers" are defined as "any people who conduct research, including, but not limited to: an employee; as an independent contractor or consultant; as a research student; as a visiting or emeritus member of staff; or as a member of staff on a joint clinical or honorary contract".

Research Integrity: Research integrity refers to the active adherence, by researchers and research organisations, of the ethical principles and professional and legislative standards essential for the responsible practice of research.

Research Ethics: Research ethics refers to the moral principles underpinning research at all stages, from developing a project grant application, data collection, to writing up and disseminating findings.

Rigour: Rigour in research refers to research which has been conducted according to recognised methods and protocols, which is valid, credible, and reliable and which would stand up to robust scrutiny.

Personal Data: Any information relating to an identified or identifiable living person who can be identified or who are identifiable, directly from the information in question; or who can be indirectly identified from that information in combination with other information.

Research Data: Any information that has been collected, observed, generated or created to validate original research findings.

Data Management: The collection, organisation, analysis, preservation and sharing of research data.