LIVERPOOL JOHN MOORES UNIVERSITY

Code of Practice for Research

Responsibility for Policy:	Pro-Vice-Chancellor for Research and Enterprise
Relevant to:	All LJMU staff (including emeritus, visiting & honorary staff), students conducting research and Academic Partnerships
Approved by:	Academic Board on 18 November 2020
Responsibility for Document Review:	Pro-Vice-Chancellor for Research and Enterprise
Date introduced:	October 2010
Date(s) modified:	October 2012, November 2014, September 2016, Oct 2020
Next Review Date:	October 2022

RELEVANT DOCUMENTS

- UK Research Integrity Office Code of Practice for Research
- Universities UK Concordat to support research integrity

RELATED POLICIES & DOCUMENTS

List here any internal policies or documents that are relevant to this policy e.g.

- Staff Handbook

LJMU Code of Practice
for Research

Table of Contents

Section 1. Introduction and Scope

The purpose of the University's Code of Practice for Research, hereafter referred to as the Code, is to ensure those involved in research activities at Liverpool John Moores University are well-informed about and compliant with current legal, regulatory, and institutional principles and expectations when planning, conducting, and disseminating their work.

For the purposes of this Code, "research" refers to the definition used for the Research Excellence Framework in 2014 (REF2014) as published in the REF2014 Assessment Framework and guidance on submissions, p.48; http://www.ref.ac.uk/pubs/2011-02/: and Annex C of the REF2021 "Guidance on Submissions (p.90).
https://www.ref.ac.uk/media/1092/ref-2019_01-guidance-on-submissions.pdf

> 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 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. It includes research that is published, disseminated or made publicly available in the form of assessable research outputs, and confidential reports.

The specifications and principles of this Code apply to:

1. Any research conducted by LJMU staff and students
2. Any research sponsored by LJMU
3. Any research and anyone undertaking research on premises using LJMU facilities

The Code sets out the responsibilities of various parties with an emphasis on the fundamental responsibility of individual researchers to uphold research integrity, including the fulfilment of appropriate research governance including ethics procedures, data management and open access.

The Code, has been adapted from the UK Research Integrity Office Code of Practice for Research www.ukrio.org/publications/code-of-practice-for-research/. It also aligns closely with the Universities UK Concordat to support research integrity. https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2019/the-concordat-to-support-research-integrity.pdf

Section 2. Principles

The University derives its principles from the definition of "Research Integrity" provided by the Concordat to Support Research Integrity:

> Honesty in all aspects of research, including in the presentation of research goals, intentions and findings; in reporting on research methods and procedures; in gathering data; in using and acknowledging the work of other researchers; and in conveying valid interpretations and making justifiable claims based on research findings.

The University encourages all involved in research to consider the wider consequences of their work and to engage critically with the practical, ethical and intellectual challenges that are inherent in the conduct of high quality research. It has adopted the following Principles, laid out by the UKRIO, which set out the responsibilities and values relevant to research: https://ukrio.org/publications/code-of-practice-for-research/2-0-principles/

2.1 *EXCELLENCE:* researchers should strive for excellence when conducting research and should seek to develop ambitious research that leads to the development of significant new knowledge. Researchers should also strive to disseminate their research and maximise the impact of their work with external audiences, in accordance with the Principles of this code.

2.2 *HONESTY:* researchers should be honest in relation to their own research and that of others. They should do their utmost to ensure the accuracy of data and results, acknowledge the contributions of others, and neither engage in misconduct nor conceal it.

2.3 *INTEGRITY:* researchers must comply with all legal and ethical requirements relevant to their field of study. They should declare any potential or actual conflicts of interest relating to research and where necessary take steps to resolve them.

2.4 *COOPERATION:* researchers should promote the open exchange of ideas, research methods, data and results and their discussion, scrutiny and debate, subject to any considerations of confidentiality.

2.5 *ACCOUNTABILITY:* researchers should recognise that in, and through, their work they are ultimately accountable to the general public and should act accordingly. They should ensure that any research undertaken complies with any agreements, terms and conditions relating to the project, and allows for proper governance and transparency. Researchers should seek to provide the optimum value for the public or private funder who has invested in them. Researchers should follow the requirements and guidance of any professional bodies in their field of research. Researchers who are members of a regulated profession must follow the requirements and guidance of the body regulating their profession.

2.6 *TRAINING AND SKILLS:* researchers should ensure that they have the necessary skills, training and resources to carry out research, in the proposed research team or through collaboration with specialists in relevant fields, and report and resolve, any unmet needs identified.

2.7 *SAFETY:* researchers should ensure the dignity, rights, safety and wellbeing of all involved in research and avoid unreasonable risk or harm to research subjects, patients, participants, researchers and others. They should report and address any concerns relating to the dignity, rights, safety and wellbeing of those involved in research. Research should be initiated and continued only if the anticipated benefits justify the risks involved. For further guidance researchers are directed to UKRI "Preventing Harm (safeguarding) in Research & Innovation"

Section 3. Roles and Responsibilities

Each member of the University community has a responsibility to foster an environment which promotes intellectual honesty and integrity, and which does not tolerate misconduct in any aspect of research or scholarly endeavour.

The key leadership roles within the governance structure for research are laid out below:

3.1 The Pro-Vice-Chancellor for Research and Enterprise is responsible for leading on research on behalf of the University, and chairs the University Research and Knowledge Exchange Committee.

3.2 The University Research and Knowledge Exchange Committee has ownership of University policies with application to research, including this Code of Practice. The Terms of Reference for this committee are linked here:
https://teams.ljmu.ac.uk/4/URSKTC/Papers/Terms%20of%20Reference%20Updated%202020.docx

3.3 Faculty Research and Knowledge Exchange Committees are responsible for fostering a culture of research excellence and integrity within their Faculties, promoting awareness across Schools, Research Institutes, Centres and Groups, of the University policies, which underpin research.

3.4 Principal Investigators and Research Group Leaders should promote and maintain an environment, which fosters and supports research of high ethical standards, mutual co-operation, professionalism and the open and honest exchange of ideas. They should foster a culture where good conduct in research is promoted and inappropriate conduct is identified and addressed. Researchers involved in the supervision and development of other researchers should be aware of their responsibilities and ensure that they have the necessary training, time and resources to carry out that role, and request support if required. They are responsible for:
- Ensuring that all necessary facilities, equipment, staff and support structures are in place before research projects are undertaken.
- Taking the lead on compliance with insurance, legal liability and indemnity obligations, funder requirements and University policies relating to research.
- Ensuring that any research procedures, processes and/or protocols (e.g. regarding authorship) are clearly communicated.
- Ensuring that all personnel associated with a project are competent to perform the tasks required of them, pursuing training where necessary.

3.5 Individual researchers are responsible for:
- Rigour, in line with prevailing disciplinary norms and standards,
- Maintaining the highest standards of integrity in their work at all times

- Ensuring that they are aware of, understand and comply with all insurance, legal liability and indemnity obligations, funder requirements and University policies relating to research.
- Identifying ethical dimensions and referring projects for Ethical review, and for abiding by the decisions made by UREC (and other relevant ethics bodies.
- Taking a proactive approach to their own training and development, to ensure that their needs are identified and addressed.
- Recognise their responsibility to conduct research of high ethical standards;
- Be aware of Liverpool John Moores University's policies and procedures on good practice in research;
- Be aware of Liverpool John Moores University's statutory requirements under the Counter-Terrorism & Security Act 2015, namely the Prevent Duty and LJMU IT Services Regulations, General Data Protection Regulation and The Data Protection Act 2018 under which research into extreme material must be subject to the University's ethical review process https://www.ljmu.ac.uk/ris/research-ethics-and-governance/research-ethics/decision-tool
- Make sure that their research complies with these policies and procedures, and seek guidance when necessary'
- Ensure that they have the necessary training, resources and support to carry out their research.
- Be aware of equality and diversity considerations in relation to the conduct of their research, and managing and supervising staff and research students.

3.6 Research Degrees Supervisors are responsible for ensuring that their students are aware of the requirements and policies relating to their research and have a clear understanding of appropriate practice in line with these frameworks. Specific responsibilities are set out in the Policy for the Supervision of Research Degrees:

https://www.ljmu.ac.uk/the-doctoral-academy/policies/policy-for-the-supervision-of-research-degrees

3.7 Postgraduate Research Students (PGRs) and their supervisors have a joint responsibility to ensure that any ethical issues are identified and the prosed research is submitted to the appropriate ethics review process prior to the commencement of the activity/activities to which it applies. These responsibilities are set out in the PGR Handbook:

https://www.ljmu.ac.uk/~/media/staff-intranet/research/doctoral-academy/y__handbook_ljmu-postgraduate-research-handbook--web-spreads.pdf?la=en

3.8 A named point of contact (Professor Keith George) who will act as a first point of contact for anyone wanting more information on matters of research integrity.

3.9 A named point of contact (Professor Phil Vickerman) or recognised an appropriate third party to act as confidential liaison for whistle-blowers or any other person wishing to raise concerns about the integrity of research being conducted under their auspices.

Section 4. Standards for Researchers

4.1 General Guidance on Good Practice in Research

4.1.1 Researchers must comply with all legal, ethical and other guidelines that apply to their research. This includes submitting research proposals for ethics review where appropriate and abiding by the outcome of that review. They should also ensure that all applicable bodies, ethical, regulatory and/or otherwise, approve research projects.

4.1.2 When conducting, or collaborating in, research in other countries, researchers based in the UK should comply with the legal and ethical requirements existing in the UK and in the countries where the research is conducted. Similarly, researchers based abroad who participate in UK hosted research projects should comply with the legal and ethical requirements existing in the UK as well as those of their own country.

4.1.3 Researchers should ensure that all research projects have sufficient arrangements for insurance, legal liability and indemnity prior to the research being conducted.

4.2 Training and Mentoring

4.2.1 The University supports the principles of the Concordat to Support the Career Development of Researchers, a UK-wide agreement launched in 2008 to promote research careers and improve research for the benefit of UK society and the economy. The University holds the EU HR Excellence in Research award, as an indication of its commitment to supporting the careers of researchers. Information about the University's commitment to the Concordat is available at:

https://www.ljmu.ac.uk/about-us/structure/professional-services/research-and-innovation-services/concordat

4.2.2 Researchers should undergo training in order to carry out their duties and to develop their knowledge and skills throughout their career, repeating training where necessary to ensure that skills are kept up-to-date. They should identify needs for training when they arise and report them to their manager or other appropriate person(s) as identified by the University.

4.2.3 Those involved in research mentoring should be aware of the leadership principles laid out by VITAE: https://www.vitae.ac.uk/doing-research/leadership-development-for-principal-investigators-pis/developing-individual-researchers/mentoring-and-coaching-researchers

4.2.4 Research mentorship should be a developmental process, taking place through regular meetings between mentor and mentee, in order to support and encourage the following:
- The development of a personal research strategy, plan and targets
- Helping the researcher to monitor the achievement of targets and outcomes
- Giving constructive feedback on, and acting as a sounding board to explore, ideas and issues arising from the research being carried out

- Reading and commenting on draft papers or other research outputs for publication and offering advice and guidance on suitable journals in which to publish
- Providing guidance on funding opportunities and (as appropriate) collaboration
- Commenting on draft grant applications
- Advice on how to build personal research and knowledge exchange networks
- Help to develop a career plan, understanding promotion criteria and markers of esteem for national and international standing in the field.
- Awareness of professional body responsibilities (such as registration, continuing professional development etc.) as appropriate.

4.3 Research Design and Practical Planning

4.3.1 In designing a research project, researchers should have a clear justification for the study and should ensure that:

- the proposed research addresses pertinent question(s) and is designed either to add to existing knowledge about the subject in question or to develop methods for research into it;
- the design of the study is appropriate for the question(s) being asked and addresses the most important potential sources of bias;
- the design and conduct of the study, including how data will be gathered, analysed and managed, are set out in detail in a pre-specified research plan or protocol;
- all necessary skills and experience will be available to carry out the proposed research, in the proposed research team or through collaboration with specialists in relevant fields;
- sufficient resources will be available to carry out the proposed research and that these resources meet all relevant standards; and
- any issues relating to the above are resolved as far as possible prior to the start of the research;
- Peer-review is deemed good practice.

4.3.2 In planning and conducting research, researchers should be aware of and comply with the University's Health and Safety Code of Practice:
https://www.ljmu.ac.uk/about-us/public-information/student-regulations/health-and-safety-codes-of-practice
Research leaders have an additional responsibility for those under their supervision, and should ensure that all members of the research team understand safety procedures, receive the necessary training, and have access to appropriate facilities and equipment.

4.3.3 Researchers should conduct a risk assessment (there is a generic template on the REC webpages:

https://www.ljmu.ac.uk/ris/research-ethics-and-governance/research-ethics/university-research-ethics-committee-urec/ethics-application-form-and-templates) of the planned study to determine:
- whether there are any ethical issues and whether ethics review is required;
- the potential for risks to the organisation, the research, or the health, safety and wellbeing of researchers and research participants; and
- what legal requirements govern the research.

4.3.4 Where the design of a study has been approved and reviewed by appropriate regulatory or ethics bodies, researchers should ensure that any subsequent alterations to the

design and/or protocols are subject to appropriate review to determine that they will not compromise the integrity of the research or any terms of consent previously given.

4.3.5 Researchers should try to anticipate any risks that the proposed research might produce results that could be misused for purposes that are illegal or harmful. Researchers should report any risks to, and seek guidance from, the appropriate person(s) in their organisation and take action to minimise those risks.

4.3.6 Researchers should be aware of the LJMU policy on open access for research outputs and data management. Open Access: https://www.ljmu.ac.uk/microsites/library/research-support-and-outputs/open-access Research data management: https://www.ljmu.ac.uk/microsites/library/research-support-and-outputs/research-data-management

1.4 Research Ethics

 4.4.1 A favourable ethical opinion is required prior to the commencement of the activity/activities to which they apply. If circumstances change (e.g. significant amendments to the protocol that has received a favourable ethics opinion), additional ethical review should be sought as necessary. Further guidance is at: https://www.ljmu.ac.uk/ris/research-ethics-and-governance/research-ethics

4.4.2 Where required, ethical review from external bodies should be obtained. Individuals should take particular account of the ethical standards and processes of the country/countries if the research takes place internationally.

4.4.3 In line with data management protocols, there should be a clear, well-documented and easily accessible audit trail, including the original protocol, ethics review/favourable opinion and any subsequent modifications.

4.5 Cover for Research Activity

4.5.1 LJMU is a Member of U.M. Association Limited (UMAL). As a discretionary mutual UMAL does not provide insurance for research activities but provides cover such as legal liability and indemnity. LJMU research activities must be covered by UMAL. Some research activities are automatically covered and some require cover to be arranged.

4.5.2 Copies of certificates for the cover provided by UMAL can be accessed from the LJMU insurance webpage (Please note – you may be asked by funders/sponsors/authorities/RECs for a copy of LJMUs insurance certificates that cover your research activities. Please provide the certificates for the cover provided by UMAL). Students – you may not be able to access the certificates directly – you may need your supervisor to download them.

4.5.3 To decide whether research activities are covered by UMAL, researchers can complete the Decision Tool – UMAL Cover for Research Activities. The decision tool will help researchers to understand whether research activities are excluded from the cover provided by UMAL and how to arrange cover when needed.

4.6 Collaborative Research

4.6.1 Whilst some research areas are largely associated with individual and independent research, many areas of LJMU perform research in teams with both internal and external collaborators. In forming research collaborations, researchers should pay particular attention to projects, which include participants from different countries or where work will be carried out in another country. In these cases, attention to local legal, insurance and ethical requirements is important alongside adherence to LJMU policy and practice. Researchers should articulate, agree and adhere to the standards and frameworks that will apply to the work, including respective roles and contributions.

4.6.2 Researchers should be aware of the standards and procedures for the conduct of research followed by any other organisations involved in collaborative research that they are undertaking. They should also be aware of any contractual requirements involving partner organisations, seeking guidance and assistance where necessary and reporting any concerns or irregularities to the appropriate person(s) as soon as they become aware of them.

4.6.3 Researchers should try to anticipate any issues that might arise as a result of working collaboratively and agree jointly in advance how they might be addressed, communicating any decisions to all members of the research team. In particular, agreement should be sought on the specific roles of the researchers involved in the project and on issues relating to intellectual property, publication, and the attribution of authorship, recognising that, subject to legal and ethical requirements, roles and contributions may change during the time span of the research.

4.7 Conflicts of Interest

4.7.1 Researchers must recognise that conflicts of interest (i.e. where pursuing research is potentially or actually compromised by his/her other interests – whether financial, institutional, academic, political, personal or otherwise) can inappropriately affect research. Conflicts of interest must be identified, declared and addressed in order to avoid poor practice in research or potential misconduct.

4.7.2 It is the responsibility of all researchers to identify and declare any potential or actual conflicts of interest. When addressing a conflict of interest, it must be decided whether it is of a type and severity that poses a risk of fatally compromising the validity or integrity of the research, in which case researchers should not proceed with the research, or whether it can be adequately addressed through declarations and/or special safeguards relating to the conduct and reporting of the research.

4.7.3 Conflicts of interest should be satisfactorily addressed, through declarations and/or safeguarding measures, before the relevant research activity commences. These should be considered explicitly as part of the formal ethics review process. Researchers should agree to abide by any direction given by Liverpool John Moores University or any relevant ethics committee in relation to a conflict of interest. Conflict of interest is classed as 'Misconduct' as per the Concordat to Support Research Integrity. LJMU's misconduct process applies here. https://policies.ljmu.ac.uk/UserHome/Policies/PolicyDisplay.aspx?&id=93&l=1

4.7.4 Researchers should comply with any external requirements relating to conflicts of interest, such as those of funding bodies. This should include declaring any potential or actual conflicts of interest relating to their research to: their manager or other appropriate

person; any ethics committee, which reviews their research; and when reporting their findings at meetings or in publications. Conflicts of interest should be disclosed as soon as researchers become aware of them.

4.8 Research involving Human Participants, Human Material or Personal Data

4.8.1 Researchers should make sure that any research involving human participants, human material or personal data complies with all legal and ethical requirements and other applicable guidelines. Appropriate care should be taken when research projects involve: vulnerable groups, such as the very old, children or those with mental illness; and covert studies or other forms of research which do not involve full disclosure to participants and thus cannot attain full informed consent to participate. The dignity, rights, safety and wellbeing of participants must be the primary consideration in any research study. Research should be initiated and continued only if the anticipated benefits justify the risks involved. Where appropriate DBS checks will be required.

4.8.2 When conducting, or collaborating in, research in other countries, researchers based in the UK should comply with the legal and ethical requirements existing in the UK as well as in the countries where the research is conducted. Similarly, researchers based abroad who participate in UK hosted research projects should comply with the legal and ethical requirements existing in the UK as well as those of their own country.

4.8.3 Researchers should ensure the confidentiality and security of: personal data relating to human participants in research; and human material involved in research projects.

4.8.4 Researchers working with, for, or under the auspices of the UK Department of Health and/or any of its agencies and public bodies i.e. the National Health Service (NHS), must adhere to all relevant guidelines, for example the UK policy framework for health and social care research https://www.hra.nhs.uk/media/documents/Final_Accessibility_uk-policy-framework-health-social-care-research_.pdf

4.8.5 Researchers should submit research projects involving human participants, human material or personal data for review by all relevant ethics committees and abide by the outcome of those reviews. They should also ensure that such research projects have been reviewed/approved by all applicable bodies, ethical, regulatory or otherwise.

4.8.6 Researchers on projects involving human subjects must satisfy themselves that participants are enabled, by the provision of adequate accurate information in an appropriate form through suitable procedures, to give informed consent, having particular regard to the needs and capacities of vulnerable groups, such as the very old, children and those with mental illness.

4.8.7 Researchers should inform research participants that data gathered during the course of research might be disseminated possibly in different forms, for academic or other reasons (e.g. public engagement). No data will be made public in an identifiable form, unless previously agreed to, and subject to limitations imposed by legislation or any applicable bodies, ethical, regulatory or otherwise.

4.8.8 Researchers who are members of a regulated profession must ensure that research involving human participants, human material or personal data complies with any standards set by the body regulating their profession.

4.8.9 The Human Tissue Authority (HTA) has published detailed guidance on what is relevant material for the purposes of the Human Tissue Act.
https://www.hta.gov.uk/sites/default/files/HTA%20Code%20A_1.pdf

4.8.10 The researcher should provide assurances to the UREC that the human tissue has been obtained ethically and in accordance with the legal requirements of the donor country, including specific consent.

4.8.11 Researchers have a duty to publish the findings of all clinical research involving human participants (noting also that the outcomes of publically-funded research should be published *per se*). In addition, it is government policy to promote public access to information about any research data and research findings affecting health and social care, including the principle that trials should appear on public registers. In this context "trials" means all comparative studies of health interventions, not just ones conducted in a clinical setting.

4.8.12 If researchers consider that human participants in research are subject to unreasonable risk or harm, they must report their concerns to their manager, or other appropriate person(s), and, where required, to the appropriate regulatory authority. Similarly, concerns relating to the improper and/or unlicensed use or storage of human material, or the improper use or storage of personal data, should be reported.

4.9 Research Involving Animals

4.9.1 Researchers should make sure that research involving animals adheres to all legal and ethical requirements and other applicable guidelines (e.g. the ARRIVE guidelines https://arriveguidelines.org/). They should consider the opportunities for reduction, replacement and refinement of involving animals in research projects and should refer to relevant guidance.

4.9.2 When conducting, or collaborating in, research in other countries, researchers based in the UK should comply with the legal and ethical requirements existing in the UK and in the countries where the research is conducted. Similarly, researchers based abroad who participate in UK hosted research projects should comply with the legal and ethical requirements existing in the UK as well as those of their own country.

4.9.3 Researchers should submit research projects involving animals for review by all relevant go governance committees and abide by the outcome of that review. They should also ensure that such research projects have been approved by all applicable regulatory bodies.

4.9.4 If researchers consider that animals involved in research are subject to unreasonable risk or harm, they must report their concerns to their manager or other appropriate person, and, where required, to the appropriate regulatory authority.

4.10 Health and Safety

Researchers should ensure that all research carried out under their auspices, or for which they are responsible, fulfils all requirements of health and safety legislation and good practice. They should bear in mind that certain types of research, for example social research in a conflict zone, can present particular issues of health and safety. They should ensure that

all research which involves potentially hazardous or harmful material or which might cause harm to the environment complies with all legal requirements and other applicable guidelines.

4.11 Adverse Events

4.11.1 An adverse event is one that was not reasonably expected and/or is not listed in the protocol and consent form as a risk of participating in the research. Any project might encounter an adverse event. These need to be assessed and acted upon by the research team. All adverse events should be recorded in the study or project file with a note that will identify when the event occurred, the details of the adverse event, action taken and resolution, and closure of the adverse event.

4.11.2 An assessment of seriousness needs to completed by the researcher in a timely fashion and with advice from other staff (e.g. Health and Safety) as appropriate. Serious adverse events need to be reported to the Research Ethics Committee (UREC).

4.12 Researching and Handling Sensitive, Extreme or Radical Material

4.12.1 The University derives its definition of sensitive research from Universities UK: https://www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2019/Oversight-security-sensitive-research-material-guidance-3.pdf
1. Research into illegal activities, including the collection of source data, e.g. crime statistics;
2. Research which requires access to web sites normally prohibited on university servers; including, but not limited to; pornography, or the sites of any of the organisations proscribed by the UK Government. See section 10 of this policy for more details;
3. Research into extremism and radicalisation.

4.12.2 The definition of sensitive research encompasses a wide variety of research topics. The collection, recording, possession, viewing on the internet, distribution, etc. of security-sensitive research material may be interpreted as committing an offence under the provisions of section 58 of the Terrorism Act 2000 and the Terrorism Act 2006 if not confined to use for purely academic research purposes. Such security sensitive research material should therefore be kept off personal computers and stored instead on specially designated university servers supervised by an officer of the Ethics Committee who would manage secure access by researchers.

4.12.3 The Ethics Committee should be a first, or early, point of contact for both internal university enquiries and police enquiries about suspect security-sensitive material associated with a university or a university member. Such material should be treated as having a legitimate research purpose unless ethics officers (or their counterparts) cannot identify it or the relevant researcher responsible for it.

4.12.4 The mechanism for storing security-sensitive material described above needs to be operated alongside comprehensive advice from universities to all university-based internet users, highlighting the legal risks of accessing and downloading from sites that might be subject to provisions of counter-terrorism legislation. Reading this advice should be a condition of getting a university email account.

4.13 Intellectual Property

4.13.1 Intellectual Property Rights (IPR) are the legal rights that exist in relation to the production of original intellectual or creative activity normally in the form of (including but not limited to): data, copyright, patents, designs, trademarks, plant variety rights, database rights and analogous rights for example.

4.13.2 Researchers should ensure that they comply with any contracts or agreements relating to research, which includes the provision for ownership and use of intellectual property. Intellectual property includes, but is not limited to: research data and other findings of research; ideas, processes, software, hardware, apparatus and equipment; substances and materials; and artistic and literary works, including academic and scientific publications.

4.13.3 Researchers should not give prior disclosure of research, or the findings of research, when this might invalidate any form of applications for protection (e.g. patent) or breach any commercial or collaborative property rights agreed with the funder or Partners. Researchers should recognise, however, that the presumption should be that any intellectual property discovered or developed using public or charitable funds should be disseminated in order to have a beneficial effect on society at large. That presumption may be rebutted where there is an express restriction placed on any such dissemination. Any delay in publication and dissemination pending protection of intellectual property should be kept to a minimum.

4.13.4 Researchers should be familiar with and comply with the University's Intellectual Property Policy, which details how IP generated during the course of a particular research activity is managed. The policy is available from LJMU's Intellectual Property & Commercialisation Manager in Research & Innovation Services.

4.13.5 Researchers should try to anticipate any issues that might arise relating to IPR at the earliest opportunity and agree jointly in advance how they might be addressed, communicating any decisions to all members of the research team. Researchers should seek advice from Research & Innovation services (RIS), by contacting the University's Intellectual Property Manager or Head of Knowledge Exchange

4.13.6 As a general principle, the University recognises PGRs as owner of any IPR he/she produces while a registered student of LJMU. This principle may be subject to variation in the case of collaborative or externally sponsored work, or other exceptional circumstances.

4.13.7 It is essential that a supervisor informs the student of any contractual issues concerning IPR ownership at the start of the project and an agreement is signed where appropriate. If an assignment of IPR is necessary, the supervisor will inform the Research & Innovation Services Team immediately. If a student is not willing to assign their future IPR to the University then the University shall be free to re-assign the student to another project.

4.14 Finance

Purchasing and expenditure of funds should take place in accordance with the terms and conditions of any grant or contract held for the research, the University's Financial Regulations Policy and Procurement Policy.

4.15 Collection and Retention of Data

4.15.1 Research data remains the property of the University when a researcher leaves. Where research data has been made open on conclusion of a project, the researcher may access it in the normal manner; if not, an access request will be required.

4.15.2 Research data collection and retention should align with LJMU's policy on Research Data Management
https://policies.ljmu.ac.uk/UserHome/Policies/PolicyDisplay.aspx?&id=101&l=1

and the institutional data repository serving as the route for open research data
https://www.ljmu.ac.uk/microsites/library/research-support-and-outputs/research-data-management/ljmu-data-repository.

4.15.3 Clear arrangements for data management should be in place from the outset of the research project. Where required by the funder, this will be in the form of a formal Data Management Plan.

4.15.4 The University expects all researchers to keep accurate, complete and reliable records of the research procedures or survey methods followed, and the results obtained. Records, samples and other experimental materials should be clearly, accurately, uniquely and durably labelled, and correctly stored, in line with regulatory requirements.

4.15.5 Researchers should comply with all legal, ethical, funding body and organisational requirements for the collection, use and storage of data, especially personal data, where particular attention should be paid to the requirements of data protection legislation. They should also maintain confidentiality where undertakings have been made to third parties or to protect IPR. Researchers should ensure that research data relating to publications is available for discussion with other researchers, subject to any existing agreements on confidentiality.

4.15.6 Research data and supporting records for all research undertaken under the University's auspices should be preserved for their legally specified period (i.e. as indicated by the University's Records Retention Schedule) with appropriate labelling/metadata and shared access controls to ensure that the information is identifiable, retrievable and available when needed and not dependent on a single individual.

4.15.7 Researchers should comply with any subject specific requirements for the retention of data; for example, certain disciplines, such as health and biomedicine, may require research data to be retained for a considerably longer period.

4.15.8 If research data is to be deleted or destroyed, either because it's agreed period of retention has expired or for legal or ethical reasons, it should be done so in accordance with all legal, ethical, research funder and organisational requirements and with particular concern for confidentiality and security.

4.15.9 The handling and storing of sensitive, classified and/or personal data or special category personal data requires specific care. Persona data must not be stored any longer than is needed. It must be anonymised/de-identified as soon as possible. Such data should be protected from unauthorised access, and there should be a clear and documented access control process for granting and revoking access to the data. Particular care should be given

to ensuring that de-identified data cannot be linked back to individuals' details unless by authorised persons. It is essential that all sensitive, classified and/or personal or special category personal data are disposed of appropriately, securely and auditably at the end of their lifespan, in line with legal and ethical requirements.

4.16 GDPR and Data Protection

4.16.1 As a Data Controller, the University must comply with the data protection obligations set out in the Data Protection Act 2018 and the General Data Protection Legislation (GDPR) (together referred to as the Data Protection Legislation). All staff and students who use or have access to, or custody of personal held held by the University must understand and comply with the rules governing the processing of personal information which they have access to when conducting research as part of their period of employment and/or studies.

4.16.2 The Data Protection Legislation applies to all personal data processed by the University, or on behalf of the University, irrespective of where the data is held or in what format including paper, electronic and audio.

4.16.3 The University takes data protection and privacy very seriously and has a number of policies and procedures in place to ensure that personal data is processed fairly, lawfully and transparently in compliance with the data protection legislation.

https://www.ljmu.ac.uk/about-us/data-protection/data-protection-policy

More information, help and guidance can be found on the University's Data Protection and Information Governance page here.

Further information on GDPR can be found on the Information Commissioner's website here.

4.17 Monitoring and Audit

4.17.1 Researchers should ensure that research projects comply with any monitoring and audit requirements. Any researchers charged with carrying out such monitoring and audits should have sufficient training, resources and support to fulfil the requirements of the role.

4.17.2 Researchers should consider any requirements for monitoring and audit at an early stage in the design of a project.

4.17.3 Researchers should cooperate with the monitoring and audit of their research projects by applicable bodies and undertake such when required. They should cooperate with any outcomes of the monitoring and audit of their research projects. If they become aware of a need for monitoring and audit where it is not already scheduled, they should report that need to the appropriate person(s).

4.18 Research Publication and Authorship

4.18.1 Researchers should address issues relating to publication and authorship, especially the roles of all collaborators and contributors, at an early stage of the design of a project, recognising that, subject to legal and ethical requirements, roles and contributions may change during the time span of the research.

4.18.2 Publication includes: publishing in peer-reviewed journals and books, conference presentations, posters presented at conferences, reports commissioned by external organisations, articles in the media, publication in web-based journals, on project websites, and other specific outputs aimed at a lay readership, including media recordings.

4.19 Openness

4.19.1 The University encourages all researchers to make their findings and methods widely available to other researchers and to the public. LJMU's Open Access Policy emphasises the University's desire to promote Green Open Access publishing and the publications repository 'Research online' is central to this (embed the link https://www.ljmu.ac.uk/microsites/library/research-support-and-outputs/open-access

4.19.2 In addition to complying with the University's mandate on open access, whereby the outputs of research must be freely accessible in the public domain, researchers must adhere to any further conditions set by funding or other bodies regarding the publication of their research and the deposit of these and the associated (curated) research data in open access repositories within a set/specified period.

4.20 Maintaining the Accuracy of the Research Record

Researchers should accept their duty to publish and disseminate research in a manner that reports the research and all the findings of the research accurately and without selection that could be misleading. If errors are revealed in the research data or their interpretation following publication, steps should immediately be taken to ensure the accuracy of the research record, including the publication of corrections or retractions as soon as possible.

4.21 Authorship

4.21.1 Authorship should be restricted to those contributors and collaborators who have made a significant intellectual or practical contribution to the work. No person who fulfils the criteria for authorship should be excluded from the submitted work. Authorship should not be allocated to honorary or "guest" authors (i.e. those that do not fulfil criteria of authorship).

4.21.2 Decisions about authorship should be agreed jointly and communicated to all members of the research team (e.g. the criteria for deciding who can be named as an author and the author sequence) and about acknowledgement (i.e. people who have contributed but who do not fulfil the authorship criteria) normally result from a process of ongoing communication, reflection and/or revision as the project evolves over its duration.

4.21.3 Researchers should be aware that anyone listed as an author of any work should be prepared to accept responsibility for that work and ensure its accuracy, and be able to identify their contribution to it.

4.21.4 Researchers should comply with the definition of author and co-author as defined by the journal in question, and appoint a corresponding author to lead for communication on the work. Further researchers are directed to the following supporting information (CRediT, the author contributor roles taxonomy, https://casrai.org/credit/)

4.21.5 Researchers must clearly acknowledge all sources used in their research and seek permission from any individuals if a significant amount of their work has been used in the publication.

4.21.6 Researchers should declare any potential or actual conflicts of interest in relation to their research when reporting their findings at meetings or in publications.

4.21.7 Researchers should be aware that submitting research reports to more than one potential publisher at any given time (i.e. duplicate submission) or publishing findings in more than one publication without disclosure and appropriate acknowledgement of any previous publications (i.e. duplicate publication) is unacceptable.

4.21.8 Researchers who are discouraged from publishing and disseminating their research or its findings, or subjected to attempts to influence the presentation or interpretation of findings inappropriately, should discuss this with their research group leader, line manager or Associate Dean for Research so that the matter can be resolved.

4.22 Acknowledging Contributions

The contributions of formal collaborators and others who directly assist or indirectly support the research, including funders, sponsors and data providers, must be appropriately acknowledged. Contributors who do not meet the criteria for authorship should be listed in an acknowledgements section.

4.23 Misconduct in Research

4.23.1 The University takes very seriously any breach of the standards of research outlined in this Code of Practice, and is committed to using transparent, robust and fair processes to deal with allegations of research misconduct.

4.23.2 Researchers should know what constitutes misconduct in research and report any suspected misconduct through the Liverpool John Moores University 'Procedure for the Investigation of Misconduct in Research' as soon as they become aware of it. They should recognise that good practice in research includes reporting concerns about the conduct of research and should cooperate with any investigation of misconduct in research when requested. Researchers should work with the University to support those who raise concerns in good faith about the conduct of research and those who have been exonerated of suspected misconduct.

4.24 Equality Diversity and Inclusion

4.24.1 Researchers should take account of equality and diversity considerations in relation to the conduct of their research, and managing and supervising staff and students. LJMU has a number of Equality, Diversity & Inclusion (EDI) Staff Networks and related Ally Groups, who are able to give guidance and advice.

4.24.2 The University actively monitors and evaluates equality and diversity activity with respect to staff and students, including PGRs; this information is publically available: https://www.ljmu.ac.uk/about-us/public-information/equality-and-diversity.

4.24.3 The University is signed up to the *Concordat to Support the Career Development of Researchers* and "Diversity and equality must be promoted in all aspects of the recruitment and career management of researchers".

4.25 Bullying, Harassment and Sexual Misconduct

Everyone has the right to carry out their research in an environment that is free from bullying and harassment. All researchers have a responsibility to respect the feelings and sensibilities of others, and to behave in a way which does not cause offence.The University has clear and robust systems in place to deal with bullying and harassment in the Dignity at Work Policy:

https://policies.ljmu.ac.uk/UserHome/Policies/PolicyDisplay.aspx?&id=201&l=1

4.26 Sustainable Research

4.26.1 The university is committed to sustainable development in both research and academic programmes, as part of its strategic mission to create and sustain a community that is aware of its social, economic and environmental impact. A dedicated microsite with up to date information on university activities is available:

https://www.ljmu.ac.uk/about-us/about-liverpool-john-moores-university/sustainability

4.26.2 The University has signed a Climate Emergency statement and all research activity should reflect on, and minimise where possible, the environmental impact of the work.