CODE OF CONDUCT:

PRACTICE FOR RESEARCH INVOLVING

HUMAN PARTICIPANTS AND ANIMALS

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1. INTRODUCTION

Research is essential to the continued development of academic disciplines and to the University as a whole. Canterbury Christ Church University (CCCU), therefore, wishes to encourage appropriate research and development activity amongst its staff and students and to meet its strategic aims and objectives – which include to actively promote research and knowledge exchange activity that is underpinned by high ethical, social and environmental standards. Research will also help to extend the bounds of knowledge and promote staff development.

CCCU has undertaken to comply fully with the terms of the *Concordat to Support Research Integrity* (2013) introduced by Universities UK and others. In particular it will comply with the five Commitments of the Concordat (see section 2 below).

This Code of Conduct is designed to help both in achieving these aims and objectives and in ensuring good research governance across the University. All research within the University must comply with the principles of good research practice outlined here. Individual researchers and research supervisors are responsible for ensuring their compliance with this policy; this will be closely monitored and subject to regular audit.

The University Research Governance Framework (2014a) for work involving human participants and animals is founded upon the Department of Health Research Governance Framework (DoH, 2001/2005); it extends to all research undertaken within the University. The Economic & Social Research Council (ESRC) published a similar Research Ethics Framework in 2005 (updated 2012) which is now mandatory for all ESRC-funded research. The other Research Councils have incorporated similar requirements into their research contracts. The Medical Research Council published updated guidance on Good Research Practice in 2012.

All researchers are expected to adopt the highest possible standards in their work. This means demonstrating scientific integrity and following the principles of effective research practice. This Code of Conduct outlines the key elements and sets out the principles that must be taken into account in planning and conducting research and in recording, reporting or applying its findings.

2. GENERAL PRINCIPLES OF RESEARCH

The principles are founded upon the seven principles of public life outlined by the Committee on Standards in Public Life (Nolan Committee, 1995). These are:

- Selflessness
- Integrity
- Objectivity
- Accountability
- Openness
- Honesty
- Leadership

More recently (2013), and perhaps more relevantly, all UK Universities have been required to comply fully with the terms of the *Concordat to Support Research Integrity* (2013) introduced by Universities UK and others. In particular CCCU will comply with the five Commitments of the Concordat as follows:

Commitment 1: We are committed to maintaining the highest standards of rigour and integrity in all aspects of our research.

- We shall endeavour to meet the Concordat's definition of integrity in terms of honesty, rigour, transparency and open communication, and care and respect.

- By collaborating with others we shall endeavour to maintain a research environment that develops good research practice and nurtures a culture of research integrity, as described in Commitments 2 to 5.
- We shall support researchers to understand and act according to expected standards, values and behaviours, and defend them when they live up to these expectations in difficult circumstances.

Commitment 2: We are committed to ensuring that research is conducted according to appropriate ethical, legal and professional frameworks, obligations and standards.

- By having clear policies on ethical approval available to all researchers.
- By ensuring that all researchers are aware of and understand policies and processes relating to ethical approval.
- By supporting researchers to reflect best practice in relation to ethical, legal and professional requirements.
- By having appropriate arrangements in place through which researchers can access advice and guidance on ethical, legal and professional obligations and standards.

Commitment 3: We are committed to supporting a research environment that is underpinned by a culture of integrity and based on good governance, best practice and support for the development of researchers.

- We will endeavour to provide a research environment that helps to develop good research practice and embeds a culture of research integrity. This will include:
  - clear policies, practices and procedures to support researchers;
  - suitable learning, training and mentoring opportunities to support the development of researchers;
  - robust management systems to ensure that policies relating to research, research integrity and researcher behaviour are implemented;
  - awareness among researchers of the standards and behaviours that are expected of them;
  - systems within the research environment that identify potential concerns at an early stage and mechanisms for providing support to researchers in need of assistance.
- We shall embed these features in our systems, processes and practices.
- We shall work towards reflecting recognised best practice in our systems, processes and practices.
- We shall implement the Concordat within our research environment.

The Pro Vice-Chancellor (Research and Knowledge Exchange) is responsible for the oversight of research integrity and acts as the first point of contact for anyone wanting more information on matters of research integrity.

Commitment 4: We are committed to using transparent, robust and fair processes to deal with allegations of research misconduct should they arise.

- By having a clear, well-articulated and confidential mechanism for reporting allegations of research misconduct.
- By having a robust, transparent and fair process for dealing with allegations of research misconduct that reflects best practice.

- By ensuring that all researchers are made aware of the relevant contacts and procedures for making allegations of research misconduct.
- By ensuring no detriment to whistleblowers making allegations of research misconduct in good faith.
- By providing information on investigations of research misconduct to funders of research and to professional and/or statutory bodies as required by their conditions of grant and other legal, professional and statutory obligations.
- By supporting our researchers in providing appropriate information to professional and/or statutory bodies.

The University Solicitor's Office is the main point of contact who will act as confidential liaison for whistleblowers or any other person wishing to raise concerns about the integrity of research being conducted under the auspices of the University.

Commitment 5: We are committed to working together to strengthen the integrity of research and to reviewing progress regularly and openly.

- We will present a short annual statement to our governing body that:
    - provides a summary of actions and activities that have been undertaken to support and strengthen understanding and application of research integrity issues (for example postgraduate and researcher training, or process reviews);
    - provides assurances that the processes we have in place for dealing with allegations of misconduct are transparent, robust and fair, and that they continue to be appropriate to the needs of the University;
    - provides a high-level statement on any formal investigations of research misconduct that have been undertaken.
- To improve accountability, and provide assurances that measures being taken continue to support consistently high standards of research integrity, this statement will be made publicly available.
- To ensure that we can be confident that our procedures and practices continue to be robust - given the changing nature of concerns relating to research integrity and the emergence of new types of research – we shall periodically review our processes and procedures to ensure that they remain fit for purpose.

These principles lay the foundations of the expectations on researchers. For example, researchers are expected to be honest in respect of their own actions in research and in their responses to the actions of others. This applies to all research approaches, including experimental or qualitative designs, generating and analysing data, applying for research funding, publications and dissemination and, lastly, in acknowledging the contribution made by colleagues, collaborators and others – whether this be direct or indirect.

Researchers are also accountable to society, their profession and the institutions in which they work, the staff, patients or students involved and to those who are funding their work. All researchers must:

- Report cases of suspected misconduct and do this in a responsible manner (see 10)
- Declare and manage any real or potential conflicts of interest (see below)
- Publicise and disseminate their findings so as to increase knowledge and understanding and to do this in a way that is consistent with ethical approval and consent (see 8)
- Take care when discussing work that is either incomplete or that has not yet been published, particularly if it has not undergone peer review.

Adherence to these principles will help to ensure that all research is carried out to the highest possible standard and meets the demands of the relevant Research Governance or Research Ethics Framework; it will also ensure that the quality and integrity of all research can be easily verified and provide a framework against which any allegations of misconduct and/or fraud can be investigated.

3. GOOD RESEARCH PRACTICE

Good research practice is about the way in which:

- Research is planned and carried out
- Research processes and findings are recorded and reported
- Research outcomes are disseminated, applied and/or exploited.

It also focuses on the need to safeguard the rights, safety and well-being of research participants; issues of consent and confidentiality are central (CCCU, 2014b; 2015c). Effective research practice can only be achieved if staff and students are trained and supervised appropriately. Heads of School/Centres (HoS/Cs), Research Group Leaders and Supervisors must ensure that all staff and students are appropriately trained and supported in carrying out their research-related roles. The steps that must be taken to ensure the quality of research practice include:

- Training of staff (e.g. in research supervision).
- Effective supervision and regular monitoring.
- Relevant continuing professional development.
- Regular checks on data recording and research diaries or notebooks.
- Occasional checks on the day-to-day conduct of research.
- Random audit of projects; a minimum of 10% of all research receiving ethical approval will be audited each year.

Lastly, it must be recognised that ***conflicts of interest*** may arise when individual judgement may be influenced by a secondary interest such as financial gain or personal advancement. This is not uncommon and there is nothing inherently unethical about it provided that it is acknowledged and dealt with accordingly. This is important as the way one is perceived to act influences the way that others act and may affect the credibility of research overall.

4. PLANNING RESEARCH

The planning of a research project is a critical determinant of its outcome, so the quality of its conception, design and implementation is important. This must include:

- Concise and clear documentation regarding:
  - The purpose of the study.
  - The rationale for the study and any subsequent modifications. All key documents – and any changes – should be signed and dated by the researcher and, where appropriate, their supervisor both to enable audit of the project and to establish intellectual property rights (see 9).
- Demonstration of compliance with the Research Governance Framework, ethical requirements, data protection legislation and the law (including an appropriate risk assessment).
- Securing the necessary approvals including the need for independent peer review, ethical review, etc. (see 6).

- Ensuring support from an appropriate Research Sponsor.
- Identification of a responsible professional who will take overall responsibility for the well-being of human research participants and animals and for ensuring that their rights are protected (e.g. informed consent, confidentiality).
- Clearly defined procedures for obtaining informed consent.
- Identification of the potential for adverse incidents and the actions to be taken should these occur.
- Consideration of the mechanisms through which participants/consumers/service users will be consulted where this is appropriate.
- Consideration of the way in which data will be stored, retrieved and analysed; professional statistical advice should be sought where necessary (see 7). This is particularly important in avoiding unnecessary or unproductive data collection.
- Ensuring that organisations and professionals responsible for participant care or welfare are aware that research is being planned and that they are given the opportunity to comment upon the research prior to its instigation.
- Identification of the resources needed (e.g. staff, space, funding, facilities, etc.) to ensure that the project can be carried out effectively.
- Plans for regular review of progress so that any problems can be identified, new findings can be taken into account and the project plan modified accordingly.
- A clear plan for publication and/or dissemination of research findings which includes agreement about who will be writing any reports or planned papers or publications (see 8 and 9 below) and the authorisation needed to publish.
- Acknowledgement of formal or informal contributions to the work, including sponsoring/funding organisations and scientific collaborators.

It should be noted that, though this seems to be a complex and detailed list of requirements it contains nothing that is not already expected/included in the current arrangements for approval and ethical review within many organisations.

5. COSTING AND FINANCIAL MANAGEMENT

It is essential that all research is appropriately costed and that this includes both direct and indirect costs. This is particularly important when applications for funding are made to external organisations; University and Faculty guidelines must be adhered to - see Bid Development Procedure (CCCU, 2013). In summary, when submitting a bid the following specific steps are required:

1. Report bid opportunities or project ideas to the Research and Enterprise Development (RED) Team

2. Inform and seek support from appropriate Head of School/Centre.

3. Inform appropriate Research and Knowledge Exchange Development Manager (RKEDM) to discuss what advice and help they can offer. If no support is required, the RKEDM must still be informed so that they have a record of the bid.

4. The budget must be agreed with Finance. Discuss the resource implications of the project with the RKEDM who can then draft, refine and agree the costings with the most appropriate member of the Finance team.

5. The bid must be peer-reviewed by a colleague with appropriate subject knowledge and a member of the CCCU peer review college. A register of staff with appropriate subject knowledge for carrying out peer reviews is held by RED.

6. The final proposal must be authorised by either the Head of School/Centre or SMT member (Dean or Pro-Vice Chancellor) with responsibility for the area where the project will be based.

7. Once all the above steps are complete the proposal can be submitted in line with the funding body requirements. A full copy of the bid, along with details of when a decision is expected, must be copied to the RKEDM and Finance for their records.

8. Notify the RKEDM and all relevant parties of the outcome and any feedback received.

9. If successful a project set up form must be completed and sent to Management Accounts with a copy of the contract or letter confirming award of the funds. The appropriate member of RED will advise on the correct coding of RKE Income.

10. A review of the project, in terms of outcomes and financial performance, should be undertaken with the Head of School/Centre at the end of each academic year and at the end of the project.

Accurate records of income and expenditure, must be maintained and be open to scrutiny on request. An accurate record of the time spent on individual projects must also be maintained.

Researchers must ensure that individual projects are completed on time and within budget. This is particularly important where projects are externally funded as these will be subject to both internal and external audit and monitoring.

5.1 Ensuring the reputation of the University is preserved

It is recognised that both full-time and part-time staff may, from time to time, undertake research/consultancy outside of their CCCU employment. The University's Consultancy Policy requires that:

> *Consultancy carried out privately must not involve activities that have the potential to bring the University into disrepute or that conflict with the interests of the University (both as an employer and as a Higher Education Institution) or any of its subsidiaries.*

6. APPROVAL AND NOTIFICATION

It is essential that all researchers gain the necessary approval(s) before starting their work. This includes compliance with the Peer Review Process (CCCU, 2006e), Ethical Policy and Procedures for the Conduct of Research involving Human Participants (CCCU, 2015), and the Protocol for the Use of Animals in Research and Teaching (CCCU, 2010i). Sufficient lead-time must be allowed for completion of these processes in all project plans.

To allow these processes to be co-ordinated in an effective and timely way researchers must follow the requirements of their Faculty Director of Research/Director of Research and Knowledge Exchange.

NB Additional conditions apply to research that involves human participants in a health or social care environment. Researchers planning to undertake such research should consult their Faculty Director of Research/Director of Research and Knowledge Exchange.

6.1 Research undertaken by students

6.1.1 Undergraduate studies. In undergraduate programmes and all other programmes positioned below Masters level it is not anticipated that participants will engage in formal research. However, there are a number of disciplines in which students may engage in demonstrations and other activities that verge closely on research activities. Examples of such disciplines may include psychology, applied social studies, media studies, sports science, and business and management. In all these cases the University's ethical policy and procedures should be followed as if the activities were actual research activities.

In all cases where undergraduate students are required to undertake activities involving human or animal subjects (for example, conducting psychology or sports science experiments in class using other students as subjects, or conducting surveys

involving members of the public), there must be an explicit section of the validation document describing the activities concerned and explaining how they comply with the research ethics policy of the University. Advice may be sought from the University Research Ethics & Governance Committee (REGC) and from Faculty Research Ethics Committees. The University Research Governance Manager (Secretary of the REGC) may also give appropriate advice and guidance on the issues that should be addressed.

Responsibility for the ethical review of undergraduate studies rests with the academic School or Programme concerned. Schools/Programmes may use the standard University ethics review documentation, or else develop their own. Either way, the documentation should be retained by the School or Programme concerned as part of the student's academic record. Programme Directors should note that a student who refuses to undergo an ethical review may not undertake any activity involving studies of human or animal subjects.

Undergraduate students are <u>not</u> permitted to carry out empirical research involving human subjects in any health or social care setting outside of this University or a collaborating University.

6.1.2 Postgraduate studies. Postgraduate students may carry out empirical research involving human or animal subjects provided that such research adheres to this Code of Conduct and to the Ethics Policy and Procedures for Research involving Human Participants (CCCU 2015c) and the Protocol for the Use of Animals in Research and Teaching (CCCU, 2010i).

7. CONDUCT OF RESEARCH

7.1 Information and organisation

All researchers must be familiar with the legal and ethical requirements relating to human or animal subjects in research and the handling of personal and sensitive information (see 8). However, since ethical issues, requirements and guidance are subject to constant change, they must also ensure that they are familiar with University Ethics Policy and Procedures for Research involving Human Participants (CCCU, 2014b & c), and Protocol for the Use of Animals in Research and Teaching (CCCU, 2010i). Additional advice is available from the Research Governance Manager in the Research and Enterprise Development Centre. Researchers must also be able to identify situations where a change is required, when ethical or regulatory approval is needed or when unforeseen results or adverse incidents need to be reported or discussed (see 10).

7.2 Standardisation of operational procedures

All research, whatever its nature, requires a systematic approach; standard operating procedures will help to ensure that research findings are consistent and accurate and should be clearly documented and adhered to. The documentation should be written in clear simple language that is readily accessible; it should be updated as necessary (e.g. following a pilot study). All such procedures should be current and up-to-date.

7.3 Use and maintenance of equipment

Where equipment is used to generate data this must be appropriately located, safe and 'fit for purpose'. It should, where necessary, be calibrated regularly and serviced by trained personnel to ensure optimal performance and provide accurate and trustworthy results. Clear records must be kept of calibration, servicing, breakdowns, faults and misuse. Standard operating procedures must be established for all equipment and accompanied by procedures to be followed in case of breakdown or other emergency.

7.4 Hazardous processes and materials

All experimental work must be conducted in accordance with health and safety regulations

and guidance and following a complete risk assessment and, where necessary, in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations (2002). Use of radiation facilities must comply with the Ionising Radiations Regulations (1999) and the Ionising Radiation (Medical Exposure) Regulations (2000) (see 11).

Where waste disposal is required this must be carried out in accordance with standard practice and the appropriate health and safety and environmental regulations; careful records must be maintained.

Researchers must be appropriately trained and regularly monitored to ensure that they do not endanger themselves, others or the environment.

7.5 Informed consent

A written description of the process of seeking informed consent from participants (CCCU, 2014b; 2015c), must be available. This enables adherence to regulatory requirements to be clearly demonstrated and facilitates application for ethical review.

7.6 Data collection and storage

7.6.1 The **confidentiality** of personal and sensitive data is important; the tenets of the Data Protection Act (1998) and Common Law must be adhered to (CCCU, 2006f). All researchers must ensure the confidentiality of all records and any personal or sensitive data collected during the course of research. Any research involving personal information, whether identifiable or anonymised, must be approved via full or proportionate review by an appropriate Research Ethics Committee.

7.6.2 It is important that all information concerning staff or research participants (whether obtained from records, research data, samples, etc.) is treated confidentially. When transcription of taped recordings is carried out by someone who is not a member of the research team, the person(s) involved must sign a confidentiality agreement. This also applies where an external person acts as a Focus group moderator or facilitator. It is also important that researchers do not, unless agreed by the participants, divulge any confidential information to any third party (including other professionals) other than research partners or collaborators or use any such information to their personal benefit. Failure to adhere to these requirements will be viewed as misconduct and may also be in breach of Common Law and/or the Data Protection Act (1998) leaving researchers liable to personal prosecution. However, where information cannot identify individuals (i.e. anonymised or aggregated data) it may be used freely to support audit and/or dissemination of research findings.

7.6.3 All personal information must be encoded or anonymised as far as is possible and consistent with the study concerned; only data necessary for the study should be collected. Lists of participants must be known only to the researcher and stored separately from the data *per se*, whether on paper, in electronic records or other media (CCCU, 2006f).

7.6.4 Data should be stored in such a way that complete retrospective audit can be carried out if necessary.

7.6.5 All data records must be regularly monitored to ensure that they are both complete and accurate.

7.7 Data retention

It is essential that data obtained in the course of research is accurately recorded and can be readily retrieved. Researchers should refer to their recommended professional standards for guidance. These might include:

- Primary research data – including, where possible, samples, questionnaires, audio tapes, etc. – must be retained in their original form in the research establishment that

generated them for the recommended period from completion of the project.

- Certain types of records, e.g. those relating to clinical or public health research may need to be retained for longer periods (up to 20 years) offering the opportunity for further follow-up if required.
- Researchers leaving the establishment that generated the data do not have an automatic right to retain that data (or copies thereof); permission may be refused where personal data is involved unless it is clear that any future use to which that data may be put will be consistent with the terms of the consent.

Further guidance on the storage and retention of research data is available in Research Ethics and Governance Advisory Note #2 (January 2013).

7.8 Research records: notebooks and electronic records

The following general principles apply to all research records.

a. All raw data must be recorded and retained in a laboratory notebook (research diary) or in a dedicated electronic format; all pages should be numbered

b. Special attention must be paid to ensuring the security of electronic data (e.g. password protected files)

c. Electronic data must be backed up regularly and duplicate copies held in a secure but accessible place; it is recommended that a hard copy of such data is also held

d. Printouts, transcripts, completed questionnaires, photographs, etc. which cannot be attached to the main record must be retained in a separate folder and clearly cross-linked to the main records; this includes signed consent forms where appropriate

e. All records should be entered into notebooks/electronic files as soon as possible after the data is collected and identified by the date. Any subsequent modifications, additions or alterations must also be clearly identified and dated

f. Clear notes must be maintained regarding the software employed and the edition used; software updates must be logged in the research records

g. Use of potentially hazardous substances (e.g. radioactive materials, chemicals) must be carefully maintained and compliance with the COSHH regulations demonstrated (see 11); this must be recorded in laboratory/research notebooks and in appropriate central records

h. Supervisors must review and confirm research practice regularly (monthly or as required by the nature of the work); questions or irregularities should be addressed; any subsequent changes to the records should be signed and dated by both parties.

Comprehensive guidance on the use of electronic systems for data recording and/or analysis is available from the UK GLP Monitoring Authority.

8. REPORTING THE RESULTS

The University encourages the effective dissemination of its research findings in a timely fashion in peer-reviewed or professional journals (or both) and/or at scientific meetings or professional conferences. It is, in any case, unethical not to intend to report research findings – or to exaggerate their importance. Care must be taken to ensure that research reports and papers are complete and balanced giving a rigorous report of the evidence.

Researchers are, therefore, expected to play an active role in disseminating their findings. They must, however, ensure that publication agreements are in place with any external organisations involved and that permission for publication has been obtained from appropriate bodies (see 9).

8.1 Authorship

As well as serving to disseminate research findings, publications have a major role in the career development of researchers and in the reputation and 'fundability' of research institutions. The list of authors in a publication details who did the work and should indicate those who should take the credit and responsibility for the findings. Authorship of four quality outputs from full-time staff in the designated period is the main criterion for researchers' inclusion in research assessment/excellence exercises which have a major bearing upon future funding. Getting authorship right is therefore vitally important.

The two main issues involved in authorship are:

- Exclusion of people whose contribution to a study was significant and warranted inclusion;
- Inclusion of people (sometimes against their wishes) who made little or no contribution to the research.

These, and other less common authorship issues, are often deemed to fall into the research misconduct category. As such authorship is a category in codes of conduct and guidance on good research practice produced by bodies such as Research Councils UK (RCUK) and the UK Research Integrity Office (UKRIO). The University's Protocol for the Authorship of Research Publications (2014) gives further advice and guidance for researchers.

8.2 Methods of publication

Delays in the publication of findings should be kept to a minimum and it is essential that intellectual property arising from the research is appropriately protected and ownership clearly established. When research work has been externally funded this should be publicly acknowledged; funding bodies should be notified in advance when the findings are to be published or otherwise disseminated and researchers should ensure that agreements are in place regarding the publication of findings before the work is undertaken (see 9).

If an error is found in a publication or the findings are later found to be in serious doubt every attempt must be made to retract the error or publish a correction as soon as possible. When this is thought to result from fraud or other research misconduct the Policy for Responding to Allegations of Research Misconduct (CCCU, 2015g) must be followed.

8.3 Copyright

The issue of copyright is important (see 9 and 10 below) and researchers must ensure that they understand this prior to publication of any research work.

9. MANAGEMENT OF INTELLECTUAL PROPERTY

The concept of intellectual property (IP) refers to the products (outcomes) of creativity and/or innovation, which can be allocated ownership through, for example, patents, trademarks or copyright. IP can, therefore, relate to designs, inventions, research findings, systems or processes, unique formulae or mathematical models, written work (e.g. internal/external reports, publications), ideas and/or specific knowledge; in other words, factors directly attributable to your work.

Copyright is defined as any work of authorship in a written form or in the form of computer software code and is automatically protected at the time it is created. It belongs to the author and protection extends throughout his/her lifetime and for a period of 70 years after his/her death. Inserting ©, together with the name and date, on each page of a document helps in this regard.

Within NHS Trusts the current position is that all inventions and innovations relating to the Trust and/or to NHS business may belong to that Trust unless clear agreements are in place prior to the start of any research or development activity. This may also apply to other research collaborators. The new University Policies on Intellectual Property for Staff and for Students (2014), and the accompanying Guidelines, set out the IP position for all work generated within

CCCU. Where projects involve both the University and NHS Trusts (or other collaborators), and both parties have an input or interest in the findings, a memorandum of understanding must be in place stating that potential IP rights will be shared on a *pro rata* basis of the relative contributions.

In general terms, CCCU fosters and encourages research and innovation and recognises the value of exploiting intellectual property to both the University and its creators. CCCU, therefore, offers its resources and expertise to help with the protection and exploitation of IP. That said, ownership will remain with employees with respect to the following:

- Scholarly publications including books, textbooks, articles in scholarly journals, conference proceedings or other collections, research reports, book reviews and published lectures provided that:
  - They are published outside CCCU.
  - CCCU is acknowledged as the institution in which the author is employed.
  - CCCU is granted a non-exclusive licence to use such publications for its normal teaching, research, consultancy or administrative activities.
  - Although learning and teaching materials created by University employees for the teaching of courses will remain in the copyright of CCCU, the University will assign ownership to the employee where that employee wishes to publish the material.
  - When an employee leaves the employment of CCCU they will be allowed to transfer copyright (including computer software) that they have generated during their time at the University.

Staff and students are, however, advised to consult the University Policy and to seek advice when wishing to exploit IP that they have generated. They must also be familiar with the policy of the funding/sponsoring organisation as appropriate. This means that ownership must be discussed and agreed (internally and, where appropriate, externally) before any work is undertaken; this must be subject to a written agreement between the parties concerned.

10. SCIENTIFIC INTEGRITY

It is believed that researchers should accept full responsibility for the integrity and conduct of both their personal research and that of staff or students under their direction. Within each Faculty the responsibility for ensuring that this is understood lies with the Faculty Director of Research/Director of Research and Knowledge Exchange, Heads of Schools/Centres, postgraduate Programme Directors and Research Supervisors.

10.1. Peer review

Peer review of research proposals plays an important role in helping to ensure both the quality of research and its scientific integrity. Its purpose is to:

- Support scientific quality
- Maintain ethical standards
- Avoid futile, unnecessary or inappropriate research
- Train and nurture novice researchers

Further details of the processes involved are given in the Peer Review Process (CCCU, 2006e).

10.2 Prevention of fraud and misconduct in research

Since the University ultimately carries the responsibility for maintaining high scientific and ethical standards in any research carried out by its staff and students, it is also responsible for monitoring all research and investigating any episode in which misconduct has been alleged; this will be achieved promptly, fairly and independently. The way in which such allegations will be dealt with is detailed elsewhere (CCCU, 2015g).

10.2.1 Definitions

The following definitions apply with regard to the policy for Responding to Allegations of Research Misconduct (CCCU, 2015g).

Misconduct means the fabrication or falsification, plagiarism or deception in proposing, carrying out or reporting research findings or outcomes, or deliberated, dangerous or negligent deviations from accepted research conduct (Wellcome Trust, 2005). It, therefore, includes failure to follow established or approved protocols particularly if this results in unreasonable risk or harm to research participants, other researchers or others in the environment or institution. Collusion in or concealment of such actions by others is also regarded as misconduct.

Misconduct does **not** include honest differences of opinion or error in the design, conduct, interpretation of judgement of a research project or its evaluation nor is misconduct unrelated to the research process included here.

Plagiarism includes both the theft or misappropriation of intellectual property and/or the substantial unattributed copying of text prepared by another author. Theft or misappropriation of intellectual property also includes the unauthorised use of ideas or methods obtained through confidential communication (e.g. manuscript or peer review).

Allegation means any written or oral statement or other indication of possible misconduct made to the Faculty Director of Research/Director of Research and Knowledge Exchange and copied to an appropriate Head of Schools/Centre.

10.3 Monitoring Responsibilities

a. Research Supervisors, postgraduate Programme Directors and Heads of Schools/Centres are responsible for ensuring and monitoring the research behaviour of their staff and/or students.
b. Research Supervisors, postgraduate Programme Directors and Heads of Schools/Centres must be satisfied that their staff and/or students are adequately and properly supervised.
c. All researchers must carry day-to-day responsibility for the conduct of their research and for ensuring that it follows the agreed (approved) protocol.
d. No research may be carried out unless it has first been approved through the internal and/or external mechanisms previously described. Failure to gain such approval exposes the researcher to possible insurance liability and to disciplinary action.
e. No staff/student may undertake research unless they have the appropriate level of experience and supervision that will enable good quality research to be undertaken.
f. Regular meetings must be held between researchers and their supervisors and be clearly documented; such records will be subject to audit.
g. Where a supervisor, colleague or other member of staff suspects that misconduct has occurred it is their responsibility to draw this to the attention of the Faculty Director of Research/Director of Research and Knowledge Exchange and to the appropriate Heads of Schools/Centres.
h. Any person drawing attention to suspected misconduct can do this confidentially and without fear of suffering any detriment.
i. In health and social care projects, care must be taken to ensure that a note to the effect that a patient has been recruited into a research project, whatever its nature, is made in the patient's medical notes and, where appropriate, a copy of the informed consent form inserted in the patient's records.

10.4 Disclosure of information

Whilst much research information and data is collected on a confidential basis, there can be occasions when the issue of whether information can or should be disclosed to a participant or third party needs to be considered. These include information from health checks, threats to

harm self or others, child protection issues and professional misconduct

There is only a legal obligation to disclose information in a very few instances (e.g. terrorism, money laundering, treason), but there are other professional and moral issues that may demand disclosure. The University's Guidance Note on the Disclosure of Research Information (2015 in preparation) sets out the position and gives advice to researchers on this tricky subject.

11. HEALTH AND SAFETY

The health and safety of researchers, research participants and others must be considered in preparing a research proposal and carrying out any research, regardless of its nature; all research carries some risk however small. The University is committed to achieving high standards in this area and expects staff to be familiar with its policy:

http://www.canterbury.ac.uk/health-and-safety/health-and-safety.aspx

Employees are also responsible for their own safety and that of their colleagues. It is University policy that risk assessment is carried out for all employee activities; this includes research.

11.1 Risk Assessment

In terms of research, it is important that all risks are identified and that procedures are put in place to minimise their impact. The requirements of the Control of Substances Hazardous to Health (COSSH) Regulations (2002), the Ionising Radiations Regulations (1999) and the Ionising Radiation (Medical Exposure) Regulations (2000) must be upheld. Researchers are expected to be familiar with these requirements and to apply them to their work where this is appropriate. It is the responsibility of the Faculty Director of Research/Director of Research and Knowledge Exchange, HoDs, researchers and research supervisors to ensure that this is carried out. In practical terms, this includes little that is not already required when applying for Research Ethics Committee approval.

Table 1 highlights the key steps in any such assessment; further information is available in the Guidelines to Risk Assessment in Research which is available at:

https://cccu.canterbury.ac.uk/health-and-safety/support-for-staff/risk-assessment.aspx

TABLE 1 SIMPLE GUIDE TO ASSESSING THE RISKS OF RESEARCH

1. Look for potential hazards/risks
2. Decide who might be harmed and how
3. Evaluate each risk and consider what precautions can be taken to minimise their impact. Are existing precautions sufficient or should more be done to achieve this?
4. Prepare plans and procedures to deal with accidents, incidents and emergencies
5. Clearly document your findings
6. Review the assessment regularly particularly if there is any change in the procedures that could lead to new hazards or risks.
7. A detailed record of any adverse incident occurring during a project must be maintained.

11.2 Record Keeping

The findings of all risk assessments must be carefully recorded and documented in the research record for individual projects so that they are readily available for audit and monitoring. Such records are useful for future reference and can be helpful if you are asked to

justify your work or your approach to risk assessment. They help to demonstrate compliance with the law and will help your defence in the event of any action for civil liability or non-negligent harm.

At a minimum, risk assessment records must show that:

- An appropriate check was made
- Those who might be affected were identified
- Obvious or significant risks and hazards were identified
- The precautions taken were reasonable and appropriate and the remaining risk is low

To simplify matters you are permitted to refer to manuals and other documents such as local policies, manufacturer's instructions and existing health and safety procedures as long as the approach used to risk assessment is clear. Such documents may already list hazards and appropriate precautions; it is advisable to incorporate copies of relevant material into your records.

A sample form for recording risk assessment is given in the Guidelines to Risk Assessment in Research which is available from the website:

https://cccu.canterbury.ac.uk/health-and-safety/support-for-staff/risk-assessment.aspx

12. REFERENCES

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