

UNIVERSITY of the WESTERN CAPE

RESEARCH POLICY

SECTION 9: RESEARCH ETHICS POLICY

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SECTION 9: RESEARCH ETHICS POLICY

1. Preamble

The University of the Western Cape is concerned with protecting the rights, dignity, safety and privacy of research subjects, the welfare of animals and the integrity of the environment. It is also concerned with protecting the health, safety, rights, and academic freedom of researchers and the reputation of the University as a centre for high-quality research. With this in mind, the University has developed a Research Ethics Policy that aims to govern the ethics of research across the University, and to promote awareness of the highest ethical standards, principles and issues in the conduct of research activities thereby clarifying for researchers their ethical obligations. The vision, principles and core values of the University are based on its commitment to the principles and values enshrined in the Constitution of South Africa.

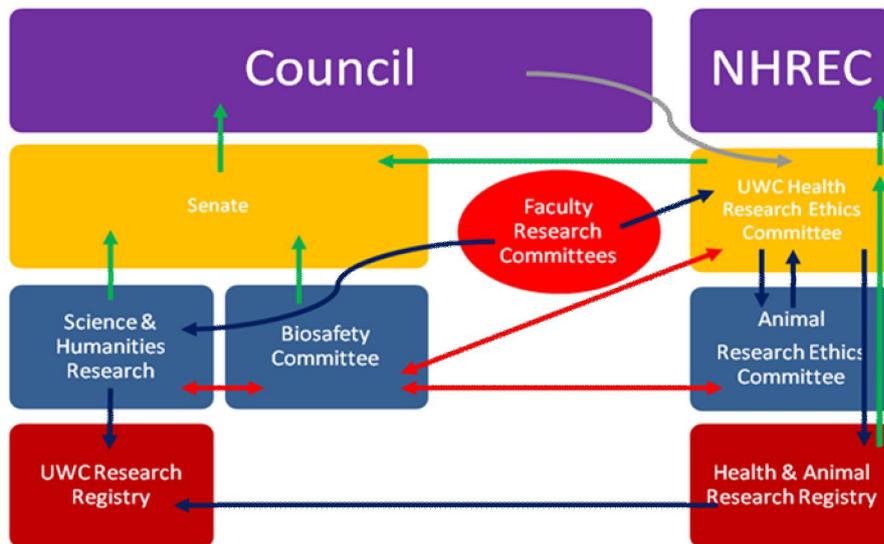
Against this context therefore, this Research Ethics Policy has been developed as the ethical framework for the University community to be considered as part of the research process at all levels of research activity by undergraduate, postgraduate and postdoctoral students and members of staff across the University.

All research will have ethical implications, however there are some areas of research where the ethical implications will be particularly important. The following is not an exhaustive list, however some examples of such areas of research are: where it involves human subjects (particularly children and vulnerable adults); where it uses human data or human material; where there are serious health and safety implications; where animal experiments are involved; where there is a risk of damage to the environment; where the impact of the research may be emotionally damaging; where the research is politically or socially sensitive; where the source of funding for the research has the potential to compromise the University's position as a publicly- funded charitable body.

2. Who are the Researchers?

This Policy on Research Ethics applies, but is not limited to, all members of staff, visiting researchers, those with honorary posts, and postdoctoral, graduate and undergraduate students who are involved in research on or off the campuses of UWC. In addition, any person not affiliated with UWC who wishes to conduct research with UWC students and/or staff is bound by the same Research Ethics Policy. Each member of the University community is responsible for the implementation of this Policy in relation to scholarly work with which she or he is associated and to avoid any activity which might be considered to be in violation of this Policy.

3. Structure and Governance of Research Committees



Research Ethics Flowchart and Committee Structures



3.1 Research falls into the portfolio of the DVC (Academic), and she/he as such will be responsible for developing, operating and reviewing policies and guidelines which prevent unethical practices, and which are consistent with recognised standards and best practice.

3.2 Three specialist research ethics committees will be created. These are the Animal Research Ethics Committee (AREC), the Science and Humanities Research Ethics Committee (SHREC) and the Health Research Ethics Committee (HREC). They are responsible for effecting ethics approval and certification of research proposals. HREC is primarily responsible to the National Health Research Ethics Council (NHREC) statutory body, but will report to Council via the DVC (Academic). Appointment onto HREC will be done by Council. AREC will operate as a sub-committee of HREC. The SHREC will report to Senate and the DVC (Academic).

3.3 Review of research proposals takes into account academic freedom and its responsibilities while providing accountability and quality assurance to scholars and society in general. Such review also provides assurance that, where relevant, the environment will not be damaged and indeed be protected and maintained to the best of the researcher's ability. Research-related documents will be treated in the strictest of confidence. Any requests for review of these documents outside the respective Committees will have to be forwarded to the appropriate Committee Chair for authorisation. Each specialist Research Ethics Committee functions in accordance with Terms of Reference and comprehensive Standard Operating Procedures that have been approved by the Senate Research Committee, which in turn is accountable to Council.

3.4 Research where the biological, clinical, psychological and social processes in human beings and animals are studied and/or where harm or damage to the environment is a possibility, requires ethics review and clearance prior to commencement of the project and in particular prior to field work and/or data collection. The researcher is responsible for consulting with the appropriate Committee(s) to ascertain whether the proposed research requires ethical clearance or not.

3.5 All students, members of staff and other persons who, although not affiliated to the University but are involved in research at/or in association with the University, must familiarise themselves with and sign an undertaking to comply with the University's 'Code of Conduct for Research' (Appendix A).

4. Institutional Bio-safety Committee (IBC)

An Institutional Bio-safety Committee (IBC) will be formally constituted to monitor the bio-safety in research. This is not only mandatory for institutions seeking National Institute of Health (NIH) funding but it is also critical to the safe conduct of research involving recombinant DNA molecules and to the fulfillment of an institutional commitment to the protection of staff, the environment, and public health.

5. The Administrative Responsibility of the University

The University will facilitate the ethical conduct of scholarly research by developing and providing capacity-building programs in research ethics for researchers and members of the Research Ethics Committees.

Formal ethics certification is required of all researchers conducting research at or in association with the University, through a process of research ethics education, testing and certification. The DVC (Academic) will ensure that development and implementation of the training programs and the certification process proceeds.

The University takes responsibility to ensure that all laboratories and other physical resources for research are maintained and meet all necessary accreditation requirements to allow for ethical and effective research.

The necessary administrative support to the research committees for the implementation of policies and procedures will be provided via the Research Office. A separate implementation document (yet to be drafted) will contain detailed information in this regard. The Research Office will oversee and manage the administrative aspects of the research portfolio. It is the responsibility of the DVC (Academic) to ensure adequate administrative infrastructure to provide support to the following Ethics Committees and the Institutional Bio-safety Committee:

- Animal Research Ethics Committee
- Science and Humanities Ethics Committee
- Health Research Ethics Committee (HREC)
- And any other specialist university-wide sub-committees established in terms of the constitution by the DVC (Academic).

Applications for ethical approval are to be forwarded for processing to the Research Office.

6. Legal and Ethical Issues

In cases where an approved, registered UWC research proposal or project is legally challenged, the University must provide the following support based on the Wigmore criteria:

'The researchers will do everything possible to maintain the confidentiality of information obtained during the study and the anonymity of the sources. If an order is made by a court that the researchers provide information or reveal the identity of their sources, the University will provide legal representation until all available court processes have been exhausted to assist the researchers to maintain confidentiality of information and sources. Even then, the researchers will not reveal any confidential information and will never do so unless they believe it ethically proper, considering the circumstances, to reveal the information.'

7. The Selection and Conduct of Research

7.1 The choice of a research topic and the conduct of research in accordance with University policy is the responsibility of the individual researcher. In addition to this policy, other UWC policies, regulations or guidelines and other professional codes may apply.

7.2 Where collaborative or team research is being conducted, the Principal Investigator is obliged to ensure that all members of the research team are aware of the contents of this Policy and of other applicable ethical norms governing the conduct of research. The Principal Investigator should take all possible steps to ensure that the provisions of this Policy are complied with by the research team.

7.3 Where research is to be conducted by students for academic credit, the supervisor will inform the student of her/his obligations in respect of the ethical conduct of research. In addition, the supervisor will ensure that the student understands her/his obligations in accordance with the University Research Ethics Policy and will take all possible measures to ensure that the student's research is conducted in accordance with the provisions of this Policy, and with other applicable ethical norms, and that the student has signed the Code of Conduct for Research (**Appendix A – Section 8**).

7.4 The supervisor will maintain a record of all research projects undertaken, together with the appropriate ethical approval.

8. Guiding Principles

Research should be undertaken in accordance with commonly agreed standards of good practice, such as those laid down in the Declaration of Helsinki, as follows:

- Beneficence - 'do positive good'
- Non-Maleficence - 'do no harm'
- Informed consent
- Confidentiality/Anonymity
- Veracity- 'truth telling'

8.1 Beneficence and Non-Maleficence

- 8.1.1 Concerns risk(s), harm and hazards, and includes emotional and mental distress, damage to financial and social standing as well as physical harm.
- 8.1.2 The research should be scientifically sound and the purpose should be to contribute to knowledge.
- 8.1.3 The research should be undertaken and supervised by those who are appropriately qualified and experienced.
- 8.1.4 The importance of the objective should be in proportion to the inherent risk to the participants. Concern for the interests of the participants must always prevail over the interests of science and society.
- 8.1.5 The research should be preceded by careful assessment of predictable risks in comparison with foreseeable benefits to the participants or to others.
- 8.1.6 Research should not be undertaken where the hazards involved are not believed to be predictable.
- 8.1.7 Adequate facilities and procedures should be in place to deal with any potential hazards.

8.2 Informed Consent

Ethically, informed consent is part of the principle of respect for autonomy. Rights of self-determination and “not to be harmed” are implicit in the South African Constitution. Furthermore, the Department of Health makes clear that the primary consideration in any research within health and social care is preserving the dignity, rights, safety and well-being of participants and that informed consent is at the heart of ethical research (DOH *Ethics in Health Research*, 2004).

- 8.2.1 Each potential subject must be adequately informed of the aims, methods, anticipated benefits and potential hazards of the research and any discomfort participation may entail.
- 8.2.2 Any documentation given to potential participants should be comprehensible and there should be an opportunity for them to raise any issues of concern.
- 8.2.3 Consent should be required in writing and records of consent should be maintained.
- 8.2.4 Potential participants must be informed that they are free to withdraw consent to participation at any time.
- 8.2.5 There should be a procedure for making complaints and participants should be made aware of this.
- 8.2.6 All participants should be volunteers. Considerable care should be taken where consent is sought from those in a dependent position and it should be made clear that refusal to participate will not lead to any adverse consequences. For example, students must be assured that any decision not to participate will not prejudice, in any way, their academic progress.

- 8.2.7 Any inducement offered to participants should be declared and should be in accordance with appropriate guidelines.
- 8.2.8 Specialist advice and appropriate Research Ethics Committee (REC) approval should be sought where consent cannot be obtained.

8.3 Confidentiality

- 8.3.1 When personal identifiers are used in a study, researchers should explain why this is necessary and how confidentiality would be protected.
- 8.3.2 Procedures for protecting the confidentiality of participants should be followed and include:
- Securing individual confidentiality statements from all research personnel;
 - Coding data with numbers instead of names to protect the identity of participants;
 - Using codes for identification of participants when transcribing audiotapes, and destroying the tapes on completion of transcription;
 - Storing data with any identifying information in a locked file to which only one or two persons have access;
 - Using pseudonyms for participants, agencies and geographical settings in the publishing of reports;
 - Disposing of information that can reveal the identity of participants or places carefully.

9. The Duty of Honesty and Integrity (Appendix A – sections 4, 5, 6)

- 9.1 Researchers must possess the knowledge and skills compatible with the demands of the investigation to be undertaken and must recognise and not overstep the boundaries of their research competence. Researchers should not accept work they are not qualified to carry out or supervise
- 9.2 Researchers are expected to maintain the highest standards of honesty and integrity. Any form of academic dishonesty, including but not limited to the following, is a serious offence:
- (a) Falsification of Data, Plagiarism, Fabrication
 - (b) Non-declaration of Conflict(s) of Interest
 - (c) Misuse of Research Funds
 - (d) Any other form of dishonesty in research that undermines the integrity of the research and which may bring the University into disrepute
- 9.3 This Policy is not intended to censure the actions of the individual who has made an honest error, or who exercises *bona fide* judgment, or interprets data or designs experiments in a way that may reasonably be the subject of an honest difference of opinion.

10. Experimental therapies*

- 10.1 Clinicians and researchers should understand the ethical issues involved in using innovative experimental therapies and should assist patients to make decisions concerning experimental therapy that are in their best interest, by facilitating and enhancing their capacity for decision making in accordance with their perspectives, culture and values (**Appendix B**).
- 10.2 Experimental therapies carried out in the University require a standardised process of evaluation and approval. This includes the consent format, indications, limitations and reporting procedures.
- 10.3 Informed consent must state the nature of the experimentation and must provide the best available information, including the consensus of expertise at the institution and/or national level concerning the use of the experimental therapy, and whether alternative therapies may be available.
- 10.4 Review, analysis and reporting of experimental therapy must be carried out at the earliest possible time when data are judged to be meaningful. This includes adequate numbers (ie, three patients or more). The conclusion should be anonymously available for current or future patients treated with the experimental therapy and should be reported to the UWC HREC.

*The use of the word 'therapy' is synonymous for a drug, a device or a procedure.

11. Photography for Research Purposes

- 11.1 Photography guidelines are required to prevent breach of privacy and exploitation of research subjects (**Appendix C**).
- 11.2 Most scientific journals require authors to obtain informed consent (**Appendix D & E**) from participants in order to publish their photographs. Due to varying levels of literacy and oral cultural norms, non-written consent methods (like audiovisual documentation of oral consent) may need to be used.
- 11.3 Researchers, teachers and publishers should aim to show only those aspects of a photograph that are not identifiable, even if consent has been given and explore avenues of digital editing where digital images can be altered in a way that disguises the identity of the subject beyond recognition.
- 11.4 Researchers should act as gate-keepers and protect the rights of patients in their care, and inform them and photographers of the subject's rights to refuse and the photographer's obligation to obtain consent, so that over time, patients will learn that they have choices, and to demand that their rights are respected.

12. Data Protection Policy

- 12.1 The collection and storage of research data by researchers must comply with the Data Protection Act of 1998.

- 12.2 Researchers should be aware of the risks to anonymity, privacy and confidentiality posed by all kinds of personal information storage and processing, including computer and paper files, e-mail records, audio and videotapes, or any other information which directly identifies an individual.
- 12.3 Participants must be informed of the kinds of personal information which will be collected, what will be done with it, and to whom it will be disclosed. 'Consent to process' may need to be obtained where information collected from individuals is to be used later for research purposes.
- 12.4 Measures to prevent accidental breaches of confidentiality should be taken (see Informed Consent section 9.2) and in cases where confidentiality is threatened, relevant records should be destroyed.
- 12.5 Provisions for data security at the end of a project must be made. Where the researcher leaves the University, this responsibility should usually rest with the relevant Faculty.
- 12.6 Current practice is that research data, research transcripts, videos and other related electronic data – tapes and videos should be kept for a *two year* period after completion of the research study and hard copies of data capture sheets, questionnaires, informed consent forms, transcripts and analysis for a period of *five years*.

13. Environment

All research must be conducted taking into account Section 24 of the Bill of Rights of the Constitution of South Africa which requires that research should not result in an environment that could lead to harm to health or well-being. The environment must be protected, for the benefit of present and future generations. Pollution and ecological degradation must be avoided in order to:

- i. Promote conservation; and
- ii. Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

14. Biohazards

Personnel working in research laboratories at UWC must be protected from possible harm resulting from exposure to hazardous biological or chemical materials. Personnel must comply with the Hazardous Biological Agents Regulations of the Occupational Health and Safety Act No. 85 of 1993. Personnel must be appropriately trained to work with hazardous biological or chemical materials and be accredited as such. Managers of laboratories where hazardous biological or chemical material is used will need to inform the Occupational Health and Safety Practitioners on their campuses. Appropriate safety measures must be established for the use of hazardous materials in each laboratory.

15. Acknowledgement of University and Other Support of Research

Research support by the University or any other body must be appropriately acknowledged in any publication resulting from the research. **(Appendix A – section 4.4)**

16. Disputes between Co-researchers

Disputes between co-researchers must be resolved in accordance with existing University policies on dispute resolution. Alternative dispute resolution mechanisms such as mediation and arbitration must be resorted to prior to any litigation. The University Human Resources Department may be contacted in this regard.

17. Disciplinary Action

In the event of a researcher contravening the research ethics principles and practices as espoused in this Policy any necessary disciplinary action will be dealt with by the University's existing disciplinary structures. The Senate Research Committee will recommend appropriate penalties such as loss of ethical certification or eligibility for funding.

APPENDIX A: CODE OF CONDUCT FOR RESEARCH

1. General

1.1 Guiding principles

The pursuit of knowledge is the pursuit of truth. It is to be carried out with:

- Honesty and integrity
- Safe and responsible methods
- Fairness and equity for the participants

1.2 Requirements for observance

This code applies to all individuals participating in research under the auspices of the University. This includes:

- Academic Staff
- Staff providing technical or administrative support for research activity
- Staff employed through research grants or contracts administered by the University
- Staff of research Centres and Units
- Graduate or undergraduate students participating in research
- Any other individuals, such as honorary appointees and visiting researchers making use of any University resource

All researchers working at UWC must complete a statement confirming that they are familiar with the Code and undertake to observe it.

Contracts of affiliation between the University and independent research institutes should ensure that the independent institutes adhere to a comparable code of ethics.

Where appropriate, the Code specifies formal procedures and regulations. Nevertheless, it recognises that, in ethical questions, it is not possible to legislate for every eventuality. The over-riding principle is an expectation of all researchers that they are expected to act with integrity in the interests of the University and to be scrupulous in conducting their affairs.

1.3 Breaches of the code

Failure to observe the requirements of the Code may be grounds for disciplinary action under the Code of Conduct applying to University employees or under the Student Disciplinary Rules as appropriate.

1.4 Advice and help

Advice and help in interpreting the Code may be obtained from the Chairpersons of the current specialist research ethics committees:

- Health Research Ethics Committee
- Animal Research Ethics Committee
- Science and Humanities Research Ethics Committee
- Institutional Bio-safety Committee

2. DVC (Academic) Research Office

The DVC (Academic) delegates responsibility for developing, monitoring, and maintaining all University ethics policies and procedures, including research ethics. In particular, specialist committees (listed above) are charged with the responsibility of approving and monitoring research proposals and programmes that require specific ethical clearance.

2.1 Health Research Ethics Committee

All health related research involving human subjects requires prior ethical clearance. Application must be made on the appropriate form to the Health Research Ethics Committee.

2.2 Anima; Research Ethics Committee

University staff intending to make any use whatsoever of animals in their work, whether in research or for teaching purposes, are required to apply to the Animal Ethics Committee for ethical clearance by submitting an application on the appropriate form.

2.3 Science and Humanities Research Ethics Committee (non-Biomedical/Health)

Research involving human subjects, which is non-biomedical/health-related, requires ethical clearance from the Science and Humanities Research Ethics Committee. Application is to be made on the appropriate application form.

2.4 Institutional Bio-safety Committee

Projects involving hazardous biological or chemical materials will be reviewed by the Institutional Bio-safety Committee in addition to the usual ethical review.

3. Management of research data and records

The University is committed to openness in research. The data on which published research is based must be available for evaluation by the broader research community. There will be two database registries: one for Health Research and this will be required for annual audit by the Department of Health (NHREC) and the other for all research being carried out in the University. Agreements, under which data is kept confidential for a period in order to protect intellectual property rights, must conform with this Code.

3.1 Data storage and maintenance

- It is the responsibility of the researcher to arrange for safe storage of all data and specimens on which research is based. Costs of such storage should be included in the budgets of research programmes.
- Electronic data sets should have adequate arrangements for back-up. Ensuring this is the responsibility of the researcher.
- The primary data should be stored in the Faculty/School in which the project is based. The intention of this is to ensure safety and integrity of the data set. The overall responsibility for this rests with the Dean/Head of School.
- Data on which any research publication is based should be retained in the Faculty/School for at least five years after publication.

- If a researcher leaves the University, the University and the researcher are jointly responsible for ensuring that satisfactory arrangements are made for maintenance of the data set. If there is no contractual arrangement to determine what is to be done with the data, then possible arrangements are:
 - I. The data set is retained in the University. The researcher has access to the original data set and may keep copies.
 - II. The data set is transferred to the research institution to which the researcher is moving, provided that adequate facilities are available for conservation and storage.
 - III. If no publications based on the data set have appeared within the last five years it may be destroyed.

3.2 Confidentiality of data

- Researchers are entitled to keep data sets confidential before publication.
- After publication, when the research is in the public domain, the data should, upon request, be available to other researchers by the Principal Investigator. It is recognised that there may be technical or cost problems which prevent it being freely available, but the principle is that there should be the opportunity for checking any data on which material in the public domain is based.
- In no way do the requirements for data availability override the right to confidentiality and privacy of individuals or organisations who are the subjects of research.

4. Publication

4.1. General

The University encourages the widest dissemination of research results by appropriate publication. Pressure to publish is a modern fact of academic life with a strong bearing on the career and standing of the researcher. It is important that this pressure does not lead to ethical problems. Such problems are generally related to one of three causes:

- Failure to give appropriate credit to the work of others.
- Taking more personal credit for collaborative work than is justified by one's contribution.
- Overuse of a limited body of work to provide more publication credit than is justified.

The guidelines that follow cover many aspects of publication but cannot cover every eventuality. Researchers should always satisfy themselves that (i) they have given full credit to the work of others, whether by citation, acknowledgement, or co-authorship, (ii) that they are prepared to take responsibility for all aspects of collaborative work, and (iii) that the work that they are submitting for publication is original and worthy of publication.

4.2. Authorship

The principles in this section of the code are based on part of the Vancouver Protocol, originally developed at a meeting in Vancouver by a group of editors of medical journals. Many of the principles of the Vancouver protocol are of wider application.

- I. Each author should have participated sufficiently in the work to take public responsibility for appropriate portions of the content.
- II. One or more of the authors, as corresponding author, should take responsibility for the integrity of the work as a whole.
- III. Credit as an author should be based only on participation in each of the following aspects of the work:
 - Substantial contribution to conception and design, or acquisition of data, or analysis and interpretation of data.
 - Either drafting the article or commenting critically on the draft.
 - Approving the final version, to the extent that each author is prepared to take joint responsibility for it.
- IV. The acquisition of funding, the collection of data, or the general supervision of the research group, do not, by themselves, justify authorship. Such contributions should be listed in the acknowledgements.
- V. The order of authorship should be a joint decision of the authors, decided at an early stage of drafting the paper.
 - In most fields of research the first author is recognised as having made the most significant contribution. This is the preferred style unless the conventions of the field of research require another ordering.
 - In joint publications of a graduate student and his or her supervisor, the graduate student should be first author unless the supervisor's contribution goes well beyond material on which the graduate student has worked.

4.3. Citation and acknowledgement

It is important in all publications, including such documents as research proposals, to cite all sources properly. The form of citation is usually specified by the journal in which the article is published. In the absence of such specification, for University publications, the Harvard system is preferred.

Citations serve two purposes

- To direct the reader to further information.
- To give due credit to the source of ideas, quotations, or data.

Any of the following require appropriate citation of the source:

- Direct quotations of published material – longer quotations may require a release from the copyright holder.
- The description, summarising, or paraphrasing of any previous work.
- Use of previously published data, presented in any form, such as graphs, calculations, or tables. Use of such data also requires permission in the form of clearance from the holder of the copyright.
- Ideas that originate from other published or unpublished sources

4.4 Acknowledgement of financial support

The University gives a substantial amount of support to research, indirectly by paying the salaries of researchers, and providing an infrastructure for research, and directly by grants or awards. Outside bodies provide substantial direct research support. Collaborations between researchers may lead to indirect support for a research publication from several different institutions.

It is important that all such support is appropriately acknowledged:

4.4.1 Direct acknowledgement of the University's indirect support through salary or basic infrastructure is not necessary but any papers resulting from such support must give the University's address as the author address

- The author address shall be the University address for work done entirely while an author is at the University. This applies even if the paper has been published after the author has left the University.
- If the work has been done at more than one institution then the addresses of each institution should be used as the author address, either as alternate addresses, or with the main address being that of the institution at which most work was done and a footnote for the addresses of other institutions.
- University staff are paid and get other benefits during sabbatical leave. The author address for work done while on sabbatical leave should include the University address.

4.4.2 Direct support for research in the form of grants should be acknowledged at the end of the paper in the form required by the grant-giving body.

- University productivity awards and similar university funding need not be acknowledged specifically.

4.5 Peer review

The world of academic publishing is dependent on the willingness of researchers to give freely of their time to referee papers submitted to journals and to recommend on their publication. The University encourages its members to participate in this process. Such refereeing is done under conditions of confidentiality and is privileged. Referees should be meticulous about all the following:

- I. Referees undertake to complete their work expeditiously. If they cannot complete the review in a reasonable time they should ask the editor to select another referee.
- II. No use should be made of any of the ideas or results in the work under review until it has been published.
- III. Care should be taken to avoid a conflict of interest. If the referee is following a very similar line in his/her own work the work under review should in no circumstances be held up. If the referee is in any doubt of his/her impartiality, the work should be returned to the editor with the request that another referee be found.

- IV. It is acceptable to consult a colleague for technical advice, provided that there is agreement that this is done on the same basis of confidentiality as is required of the referee. Such consultation should be disclosed to the editor.

4.6 Redundant publication

Redundant publication is the unnecessary publication of similar material in different places:

- I. Publication of the same, or substantially the same, article in different places is not acceptable. This does not prevent the later reprinting of an article for a different readership or in an edited compilation by agreement with the editor(s) or publisher(s) involved.
- II. Researchers should consider carefully the most effective way to publish a particular research result or set of research results. This should be done with regard to the best way to communicate the results and not to maximise the publication count.
- III. The release to the media of research results that have not been peer reviewed is not acceptable. Generally, research results should always be published in a peer-reviewed journal before being released to the news media. In the case of very important results, and with the concurrence of the editor of the journal in which they are to be published, such results may be released to the press in advance. This does not prevent the publication of news items about ongoing research, or about problems that are being investigated, provided that these are not used as the medium for the release of new findings that have not been peer reviewed.

4.7 Plagiarism

Plagiarism is the unattributed and uncredited use of the ideas and work of others, whether this is in published work or in unpublished documents. It is not just the word-for-word reproduction of the work of another without attribution. Such reproduction certainly constitutes plagiarism and may also be an illegal breach of copyright, but plagiarism is also the use in any form of another's original ideas without attribution. There is a range of culpability. As ideas become absorbed into common knowledge, it may become difficult to determine their source. For this reason the highly publicised cases tend to be concerned with the direct reproduction of another's work as one's own. Nonetheless, researchers must continually be alert to the possibility that they may be unconsciously using the ideas of others. Care must be taken therefore to acknowledge all sources.

5. Research misconduct

5.1 Definition of research misconduct

The following definition of research misconduct is from the Federal Policy on Research Misconduct issued by the Office of Science and Technology Policy of the Government of the United States of America. The University of the Western Cape subscribes to this definition.

Research Misconduct Defined

Research misconduct is defined as fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.

- *Fabrication* is making up data or results and recording or reporting them.
- *Falsification* is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.
- *Plagiarism* is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.

Research misconduct does not include honest error or differences of opinion.

Findings of Research Misconduct

A finding of research misconduct requires that:

- There be a significant departure from accepted practices of the relevant research community;
- The misconduct be committed intentionally, or knowingly, or recklessly; and
- The allegation be proven by a preponderance of evidence

Notes:

1. Research, as used herein, includes all basic, applied, product-related and demonstration research in all fields of research. This includes, but is not limited to, research in economics, linguistics, medicine, psychology, social sciences, statistics, and research involving human subjects or animals.

2. The research record is the record of data or results that embody the facts resulting from scientific enquiry, and includes, but is not limited to, research proposals, laboratory records, both physical and electronic, progress reports, abstracts, theses, oral presentations, internal reports, and journal articles.

Research misconduct as so defined is a serious disciplinary offence. It is classified as misconduct under the Code of Conduct applying to UWC employees and under the Student Disciplinary Rules. In cases where investigation leads to a recommendation for disciplinary action, this will be taken under the provisions of whichever of these codes is applicable.

5.2 Dealing with research misconduct

Research misconduct is rare. Most researchers operate according to the highest standards, and, as a consequence, there is generally a high level of trust between them. Individuals are naturally reluctant to entertain any suspicion about the activities of a colleague. A serious case of research misconduct may lead to the end of a research career, and may reflect badly on colleagues and on the University. If suspicion does arise it can lead to considerable agony of mind on the part of a potential whistleblower in deciding how to proceed.

It is important, therefore, to emphasise that the University is committed to the following principles:

- Any allegation of research misconduct must be dealt with expeditiously. If such misconduct is established there is an absolute responsibility to expose it.
- A finding that research misconduct has occurred will be dealt with openly, and all steps to correct its effects will be taken.
- The rights of any researcher accused of misconduct must be protected.
- The rights of any individual reporting suspicions of such misconduct in good faith must be protected.

An individual who suspects that research misconduct may have occurred is strongly encouraged to discuss the problem in confidence, with the chairperson of the appropriate specialist ethics committee: Health Research Ethics Committee, Animal Research Ethics Committee or the Science and Humanities Research Ethics Committee, who will confidentially provide counseling to determine whether the concerns fall within the definition of research misconduct.

Because the consequences of research misconduct are so severe, there are several stages in the process for investigating it:

- I. Should an individual believe that research misconduct may have occurred the facts should be reported to the Deputy Vice-Chancellor responsible for research ethics.
- II. In consultation with the Human Resources Department and the University Proctor, as appropriate, the Deputy Vice-Chancellor (Academic) shall, without delay, appoint a committee of investigation to establish the facts of the matter and to recommend whether there is a *prima facie* case to be answered. The committee shall:
 - Inform, in confidence, those directly affected by the investigation of its nature. This will include the appropriate line manager, or supervisor of the individual involved.
 - Conduct an investigation to establish the facts.
 - Report to the Deputy Vice-Chancellor (Academic) within one month of establishment of the committee. This should either be a final report or a motivation to extend the investigation for a limited period.
 - The final report shall recommend:
 - Whether there is a *prima facie* case for disciplinary action.
 - What immediate action, if any, must be taken to rectify any irregularity. Full details of such action shall be made available to all interested parties inside and outside the University, either immediately, or, if necessary, after the completion of a disciplinary case.
- III. On receiving the report, the Deputy Vice-Chancellor (Academic) will, without delay, take appropriate action, based on the recommendations of the committee, referring the matter for disciplinary action, if necessary.

- IV. After the completion of any disciplinary case a full report of the facts of the case and the actions that have been taken to rectify the situation will be documented. The decision to make these findings public will rest with the Deputy Vice-Chancellor responsible for research ethics.
- V. All steps will be taken to protect the interest of *bona fide* individuals reporting misconduct.

6 Conflict of interest and conflict of commitment

The University encourages its members to interact with the wider community, by undertaking sponsored research, consulting, and engaging in other activities, which may benefit the University, the public, or the individual. Such activities must be consistent with principles of openness, trust, and free enquiry. In such activities it is sometimes difficult to reconcile the responsibility of the individual to the University and to the external organisation. The guiding principle is that each member of the University has a commitment to act in the best interests of the University, and must not allow external activities or financial interests to interfere with that commitment.

6.1 Conflict of Interest

A conflict of interest occurs when a member of the University has an opportunity, whether real, potential, or perceived, to place his or her personal interests, or the interests of external organisations, ahead of the interests of the University.

In the academic environment there are many opportunities for conflicts of interest to occur. Not all can be covered by formal procedures. All members of the University are expected to conduct their affairs in such a way that they can stand close scrutiny and are in accordance with scrupulous ethical and moral standards. In cases of doubt, advice should be sought before proceeding. If a member of the University has any reason to believe that some activity constitutes, or has the possibility of constituting, a conflict of interest involving research, it is required that a disclosure statement be lodged in the Research Office. The disclosure statement (Appendix F) involves:

- A statement of the nature of the conflict
- A proposal from the staff member of how the conflict of interest is to be managed
- A procedure for the management or elimination of the conflict agreed with the Head of School, Dean, or line manager as appropriate. This procedure may demand public disclosure, varying levels of oversight, and may include prohibition of the activity.

To assist members of the University in the process for disclosure, a Disclosure Form is provided, which will also contains a check list to help establish the nature of the conflict. Failure to disclose the existence of a conflict of interest may constitute dishonesty in terms of the University's disciplinary code and may lead to disciplinary action. The emphasis is on self-regulation.

6.2 Conflict of Commitment

A conflict of commitment takes place when the commitment of a member of the University to external activities affects his/her ability to meet his/her University commitments.

Generally, University researchers have commitments to their teaching, their research programmes, their research supervisions, and their administrative duties. It is expected that these commitments will be fully met, not just in the formal requirements of university policies and practices, but also in the spirit of the University’s vision of excellence. In undertaking external activities, members of the University should take into account the possibility of conflict of commitment.

Members of the University are further required to abide by the University policy governing private remunerative work.

7 Safety

The University, in common with all other organisations in South Africa, is subject to the provisions of the Occupational Health and Safety Act No. 85 of 1993 . All questions relating to this Act and its application should be directed to the Occupational Health and Safety Manager, Risk Management Services, ext 2818.

8. RESEARCH ETHICS POLICY UNDERTAKING

I, hereby acknowledge that I am familiar with the provisions of the University of the Western Cape Code of Conduct for Research and undertake to comply with its requirements.	
..... Signature Date
Staff / Student Number:	

Appendix B: Guidelines for Experimental Therapies

Recommendations and Guidelines for University of the Western Cape Health Research Ethics Committee

Clinicians and researchers should not contemplate experimental therapy and the UWC Health Research Ethics Committee (HREC) will not approve any protocols unless an affirmative response can be given to all of the following questions.

1. Does the applicant(s) have sufficient technical skill and experience to optimise the chances of success of the experimental therapy? The applicant should be able to demonstrate a comprehensive understanding of the scope of the procedure and its implications based upon research and publications.
2. Does an institutional structure exist within the host centre for integrated clinical care between teams and other clinicians required to optimise short- and long-term care? For example, all units required for optimal pre- and post-operative patient care must possess appropriate professional expertise and explicitly agree to co-operate in the provision of ongoing support for participating patients.
3. Does a comprehensive and coherent protocol exist for the selection of suitable patients for the experimental therapy? "Suitability" will address the physical, psychological and social attributes of the recipient, which will not only optimise the chance of success, but also optimise the potential for giving valid informed consent for the procedure and all aspects of its outcome.
4. Does the REC protocol provide potential patients with adequate information on the basis of which valid informed consent can be given? Methods must be in place to accurately confirm understanding of the information and the sustained character of a choice to proceed. It is of particular importance that this information should include comprehensive explanations of any known risks. It must be demonstrable that the patient understands what would be involved, both physically and psychologically in the event of failure of the therapy.
5. Does the REC protocol provide adequate information for potential patients about how little is known about some of the risks associated with the experimental therapy? This will be of particular importance for the moral and legal acceptability of any consent that is given to proceed.
6. If required, does the clinician/researcher have integrated links with a team with appropriate psychological expertise (including psychiatrists and psychologists) to provide support adequate to ensuring that prospective patients can give valid informed consent to experimental therapy? For example, the team should determine that the distress of the patient about their condition will not be an impediment to their being able to understand and to weigh up the pros and cons of the experimental procedure thus to their being able to make a competent choice.
7. In addition to the clinician or researcher obtaining consent to the experimental procedure, are there others involved in the process of acquiring informed consent and checking understanding who are sufficiently independent from the team itself to ensure that they are not explicitly or implicitly influenced by any factors other than respect for and protection of the patient?

For example, given the understandable enthusiasm of research teams to achieve innovative success with experimental therapy, it is essential that risks and benefits are also presented by others with demonstrable independence. Provision should be made for a dedicated program of education and assessment of understanding that is presented in the protocol and which can be tailored to the needs of individual patients.

8. How will the psychological team provide long-term therapeutic support to the patient after success or potential and/or actual failure of the experimental therapy? Is there sufficient evidence of expertise across the team for this to be done effectively? The protocol should indicate a clear schedule of long-term care linked to the management of potential problems, observation of patients and for the maintenance and security of records (DOH, 2004).
9. Can the clinical/research team, the psychological team and the host facility guarantee the long-term funding required to ensure that all patients will continue to receive the care and support specifically outlined in the protocol approved by the REC whether the experimental therapy has been successful or unsuccessful? These patients are participants in research and not conventional medical care. For this reason, long-term follow-up is essential to protect their best interests, but also to ensure that optimal empirical evidence about the outcome of the experimental therapy is properly collected and assessed. This follow-up care and research must therefore be dedicated, complex, lifelong and inevitably expensive. Unless the financial resources sufficient for such protection and support are identified and accepted as appropriated by the REC, the experimental therapy should not proceed.
10. The composition of the UWC HREC that considers an application for experimental therapies, to ensure appropriate and representative expertise, should include experts in all areas of care including any representative organisations who provide support for such patients. These individuals should be demonstrably independent from the applicants proposing the experimental therapy.
11. In their deliberations about specific protocols, members of the REC should be sure that they remain independent from the interests of the institution where the experimental therapy may occur. They should equally ensure that their final decision is consistent with Paragraph 6 of the Helsinki declaration, "in medical research involving human subjects, the well-being of the individual research subject must take precedence over all other interests" (WMA, 2008).

References

World Medical Association, Declaration of Helsinki: Ethical principles for medical research involving human subjects. <http://www.wma.net/e/policy/c8.htm>. Last accessed 22 June 2009.

Ethics in Health Research: Principles, Structures and Processes. Research Ethics Guidelines. Department of Health, 2004.

Guidelines adapted from: Morris P, Bradley A, Doyal L, Earley M, Hagen P, Milling M, Rumsey N. Face transplantation: a review of the technical, immunological, psychological and clinical issues with recommendations for good practice. *Transplantation* 2007; 83(2):109-28.

Appendix C: Guidelines for Clinical Photography in Research and Teaching at the University of the Western Cape

Background

Ethical photography demands that persons taking photographs of patients or subjects whether for research, clinical or teaching purposes (i) protect patient autonomy and rights (ii) protect patient data and confidentiality and (iii) preserve the integrity of patient records. These demands comply with the requirements of the Health Professions Council of South Africa for good record-keeping. They are a demonstration of professionalism because they are virtuous aspects of clinical photographic practice, and because primarily the resultant image is a medical record, and any other use is subsidiary.

Scope of this guidance

This guidance covers all types of audio and visual recordings of patients, carried out for research, clinical, teaching or other purposes. 'Recording' in this guidance means originals or copies of video and audio recordings, photographs and other visual images of patients. A 'recording' does not include pathology slides containing human tissue (as opposed to an image of such a slide).

1. Basic principles

When making recordings you must take particular care to respect patients' autonomy and privacy since individuals may be identifiable, to those who know them, from minor details that you may overlook. The following general principles apply to most recordings although there are some exceptions, which are explained later in this guidance.

- Seek permission to make the recording and get consent for any use or disclosure.
- Give patients adequate information about the purpose of the recording when seeking their permission.
- Ensure that patients are under no pressure to give their permission for the recording to be made.
- Stop the recording if the patient asks you to, or if it is having an adverse effect on the consultation or treatment.
- Do not participate in any recording made against a patient's wishes.
- Ensure that the recording does not compromise patients' privacy and dignity.
- Do not use recordings for purposes outside the scope of the original consent for use, without obtaining further consent.
- Make appropriate secure arrangements for storage of recordings.

Where children who lack the understanding to give their permission are to be recorded, you must get permission to record from a parent or guardian.

When a mental disability or mental or physical illness prevents patients giving their permission, you must get agreement to record from a close relative, guardian or carer.

2. Recordings for which permission is not required

You do not need to seek separate permission to make the recordings listed below. Nor do you need consent to use them for any purpose, provided that, before use, the recordings are

effectively anonymised by the removal of any identifying marks (writing in the margins of an x-ray, for example):

- Images taken from pathology slides
- X-rays
- Laparoscopic images
- Images of internal organs
- Ultrasound images

Such recordings are unlikely to raise issues about autonomy and will not identify the patient. It may nonetheless be appropriate to explain to the patient, as part of the process of obtaining consent to the treatment or assessment procedure, that a recording will be made.

3. Recordings for which permission is required

3.1 Recordings made for the training or assessment of students, audit, research or medico-legal reasons

You must obtain permission to make and consent to use any recording made for reasons other than the patient's treatment or assessment.

3.1.1. Before the recording, you must ensure that patients:

- I. Understand the purpose of the recording, who will be allowed to see it - including names if they are known - the circumstances in which it will be shown, whether copies will be made, arrangements for storage and how long the recording will be kept.
- II. Understand that withholding permission for the recording to be made, or withdrawing permission during the recording, will not affect the quality of care they receive.
- III. Are given time to read explanatory material and to consider the implications of giving their written permission. Forms and explanatory material should not imply that permission is expected. They should be written in language that is easily understood. If necessary, translations should be provided.

3.1.2 After the recording, you must ensure that:

- I. Participants are asked if they want to vary or withdraw their consent to the use of the recording.
- II. Recordings are used only for the purpose for which participants have given consent.
- III. Participants are given the chance, if they wish, to see the recording in the form in which it will be shown.
- IV. Recordings are given the same level of protection as health records against improper disclosure.
- V. If a participant withdraws or fails to confirm consent for the use of the recording, the recording is not used and is erased as soon as possible.

4. Existing collections used for teaching purposes

Some researchers may have existing collections of recordings which they use solely for teaching purposes within an academic/teaching setting. This guidance requires that permission is obtained to make any recording which is not part of the participant's assessment or treatment, regardless of whether the participant may be identifiable. However, recordings may have been made for teaching purposes prior to 2009 without it being recorded whether or not permission had been obtained. Such collections may have a significant value for teaching purposes.

You may continue to use recordings from which the participant is not identifiable, and which were made for teaching purposes prior to 2009. You should, however, seek to replace such recordings at the earliest opportunity with similar recordings for which permission can be shown to have been obtained. You may also continue to use effectively anonymised recordings that were originally made for assessment purposes. However, you should not use any recording, from which a participant may be identifiable, for teaching purposes if you cannot demonstrate that consent has been obtained for that use.

5. Recordings for use in public media (television, radio, internet, print)

In general, the considerations set out above also apply to recordings for use in public media. There are, however, some issues that are specific to recordings to which the public will have access:

- I. You must not make recordings for use in publicly accessible media without written permission, whether or not you consider the participant to be identifiable. 'Publicly accessible media' includes scientific journals.
- II. Before making any arrangements for external individuals or organisations to film participants in a health care or other University setting, you must inform the University.
- III. If you are involved in any way with recording patients for television or other public media, you should satisfy yourself that participants' permission has been properly obtained, even if you are not responsible for obtaining that permission or do not have control of the recording process.
- IV. In addition, you should make sure that participants understand that, once they have agreed to the recording, they may not be able to withhold their consent for its subsequent use. If participants wish to restrict the use of material, they should get agreement in writing from the owners of the recording, before recording begins.
- V. You should be particularly vigilant in recordings of those who are unable to give permission themselves. You should consider whether participants' interests and well-being, and in particular their privacy and dignity, are likely to be compromised by the recording, and whether sufficient account has been taken of these issues by the programme makers. If you believe that the recording is unduly intrusive or damaging to participants' interests, you should raise the issue with the programme makers. If you remain concerned, you should do your best to stop the recording, for example by halting a consultation, and withdraw your co-operation.

6. Data and Dissemination

Special consent for electronic publishing: Participants must be made aware of possible forms of publication now in existence and the lack of control that it is possible to exercise over who will see these images.

Appendix D:
Proposed procedure for obtaining consent for Clinical Photography in Research and Teaching at the University of the Western Cape

The clinical photographer must be trained in asking consent from the patient using a uniform consent form.

1. The patient is asked to read through the consent form.
2. The photographer explicitly discusses each of the sections of the consent form with the patient or subject and invites questions.
3. The patient or subject is informed precisely about the nature of the image to be taken and whether they will be recognisable.
4. Patients who give consent and who may be identified from the images are given two weeks from the date of photography, allowing them time to reflect, and during which time they can withdraw consent, before the photographs are available for publication.
5. Three categories of consent may be presented to the patient or subject: (i) use of their images in confidential notes for teaching and publication, (ii) use restricted to patient notes and medical teaching and (iii) use limited to confidential patient notes alone.
6. The patient must be informed about the possibility that the images may be used in electronic publications.
7. The patient may view the images at any time and can withdraw consent, in which case the image is deleted permanently from the database. However, it is emphasised at the time of consent that full recovery of the image may not be possible once it has been made available for publication.
8. It must be made clear that refusal to give consent for the image to be made, or to be used in a specific way, will not affect the patient's medical or dental care in any way.
9. If the patient is under 16, consent must be requested from the parent or guardian. However, the views of competent minors can be taken into account, and if they refuse to give consent, no images should be taken.
10. After a video image has been taken, the patient or subject is asked to confirm the initial consent.

Appendix E: Example of a Consent Form

UNIVERSITY OF THE WESTERN CAPE

Patient Consent to Clinical Photography and Video Recordings	Surname: _____ Name: _____ Date of Birth: _____ Gender: _____
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I, consent to photographs or video recordings being taken of me/my child as requested, I understand that these photographs and recordings will be treated with the utmost confidentiality and be part of my health record. I hereby give consent for the images or recordings to be used for:

- Education and training purposes
- Approved research purposes
- Open publication in journals, text books or conference material

- I understand that all efforts will be made to conceal my identity but that full confidentiality cannot be guaranteed.
- I understand that my consent or refusal will in no way affect my dental care.

Patient Signature: Date.....

Parent/Guardian (if patient under 16 years) Name:

Signature.....

Witness Name Signature.....

Requesting Clinician Name (print):
Date:
Department: Phone:
Patient Name (print):
Views required
Required for: Records Teaching/Lectures Research Publication
Images taken by: Date.....
Location where copies stored:

Appendix F: Conflict of Interest Disclosure Form

Conflict of Interest regarding research

Any member of the University staff, including staff employed in posts funded by outside bodies, is required to disclose to the Dean/Head of School, or other appropriate line manager, any actual or perceived conflict of interest that may arise in the course of his or her research work. Such disclosure may be made on this form or as an equivalent written submission. After completion, the disclosure must be lodged in the Research Office.

Failure to disclose a conflict of interest may lead to disciplinary action.

Name of staff member making disclosure	
Staff number	
School/Faculty	
Name of staff member to whom disclosure is being made	

Check list:

Circle "Yes" or "No" for each question. Benefits marked with an asterisk are prohibited.

Financial Interest:

Do you or a close member of your family have any financial interest in or affiliation with an institution, company, or individual that:

Funds or sponsors your research?	Yes	No
May benefit directly or indirectly from access to or use of University resources?	Yes	No
May benefit directly or indirectly from the purchase of major equipment by the University for this project?	Yes	No
May benefit directly or indirectly by inappropriate delays or controls on the dissemination of the results of the research?	Yes	No

Will you or a close member of your family receive any:

<p>* Discounts or concessions or other financial benefits from a company or individual with which an order is placed? <i>(The award of air miles associated with the purchase of air tickets and other travel expenses is permitted and does not require disclosure, provided that mechanisms are in place to ensure that itineraries and fares are appropriate to the travel requirements. The normal mechanism would be a counter-signature on the order by the line manager.)</i></p>	Yes	No
<p>* Discounts or concessions or other financial benefits from a company or individual that is awarded a contract?</p>	Yes	No

Perception of Nepotism:

<p>Will any close member of your family be employed from funds under your control?</p>	Yes	No
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Clinical Trials:

<p>Does the research involve a clinical trial being conducted by an individual, company, or organisation that has a significant financial interest in the results of the trial?</p>	Yes	No
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If the answer to any of the above is “Yes” then:

1. **Outline the nature of the conflict.**
2. **Describe the sense in which the situation is of benefit to the University and the research programme.**
3. **Propose a mechanism for the management of the conflict.**

Agreed Procedure for the Management of the Conflict:

To be completed by the Dean/Head of School or other appropriate line manager:

Certification:

I certify that I have disclosed everything relevant to the Dean/Head of School/line manager. I undertake to act according to the Management Plan above.

Signature of Researcher:

Date:.....

I have applied my mind to the situation described above and will monitor compliance with the Management Plan.

Signature of Head of School/Dean:.....

Date:

Useful additional material

These links are listed to provide additional reading. The responsibility for content is the responsibility of the organisations maintaining the sites.

- *On being a scientist – Responsible conduct in research*, National Academy Press, Washington DC 1995.
- *Joint NHMRC/AV-CC statement and guidelines on research practice*, Australian Vice Chancellors' Committee.
- *A Guide to Research Ethics for Staff and Students*, compiled by the Unilever Ethics Centre, University of KwaZulu-Natal.
- *Online Ethics Center for Engineering and Science* at Case Western Reserve University.
- *Office of Research Integrity* US Department of Health and Human Services
- *Bill of Rights of the Constitution of South Africa Act 106 of 1996*
<http://www.crisa.org.za/downloads/billofrights.pdf>.
- *National Statement on Ethical Conduct in Research Involving Humans- Preamble* National Health and Medical Research Council.
<http://www.health.gov.au/nhmrc/publications/humans/preamble.htm>
- *Report of the Review of the Role and Functioning of Institutional Ethics Committees*. A Report to the Minister of Health and Family Services, March 1996, Commonwealth of Australia, Canberra.
- *The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research*. The National Commission for the Protection of Human Subjects of Biomedical and Behavioural Research, Department of Health, Education and Welfare Publication No (OS) 78-0012, US Government Printing Office Washington, 1978.
- *International Ethical Guidelines for Biomedical Research Involving Human Subjects, CIOMS, Geneva, 1993, p.11*. Council for International Organizations of Medical Sciences (CIOMS) in collaboration with the World Health Organisation (WHO).
- *Large Research Grants Scheme: Guidelines for the year 2000 Grants*, Australian Research Council, 1999, p.4. Department of Education, Training and Youth Affairs,
- *Guidelines and Policies*, University of Waterloo.
<http://www.research.uwaterloo.ca/ethics/human/guidelines.asp>
- *Integrity in Research Administrative Guidelines*, University of Waterloo.
http://www.research.uwaterloo.ca/ethics/misconduct/guidelines/misconduct_guidelines.html 8/26/2004
- *Ethical Behaviour Policy 33*. University of Waterloo.
<http://www.research.uwaterloo.ca/ethics/misconduct/guidelines/policy33.htm>
- *McGill University policy on research ethics*. McGill Research at Mc Gill
<http://www.mcgill.ca/researchoffice/policies/sponsored/policies/ethics>

- *Regulations governing conflicts of interest in proprietary research* McGill Research at Mc Gill. <http://www.mcgill.ca/researchoffice/policies/sponsored/policies/proprietary>
- *Laboratory Biohazards Policy for Research Facilities and Personnel* Texas Tech University Health Sciences Centre.
- *Policy and procedures on Ethics in Research.* The University of North Carolina at Chapel Hill, August 1994.
- *Human Research Ethics Committee* Central Queensland University. <http://www/cqu.edu.au/ppmanual/committees/humanresearch.pdf>
- *Ethics Review of Research Involving Human Subjects* Simon Fraser University. <http://www2.sfu.ca/policies/research/r20-01.htm>
- *About Ethics at CDU.* Charles Darwin University. http://www/cdu.edu.au/research/ethics/ethics_about.html
- *Current Students –Postgraduate Research.* The University of New South Wales <http://www.unsw.edu.au/currentStudents/postgradResearch/res/cspgrpolicyproc.html>
- *Joint NHMRC/AV-CC Statement and Guidelines on Research Practice.* Australian Vice-Chancellors' Committee. http://www.avcc.edu.au/news/public_statements/publications/grespra.htm
- *Ethics Policy* St Edwards University, Course Policies. <http://www.stedwards.edu/educ/minus/read1323/gethicteach.htm>