University Statement on Safeguarding Good Scientific Practice

Introduction

All members of staff of the University of Essex are expected to adhere to the highest professional standards of scientific integrity. This statement addresses the issues involved in the proper conduct of scientific research, and provides guidance on the standards expected. It also sets out the procedure for handling cases of scientific misconduct. The statement is based on a framework produced by the Director-General of the Research Councils and the Chief Executives of the UK Research Councils in December 1998. Although this statement refers to scientific practice, the principles involved will also apply to most areas of the University's research activity.

Principles of Good Scientific Practice

Professional Standards

The University expects staff to maintain professional standards. These include:

- **Honesty**: Staff are required to be honest across the whole range of scientific work, including experimental design, generating and analysing data, publishing results, and acknowledging the direct and indirect contributions of colleagues, collaborators, students and others. Staff must refrain from plagiarism or the fabrication of results.

- **Confidentiality**: Staff handling personal information in research must not pass it on, except following prescribed procedures, and must keep it secure.

- Staff are required to respect the intellectual property of others and to observe commercial and official secrecy.

- **Openness**: While it is recognised that research interests need to be protected at times, staff are encouraged to be as open as possible in discussing their work with other scientists and with the public.

- **Questioning one’s own findings**: Researchers should always be prepared to question the outcome of their work. The University expects research results to be checked thoroughly before being made public. Staff should not make claims for their research that cannot be substantiated on the basis of the evidence provided.

Where available, staff are expected to observe the standards of scientific practice set out in guidelines published by appropriate scientific societies and other relevant professional bodies.
Leadership and Organisation

The University encourages sound management practices to ensure that a climate is created that allows research to be conducted within the principles of good scientific practice. Heads of Department are responsible for ensuring that sound management is practised within their departments. This includes fostering an environment where:

- Scientific ideas can be challenged and tested without loss of face;
- Researchers are encouraged to develop their skills;
- Researchers or research groups do not become subject to such commercial pressures that the normal processes of scientific inquiry cannot be enforced.

Heads of Department and research project leaders should be familiar with the recommendations and guidance provided by the ‘Concordat on Career Management of Contract Research Staff’.

Heads of Department, together with Principal Investigators, are responsible for ensuring that all reasonable measures have been taken to ensure the accuracy of information that is contained in applications for funding and that the University’s procedure for making applications, as set out on the Research and Enterprise Office website, is followed.

Education of young researchers

The University is aware of its responsibility for ensuring that new researchers and students understand good scientific practice. Heads of Department are responsible for ensuring that new researchers are adequately mentored and receive any necessary formal training. In addition, Heads of Department are responsible for ensuring that the University’s guidelines for the supervisory arrangements of postgraduate students are followed.

Documenting results and storing primary data

Researchers are required to keep clear and accurate records of the scientific procedures followed and of the results obtained. This is necessary for a number of reasons, including:

- The records will provide a means of demonstrating proper scientific practice;
- The records will be available in case questions are subsequently asked about either the conduct of the research or the results obtained;
- The records can ensure that IPR can be protected.
Academic staff are responsible for storing their records securely in an appropriate durable form. The appropriate period for retaining data will depend on circumstances; for some disciplines, the importance and relevance of data can be superseded very rapidly. However, as an example, BBSRC expects data to be securely held for a period of ten years after the completion of a research project. An appropriate period should be set within each department.

Use of Funds Granted for Research

Funding bodies in the UK have their own codes for safeguarding good scientific practice. Staff should adhere to the codes of practice promulgated by the body funding their research.

Allegations of Scientific Misconduct

Scientific misconduct can be recognised to cover two broad categories. The first involves fabrication or falsification of research results; the second involves plagiarism, misquoting or other misappropriation of the work of other researchers. Colluding in, or concealing the misconduct of others is, in itself, misconduct. Honest mistakes do not, of course, constitute scientific misconduct.

Allegations of scientific misconduct will be dealt with under the provisions of the University's Whistleblowing Policy, which was approved by Council at its meeting in January 1999 and is sent to all members of staff on appointment, and in accordance with the University's Statutes.

Monitoring Practices

The Pro-Vice-Chancellor (Research), together with the Research Committee if necessary, will monitor policies put in place to ensure good scientific practice.

References

Biotechnology and Biological Sciences Research Council, Statement on Safeguarding Good Scientific Practice (December 1998)

DGRC and Chief Executives of the Research Councils, Safeguarding Good Scientific Practice (December 1998)

Engineering and Physical Sciences Research Council, Good Practice in Scientific and Engineering Research (February 1999)

Medical Research Council, Policy and Procedure for Inquiring into Allegations of Scientific Misconduct (December 1997)

Medical Research Council, Principles in the Assessment and Conduct of Medical Research and Publicising Results (January 1995)