A NATIONAL PANEL FOR RESEARCH INTEGRITY:
A PROPOSED BLUEPRINT FOR THE PREVENTION AND INVESTIGATION OF MISCONDUCT IN BIOMEDICAL RESEARCH

*P. Stonier, President, Faculty of Pharmaceutical Medicine (Convenor); G.D.O. Lowe, Assessor, RCP Edinburgh; G. McInnes, RCP & S Glasgow; J. Murie, RCP & S Glasgow; J. Petrie, Immediate Past President, RCP Edinburgh; F. Wells, Faculty of Pharmaceutical Medicine**

INTRODUCTION

Biomedical researchers in the UK have made major contributions to disease prevention and patient care through the publication of a large quantity of research evidence in peer-reviewed journals.

Isolated (but well publicised) instances of deliberate misconduct (fraud) in clinical research by doctors in the UK have been reported to, and dealt with by, the General Medical Council (GMC) as part of its procedures for professional misconduct.[1] The UK has not yet developed systematic procedures for identification and investigation of suspected deliberate misconduct in biomedical research, unlike other countries such as the US and Denmark.[2]

Whilst increasingly publicised and requiring joint attention by the medical profession, and by its colleagues in the biomedical sciences (over whom the GMC has no jurisdiction), such isolated instances of *deliberate* misconduct probably have little lasting effect on the scientific basis of medical practice.[3] In contrast, it has been suggested that 'almost certainly far more direct harm to patients results from the inept efforts of poorly trained researchers than ever results from deliberate deception'.[3] Hence there is a need to address not only *deliberate* research misconduct, but also to address *non-intentional* behaviour by researchers which falls short of good ethical and scientific standards. In a recent international survey of biostatisticians, who routinely work closely with physicians and scientists in many branches of medical research and therefore have an unique insight into data, 51% of the 37% who responded knew about fraudulent projects (e.g. fabrication and falsification of data, deceptive reporting of results, suppression of data and deceptive design or analysis).[4]

A recent consensus statement developed at a UK Consensus Conference on Misconduct in Biomedical Research organised by the Royal College of Physicians of Edinburgh defined research misconduct as 'behaviour by a researcher, intentional or not, that falls short of good ethical and scientific standards'.[2] It proposed that representatives of both of the Royal Colleges of Physicians of Edinburgh and London, the Royal College of Physicians and Surgeons of Glasgow and their joint Faculty of Pharmaceutical Medicine meet to consider the establishment and remit of a national panel for good research practice. We therefore established our joint working group to address these issues. At a series of meetings we have developed a blueprint for such a panel, which we now publish to inform people of developments and to invite public debate. We have also had discussions with the UK government (Departments of Health), the Academy of Medical Sciences and the GMC, and look forward to working with these and other partners to establish this panel during 2001.

OBJECTIVES OF THE NATIONAL PANEL FOR RESEARCH INTEGRITY

To promote best practice in biomedical research within the UK through:

1. *education* of researchers and supervisors;
2. development and maintenance of *standards and audit*; and
3. development of a *coordinating function* for allegations or suspicions of misconduct.

Biomedical research includes:

1. all clinical research activities involving patients and human volunteers, including observational and interventional studies;
2. all research on biological material, and non-biological material to be used in a biological setting; and
3. all publications of biomedical research and clinical audit projects.

STATUS, COMPOSITION AND REPRESENTATION

While the proposed National Panel for Research Integrity (NPRI) will seek funding principally from the UK government, it will derive no statutory powers from government, but will seek to derive its status through representation of all stakeholders in biomedical research and establishing their confidence and respect. These stakeholders should include:

- professionals in science, medicine and health care;
- the public, through
  - lay representative bodies;
  - legal and ethical bodies;
  - government;
  - media; and
- the health care industry.

Possible bodies to be represented on the NPRI include those listed in Table 1 overleaf. Others may need to be involved. While broad representation is desirable, pragmatically a smaller active steering group should be established in order to drive forward the foundation of NPRI and its implementation. This steering group should actively encourage continuing input from all representatives (and their own networks) to develop good practice and NPRI in a coordinated way to avoid duplication, overlap and confusion.

* *Members of the Royal Colleges Writing Group*

TABLE 1
Possible bodies to be represented on a National Panel for Research Integrity.

Professional bodies

- Royal Colleges and their faculties
- Academy of Medical Sciences
- Heads of medical schools
- Postgraduate deans
- Committee of vice-chancellors and principals
- British Medical Association
- Relevant associations for bioscientists (e.g. biostatisticians, pharmacologists, psychologists)
- Relevant associations for other health care professionals (e.g nurses, pharmacists, professions allied to medicine)
- Editors and publishers of biomedical journals (e.g. Committee on Publication Ethics)

Public and government bodies

- Lay representative bodies (e.g. health councils)
- Funding charities (e.g. Association of Medical Research Charities)
- Research councils (e.g. Medical Research Council; Scientific and Engineering Research Council)
- Legal and ethical bodies (e.g. Law Society, Association of Research Ethics Committees)
- Government (UK National Health Services, NHS research and development, Chief Scientist's Office of the Scottish Executive)

Health care industry

- Association of the British Pharmaceutical Industry
- Bio Industry Association

PROCEDURES

The NPRI should act to coordinate activities relevant to its three objectives:

1. *Education, and*
2. *Development and maintenance of standards and audit*

Possible activities could include collation, publication and promotion of experience, evidence and guidelines relevant to quality assurance and best practice in biomedical research,[2,3] e.g.:

- research training programmes (for researchers and supervisors);
- best practice guidelines and standards (for research and supervision) e.g. GMC guidelines;[1] International Conference on Harmonisation (ICH) (of regulatory procedures for the licensing of medicines); Good Clinical Practice (GCP) (ICH GCP guidelines covering all clinical trials involving medicines);[5] and the European Union Directive on clinical trials associated with them.
- Royal College of Physicians of London updated guidance (*Alberti G: personal communication*);
- working in teams/groups, rather than single-handed;
- peer review of research in progress;
- appropriate study design and analysis (with biostatistical input);
- systematic documentation and audit of research projects;
- maintenance of databases, to inform systematic reviews;
- encouragement of best publication practice; and
- clear declaration of interests.

The NPRI's activities in these areas would *not* include direct audit or accreditation of research. This is impractical, unaffordable and would increase both regulatory and legal activity. This is understandable in the light of current 'over regulation' of biomedical research, an issue which was highlighted at the UK Consensus Conference.[2]

3. *Development of a coordinating function for allegations or suspicions of misconduct in biomedical research*

- The NPRI should aim to *prevent* misconduct in biomedical research, through its programme outlined above.
- It should also encourage all UK institutions performing biomedical research to develop procedures for *internal research governance,* including allegations or suspicions of misconduct.[1]
- All such institutions may on occasion require to seek advice from the NPRI as an external, national body; or to request it to assist by confidential *external investigation* of such allegations. The NPRI would provide 'rapid response' teams from national lists of trained external assessors who could be called in by institutions as required.

Such investigations should be conducted according to due process[6] using standard operating procedures (SOPs) as agreed by the NPRI.

The principles of such confidential external investigations by the NPRI should include:

- a rapid response to requests;
- investigation by a team of trained, impartial experts;
- protection of patients and volunteers in research studies;
- protection of whistleblowers;[7] and
- protection of clinical and scientific researchers from unjustified allegations of research misconduct.[6]

We recommend that, when developing such principles and procedures, the NPRI should consider two models of external investigation with which we have experience.

A *External Clinical Advice Teams (ECATs)*

These are teams provided by the Academy of Medical Royal Colleges, working with UK Health Departments,[8] which investigate clinical issues or consequences of a serious issue. They offer early help and advice to NHS Trusts, on the request of the Trust Medical Director. Colleges compile lists of appropriate contact points and persons and of assessors. Teams consist of two specialists, one at least in the relevant discipline, and a lay member, all from a different geographical area and with no detailed prior knowledge of the problem. When choosing assessors, consideration is given to matters of gender and ethnicity if appropriate. All involved are required to declare any potential conflict of interest or indicate any reason why they should not

serve. Prior involvement or detailed knowledge of the situation precludes membership of the team.

The purpose of the request for such a team is to provide expert clinical advice to the Trust. Secretarial help and facilities are provided by the requesting Trust (who also bear all costs and expenses, as well as indemnity). Team members require appropriate training in dealing with controversial issues around competency and related personal relationships. The team issues a report to the Trust and to their parent Colleges. The team must reserve the right to report matters of serious concern, which are discovered in the course of its investigations, to relevant professional bodies, as is their duty in terms of GMC advice.

We recognise that ECATs have been developed to address concerns about *clinical practice*. However, their experience and procedures merit consideration when the NPRI develops principles and procedures for external investigation of concerns about clinical research. It may be appropriate to include in the assessors of the NPRI team an appropriate biomedical scientist, e.g. a biostatistician[9] or an expert in the relevant field of biomedicine.

B *Standard operating procedure for the handling of suspected fraud in clinical research: Association of the British Pharmaceutical Industry*[10]

A SOP has been developed by the Association of the British Pharmaceutical Industry (ABPI) for the investigation and management of cases of suspected fraud in clinical research related to drug trials (Phases I–IV). These procedures have been adopted by the ABPI and pharmaceutical companies throughout the UK. We recommend that they merit consideration for development by the NPRI for other forms of clinical research (e.g. surgical and instrumental procedures; diagnostic procedures; trials of complementary medicines; observational studies of patients and volunteers; laboratory studies of research on biological material; and audit projects).

We recognise that other models of investigation of suspected misconduct may also merit attention.

FUNDING

We have approached UK government concerning funding and development of the NPRI, with positive feedback. While funding should be sought principally from the UK government, the external inspection teams component might become partially self-funding if UK institutions performing biomedical research collectively undertake to reimburse expenses plus an appropriate fee per panel member. Such institutions should be encouraged to include provision for such external investigation in their development and financial planning. This may encourage institutions to address risk management and prophylaxis of external investigation by adoption of appropriate internal procedures to prevent research misconduct.

COMMUNICATION AND REPORTING

As a publicly-funded body, the NPRI should produce an annual report and should also establish a website for access by all stakeholders for information on its remit and services.

THE FUTURE

The Royal College of Physicians of Edinburgh's Consensus Conference and Consensus Statement[2] was a landmark in highlighting an agreed need for all stakeholders to collaborate in establishing a national body to promote education, standard-setting and audit of biomedical research within the UK. We have progressed the Consensus Statement's recommendation that we work with relevant stakeholders to establish such a body by producing this blueprint and by discussing its practical development with other parties. We look forward to collectively establishing, with others, the NPRI in 2002.

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CORRESPONDENCE TO:
Professor P. Stonier,
Faculty of Pharmaceutical Medicine,
Royal College of Medicine,
1 St Andrew's Place,
Regents Park,
London,
NW1 4LB