

科研道德和学术规范

山东大学齐鲁医院

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大学医院的三项职能

- ◆ 临床是根本
- ◆ 教学是后劲
- ◆ 科研是前途
- ◆ Science is tomorrow's
medicine

为什么要进行科学研究？

- ◆ 对于科学问题的强烈好奇和解决科学问题的浓厚兴趣（永久目标）
- ◆ 国家和社会的重大需求（阶段目标）
- ◆ 科研工作的时代性：创新表现、临床后劲、教学手段、学科标准、人才尺度
- ◆ 家：探索未知； 匠：学习已知
- ◆ 个人利益驱动的科研：急功近利、一劳永逸

爱因斯坦谈科研目的

- ◆ 我们思想的发展在某种意义上常常来源于好奇心
- ◆ 兴趣是最好的老师
- ◆ 我认为对于一切情况，只有“热爱”才是老师
- ◆ 科学是个美妙的东西——如果无需靠它活着的话
- ◆ 想象力比知识更重要，因为知识是有限的，而想象力概括着世界的一切，推动着进步，并且是知识进步的源泉

科研规范的国际指南

- ◆ **Committee on Publication Ethics (COPE): guidelines on good publication practice**
- ◆ **Adopted by many international journals**
- ◆ **Most widely used guideline on publication ethics**

科研规范的国际指南

- ◆ COPE founded in 1997 to address breaches of research and publication ethics
- ◆ A voluntary body providing a discussion forum and advice for scientific editors
- ◆ Aims to find practical ways of dealing with the issues and to develop good practice
- ◆ Intellectual honesty should be actively encouraged in all medical and scientific courses of study, and used to inform publication ethics and prevent misconduct

研究设计和伦理批准

Definition

- ◆ Good research should be well justified, well planned, appropriately designed, and ethically approved
- ◆ To conduct research to a lower standard may constitute misconduct

研究设计和伦理批准

Action

- ◆ Laboratory and clinical research should be driven by protocol
- ◆ Pilot studies should have a written rationale
- ◆ Research protocols should seek to answer specific questions, rather than just collect data
- ◆ Protocols must be carefully agreed by all contributors and collaborators, including, if appropriate, the participants
- ◆ The final protocol should form part of the research record

研究设计和伦理批准

Action

- ◆ Early agreement on the precise roles of the contributors and collaborators, and on authorship and publication, is advised
- ◆ Statistical issues should be considered early in study design, including power calculations, to ensure there are neither too few nor too many participants
- ◆ Formal and documented ethical approval from an appropriately constituted research ethics committee is required for all studies involving people, medical records, and anonymised human tissues

数据分析

Definition

- ◆ Data should be appropriately analysed
- ◆ Inappropriate analysis does not necessarily amount to misconduct.
- ◆ Fabrication and falsification of data do constitute misconduct

数据分析

Action

- ◆ All sources and methods used to obtain and analyse data, including any electronic pre-processing, should be fully disclosed
- ◆ Detailed explanations should be provided for any exclusions
- ◆ Methods of analysis must be explained in detail, and referenced, if they are not in common use

数据分析

Action

- ◆ The post hoc analysis of subgroups is acceptable, as long as this is disclosed
- ◆ Failure to disclose that the analysis was post hoc is unacceptable
- ◆ The discussion section of a paper should mention any issues of bias which have been considered, and explain how they have been dealt with in the design and interpretation of the study

作者署名

Definition

- ◆ There is no universally agreed definition of authorship
- ◆ As a minimum, authors should take responsibility for a particular section of the study

Action

- ◆ Authorship should balance intellectual contributions to the conception, design, analysis and writing of the study against the collection of data and other routine work
- ◆ If there is no task that can reasonably be attributed to a particular individual, then that individual should not be credited with authorship

作者署名

- ◆ To avoid disputes over attribution of academic credit, it is helpful to decide early on in the planning of a research project who will be credited as authors, as contributors, and who will be acknowledged
- ◆ All authors must take public responsibility for the content of their paper, which can be resolved by the disclosure of individual contributions
- ◆ Careful reading of the target journal's "Advice to Authors" is advised, in the light of current uncertainties

利益冲突

Definition

- ◆ Conflicts of interest comprise those which may not be fully apparent and which may influence the judgment of author, reviewers, and editors
- ◆ They have been described as those which, when revealed later, would make a reasonable reader feel misled or deceived
- ◆ They may be personal, commercial, political, academic or financial
- ◆ Financial interests may include employment, research funding, stock or share ownership, payment for lectures or travel, consultancies and company support for staff

利益冲突

Action

- ◆ Such interests, where relevant, must be declared to editors by researchers, authors, and reviewers
- ◆ Editors should also disclose relevant conflicts of interest to their readers
- ◆ Sometimes editors may need to withdraw from the review and selection process for the relevant submission

同行评审

Definition

- ◆ Peer reviewers are external experts chosen by editors to provide written opinions, with the aim of improving the study
- ◆ Working methods vary from journal to journal, but some use open procedures in which the name of the reviewer is disclosed, together with the full or 'edited' report

同行评审

Action

- ◆ Suggestions from authors as to who might act as reviewers are often useful, but there should be no obligation on editors to use those suggested
- ◆ The duty of confidentiality in the assessment of a manuscript must be maintained by expert reviewers, and this extends to reviewers' colleagues who may be asked (with the editor's permission) to give opinions on specific sections
- ◆ The submitted manuscript should not be retained or copied

同行评审

- ◆ Reviewers and editors should not make any use of the data, arguments, or interpretations, unless they have the authors' permission
- ◆ Reviewers should provide speedy, accurate, courteous, unbiased and justifiable reports
- ◆ If reviewers suspect misconduct, they should write in confidence to the editor
- ◆ Journals should publish accurate descriptions of their peer review, selection, and appeals processes
- ◆ Journals should also provide regular audits of their acceptance rates and publication times

重复发表（自我剽窃）

Definition

- ◆ Redundant publication occurs when two or more papers, without full cross reference, share the same hypothesis, data, discussion points, or conclusions

Action

- ◆ Published studies do not need to be repeated unless further confirmation is required
- ◆ Previous publication of an abstract during the proceedings of meetings does not preclude subsequent submission for publication, but full disclosure should be made at the time of submission

重复发表（自我剽窃）

- ◆ Re-publication of a paper in another language is acceptable, provided that there is full and prominent disclosure of its original source at the time of submission
- ◆ At the time of submission, authors should disclose details of related papers, even if in a different language, and similar papers in press

剽窃

Definition

- ◆ Plagiarism ranges from the unreferenced use of others' published and unpublished ideas, including research grant applications, to submission under 'new' authorship of a complete paper, sometimes in a different language
- ◆ It may occur at any stage of planning, research, writing, or publication
- ◆ It applies to print and electronic versions

剽窃

Action

- ◆ All sources should be disclosed, and if large amounts of other people's written or illustrative material is to be used, permission must be sought

主编职责

Definition

- ◆ Editors are the stewards of journals. They usually take over their journal from the previous editor(s) and always want to hand over the journal in good shape
- ◆ Most editors provide direction for the journal and build a strong management team
- ◆ They must consider and balance the interests of many constituents, including readers, authors, staff, owners, editorial board members, advertisers and the media

主编职责

Actions

- ◆ Editors' decisions to accept or reject a paper for publication should be based only on the paper's importance, originality, and clarity, and the study's relevance to the remit of the journal
- ◆ Studies that challenge previous work published in the journal should be given an especially sympathetic hearing
- ◆ Studies reporting negative results should not be excluded

主编职责

- ◆ All original studies should be peer reviewed before publication, taking into full account possible bias due to related or conflicting interests
- ◆ Editors must treat all submitted papers as confidential
- ◆ When a published paper is subsequently found to contain major flaws, editors must accept responsibility for correcting the record prominently and promptly

学术不端的处理

Principles

- ◆ The general principle confirming misconduct is intention to cause others to regard as true that which is not true
- ◆ The examination of misconduct must focus, not only on the particular act or omission, but also on the intention of the researcher, author, editor, reviewer or publisher involved
- ◆ Deception may be by intention, by reckless disregard of possible consequences, or by negligence
- ◆ The `best practice' requires complete honesty, with full disclosure

学术不端的处罚

- ◆ A letter of explanation (and education) to the authors, where there appears to be a genuine misunderstanding of principles
- ◆ A letter of reprimand and warning as to future conduct
- ◆ A formal letter to the relevant head of institution or funding body
- ◆ Publication of a notice of redundant publication or plagiarism
- ◆ An editorial giving full details of the misconduct

学术不端的处罚

- ◆ Refusal to accept future submissions from the individual, unit, or institution responsible for the misconduct, for a stated period
- ◆ Formal withdrawal or retraction of the paper from the scientific literature, informing other editors and the indexing authorities
- ◆ Reporting the case to the General Medical Council, or other such authority or organisation which can investigate and act with due process