RESOURCES for professional standards of ethics and conduct for scientists

The Biophysical Society (BPS) is the international association of professional scientists dedicated to the development and dissemination of knowledge in biophysics across the globe. Its members value above else scientific excellence; integrity and transparency; diversity, equity, and inclusion; and community building. In support of these values, the BPS has developed **Ethics Guidelines** and a **Code of Conduct** that reflect the ideals and values of BPS and serve as guiding principles for its members.

In addition to these guidelines and code, and in recognition of the diversity of cultural norms that guide the global scientific enterprise in our increasingly complex socio-politic and economic environment, the BPS offers a collection of resources below to assist members in nurturing a collegial and collaborative environment, where all science and scientists can flourish.

These resources are meant to be a starting point and not exhaustive. Please contact the BPS Office with comments and suggestions.

National Institutes of Health (NIH)

The National Institutes of Health (NIH) is a part of the U.S. Department of Health and Human Services, and the major funding institution for biomedical research in the US. Its code of ethical conduct includes guidelines for optimal performance of research activities and preventing research misconduct; commitment to an inclusive and ethical research environment, and practices for adequate regulatory compliance.

Principles of Ethical Conduct https://oir.nih.gov/sourcebook/ethical-conduct

The Office of Research Integrity (ORI)

The Office of Research Integrity (ORI) oversees and directs Public Health Service (PHS) research integrity activities on behalf of the U.S. Secretary of Health and Human Services with the exception of the regulatory research integrity activities of the Food and Drug Administration.

The ORI defines *professionalism in science* as a pattern of behavior identified with scientific integrity that, in turn provides certain privileges. ORI articulates the following attributes as elements of professionalism in science: intellectual honesty; excellence in thinking and doing; collegiality and openness; autonomy and responsibility; and self-regulation.

The US Federal Government defined research misconduct 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.

Professionalism in Science http://ori.hhs.gov/education/products/ucla/chapter1/page03.htm

United Nations (UN)

The Division for Sustainable Development Goals (DSDG) in the United Nations Department of Economic and Social Affairs (UNDESA) provides support and capacity-building for the goals and their related thematic issues.

Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all; https://sdgs.un.org/goals/goal4

Goal 5 Achieve gender equality and empower all women and girls; https://sdgs.un.org/goals/goal5

Goal 8 Promote sustained, inclusive, and sustainable economic growth, full and productive employment and decent work for all https://sdgs.un.org/goals/goal8

International Science Council (ISC)

The International Science Council (ISC) is a non-governmental organization with a unique global membership that brings together 250 international scientific unions and associations, national and regional scientific organizations including academies and research councils, international federations and societies, and young academies and associations.

Strengthening Research Integrity https://council.science/publications/

Advancing Gender Equality in Science https://council.science/our-work/gender-equality/

Science Missions for Sustainability https://council.science/our-work/science-missions/

American Chemical Society (ACS)

ACS' Core Value of Inclusion and Belonging: https://www.acs.org/about/inclusion.html

Bibliography

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Research integrity codes of conduct in Europe: Understanding the divergences Bioethics 2021 Jun;35(5):414-428. doi: 10.1111/bioe.12851. Epub 2021 Feb 7 (link)

Professionalism and Integrity in Research (link) at the Washington University School of Medicine, St Louis.