An Introduction to UNESCO's Updated Recommendation on
SCIENCE AND SCIENTIFIC RESEARCHERS

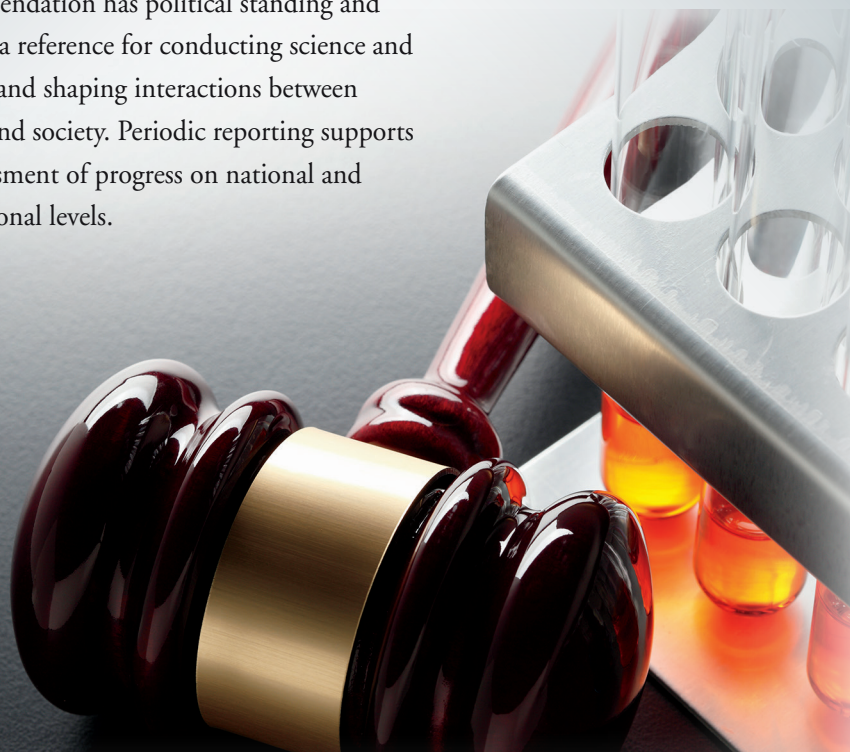The United Nations Educational, Scientific and Cultural Organization (UNESCO) Recommendation on Science and Scientific Researchers aims to inform science policy and ethics worldwide. Aimed at research institutes, individuals and scientific organizations that practice, regulate and promote science, it calls on member states and their governments to create the conditions that will enable science to flourish and advance, to be practiced ethically and fairly, and to be useful and relevant to society.

Adopted in 2017, the Recommendation replaces the 1974 Recommendation on the Status of Scientific Researchers. The update ensures the Recommendation will continue to be relevant to research communities around the world in light of emerging ethical and regulatory challenges related to how science and the science-society relationship are governed.

Adopted by all UNESCO member states and endorsed by the international community, the Recommendation has political standing and serves as a reference for conducting science and research and shaping interactions between science and society. Periodic reporting supports the assessment of progress on national and international levels.

Who is the Recommendation for, and what does it do?

The Recommendation is meant to be used by all research institutes, individuals and scientific organizations that practice, regulate and promote science as well as by anyone concerned with rules, policies and ethics in science. The Recommendation:

- Recognizes the value of science as a common good
- Identifies science as a critical long-term investment for every country
- Positions science as a key condition for sustainable development
- Calls for a means to address the ethics of science and research integrity
- Addresses the scientific community at large and individual researchers
- Affirms the value of scientific researchers and their work to society
- Argues for the support and recognition of scientific researchers
- Showcases the women and men who carry out science, emphasizing their integrity and responsibility
- Condemns the factors that undercut scientific careers and scientific endeavours

Key messages
The Recommendation:

Underscores science's responsibility to develop more humane, just and inclusive societies and advance the United Nations' ideals of peace and welfare

Recognizes the role of science in national policy-making, decision-making and international cooperation and development

Stresses the role of UNESCO member states in creating a supportive, stimulating environment for science and research

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Emphasizes that all scientific conduct is subject to universal human rights standards

Balances researchers' freedoms, rights and responsibilities

Calls for scientific integrity and ethical codes of conduct for science and research and their applications

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Emphasizes the need for science and society to interact meaningfully to tackle global challenges

Promotes science as a common good and requires us to freely share knowledge and research results through open science systems

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Calls for inclusive, non-discriminatory work conditions and access to education and employment in science
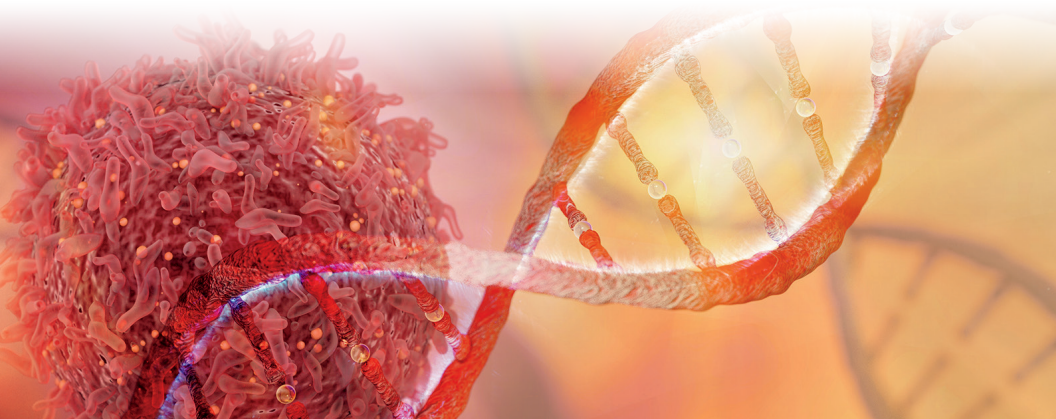
Recognizes that human capital is key to a sound and responsible science system

Applying and using the Recommendation

The Recommendation provides researchers, scientists and policy-makers with a set of international guidelines and values. As a UN-endorsed reference, it complements existing national and international codes of conduct, principles and guidelines around the ethics of research and development. For example, it addresses issues like open access, open science, knowledge commons building and benefits-sharing. This is in line with article 27 of the Universal Declaration of Human Rights, "the right to share in scientific advancement and its benefits."

The Recommendation also provides common global ground on the ethical principles of conducting science and the rights and responsibilities of scientific researchers. It is a clear statement of how the international community views science and scientific research and how it intends to implement a set of shared values.

The Recommendation can be used:

- As an international reference when developing research and science policies at all levels in both governments and organizations
- As an internationally agreed set of norms to inform how research is conducted in various settings (such as universities, governments, non-governmental organizations, clinical research networks and businesses)
- As an unbiased, neutral, ethical and regulatory framework for international research collaboration agreements, especially in North–South settings
- To provide international perspective on national or regional codes of conduct and ethical guidelines for science
- To call for public responsibility to use science and create societal impact
- To support Agenda 2030 and the Sustainable Development Goals (SDGs) as well as global human development in general
- As a resource in science diplomacy, particularly to address ethical concerns

Sharing the Recommendation

- Present it in research symposia
- Prepare a module for online training or as part of a university curriculum
- Find ambassadors in your research community to promote the Recommendation and champion its elements (such as those pertaining to gender, human rights and societal impact)
- Engage science journalists, writers and opinion leaders to reflect on and give meaning to the Recommendation
- Organize roundtables or panels to discuss the Recommendation and the role of science and scientific research in achieving the SDGs and confronting global challenges
- Refer to norms of the Recommendation in your policy and administrative documents (e.g., scientific research policies and programs, codes of conduct for researchers) and when promoting themes such as women in science or ethics in research

UNESCO aims to build a community of practice to enhance the potential impact of this Recommendation. Please share your comments, experiences or material related to the Recommendation by email at recommendation.comment@unesco.org. We also invite individuals and organizations to share experiences and pilot projects related to implementing this Recommendation at the individual, organizational and national levels.

This publication was developed by

**To read the Recommendation and learn more about UNESCO's work in the ethics
of science and technology, visit https://en.unesco.org/themes/ethics-science-and-technology**