
Recommendations for Conduct in International Research Collaborations

Preamble

Cross-boundary research collaborations are vital to advancing science and technology worldwide for the good of humankind and the planet. The value and benefits of such collaborations do critically depend on researchers adhering to principles and code of conduct and professional ethics despite the frequent and inevitable national, socioeconomical, cultural and disciplinary differences are inevitable. On the foundation of:

Recognizing the ever-increasing world-wide impact of collaborative research conducted between researchers in China and their international peers, and that mutual trust among all involved must be fostered;

Affirming the widely-accepted codes of conduct and such guidelines as advocated by the international scientific community, including but not limited to the *UNESCO Recommendation on Science and Scientific Researchers* (2018), *International Science Council Statutes and Rules of Procedure* (2021), and the *San Francisco Declaration on Research Assessment* (2013);

Supporting the guiding principles on research integrity agree upon by global scientists, such as *Singapore Statement on Research Integrity* (2010), *Montreal Statement on Research Integrity in Cross-Boundary Research Collaborations* (2013), *Amsterdam Agenda* (2017), *Hong Kong Principles* (2019), *Budapest Declaration* (2019), and *Cape Town Statement* (2022);

Acknowledging the *UNESCO Recommendation on Open Science* (2021) tasked by 193 Member States, which also aims to accelerate progress towards the Sustainable Development Goals adopted by the United Nations in 2015;

Also acknowledging that research and researchers in China should follow pertinent laws, regulations and conduct codes introduced by the Chinese government and the scientific community, such as *Opinions on Further Strengthening the Scientific Research Integrity* (2018), *Guidelines on Strengthening Governance over Ethics in Science and Technology* (2022), and *Five Prohibitions in Academic Publishing* (2015);

We call on all Chinese researchers to embrace research excellence, academic

freedom, integrity, ethics, equity in gender, inclusiveness, respect of intellectual property, and promotion of open science as core values in their research conducts including in international collaborations. The following recommendations are intended for individual researchers and their communities and aim to explain those core values in more details and address key implications relevant to international collaborative research.

Research Excellence

Research excellence is the holy-grail of research collaborations. For scholarly outputs to stand on a solid ground and pass the test of time, research engagement should strive to be **truthful, evidence based, and objective**.

To achieve research excellence, collaborating partners should follow the general guidelines of “**quality over quantity**” and “**principle supersedes opportunism**”.

Records on research design, materials and methods, progress and results should be duly logged and expertly maintained. **Rigors** in analyses, experiments, simulations and presentations should be pursued whenever and wherever.

Each partner of the collaboration should try one’s very best to uphold the shared **responsibility** of true scholarship and **deliver** the agreed-upon milestones.

Academic Freedom

Academic freedom is at the heart of researches in any form. Together with academic responsibility, it plays an essential role in the advancement of human knowledge for the benefits of all. Academic freedom is the freedom to engage in scientific inquiry, to pursue and apply knowledge, and to communicate openly. We share the call of International Council for Science for freedom of movement, association, expression and communication, and access to data and information

Truth-seeking is a top priority in research endeavors, regardless of expectations or arrangements, economic gains or loss, and pre-set goals and targets. **Honesty** should be the only language when a researcher reports his/her findings, and communicates with his/her colleagues.

Novelty is a major value of research work and should be sufficiently presented in scientific writings and internal records. Researchers should be **critical** and conduct research in an evidence-based manner. **Inter-disciplinary** researches should be encouraged whenever possible.

Research Integrity

Academic responsibility is the duty to pursue and apply science with integrity, for the good of humanity, in the spirit of stewardship for the environment, and with respect for human rights. Researchers should maintain **responsible** and **accountable** behavior and practice; should respect truth, evidence, life and nature.

Research integrity forms the bedrock for research, and every researcher should show vigilance and zero-tolerance against misconducts in any forms, including but not limited to, the following manifestations: plagiarism, fabrications, falsifications, ghost writing, multiple submissions, improper authorship, conflict of interests, lobbying, bullying, negligence ghost citations, ghost reviews, non-repeatable data, ethical violations, and paper mills. Many campaigns against research misconduct have been launched in China and elsewhere. In China, in addition to regulations and guidelines put in place by the government and various scientific societies, measures have been taken to encourage whistleblowing in the assessment of academic accomplishments, to prohibit multiple submissions, to conduct similarity checks of dissertations, grant proposals and publications, to pursue nation-wide research conduct training programs for new researchers, and to enforce disciplinary punishments against misconducts in high-profile retractions following rigorous and careful investigations.

Care should be taken with all research conducts, with sufficient attention paid to the details and underlying data. Researchers should maintain confidentiality and neutrality in peer-review processes and discussions, and actively avoid any kinds of interest conflict. All published works should aim to be **reproducible**, with all pertinent supporting data readily accessible. Misleading peers and the general public goes intrinsically against the very basis of scientific pursuit.

Research Ethics

Research ethics should be meticulously and proactively observed. We believe scientific freedom can only be fully embraced by the society when it is based on rigorous ethical principles that also continue to evolve with time and phases of societal development.

For international collaborative research, regular systematic/institutional reviews and monitoring of research ethics compliance should be exercised. As a matter of principle, such research should comply with the ethics regulations of and obtain ethical

approval in all host countries. For international collaborations carrying high ethical risks, those involved should obey the laws, regulations, and good practices of the host countries.

Equity in Gender

Equity is a long-standing topic on the agenda of human advancement, in which **Gender Equity** is a key factor. As such, it deserves continuous attention in decisions concerning employment, career advancement, representation in research organizations, funding application, and awards & recognition. Gender imbalance should be minimized whenever possible. The scientific community should strive to achieve a systematic and substantial increase in female representations among leading researchers, project organizers, academicians, government-sponsored talent project recruits and award recipients. Persistent and proactive effort should be made to raise the status of female scientists in international collaborations and global academic representations.

Inclusiveness

Diversity and **inclusiveness** are fundamental drivers to enrich research collaborations and maximize benefit. Researchers should welcome and embrace the diversity of knowledge, practices, workflows, languages, research topics and outputs that support the dynamic needs and plural perception in the global scientific community. Inclusiveness on such dimensions as cultures, customs, religions, sexual orientations, socioeconomic well-beings and so on is a prerequisite for a more harmonious and productive scientific environment.

We echo the following statement by UNESCO “ensuring equity among researchers from developed and developing countries, enabling fair and reciprocal sharing of scientific inputs and outputs and equal access to scientific knowledge to both producers and consumers of knowledge regardless of location, nationality, race, age, gender, income, socio-economic circumstances, career stage, discipline, language, religion, disability, ethnicity or migratory status, or any other grounds.”

The **mobility** of researchers, as well as **flexibility** of the research specifics they are engaged in, should be fully respected in research collaborations. We plea for all possible measures to help free up movements and collaboration of researchers. We shall exhaust our means to help displaced and/or disconnected scientists during war, conflict, and various kinds of disaster, to uphold their rights to peaceful scientific research and

uncompromised access to scientific data. We should allow and facilitate employment mobility of scientific researchers across the public and private sectors and in higher education, as well as outside of research and development.

Respect for Intellectual Property

All laws, regulations, and relevant rules, domestic or international, concerning the preservation and protection of **Intellectual Property (IP)**, should be observed in research activities. Noting the significant value of science as a common good, researchers should take ownership and responsibility for their writings in all publications, funding applications, reports and other representations of their research. Lists of authors should include all those and only those who meet applicable **authorship** criteria. Researchers should **acknowledge** in publications the names and roles of those who made substantial contributions to the research but do not otherwise meet the authorship criteria, including writers, funders, sponsors, and so on.

The writing of scientific records should be **complete** with **clarity** and contain all necessary data so others can try to reproduce the reported conclusions. Those publications should be made **accessible** to the global public under the FAIR (Findable, Accessible, Inter-operable and Reusable) principles.

As a global public good, science should belong to humanity in common and benefit humanity as a whole. Toward this end, scientific knowledge should be openly available and its **collective benefits** be universally shared. The practice of science should be inclusive, sustainable and equitable.

Promotion of Open Science

It is duly noted that more open, transparent, collaborative and inclusive scientific practices, in conjunction with more accessible and verifiable scientific knowledge subjected to scrutiny and critique, creates a more efficient system and positive feedback loop which improve the quality, reproducibility and impact of science, and in turn improve the reliability of the evidence-based decision-making and policy-making processes and ultimately, increase public trust in science. We endorse the *UNESCO Recommendation on Open Science*.

Openness and **inclusiveness** of scientific research should be enforced in global science and blue-sky research driven by the common good of the scientific community. The resulting published data, whenever possible, should be **shared**.

Digital and ideology divides between stakeholders should be overcome to the best extent possible, irrespective of whether they are caused by differences in technology level, development stage, or political identity. Scientists will be better supported in their scientific pursuit with a more friendly and collaborative environment. **Transparency** in research progress supported by adequate data documentation is welcomed.

Actions

Based on the values and conduct codes elucidated above, we call for prompt **Actions** in the following specific and complementary areas:

- As inspired by the International Year of Basic Sciences for Sustainable Development, IYBSSD 2022, of the United Nations, we call on our colleagues in China to join international collaborators to “Go for the Height of Basic Science” by conducting and promoting research aiming to address fundamental questions and basic humanity needs to “Ensure a Balanced, Sustainable and Inclusive Development of the Planet”;
- Publish high-quality and impactful work, and always say no to “Paper Mills” and other forms of misconduct;
- Take initiative to “Raise the Profile of Female Researchers in International Collaboration” and “Respect for Diversified Civilizations”, such as enforcing the balance of representation of female researchers and diversified civilizations whenever possible;
- Move quickly to help displaced and disconnected scientists;
- Implement the “Global Pursuit for the Common Good of Intellectual Knowledge” during international collaborations and “Global Campaign for IP Protections”;
- Pool resources to support open science for win-win outcomes in the developing world.

Concluding Remarks

Research collaboration is to **serve society** and increasingly, it has also become an indispensable part of efforts to achieve the Sustainable Development Goals, adopted by all United Nations member states for a peaceful, prosperous, inclusive and sustainable future of the world. **Sustainability** is an ever-lasting principle for scientific research,

“Go Green” and environment protection go hand in hand with harmonious co-existence of nature and human. We must realize that we share only one earth and the resources are limited. In international research collaborations, **engagement** and **partnership** provide the fundamental support, as well as the goodwill and networks in scientific collaborations. The underlying principles of open science, such as equity and fairness, collective benefits and global well-being should be observed, and readily defended with all efforts. The ethics for the conducts of international collaboration should reflect the pursuit of harmonious development enjoyed by all nations/regions, cultures, and by both human and nature. We shall work for the common good of the global scientific community.