جامعة الملك عبدالله للعلوم والتقنية
King Abdullah University of Science and Technology

Guideline on Internal Research Collaboration and Data Management

1. Introduction

1.1. This guideline must be read with the KAUST Policy of Research Integrity, and the overarching principles and professional responsibilities outlined in the Singapore Statement (2010) and Montreal Statement on Research Integrity in Research Collaborations (2013).

1.2. The King Abdullah University of Science and Technology (KAUST) recognizes the importance of internal research collaboration and data management through organizing, structuring, storing, and maintaining data generated from research projects. It also acknowledges that accurate and ethical retrieval and management of data are essential components of research integrity.

1.3. Research collaborations across scientific discipline boundaries are important to the advancement of knowledge worldwide. Fostering the integrity of collaborative research is the responsibility of all individuals and institutional partners.

2. Objective

The objective of this guideline is to provide a framework for best practices regarding internal collaboration and data management of research conducted by the KAUST research community[1].

3. Definitions[2]

3.1. Availability means all appropriate users have access to data whenever necessary. As with integrity, availability concerns can extend past the formal end of the study, to ensure access by others who wish to replicate the work.

3.2. Collaboration refers to working together with others, especially in an intellectual activity.

3.3. Collaborative research means joint work on a research project or program that benefits from the knowledge, perspectives, and resources of many individuals, disciplines, or organizations. Research collaborations may involve activities such as consultation, educational exchanges, shared access to resources or data, development of joint publications, cooperative hosting of conferences, and participation in research networks.

3.4. Data means information obtained by following a carefully defined research plan.

[1] As described in the paragraph 2 of the KAUST Research Integrity Policy

[2] Adapted from definitions as per CITI training on Collaborative Research (RCR-Basic). Last updated: March 2022 unless otherwise stated.

3.5. Data Integrity refers to the responsibility to record, store, and preserve data appropriately during the full lifecycle of a study, which helps to improve the accuracy of data analysis.
3.6. Intellectual Property[3] means all (i) inventions (whether patentable or unpatentable and whether or not reduced to practice), and all improvements thereto, (ii) patents, patent applications, patent disclosures, utility models, utility model applications and utility model disclosures; (iii) trademarks, service marks, trade names, domain names and logos, and all goodwill associated therewith; (iv) works of authorship, copyrights, whether registered or unregistered (including copyrights in software), "moral" rights and applications for copyright registrations; (v) confidential and proprietary information, or non-public processes, procedures, trade secrets, designs, drawings, specifications, technology, know-how, techniques, algorithms, databases and data collections, formulas, concepts, developments, improvements, marketing plans, ideas and technical data and information, and all software; (vi) all moral and economic rights of authors and inventors, however denominated; (vii) divisions, continuations, continuations-in-part, renewals, reissuances, and extensions of the foregoing (where applicable); and (viii) any similar or equivalent rights to any of the foregoing, throughout the world.
3.7. Partner means a party in collaborative research.
3.8. Partnership implies a contractual or other legal relationship.
3.9. Team means collaborators, particularly in laboratory-based research. Team *science* reflects the work of an organized group of researchers with different skills and set roles. Team science is not necessarily large-scale research; teams may be composed of only a few individuals with complementary knowledge and skills.

4. Fundamental Principles[4]

4.1. Integrity: Collaborating partners should take collective responsibility for the trustworthiness of the overall collaborative research and individual responsibility for the trustworthiness of their contributions.

4.2. Trust: The behavior of each collaborating partner should be worthy of the trust of all other partners. Responsibility for establishing and maintaining this level of trust lies with all collaborating partners.

4.3. Purpose: Initiate and conduct collaborative research for purposes that advance knowledge to the benefit of humankind.

4.4. Goals: Collaborating partners should agree at the outset on the goals of the research. All parties should agree to any changes in goals.

4.5. Accountability: Collaborating partners should be accountable to each other, to KAUST, and other stakeholders like external funders, if applicable, in the accomplishment of the research.

4.6. Transparency: Disseminate the results of collaborative research in a transparent and honest manner, including the source(s) of funding.

[3] KAUST IP Policy (version 2.1.). Date Last Revised: June 2, 2020
[4] Montreal Statement on Research Integrity in Research Collaborations (2013)

5. Collaboration

5.1. Researchers should be aware of the standards and procedures for the responsible conduct of research followed in a collaborative research project that they are undertaking.

5.2. This includes awareness of any contractual requirements, seeking guidance and assistance, and reporting any concerns or irregularities to the appropriate institutional person(s) or office(s) as soon as they become aware of them.

5.3. Researchers should try to anticipate any issues that might arise as a result of working collaboratively and agree jointly in advance on how they might be addressed, communicating any decisions to all members of the research team. In particular, an agreement must specify the roles of the researchers involved in the project, intellectual property, ownership, data sharing and management, publication, and the potential attribution of authorship, recognizing that, subject to legal and ethical requirements, roles and contributions may change during the period of the research.

6. Data management: Collection, sharing, and retention of data

6.1. Researchers should

6.1.1. Comply with relevant requirements for the collection, use, and storage of data, especially personal data, with particular attention to applicable data protection legislation. They should also maintain confidentiality undertakings to protect intellectual property rights. Including any subject-specific requirements for the retention of data.

6.1.2. Consider how data will be gathered, analyzed, and managed, and how and in what form relevant data become available to others, at an early stage of the design of the project.

6.1.3. Collect data accurately, efficiently, and according to the agreed design of the research project, and ensure that it is stored in a secure and accessible form.

6.2. Data should be kept intact for any specified period and otherwise for three years at least from the end of the project in a form that would enable retrieval by a third party.

6.3. If research data is deleted or destroyed because its agreed period of retention has, it should be done so following relevant legal, ethical, research funder, and institutional requirements and with particular concern for confidentiality and security.

6.4. There should be a collective agreement, based on consensus amongst collaborating partners at the outset and later updated as needed, on issues related to

i. the use, management, sharing, and ownership of data, intellectual property, and research records;
ii. how publication and other dissemination decisions will be made; and

iii. standards for authorship and acknowledgment of joint research products. The contributions of all partners, especially junior partners, should receive full and appropriate recognition. Publications and other products should state the contributions of all contributing parties[5].

6.5. Division and Research Centers should have in place procedures, resources (including physical space), and administrative support to assist researchers in the accurate and efficient collection of data and its storage in a secure and accessible form.

7. Intellectual Property

7.1. Any contract or agreement relating to research should include provisions for the ownership and use of intellectual property. Intellectual property includes but is not limited to research data and other findings of research; ideas, processes, software, hardware, apparatus, and equipment; substances and materials; and artistic and literary works, including academic and scientific publications.

7.2. Researchers have the responsibility to disseminate intellectual property discovered or developed using KAUST funds to have a beneficial effect on society. Minimizing any delay in publication and dissemination pending protection of intellectual property.

7.3. Prior disclosure of research or research findings is unethical when this might invalidate any commercial property rights that could result.

7.4. For sponsored research, researchers should comply with any additional conditions relating to the intellectual property required by funding bodies.

8. Best Practices for researchers and collaborating partners

8.1. Researchers should

8.1.1. Comply with all legal and ethical requirements and other guidelines that apply to their research.

8.1.2. Ensure that any contracts or agreements relating to research include provisions for the ownership and use of intellectual property.

8.2. Collaborating partners should

8.2.1. Communicate with each other as frequently and openly as necessary to foster a full, mutual understanding of the research.

[5] For further information on authorship, please consult the KAUST Guideline on Publication Ethics and Authorship. Version 1. February 2023.

8.2.2. Understand and ratify all agreements that govern collaborative research. Avoid agreements that unduly or unnecessarily restrict the dissemination of data, findings, or other research products.

8.2.3. Promptly determine how to address conflicting laws, policies, or regulations that apply to the research.

8.2.4. Promptly report suspected research misconduct or other irresponsible research practice by any partner.

8.2.5. Monitor the progress of research projects to foster the integrity and timely completion and dissemination of the work.

8.2.6. Come to a mutual understanding of their roles and responsibilities in the planning, conduct, and dissemination of research. Renegotiate such understandings when roles or responsibilities change.

8.2.7. Seek prompt resolution of conflicts, disagreements, and misunderstandings at the individual or institutional level.

8.2.8. Fairly distribute the costs and rewards of collaborative research among collaborating partners.

8.2.9 Agree on who has the authority to speak on behalf of the collaboration.

9. Help

For questions about this guidance document, please contact research.compliance@kaust.edu.sa.

10. References

1. United Kingdom Research Integrity Office (UKRIO). 2021. Code of Practice for Research.
2. World Conference on Research Integrity. 2013. Montreal Statement on Research Integrity in Cross-Boundary Research Collaborations.
3. The Saudi Law of Ethics on Living Creatures, 2nd ed., 2016.
4. KAUST Intellectual Property Policy (version 2.1.) June 2020.
5. KAUST Research Integrity Policy (version 1). November 2022.
6. KAUST Guideline on Publication Ethics and Authorship (version 1). March 2023.