

Co-authorship charter

Preamble

The primary objective of this co-authorship charter is to clarify the principles governing the recognition of scientific contributions to promote ethical practices in research. It also aims to frame essential aspects such as the responsible use of artificial intelligence (AI), data management, and the prevention of breaches of good publication practices.

It applies to University staff within the framework of collaborations between research teams within the same university, between several universities, or with entities external to the academic environment.

Specific situations not covered by this charter, whether related to contractual agreements or disciplinary or collaborative specificities, must be governed by complementary guidelines. These exceptions must be documented transparently, while respecting the fundamental principles of the charter and taking into account the needs of the teams concerned¹.

Finally, this charter takes into account the ethical issues raised by the increasing use of advanced technologies, particularly **Generative Artificial Intelligence (GenAl)**. Whether mobilized for data analysis, content generation, or writing assistance, these tools must be used transparently and responsibly. Their usage must be explicitly documented, and their limitations as well as the potential biases they may introduce must be signaled.

Definition of an author

The European Code of Conduct for Research Integrity defines an author as a person who meets the following criteria 1,2 :

- 1. Substantial contribution to, at least, one of the following stages:
 - o Conception or design of the study
 - o Acquisition of relevant data
 - o Analysis and/or interpretation of data
- 2. Active participation in the drafting and/or critical revision of the manuscript, providing significant intellectual value
- Approval of the final version and validation of the integrity of the results (before submission or publication), which implies taking public responsibility for the scientific content.
- 4. **Acceptance of responsibilities related to publication**, including the recognition of the contributions of other authors and compliance with ethical standard.

Thus, criteria 1 (**substantial contribution**) and 2 (intellectual participation) define the conditions for eligibility for author status. Criteria 3 (approval of the final version) and 4 (acceptance of responsibility)

¹ ALLEA (2023) The European Code of Conduct for Research Integrity – Revised Edition 2023. Berlin. DOI 10.26356/ECOC.

² These criteria do not limit legal rights, determined by copyright legislation, but they define a framework to ensure fair and transparent attribution within academic collaborations.



establish the essential commitments that all authors must respect to ensure the integrity of the publication.

Definition of a contributor

Definition of a Contributor A contributor is a person who has provided technical assistance, resources, or general advice without assuming public responsibility for the content of the publication ¹. Contributor roles may be specified using the <u>CRediT taxonomy</u>³ (Contributor Roles Taxonomy) to ensure fair recognition.

Frequent examples of contributions that do not constitute authorship include:

- « The provision of funding or reagents »;
- « The development of routine methods »;
- « Technical assistance without direct intellectual involvement »;

The contributor's involvement is then recognized in the acknowledgments section, in accordance with good editorial practices ¹.

Definition of Artificial Intelligence

Within the framework of this charter, AI designates all systems or tools capable of executing, autonomously or semi-autonomously, functions generally associated with human cognitive capacities (learning, perception, reasoning, planning, decision-making, content generation, etc.).

This notably includes:

- Machine learning and deep learning used to model or analyze complex data
- Generative models, capable of creating scientific or technical content (text, images, code, simulations)
- Big data analysis algorithms, optimizing the processing, interpretation, or visualization of scientific results
- **Specialized cognitive systems**, such as computer vision, natural language processing (NLP), or conversational agents (chatbots)
- Autonomous or decision-making systems, used to support or automate complex research tasks

Recognition of contributions in the use of Artificial Intelligence

Researchers who have configured, trained, supervised, or interpreted the results produced using Al systems may be recognized as co-authors, provided that their contribution meets the authorship criteria defined in this charter⁴.

When AI tools are used in scientific production (text generation, data analysis, modeling, visualization, etc.), their use must be explicitly documented.

This transparency includes:

- The name and version of the tool used;
- The precise nature of the automated task;
- The potential impact on results or interpretation;

³ CRediT (2025), Contributor Role Taxonomy (CRediT), consulté le 2 septembre 2025, https://credit.niso.org/

⁴ Hiroshima Process. (2023). *International Code of Conduct for Advanced AI Systems*.



• The mention of limits and biases associated with the use of these tools, in connection with the disciplinary field.

Roles related to the use of AI may be specified in the scientific publication's contribution declaration.

Data management and responsibility for associated outputs

Data, source codes, algorithms, and any other artifact resulting from the research must be managed according to the **FAIR principles** (Findable, Accessible, Interoperable, Reusable).

Authorship attribution may be influenced by a significant contribution to the generation, processing, or interpretation of these outputs (in compliance with the criteria defined by this charter):

- It is strongly recommended to define, from the start of the project, the responsibilities of each team member regarding the creation, management, documentation, and reuse of data and code, including after publication.
- These responsibilities should be recorded in a Data Management Plan (DMP), consistent with institutional and regulatory requirements (notably GDPR for personal data).
- Access to data must be as open as possible, and as closed as necessary, depending on ethical, legal, or contractual constraints.

Declaration and management of conflicts of interest

All authors and contributors must transparently declare all conflicts of interest, financial or non-financial, likely to influence the design, conduct, interpretation or dissemination of the research.

The declaration must occur as early as possible in the drafting or submission process, in accordance with the editorial policies of scientific journals, the recommendations of funders and institutional requirements.

Rules for Publication, attribution and correction

To ensure responsible publication, research teams are invited to discuss collectively and regularly the terms of publication, authorship attribution, and recognition of contributions (ideally from the project conception phase.

It is recommended to:

- · Consult editorial guidelines,
- Consider the publication codes of the various scientific fields,
- Take into account applicable institutional or contractual policies, which may vary according to context.

To ensure fair and transparent recognition, the charter recommends the use of standardized attribution tools, such as the CRediT taxonomy (Contributor Roles Taxonomy)³:

- Each author must be identifiable according to the roles they have fulfilled.
- A footnote or a specific box detailing these roles is encouraged.

In large-scale projects, where individual attribution is complex, it is acceptable to group contributions by functional categories (e.g., data collection, statistical validation, experimental design, etc.). In this case, an explicit declaration justifying this collective approach must accompany the publication.

In case of an identified error in a publication (minor or major), the research team must:



- Perform a correction or retraction as quickly as possible;
- Comply with the procedures of the scientific editor concerned;
- Document the justifications in an accessible manner (correspondence, public declaration, update of the DMP or institutional repository).

The corresponding author is responsible for coordinating these steps, unless a collective decision dictates otherwise.

Unacceptable Authorship Practices

To ensure scientific integrity and fair recognition of contributions, the following practices are strictly prohibited within the framework of research projects governed by this charter.

- Manipulation of the author order: arbitrary or unjustified modification of the author order for reasons not based on effective contributions, whether during the project or after drafting completion, is prohibited. The addition, removal or repositioning of authors in the absence of scientific or technical justification is contrary to the principles of integrity.
- 2. **Undue attribution or refusal of recognition:** granting co-author status to a person who has not substantially contributed (for example: hierarchical superior, funders without intellectual involvement) constitutes an abuse. Similarly, refusing to grant recognition to deserving contributors goes against the principles of scientific integrity¹.
- 3. **Fabrication, Falsification and Plagiarism (FFP):** any form of data fabrication, falsification of results, or plagiarism is contrary to the principles of this charter. Other breaches are detailed in Appendix 1 "Non-exhaustive list of breaches of Scientific Integrity".
- 4. **Non-transparent use of Artificial Intelligence :** the use of generative artificial intelligence systems, processing algorithms, or automated models without clear documentation of their usage, role, limits, and biases is prohibited. Any contribution generated or assisted by these technologies must be explicitly indicated in the appropriate sections (methods, contributions, limitations).
- 5. Undisclosed conflicts of Interest: the voluntary omission of conflicts of interest, whether financial or non-financial (personal, professional, or ideological), violates the principles of impartiality and transparency. Any identified conflict must be documented and accompanied by appropriate mitigation measures.

In case of doubt regarding the application of this charter, UMONS has appointed a commission, the Committee on Ethics and Scientific Integrity (CEIS). This entity can issue opinions, propose mediations, or recommend corrective measures, in accordance with the regulations in force.

Oversight and evolution of the charter

This charter may be revised periodically to consider the evolution of scientific practices, regulatory frameworks, and technological tools used in research, particularly concerning artificial intelligence.



Annex 1. Non-exhaustive list of breaches of Scientific Integrity¹

1. Research misconduct

- Fabrication of data: inventing non-existent or unverified research results.
- **Falsification of data:** manipulating or altering research data, including unjustified exclusion of relevant data, to present results in a misleading manner.
- Suppression or concealment of data: deleting data before the legal retention period has expired or deliberately omitting relevant data with the aim of significantly altering the interpretation or robustness of conclusions.
- Non-disclosure of methodologies: failing to disclose detailed methods or protocols that enable the reproducibility of research.
- Omission of negative results: withholding negative or inconclusive results, when necessary to avoid biasing meta-analyses and to inform future research.
- **P-Hacking:** manipulating statistical analyses to obtain significant results even when they lack scientific relevance.
- **Data Dredging:** mining datasets in search of statistical correlations without a solid initial hypothesis, leading to non-reproducible outcomes.
- **Cherry-Picking:** selecting only data that support the hypothesis while ignoring those that do not.
- HARKing (Hypothesizing After the Results are Known): formulating hypotheses after analyzing results, thereby compromising scientific validity.
- Whitewashing: eliminating or downplaying compromising data or findings, whether in publications or presentations, to avoid scrutiny or conceal errors.
- **Data theft:** copying data without the consent of the competent project leader.
- **Sabotage:** deliberately rendering other researchers' equipment, materials, data, or work unusable.
- **Premature study termination:** interrupting a study before its planned end to favor partial or biased results.
- Manipulation of AI algorithms: altering algorithms in a way that is not scientifically justified, to produce biased or misleading outcomes.
- Insufficient human validation when using smart technologies: deploying Al tools without adequately verifying and correcting biases introduced in the data or results, potentially leading to unverified conclusions.

2. Breaches in collaboration, publication and ethics

¹ Basée sur ALLEA. (2023). *The European Code of Conduct for Research Integrity* (Revised Edition 2023). Berlin: ALLEA. https://doi.org/10.26356/ECOC



- Plagiarism and self-plagiarism: appropriating another person's ideas, results, or texts (researcher, student, or others) without proper acknowledgement, or substantially reusing one's own work without citing the sources.
- Concealment of conflicts of interest: failure to disclose financial, personal, or professional ties that may influence the drafting, submission, or review of publications, thereby undermining transparency and objectivity.
- Inappropriate citation and referencing practices: systematic excessive selfcitation or inclusion of irrelevant references to artificially boost citation indexes.
 Deliberately manipulating keywords or metadata to unduly maximize the visibility of one's publications.
- Non-disclosure of Al use: omitting to specify the use of Al tools in various stages
 of research and scientific writing, including the absence of explicit mention in
 methodological sections.
- Salami slicing and double dipping: splitting one piece of research into several publications without significant added scientific value or republishing the same data or results across different articles without noting prior publication, in order to artificially increase the number of publications.
- **Multiple submission:** submitting the same article simultaneously to several journals without informing the relevant editors.
- **False attribution of authorship:** granting co-authorship to individuals who did not make a significant contribution to the research, contrary to the criteria established in the UMONS co-authorship charter.
- Omission of contributors: deliberately excluding any collaborator, regardless of status, who made essential contributions according to the criteria set out in the UMONS co-authorship charter.
- Failure to retract or correct erroneous publications: refusing or delaying the withdrawal or correction of a publication after discovering significant errors or misleading conclusions.
- Non-compliance with ethical protocols: failing to observe ethical rules in conducting research, including in the humanities, medical sciences, animal experimentation, and dual-use research.
- **Undue influence:** exerting pressure by a hierarchical superior to alter results or falsify conclusions.
- Misrepresentation in criticism: knowingly making false criticisms of projects, programs, or manuscripts with the intent to damage the reputation of the work under review.
- **Violation of confidentiality:** failing to respect confidentiality obligations when reviewing work submitted for publication.
- Biased reviewing or evaluation: any practices aimed at manipulating the peer review or evaluation process between affiliated authors and reviewers.



• **Exploitation of ideas:** misusing ideas or data discovered during the evaluation of submitted work.

3. Breaches in Data Management, Funding, and Scientific Communication

- Non-compliance with FAIR principles (Findable, Accessible, Interoperable, Reusable): poor data management, including lack of transparency, traceability, or reusability of research data.
- Unauthorized or misappropriated use of collaborative data: using collaborative data without permission or for purposes not initially foreseen.
- Lack of adequate training in scientific integrity: failure to provide or to receive appropriate training on good research practices, including ethics, methodology, and data management (FAIR Data).
- Lack of mentoring and proper supervision: failure to fulfill supervisory responsibilities or to adequately guide junior researchers or PhD students, in line with principles of scientific integrity.
- Concealment or omission of conflicts of interest: non-disclosure of potential or actual conflicts of interest, including financial arrangements or collaborations that may influence the evaluation or communication of scientific results, as well as the securing of requested funding.
- Acceptance of incompatible funding or third-party influence: accepting funding that contradicts the values of independent and ethical research, or that restricts independence or freedom to publish.
- **Undeclared use of AI tools:** deploying algorithms or AI-based tools without disclosing their use.
- **Support for predatory practices:** participating in predatory journals or conferences that fail to meet scientific and/or ethical standards.
- Sensationalism or oversimplification: exaggerating research results in press releases to attract media attention, or oversimplifying findings in a way that leads to public misinterpretation.
- Non-compliance with safety standards: failing to respect laboratory safety standards, endangering staff and the environment.
- Irresponsible waste management: failing to properly manage hazardous waste generated by research activities.