



UNIVERSIDADE DA CORUÑA

Guide to Good Research Practice

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University of A Coruña Code of Research Ethics

Preamble

Research is the attempt to discover and understand the world we live in by widening our perspective on society and nature. Research is, moreover, a socially agreed cooperative activity in the pursuit of knowledge. That pursuit is the general good that gives research meaning and legitimacy, and is complemented by the specific goods associated with individual areas of inquiry such as health, justice and efficiency.

In addition to these primary goods, researchers may and do legitimately pursue external or secondary goods deriving from the pursuit and achievement of knowledge, such as prestige, recognition, a respectable salary and professional advancement.

Research is one of the defining characteristics of the work done by universities and an essential part of their basic functions: to create, develop, communicate and critically evaluate knowledge, method and culture; to equip researchers with the knowledge and skills necessary to advance professionally; and to communicate and transfer knowledge in the interests of culture, quality of life and economic development.

Accordingly, UDC should seek to promote research, establish the personal, material and institutional conditions necessary to ensure that the research produced is of a high standard, and help to consolidate an ethical culture in all aspects of research practice.

The UDC Code of Research Ethics provides researchers with a guide to responsible research practice, as encapsulated by the value, principle and virtue of research integrity.

1. Professionalism

Professionalism is the ability of a person to work ably, responsibly, diligently and to a high standard in order to achieve their goals and objectives.

Professionalism combines technical competence (knowledge and skills in a particular area or discipline) and ethical competence (ability to use knowledge and skills to achieve the goals of the research activity without undermining other possible goods).

Professionalism is the aspiration to excellence in one's chosen field: having the ambition to improve and refusing to settle for mediocrity.

2. Freedom

Freedom is the ability to act according to one's own volition and decision (positive liberty), and independence from or the absence of undue personal, institutional, economic, social or political pressure (negative liberty).

Freedom of thought, research, expression, communication and conscience enables researchers to critically assess the current situation and state of knowledge in their area of research, and protects them in that endeavour, allowing them to design their research, formulate hypotheses, define their methodology and objectives, select their research team, etc.

3. Accountability

Research freedom is not absolute but must comply with certain obligations, such as respect for the freedom of other people. Nor is it an arbitrary or indiscriminate freedom, but one which must be exercised responsibly by experts in their field of research.

Accountability in research means taking responsibility for one's decisions and actions, and being answerable to one's research group, one's home or host university or research institution, other organisations and funding bodies involved in the research, the rest of the scientific community, society as a whole, and oneself.

Accountability also means ensuring that all resources are put to effective, efficient use, and taking into consideration the possible consequences of one's research.

4. Inventiveness

Research involves challenging what we already know in pursuit of new knowledge and understanding. Inventiveness is the ability to create new ideas, concepts, meanings and applications that challenge, revise or expand our existing knowledge, and, as such, requires skill, curiosity, imagination and courage.

5. Honesty

Honesty is a commitment by researchers to be truthful and sincere in all their research activities.

Researchers are expected and required to work objectively to formulate hypotheses and theories that challenge the status quo and create new, unbiased, generalisable knowledge, and should protect the integrity of their work by declaring any conflicts of interest.

Honesty is directly related to openness, yet goes beyond transparency: it is not just a question of making research more visible or providing greater access, but of acting with honesty at every stage of the research process.

6. Respect

Respect means showing consideration for other people, objects and institutions involved in the research.

In the first place, research should respect people: research participants, fellow researchers and collaborators, members of the scientific community, and members of

society. Likewise, it should respect non-human living beings, such as animals used for experimentation purposes.

In view of the overarching importance of the principle of respect for human beings, researchers should be prepared to interrupt their work or modify the original research design if necessary in order to guarantee the safety and integrity of all those involved.

Respect also refers to the responsible administration of material resources: proportionate use of materials as necessary and appropriate; rejection of abusive or incorrect uses; and actions to ensure the conservation, improvement and sustainability of the natural and social environment in which the research is conducted.

Finally, researchers are expected to comply with the legal, ethical, professional and institutional norms and standards required by regulatory authorities, employers, funders and other stakeholders. Compliance should not, however, preclude researchers from raising reasonable concerns over research regulations, or proposing alternative interpretations or suggestions to improve them.

7. Fairness

Fairness is about giving each individual his or her due. As such, it requires not just respect, but a combination of equality, non-discrimination, and differential treatment of difference.

Fairness should be a guiding principle in all relationships between researchers and research participants, fellow researchers, research institutions, funding bodies, members of society, etc. and should be understood on at least two levels: as recognition of each person's contribution, and as the fair distribution of benefits and burdens, preferably based on merit.

8. Loyalty

Loyalty refers to researchers' awareness and recognition of the role of institutional support for their work.

Loyalty demands that researchers acknowledge the institutional framework in which the cooperative, teamwork activity of their research is carried out; this includes the university, other sources of personal and financial support, and the people involved in the project. It also demands the commitment of all those involved in the research process to work for the common good, and not just for personal or individual gain.

9. Common good

Researchers should work for the benefit of society and the common good, rather than their own personal interests.

Guaranteeing the public good goes beyond social responsibility insofar as it requires researchers to contribute to the improvement of society. Research should aim to

minimise harm and maximise public benefit, promoting individual attitudes and institutional practices that improve the well-being of society as a whole.

10. Trustworthiness

Science and research, like all cooperative endeavours, require trust. Trust is not an automatic consequence of social or professional status, but a confidence that must be earned and maintained by our decisions and actions. Researchers demonstrate that they are worthy of trust by conducting themselves in an honest, professional and conscientious way.

11. Security

Security is a state of protection against possible risks or loss that provides researchers with the stability and peace of mind necessary to plan their research.

Researchers should be guaranteed personal security (elimination or reduction of risks during research), professional security (availability of resources necessary to carry out research) and employment security (stable working conditions, duration of contract, salary, etc.).

1. Introduction

Academic research is the attempt to advance knowledge and understanding by formulating new hypotheses and designing experiments, observational studies and data analyses to test, correct or disprove them.

Good research practice is essential for the production of high-quality scientific and cultural content, and the development of bodies of evidence to inform and drive progress in different areas of knowledge. It is a pillar of educational excellence and the cornerstone of a career in research. It offers security to researchers by allowing them to engage with and build on the work of their peers, and helps to build trust among the wider public in the research process and its results.

It is the responsibility of the whole scientific community, institutions and individuals alike, to promote and enforce good research practice. Researchers should work to ensure the highest standards of planning and implementation at all stages of the research process (design, execution, conclusions, reports, publications, etc.), and be trustworthy and honest in all their dealings and relationships. Research institutions should promote a culture of integrity and accountability as a bulwark against research misconduct.

The roles and responsibilities of researchers and institutions should be clearly defined, and conditions put in place to ensure that researchers can perform their work to the highest possible standard and in accordance with good practice.

High-quality ethical research depends on the individual integrity and professionalism of all those involved in the process. To explain and promote these values, research institutions use instruments such as this *Guide to Good Research Practice* and the

'Research Code of Ethics' detailed in the previous section to present their model of what a good researcher should be, and the processes of selection and training for members of the university community. As such, they are an invaluable resource for researchers on how to conform their conduct to the ethical standards and values represented by UDC.

2. Planning and conducting research

In order to plan and conduct research in a manner consistent with legal and professional standards, researchers should ensure that they are fully informed of all applicable laws and regulations in their most recent iteration, and that their research is in strict compliance with all good practice and ethical standards, particularly in the case of research involving people, animals or potential environmental impact.

Prior to undertaking any form of research at UDC, researchers are required to submit a written document (**research proposal**) summarising the main details of their planned research. Among other information, research proposals should state the **objectives** sought, the proposed **methodology**, and the academic and technical background of the research **team**.

Protocols for research conducted at UDC should also provide for the **dissemination of results** and include details in relation to the research calendar, budget, allocation of tasks and resources, etc. to allow for the proper **monitoring** and **assessment** of the research process and its results.

Research planning should take into account the relevance and social and economic impact of the proposed topic, particularly where human or animal testing is involved, in order to **avoid any unnecessary or unproductive experimentation or testing**.

All researchers are recommended to submit their proposals for **prior assessment by the UDC Teaching and Research Ethics Committee** or equivalent body (see [section 5](#)) in order their compliance with the ethical requirements for research at the university, irrespective of whether they are required to do so or not. Official approval by an ethics

committee will be required prior to the commencement of any research involving human subjects, the use of biological samples or personal data, or animal testing.

2.1. Research environment

2.1.1 Resources and infrastructure

- As a research institution, UDC is responsible for providing its research staff with the **facilities and material resources necessary** to carry out their work safely, to a high standard and in accordance with the **rights** of all those involved in the project.
- Researchers should ensure that the facilities and material resources provided by UDC are appropriate to the research they intend to carry out and that all research staff have been **properly trained and instructed** in how to use them. In the case of complex equipment, usage instructions should be provided in writing.
- UDC and its research staff will be responsible for ensuring that all research equipment is **serviced regularly** and **kept in proper working order**, in order to guarantee the **reliability** of the results produced.
- Researchers will be responsible for the **upkeep and proper use** of the equipment placed at their disposal, bearing in mind at all times that all UDC equipment is public property and should not be used for personal purposes.
- In view of the limited availability of resources, material and financial resources should be **used and administered appropriately, responsibly, effectively and efficiently** in order to meet the objectives of the project.

- In the case of research conducted in partnership with private organisations, the conditions of use of UDC equipment and facilities should be clearly stated in the contracts for the project.
- Funding arrangements with external public and private sources for research projects, equipment and facilities will **under no circumstances be permitted to exert undue influence on the design or execution of the research undertaken**, or violate research ethics, particularly in relation to the freedom and responsibility of researchers to formulate and pursue hypotheses and share their findings.
- **Ownership of foreground** from research funded partially or fully by private sources should be clearly stated in the funding contract prior to commencement of the project. The terms of the funding agreement should be formally communicated to and accepted by all members of the research team (see [section 2.5](#), [section 4.5](#) and [section 6](#)).
- Researchers will be responsible for **informing their funding partners and sponsors of any significant changes** in the direction of the research, preferably prior to deciding on and implementing the changes. Researchers will, in all cases, be bound by the terms of the sponsorship or funding agreement affected.

2.1.2. Teamwork

- The complexity of modern academic research has made teamwork and collaboration more important than ever, and led to a rise in multidisciplinary approaches that take projects beyond the limits of the university itself. To keep pace with this evolution, universities must seek to form new social and economic partnerships based on **respect, diversity and equality**.

- Research at UDC is organised primarily around **research groups and units**, as well as a number of individual research programmes. Research groups and units bring together academic staff with shared research interests, in occasional partnership with researchers from other institutions, under the direction of a coordinator.
- **Coordinators** are responsible for both the **academic and organisational management** of their group or unit, including the creation of a **positive working environment** for the promotion of research and collaborative problem-solving.
- Regardless of their role within the research group or unit, all members will be **jointly responsible for the overall performance of the team**. In addition to meeting their professional obligations, they will undertake to help maintain positive interpersonal relationships within the team.
- UDC will not tolerate **discrimination or harassment** of any kind within its research teams or any sector of the university community.

2.2. Research design

- Research **protocols** should be well designed and capable of being studied and understood by other researchers in the field and the agencies and institutions responsible for assessing the research.
- The **methodologies** used should be based on reliable sources (reference methods, academic publications, regulations and standards, etc.) Where a new methodology is required, the research protocol should explain how the methodology has been developed and validated, and provide proof of its reliability.

- The **recording and traceability of data and results**, including the conditions of data collection and analysis, is an essential part of the research process, particularly in the case of experimental research, and even more particularly in relation to the protection of intellectual and industrial property. Researchers are required to keep a strict record of all their work in the form of a *laboratory notebook* (physical or electronic), especially when the characteristics of the research make it difficult or impossible to replicate (see [section 2.4](#)).
- Research design should take into account the need to **assess potential risk** to research personnel, human and animal participants, and society and the environment as a whole. Research protocols should avoid unnecessary risks and include measures to minimise inevitable ones.

2.2.1. Research involving human subjects, biological samples and personal data

- In research involving human subjects, participants should be provided with strictly accurate information regarding the **purpose, potential side effects** and expected **risks and benefits** to the subject and third parties.
- Research involving human subjects will require the **informed consent** of all those who participate in or provide samples or personal data for the study (or their representatives, should they be unable to do so) (see [informed consent form template](#)).
- Prior to obtaining consent, subjects should be provided with **detailed information** in relation to the **characteristics** and **aims** of the study, the **risks** associated with participation (if any), and **the preservation of samples and data** provided by the subjects and resulting from the research (see [section 2.4](#)). Participants should also

be provided with **access** to the overall findings, data and academic articles produced by the project.

- Research involving human subjects is subject to a duty of **confidentiality** towards informants and participants. Personal data (information, photographs or statements) used in or created by the study may not be reused or published subsequently without the **explicit authorisation** of participants.
- Studies and projects involving human subjects, human biological samples or personal data should be submitted for external assessment by the relevant research ethics committee prior to commencement of the research (see [section 5](#)).

2.2.2. Research involving animals

- Research and experimentation involving animals should, where possible, seek alternative methods to live animal testing, in accordance with the guiding principles of **replacement**, **reduction** and **refinement** (3Rs) now explicit in Spanish and European legislation governing animal use.
- Researchers responsible for the design and implementation of proposals and procedures involving animals, and the care and well-being of animals used for experimental purposes, should be **properly trained and experienced**.
- Studies and research proposals involving animal testing should be submitted for external assessment by the relevant research ethics committee prior to commencement of the research (see [section 5](#)).

2.2.3. Research involving biological agents and genetically modified organisms

- Experimentation involving potentially dangerous biological agents and genetically modified organisms should be conducted in accordance with the relevant regulations and good practice guidance to ensure the **rights and safety of all those involved** in the research and the **protection of the environment**.
- Studies and research proposals involving biological agents and genetically modified organisms should be submitted for external assessment by the relevant research ethics committee prior to commencement of the research (see [section 5](#)).

2.3. Research collaborations

- Research collaborations are becoming more and more common, bringing together researchers, institutions, disciplines, and public and private sector bodies from within Spain and from abroad. It is critically important for the integrity of such research to ensure that all parties to the collaboration adhere to good practice criteria and guidelines that are consistent with the ethical values represented by UDC, such as those included in the (2013).
- As a general rule, all research collaborations between UDC researchers and individuals and organisations external to the university will be regulated by a written agreement or contract establishing the conditions of collaboration in relation to at least the following areas:
 - Management of data and materials used for and generated by the research, including preservation and custody arrangements, and the names of each party's designated representative
 - Ownership of foreground and agreements in relation to intellectual property

- Confidentiality
- Responsibility for safety and ethical concerns
- Monitoring and reporting requirements
- Dissemination protocols

2.4. Creation and management of research data

- UDC and its researchers undertake to comply with the principles and provisions of Spanish and EU **data protection** law in relation to the collection and use of personal data for research purposes.
- **Ownership** and **usage rights** over **data and samples** used in or created by the research, **foreground** resulting from research, and **equipment** purchased with sponsor funds should be clearly stated in all research protocols and agreements signed with collaborators and funding partners.
- Agreements signed with collaborators and funding partners should clearly state the name of the person responsible for the research project, and **how and by whom** data and samples will be **stored** following completion of the project, including access options and procedures for subsequent research, if possible.
- Researchers will be responsible for **collecting and documenting key research data** (data necessary to reconstruct studies and experiments, and to understand the approach used for their interpretation).
- UDC will retain ownership rights over all research data created by its employees. The university commits to provide its researchers with **safe, secure, sufficient**

storage facilities for data obtained through their research, and to make the data available to authorised third parties.

- UDC and its researchers undertake to preserve experiment protocols and original data until their purpose has been met. Exact preservation time frames will be defined in the research protocol and may vary depending on the discipline.

2.5. Using research results

- Research results may be made public through specialist publications, conferences and academic gatherings with the aim of **making them available to the rest of the scientific community for the advancement of knowledge** in the area of study (see [section 4](#)); or patented (or otherwise protected) with a view to **exploiting them commercially** (see [section 6](#)).
- The decision to protect foreground and postpone its publication should be taken jointly by researchers and participants, unless otherwise provided in the collaboration agreement between the parties.
- UDC and its researchers will undertake to ensure that research results are not used for harmful purposes, especially in relation to disciplines in which dual-use risk (civilian and military) is higher (e.g. biological sciences, chemistry, physics, computation, etc.)
- UDC researchers who discover or suspect that their research results are being used for illegal purposes, or purposes which may harm other people, society or the environment, are required to report the matter to their direct superior, the relevant university governing body (Office of the Vice-President for Science Policy,

Research and Knowledge Transfer), and the UDC Teaching and Research Ethics Committee (where appropriate).

3. Training, direction, supervision and mentoring

UDC recognises the desire by researchers to continue their professional training and development throughout their careers: to improve the quality of their research activity by keeping abreast of new developments in their own discipline and acquiring complementary new skills in a range of other areas (e.g. new technology, data management, regulatory framework, administration, etc.)

Senior researchers have a responsibility to pass on their knowledge to younger researchers, providing them with the training, ethical principles and code of practice guidelines they need to carry out their work, with particular focus on the importance of teamwork, communication, cooperation and trust.

3.1. Selection and assessment of research students

- Research students should be selected on the basis on their academic record and in application of the principles of equality of opportunity and the rejection of unjustified discrimination.
- Selection processes should be transparent, announced in a timely and clear manner, and assessed using verifiable criteria that are notified to candidates in advance and appropriate to the purpose of the process.
- Research assessment can have a significant impact on the career progression of research students. Assessments should therefore be fair, expert and objective. Assessors should attempt to meet evaluatees in person and analyse their records in order to assess their abilities and the quality of their work. If evaluatees are

interviewed as part of the assessment process, a written copy or recording of the interview should be made.

- Assessors should be independent of their evaluatees in all ways, and avoid conflicts of interest due to direct professional association, family relation, friendship, enmity, etc. that may limit their ability to make an impartial judgement.

3.2. Obligations of tutors

Tutors are directly responsible for training young researchers and providing them with the optimum conditions in which to meet their goals within the expected time frame.

Their specific duties are as follows:

- Be an expert in their field and willing to share their knowledge and act as a professional role model to trainee academic staff.
- Maintain regular, personal contact with students to help orient and ensure the timely completion of all research activities (formulating hypotheses, experiment and research protocol design, data collection and analysis, grant applications).
- Provide research staff with training in the methods and research environment necessary to carry out their work and learning. Tutors should avoid placing unnecessary pressure on students and include them in additional tasks and activities that advance their learning.
- Clearly inform students if their research (Master's or PhD thesis, etc.) forms part of a project with restrictions on the dissemination of its research outcomes.

- Ensure that research students are familiar with and implement the *Guide to Good Research Practice*, have access to all the information they need in relation to the regulatory framework governing their research, and are capable of assessing their own work critically.
- Ensure a safe research environment by informing students of the occupational health and safety regulations and their obligation to comply with them.
- Provide research students with information about and the opportunity to participate in seminars and academic gatherings, and offer guidance and advice about how to advance their professional careers: participation in research projects, research stays abroad, courses, etc.
- Acknowledge the contribution of research students and appropriately and fairly attribute authorship to research outputs in all publications and other forms of dissemination.

3.3. Obligations of research students

Research students will have the following duties and responsibilities:

- Take responsibility for their training as researchers, for the objectives of the project/group within which their research is conducted, and for the time and effort needed to meet their objectives as research students.
- Follow the advice and recommendations of research supervisors and tutors, and inform them of any initiatives undertaken and the results obtained. If a conflict arises between a research student and his/her tutor or supervisor, the former will be entitled to seek mediation by a third party. All requests for mediation should be

notified to the Office of the Vice-President for Science Policy, Research and Knowledge Transfer.

- Promise to make appropriate, efficient use of material resources and facilities, and recognise and facilitate research management, administration and support services.
- Read and comply with the *Guide to Good Research Practice* and the safety regulations and procedures applicable to their research.
- Participate in research events, seminars, lectures, forums and other activities related to their work as researchers.
- Acknowledge the contribution of supervisors and tutors in the oral and written dissemination of the results of their research.

4. Publishing and dissemination

It is an ethical duty of researchers to disseminate foreground from their research. As well as increasing and improving human knowledge, dissemination is also a way to justify the resources required to undertake the research.

Unjustified non-disclosure or delays in the dissemination of foreground, or exaggerating the importance of the results obtained, are ethically questionable actions. Failure to publish negative results may delay the advance of knowledge and in areas such as health may even impact negatively on human well-being.

4.1. Authorship

- Author status on publications is reserved for participants who have made a substantive contribution to the **design, conception and execution of the research proposal**, carried out the **experimental part** of the study, or collaborated in the **analysis and interpretation of the research data**.
- Authors should cooperate in the preparation of all papers, reports and publications resulting from the research project, and be able to **explain in detail and discuss the main points of** their own contribution.
- All **co-authors** listed in a publication are required to have **read** the final text and confirmed in writing their **acceptance of and responsibility for** its content.
- Mere participation in the obtaining of resources, the collection of data or samples, or the recruitment of test subjects will not automatically entitle a participant to be named as a co-author. Apart from authorship, all significant contributions by

collaborators and support staff should be **appropriately acknowledged** in the 'Acknowledgements' section.

- Deliberate failure to attribute authorship of a publication to a person whose contribution meets the authorship requirements outlined above will constitute a breach of ethical standards and a **misappropriation of intellectual property** on the part of the other authors.
- The attribution of authorship to a person solely on the basis of their academic status or professional or personal relationship with another author will constitute a breach of ethical standards that is detrimental to the principles of fairness and academic freedom, as well as a possible abuse of authority.
- Author order on publications should be determined according to the conventions of each discipline or area of knowledge, and should respect the criteria for attribution of authorship.
- UDC researchers should clearly acknowledge their affiliation with UDC in all published work, in accordance with the UDC Policy on Institutional Affiliation for Researchers. Explicit acknowledgement should also be given to the independent committees responsible for overseeing and approving the research protocol, and any grants, financial support or sponsorship received (see [section 4.5](#)).
- Authors should identify, verify and cite all important relevant prior work on the topic to show the context and background of their research. Authors should not cite unreliable sources or use fragments of work they have not read or cited properly.

4.2. Publishing

4.2.1. Open science principles

- UDC recognises the need to protect intellectual property rights. Nevertheless, researchers are encouraged to be as open as possible in discussing their work with other colleagues and the general public, and in providing honest, transparent access to the results of their research, including outcomes which do not fit their original hypotheses.
- UDC undertakes to disseminate research results as widely as possible and promote a culture of **open access** among its researchers in accordance with the conditions of the corresponding call or agreement. UDC also recognises researchers' freedom to choose where to publish the results of their research.

4.2.2. Duplicate and salami publication

- The splitting of research results from a single project into smaller parts for publication separately is only acceptable for reasons of length or at the request of the publisher.
- Duplicate reporting of the same results in multiple publications is not permitted, unless clearly explained, justified and referenced. Authors who submit similar work to different publishers or who submit an article that is similar to one published previously should accompany their submission with a clear explanation of the reasons for the overlap.

4.2.3. Publication of results with potential commercial interest

- Researchers, funding partners and the university should recognise the need to postpone publication of certain results pending protection of intellectual property rights over inventions or discoveries with potential commercial interest (e.g. by patent or similar; see [section 6](#)).
- The decision to postpone publication in order to protect research findings will be taken by the owner of the foreground (researcher or institution for which the researcher works), and should be duly notified to all individuals and organisations affected in order to agree which parts of the research may be disseminated through conferences, academic gatherings or other outlets without damaging the commercial potential of the protected results.

4.2.4. Corrections and retractions

- If an error is discovered that devalues the worth of published findings, the authors should publish a correction as soon as possible in the same medium as the original publication. Where published results are found to be in serious doubt, a retraction should be published as soon as possible.

4.3. Peer review

- Peer review assessing the quality and accuracy of a proposal or original manuscript is the standard method for approving articles for publication in indexed journals, and for evaluating research, awarding funding, validating technology, etc. (see [section 5.2](#))

- Peer reviews should be objective and based on scientific criteria, not personal ideas or opinions. Reviewers should not consider manuscripts in which they have a conflict of interest (see [section 7](#)) or insufficient expertise to evaluate the work properly.
- Peer reviewed manuscripts should be treated as confidential and privileged. As a consequence, none of the data or ideas presented in a manuscript may be used until after publication. No material submitted for review may be retained, copied or shared without the express permission of the author.

4.4. Dissemination

4.4.1. Transparency and responsibility to disseminate

- In addition to sharing results with the scientific community through publications and specialist forums, researchers also have a **responsibility to disseminate their work as widely as possible** using communication channels and activities aimed at the general public.
- Communication with the wider public should aim to build trust in the research project and its ability to provide solutions to social challenges, and to promote dialogue between society and academia in order to make citizens more engaged in the research process.
- As well as an ethical duty, researchers in receipt of funding from certain schemes and programmes are also required by the terms of the funding to disseminate the results of their research as widely as possible through media and activities aimed at the general public. Researchers in receipt of funding from external public or private

sources are required to read and comply in full with the dissemination requirements of the grant agreement or contract.

4.4.2. When and how to communicate and disseminate research results using mass and social media

- UDC encourages its researchers to collaborate in the activities of the university **Communications Office**, accept **media requests** to discuss their work, write **blogs** and use **social media profiles** as ways of making their research more accessible to the general public.
- Researchers are responsible for the **reliability and objectivity of the information** they communicate. They are entitled to express their opinions in the media and online about sensitive or controversial topics, but should do so honestly and accurately, and always distinguish between personal opinion and scientific facts and evidence.
- Opinions expressed by UDC researchers are their own and do not necessarily reflect the official policy or position of the university. All opinions expressed in the media and online should be accompanied by a disclaimer of university endorsement (unless acting as an official spokesperson for the university), particularly in relation to matters where the researcher's views do not coincide with those of the university.

4.5. Acknowledgement and involvement of funding sources in publication of research results

- All publications resulting from research carried out by UDC researchers should acknowledge any grants, financial support or sponsorship received for the project.

- Researchers should take into account funding source policies regarding the dissemination of foreground. Most public funding programmes include specific conditions to ensure the widest possible dissemination of research results among the general public. The project director, coordinator or principal investigator will be responsible for ensuring compliance with the dissemination conditions of the funding agreement and for communicating them to the rest of the research team.
- Researchers and funding partners may agree to postpone publication to protect intellectual property pending commercial exploitation. Funders and sponsors are not entitled, however, to pressurise researchers to delay or bring forward publication for private interests.
- UDC and its researchers should reject any attempt by funding partners to influence the academic content of publications resulting from research.

5. Assessing research

5.1. Compliance with ethical principles

The [UDC Teaching and Research Ethics Committee](#) is the university body responsible for assessing research proposals and projects submitted by UDC researchers according to their particular area of expertise, and ensuring their compliance with the ethical standards of academic research.

The Teaching and Research Ethics Committee is an independent interdisciplinary advisory board whose role is to oversee, promote and ensure the ethical standards and integrity of all teaching and research at the university.

The assessment criteria and procedures of the Teaching and Research Ethics Committee are available to access on the UDC website (), together with the necessary forms and information on submitting work for assessment by the committee.

The ethics committee assesses and issues a report on each research proposal or project received based on the following criteria: **social and scientific** importance of the research; **validity of methodology**; **risk-benefit** analysis; **fairness and equality** in the selection of participants, and **respect for other people** (dignity, safety, well-being, information, informed consent, confidentiality, privacy, protection of personal data, access to results and participation in benefits).

5.2. Peer review

Researchers invited to examine and assess research proposals, publications, groups, individuals or institutions, both nationally and internationally, should abide by the following principles:

- **Research competence and excellence.** Reviewers should have a broad knowledge of the discipline and should check that review bodies and committees have sufficient general and specific knowledge and complementary skills to assess multidisciplinary proposals.
- **Impartiality and conflict of interest.** Reviewers are required to devote the same amount of attention to all work submitted for review and should withdraw from the review process in the event of a conflict of interest which may compromise their impartiality. Reviewers should not assess proposals by colleagues with whom they have had a recent working relationship or with whose work they may be competing.
- **Confidentiality.** The deliberations of the review committee and information obtained therein are confidential and will not be used or revealed by reviewers to aid their own or their team/laboratory's work. Reviewers are also required to report any unethical behaviour detected during the review process using the appropriate channels.
- **Transparency.** Peer review comments and conclusions should be justified, straightforward and based on objective evidence, and should be communicated to authors in a timely fashion.

6. Protection of research results: intellectual and industrial property

Ownership of intellectual and industrial property (IP) created by UDC employees during the course of their duties will remain with the university (see [UDC Intellectual and Industrial Property Regulations](#)).

6.1. Obligation to report potential commercial interest of research results

- UDC researchers are required to inform the Office of Research and Knowledge Transfer (OTRI) prior to publication, either directly or through their research group or unit coordinator, of the potential commercial interest of its research, in order to postpone publication if necessary pending protection of intellectual property rights over the inventions or discoveries affected (see [Part II, UDC Intellectual and Industrial Property Regulations](#)).

6.2. Intellectual and industrial ownership rights to foreground resulting from research

- UDC will retain intellectual and industrial property rights over all results of research, innovation and development carried out by university employees during the course of their duties.
- UDC researchers will hold **moral rights** over the results of their research, including right of attribution, right to alter the work, and respect for the integrity of the work. Moral rights are inalienable and cannot be waived, and are protected for the lifetime of the author and his/her heirs.

- **Economic or exploitation rights** (of reproduction, distribution, communication to the public, projection, transformation and remuneration) over the results of research carried out by UDC employees will be held by the university.
- UDC students will hold ownership and exploitation rights over inventions developed in the course of their academic research activities. In the case of inventions created jointly by students and UDC research staff, ownership and exploitation rights will be shared between students and UDC in accordance with their respective contribution to the project.

6.3. Private sector partnership

6.3.1. Rights and responsibilities of researchers

- All collaborations between UDC and its researchers and the private sector will be regulated by a contract establishing ownership rights and the agreed terms of management in relation to data and materials used in or created by the project; ownership of foreground, and the rights of all participants in relation to the publication and/or protection of research results.
- Researchers will be given **unconditional academic freedom** to carry out their work and will not be subject to interference of any kind in relation to their academic criteria regarding the design and implementation of the research protocol or notification of the results obtained.
- The **moral rights** held by researchers over the results of their research (especially attribution of authorship) are inalienable and should be respected in all agreements signed between UDC and the private sector.

6.3.2. Managing intellectual and industrial property

- Collaboration contracts signed between UDC and private sector organisations will clearly state the management terms and conditions for intellectual and industrial property resulting from R&D projects carried out under the partnership, which will be jointly owned by UDC and its collaboration partners.
- Contracts regulating joint ownership of IP should contain appropriate provisions in relation to at least the following areas: percentage ownership and financial obligations of each party, taking into account the necessary participation of UDC researchers; and responsibility for IP protection arrangements at home and abroad, if necessary.

6.4. Royalties and income resulting from use of intellectual and industrial property

Researchers acknowledged as authors of foreground used for commercial purposes will be entitled to share in any profits generated (see [UDC Intellectual and Industrial Property Regulations](#)).

7. Conflict of interest

7.1. Definition and description

- **Conflict of interest** refers to a situation or set of circumstances in which the private interests of a researcher or interested third party, collaborator or funding partner contradict, exercise undue influence on or attempt to alter the purpose of the research.
- Conflicts of interest may be **financial** (e.g. researchers working for or holding shares in a company or organisation whose technology or R&D services are required for a project on which he/she is working), **professional** (e.g. researchers invited to peer review proposals or publications by current or recent colleagues), or **personal** (e.g. researchers who are related to or friends with candidates in a selection process).

7.2. Recommended courses of action

- UDC researchers are required to identify and declare any conflict of interest they may have and take steps to resolve it. Researchers are recommended to consult with and inform the project or group director, coordinator or principal investigator.
- Following declaration of a conflict of interest, the researcher affected will abstain from participation in the project or withdraw from the activities responsible for the conflict.

- Failure to disclose a conflict of interest will constitute a breach of ethical standards that is detrimental to the principles of trust, honesty and the common good, and a possible breach of other UDC standards and regulations.

8. Misconduct

The violation of academic integrity brings research and academic institutions into disrepute, and undermines public trust in science, research and researchers.

Research misconduct, though rare, should be treated as a matter of the utmost seriousness and dealt with accordingly. All alleged instances of misconduct should be investigated immediately in order to substantiate or disprove any suspicions against the university and its researchers.

8.1. Definition and description

- In a research context, misconduct is understood as **fabrication, manipulation, falsification, plagiarism** and/or **deception** in proposing, carrying out or reporting **research and its results**.
- Misconduct includes **deliberate, dangerous or negligent deviations from accepted research practice**, including changes to the agreed research protocol resulting in unreasonable risk to people, animals or the environment.
- The university condemns and discourages **the facilitation of misconduct in research** by collusion or concealment of misconduct by others, particularly any plan or conspiracy to commit such actions.
- **Deliberate concealment of a conflict of interest** will also be considered an ethically unacceptable action amounting to misconduct.
- Research misconduct does not include honest errors or differences of interpretation or judgement in the evaluation of research methods or results.

8.2. Recommended courses of action

- All members of the university community (research and teaching staff, administration and services staff, students and collaborators) have a responsibility to report any misconduct they may witness or become aware of to the university authorities.
- Unfounded allegations made frivolously or maliciously may result in disciplinary action being taken against the complainant.
- All allegations of misconduct will be investigated in the **strictest confidence**. All parties to the investigation (complainants, respondents, witnesses, representatives, etc.) will be bound by confidentiality throughout the process.