

CODE OF GOOD PRACTICE IN RESEARCH, TRANSFER AND EXCHANGE OF KNOWLEDGE AND INNOVATION AT THE UNIVERSITY OF GIRONA

Approved by the Governing Council 9/2024 of October 31, 2024

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1. Introduction

Research is one of the engines that drives progress and development in society and constitutes a fundamental pillar in the advancement of knowledge and the solution to the challenges facing humanity. Recognizing the importance of integrity, ethics and excellence in research activity, the University of Girona has an unequivocal commitment to the promotion and defence of the highest standards of conduct at all levels of this activity.

This commitment meant that on 10 October 2018, the UdG formally adhered to – and undertook to observe – the recommendations of the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, of the European Commission.

This commitment is instrumentalized and made effective by starting a self-evaluation process and defining an action plan for continuous improvement, which leads to the UdG being recognized by the European Commission with the seal on 2 June 2020 European for the Human Resources Excellence in Research (Human Resources Strategy for Researchers-HRS4R).

This Code of Good Practices in Research, Development and Innovation at the University of Girona (henceforth Code or CGP) emanates from this commitment and this strategy. It represents a set of principles and guidelines designed to promote integrity, transparency, quality, respect and fairness in the development of research, while seeking to improve working conditions and the professional development of teaching and research staff (PDI) and the technical, management, administration and service staff (PTGAS).

With this CGP, the UdG seeks to strengthen public confidence in research, promote institutional culture, improve the quality of results and guarantee a favourable working environment for carrying out research, innovation and knowledge transfer activities. In addition, it is intended to encourage collaboration and cooperation among community members, with the ultimate goal of contributing effectively to the progress of society and the well-being of humanity.

Therefore, the Code should serve as a guide for the entire university community.

This Code has been drawn up following a participation process open to the entire UdG community as detailed in <u>Appendix 1</u>, considering:

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- » The principles of the Charter and the Code of Conduct of the European Union.
- » The ALLEA (European Federation of Academies of Sciences and Humanities) guidelines of the European Code of Conduct for integrity in research.
- » The program for research integrity and the recommendations of the Committee for Research Integrity in Catalonia (CIR-CAT).
- » The content and scope of codes of good practice of national and international public research institutions (<u>section 11</u>).
- » <u>Appendice 1 and 2</u>, on the writing phases and the participants.

The document has been reviewed by the Research Ethics and Biosafety Committee, it has been favourably informed by the two Delegated Commissions of the Governing Council: Research, Transfer and Doctorate, and Personnel. Finally, the Code has been approved by the Governing Council in ordinary session 9/2024, dated 31 October 2024.

2. Object and scope of application

This Code establishes the general framework for carrying out research, innovation and transfer activities as well as research training at the UdG. Its content is complementary to that provided by the existing legal rules and is applicable to the entire university community that carries out activities related to research. This includes people in internships or training and the staff of entities in which the University is the majority participant or controls that do not have their own code.

The Code is a **collective tool for self-regulation** and constitutes a set of **action guidelines, recommendations and commitments** regarding the conduct of research activities. Its strength comes from the fact that it includes legal precepts, but also from the voluntary acceptance by all the actors involved in research at the UdG, especially the research staff.

It stands as an **ethical and professional reference framework**, intended to guide the members of the university community in carrying out their work associated with research with **responsibility**, **transparency and honesty**. **Inspired by the principles of academic integrity**, **fairness**, **respect for human dignity and care for the environment**, this code seeks to foster a research culture based on values and principles which are irrevocable and ethical.

All those involved in research at the UdG – **teaching and research staff**, **students and technical management and research support staff** – who subscribe to this Code commit to:

- » Adhere to the highest standards of conduct at all stages of the process.
- » Adopt ethical practices in research, preserve scientific integrity, manage information appropriately and promote a respectful, inclusive and equitable work climate.
- » Respect the dignity and rights of all people involved in the research, as well as preserve veracity, objectivity and impartiality in the collection, analysis and interpretation of data.
- » Protect the confidentiality of any information, especially if it is sensitive, and ensure the appropriate management and disclosure of research results.
- » Promote an inclusive, collaborative and respectful work environment, in which intellectual honesty prevails and constructive debate is stimulated, aware that the advancement of knowledge requires the free exchange of ideas and collaboration between equals.
- » Guarantee the correct accompaniment of research staff in training at the University, providing them with resources and support for their professional and academic development.
- » Encourage the acquisition of good scientific practices from the training stage of researchers, ensuring the transmission of ethical values and scientific rigor in all learning and research processes.
- » Communicate research processes and results to the academic community as well as to the social and productive networks in the most open way possible, while preserving confidentiality in required cases.
- » Ensure personal balance and respect between all the protagonists of the research: senior research staff and those in training and management and support staff of the research activity.
- » Keep the professional sphere separate from the strictly private and personal, to safeguard independence of judgment.
- » Encourage the adoption of good practices in conducting, managing and communicating research and transfer throughout the University, promoting a culture of continuous improvement and innovation.

3. Research development

The Statutes of the UdG define research and innovation as a fundamental function of the University of Girona, and as a right and a duty of the teaching and research staff. This research must contribute to the generation of scientific knowledge and must be carried out taking into account the fundamental principles and practices of each discipline and in accordance with its quality standards.

The UdG recognizes and guarantees the freedom of research, within the framework of the principles of the University, and according to the terms contained in its Statutes.

In general, research staff must only perform tasks for which they are properly qualified. In addition, they must update their knowledge periodically, raise any training needs to the person responsible for the research they are a part of, or to the institutional body competent in the matter, and participate in the training activities programmed by the institution that allow them to correctly fulfil the inherent functions of their job.



Design and methodology

The research must be carried out based on studies with an appropriate design to answer the research questions formulated, and which allow truthful and complete information to be obtained. Researchers design, carry out, analyse and document research in a precise, transparent and reflective way.

Research protocols take into account – and are sensitive to – relevant differences between research participants, such as age, gender, sex, culture, religion, worldview, ethnicity, geographic location, social class and disability.

The design must make optimal use of available resources and methodologies, and must seek an improvement, a transformation or an advance in knowledge and practice. All procedures and methods used must be properly referenced and documented to allow for subsequent revisions.

The research design must include a data management plan. The results must be able to be used, analysed and interpreted by any researcher in the same field of knowledge, in order to increase the efficiency of research. Whenever possible, the analysis and interpretation must be done with suitable statistical methods. The ownership of the results of the research carried out at the UdG and generated by its staff corresponds to the University of Girona.

The practice and the use of potentially dangerous procedures and materials **must be carried out in accordance with the regulations and good practice guides that guarantee the safety of both the research and university community and the environment.** Responsible researchers must undertake to comply with and enforce the necessary safety, occupational health and environmental protection measures.



Research infrastructures

To carry out the planning of the research activities, those responsible for the research must ensure that the facilities, equipment and materials used are adequate, in terms of the safety of the people working there, the preservation of the environment and the quality and reliability of the work results.

Researchers must ensure that all the equipment used in research projects is subjected to adequate preventive maintenance, to avoid malfunctions that could alter the results. It must also be subjected to guidelines for verifying its operation or calibration, in accordance with the manufacturer's specifications and the use that is given to it (working range, frequency of use, etc.), to guarantee the reliability of the measurements and the data obtained. These maintenance and verification or calibration plans must be drawn up respecting the basic principles of efficiency, adequacy to the use of the equipment and responsibility in the use of resources.

All personnel who have to use equipment must receive the appropriate training and instructions to use it correctly, must comply with current legislation and quality certifications, where applicable, and have the permits and qualifications required for that use. When necessary, these instructions will be collected and maintained in standard procedures and work instructions, or the technical manuals will be used.

Each piece of equipment must have a person in charge of it. This will by default be the research staff member who managed its acquisition. This must promote the shared use of the equipment with other research activities of the institution, as long as the restrictions of the funding funds are respected and the approval of the person in charge is obtained.

When purchasing new equipment, the adequacy to the needs of the research and the training of the personnel who must manage it, as well as energy efficiency, water consumption and any dangers, must be taken into account. This includes both the equipment and the expendable material they require. All the equipment acquired becomes part of the patrimony of the UdG and must be duly registered in the inventory, according to the established procedures. The scientific equipment must be identified in such a way as to guarantee the traceability of the research results.

In case of transfer of equipment (from other entities to the UdG or from the UdG to other entities) an agreement must be established that delimits the ownership of the equipment, the duration of the transfer and the permitted uses.



Collection and custody of samples, materials and data

Research projects must be carried out in accordance with the approved research protocol, and any changes must be justified. This protocol must include, where applicable, the obtaining of samples, the data collection system, the records of procedures and results, the disposal of waste and the custody and/or conservation of all materials and relevant data.



Samples

Obtaining samples and collecting experimental data must always be done with the necessary permits, taking into account ethical and sustainability criteria and making clear any use that will be made of these. Any additional use of the samples or experimental data requires informing the interested parties (if any) and, if necessary, obtaining new permissions. In the case of working with samples or experimental data involving human beings or animals, the particular conditions detailed in the corresponding sections must be taken into account.



Materials and products

Materials and products used in research projects must be purchased legally, through authorized distributors and using the purchasing procedures established by the University. They must be correctly identified and stored, and their use must always be safe and appropriate to their specifications.



Data and results

Data processing and obtaining results must be done rigorously, within the parameters of scientific research and taking into account the consensus of each discipline. Precautions must be taken against all biases, conscious and unconscious, that may affect the results and/or conclusions: in obtaining or selecting the samples, in the analyses of the experimental data, and also in their interpretation and publication.

Whenever possible, research results (including negative ones) will be communicated in such a way that they are accessible to the scientific community and the general public.

All primary documentation (data collection notebooks, databases, etc.), as well as the material obtained during the research, are the property of the UdG and must be found or managed in the unit to which the person responsible for the project is linked.

In the event of a change of institution or group, and whenever necessary, the person responsible for the project can provide the person who changes centre with a copy of all, or a part of, the record books, a copy of the existing electronic information, also of the data collection notebooks, or parts of the available material, through a disassociation agreement. When the change affects the person responsible for the research, this process must be carried out under the responsibility and supervision of the direction of the person responsible for the research group, or of the institute or department where the research is assigned.



Registration, conservation and custody of material and data

Researchers, research institutions and organizations ensure adequate management of conservation, traceability and preservation of all data, metadata, protocols, code, software and other research material for a period of at least five years after completion of the project, if the body or financing entity does not establish a longer term. Privacy, control over the use of that material and, if applicable, its appropriate and safe destruction must also be guaranteed.

The registration, storage and custody of the material derived from the course of research are the responsibility of the project coordination and must comply with current regulations. Before participating in a project, the coordination must ensure that the UdG will have the necessary support and infrastructure so that the processing of samples, materials and data is possible.

The collection of samples, the methodologies and the results obtained must be recorded in appropriate documentary media (for example in laboratory notebooks) and, where possible, in accordance with international quality standards (ISO standards, etc.). This record must guarantee the traceability of samples and experimental data, reagents and results. All persons who have participated in the research must be able to access the information of the data obtained and its interpretation.

The records produced on physical paper should preferably be in indexed notebooks with bound pages (not interchangeable or removable) and numbered. Material that cannot be attached must be kept in a file with a cross-reference system between the two documents.

The computerized registration system must be the one that the UdG makes available to people doing research, whenever possible. You will need to make regular security copies, ensure privacy and have adequate recovery mechanisms in place if there are changes to the media used. Any disclosure of data due to errors, ignorance or lack of protection should be avoided.

Researchers, research institutions and organizations ensure that access to data will be as open as possible, as closed as necessary and, where appropriate, compatible with the principles of FAIR (findability, accessibility, interoperability and reusability) for data management, following the guidelines of the funding bodies and the open science policy of the institution.

Whenever possible and relevant, researchers should incorporate citizen science activities into their projects.



Special conditions of research involving human beings

Research involving human beings is defined as any type of procedure that involves the collection of personal data, answers to surveys and questionnaires, donation of biological samples or participation in experimental studies. In this type of research, the process of obtaining data can be complex and cannot always be repeated, which is why the research team must pay special attention to the quality of the collection and the custody procedure. The collection and use of samples or information must be done in compliance with current regulations.

Any research protocol that involves the direct participation of people or that is based on any information or data of a personal nature must have the approval of the Research Ethics Committee of the UdG. If the research involves biological samples or is carried out in connection

with health centres (hospitals, primary care centres, socio-health centres), it will be the competent Research Ethics Committee (REC) that will consider approving the protocol. Any change in the approved protocol must be communicated to the committee that made the evaluation, which may reconsider its approval.

Researchers must explain to participants (or the legal representatives of people considered legally incapable of consent) the design of the study,

and make explicit any conflict of interest or other relevant information (for example, benefits, risks, etc.) that may influence the decision, in order to ensure a free and voluntary decision. Once this is done, informed consent should be obtained, preferably in writing.

At the discretion of the relevant ethics committee, the explanation of the study design can be limited, if there is scientific justification and the freedom of participation, confidentiality and safety of the subjects is always guaranteed.

In any case, once the study has been completed, all participants must be informed of the objectives (if exceptionally they had not been presented), the general results and the conclusions of the research. In specific situations, and also as indicated by the corresponding ethics committee, the individual results can be given to each of the participants.

Researchers must acquire the explicit commitment to keep the due confidentiality of everything that may be known about the people participating in a project, in accordance with what is established in the regulations on the protection of personal data.

In the event that research activities involve the participation of students, special care must be taken to ensure that this participation is of free will.



Research with animals for experimentation

An animal for experimentation is considered to be any animal that has been bred, kept or captured with the sole aim of carrying out experimental work. **Authorization from the animal experimentation ethics committee must always be requested and obtained**. Research with animals or with animal material from other activities (commercial or recreational, such as livestock farming or hunting) does not require authorization if the treatment the animals receive in the course of this activity complies with current legislation and the sample is obtained by non-invasive methods or from an animal that is already dead.

All research and teaching activities that are carried out with experimental animals must be developed in accordance with the principles of replacement, reduction and refinement (3Rs): efforts must be made to replace experiments with others that do not involve the use of animals (replacement), reduce the number of animals to the minimum necessary to obtain valid conclusions (reduction) and use experimental procedures in which measures are applied to minimize animal suffering (refinement). Limited studies that cannot obtain results with statistical significance from the outset should be avoided. The principle of the 3Rs should be applied to all stages of the research process, from the design and execution of the experiments to the dissemination and presentation of the results. In all cases it will be necessary to comply with current legislation and have the required accreditations.



Research in cultural heritage or natural areas

The development of research activities carried out with or within natural areas and heritage groups (natural, historical, archaeological, etc.) **must be carried out in accordance with the current regulations of each geographical area, region or country, and native communities must always be respected**. The spirit of the actions must be that marked by the guidelines of international bodies, such as the Convention on the Protection of the World Cultural and Natural Heritage (Paris, 16 November 1972) and the Nagoya Protocol on access to genetic resources of 12 October 2014.



Health and safety, and environmental protection

All people involved in the development of research activities must at all times follow the regulatory requirements and good practices in health and safety. They must know and apply the measures to prevent occupational risks and the procedures established in the Prevention Plan of the UdG, as well as the measures to protect the environment. They must ensure that the personnel in their charge and whom they authorize (collaborators, guest staff, visitors, etc..) also follow these practices. All personnel involved in research tasks must have information, training and effective protection in matters of health and safety at work.

The people responsible for the research groups and other structures must ensure that the infrastructures used for research, both at the UdG and in environments or locations of risk, meet the appropriate requirements and that the relevant authorizations are available in order to carry out any scientific practice that is subject to specific regulations. When carrying out activities in other institutions, the Occupational Health Office will be informed if it is necessary to activate the coordination of activities in matters of health and safety. Researchers carrying out activities within another research organization must co-operate with the host in all matters of health and safety.

In addition to the processes that regulate research with human beings, those responsible for groups and other research structures will meet the re-

quirements that current legislation requires for the use, exposure, storage and management of radioactive material waste, chemical products, genetically modified organisms and any potentially dangerous biological agents.

All staff involved in research and training for research must know and apply the environmental protection measures established by the UdG and ensure that the staff in their charge comply with these measures. In general, the unjustified consumption of water, energy and all kinds of material must be avoided in order to minimize discharges, emissions and waste attributable to the activity of the UdG. Care must be taken to incorporate the environmental criterion in the supply of resources and services, in cases where it is legally and technically possible.

In the case of any interruptions in activity, research units must establish continuity strategies to ensure that stoppages are properly managed and to minimize impacts on research results.



Gender equality

The inclusion of the gender perspective in this CGP responds to the firm commitment of the institution in this matter and becomes essential to guarantee equal opportunities and diversity in all areas of the organization.

It is recognized that gender integration must be transversal in all processes, from project planning and development to decision-making and the evaluation of results. This involves actively considering the relevance and inclusion of both genders in the definition of objectives, the identification of problems, the establishment of theoretical frameworks and working methods, the collection and analysis of data, as well as in the dissemination and application of the conclusions.

In addition, gender equality will be promoted through concrete measures to stimulate the participation and recognition of women in all work teams.

4. Collaboration in research



Research group

A research group of the UdG (GG) is a set of people who carry out research activities within the common lines of research (or thematically or methodologically close). These groups are made up of teaching and research staff, doctoral students, technical, management and administrative staff and are coordinated by a leader and regulated by the regulations in force at the UdG.

An RG must serve to facilitate cooperation within the structure itself and also between different groups. In this sense, the group leader must encourage dialogue and teamwork. To do this, it is necessary to:

- » Establish communication channels and promote interaction between group members.
- » Promote learning and the acquisition of skills for all members.
- » Guarantee equal opportunities and fair recognition of the work and the results obtained by each participant.
- » Ensure that research results are fruitful, disseminated and/or protected.
- » Ensure the coordination of the group and establish protocols for the welcoming or leaving of members.

All members must contribute to the proper functioning of the group and should:

- » Commit to the overall goals of the team.
- » Actively participate in the group's activities and assume the responsibilities required for its operation.
- » Share their experiences, teach and mentor other members when needed.
- » Work with quality objectives aligned with those of the UdG and comply with current regulations.
- » Maintain the confidentiality of information of this nature.



External collaborations

In collaborations with researchers, research groups or partners outside the group or the institution, the behaviour of each party must instil the trust of the rest.

Collaborations between the research staff of the UdG and those of other institutions must be formalized with agreements, whenever possible. In any case, the following aspects must always be respected:

- » Clearly define objectives, roles and responsibilities. It is essential to maintain transparency in communications and ensure that all parties understand and accept the terms of the collaboration.
- » Foster a culture of mutual respect among collaborators, valuing the contributions and perspectives of all participants. Special attention will be paid to diversity and gender inclusion in the composition of work teams.
- » Adopt agreements on the use, exchange and ownership of data, protection and dissemination of results and authorship criteria.
- » Maintain the confidentiality of information shared during collaboration, ensuring that all data and results generated are handled ethically and securely.
- » Adequately acknowledge the contributions of all collaborators in publications, presentations and other forms of dissemination of results.
- » Ensure that intellectual and industrial property rights (IPR) are respected.
- » Establish clear and fair mechanisms for the resolution of conflicts that may arise during collaboration, promoting dialogue and mediation.



Activities carried out for third parties

The UdG must be aware of and authorize any activity that its staff agrees with other entities under public or private law, and the UdG research staff must inform the competent services of the UdG. The competent institutional services will supervise and sign the necessary documents formalizing the agreements reached by the contracting entity and the staff of the UdG.

The agreements reached must preserve the institutional interests and guarantee the protection of the information and knowledge of the UdG. UdG staff must respect the regulations on IPR (Intellectual Property Rights) and ensure that institutional resources are not used for purposes or interests other than those agreed upon. Specifically, the research staff of the UdG will:

» Ensure that all contracted activities are carried out in accordance with ethical principles and scientific integrity, making explicit any conflict of interest and maintaining independence and objectivity in the results.

- » Clearly define the objectives, the schedule, the expected results, the responsibilities of each party and the financial terms. Ensure there is a mutual understanding and agreement on the terms of the contract before starting the investigation.
- » Guarantee the security and protection of the data collected during the activity, complying with current legislation on privacy and data protection.
- » Respect the confidentiality of the information shared during the activity, ensuring that all data and details are managed with discretion and security.
- » Establish prior agreements on the publication and dissemination of the results of the activity, ensuring that IPR (Intellectual Property Rights) is respected.
- » Implement continuous evaluation mechanisms to review the progress of the contracted activity, ensuring that quality standards and established objectives are met.
- » Ensure that activities are carried out by professionals with the appropriate competence and experience in the field, guaranteeing that the activity is of the highest quality.
- » Maintain independence and objectivity in the activity carried out, avoiding any undue influence that could compromise the quality or impartiality of the recommendations.
- » Promote continuous and open feedback to improve the quality of the activity carried out, adapting to changing needs and expectations and incorporating the necessary improvements in future processes.



Subcontracting

When a researcher, within their research activity, needs to rely on the services provided by a third party, they must formalize this relationship in writing. The UdG must be aware of and authorize any activity that its staff or structures entrust to entities outside the UdG.

These services may be regulated by agreement or contract. In the event of compensation, the rules relating to administrative contracting must be respected at all times.

In all cases, the principles and conditions established for cases of activities carried out by third parties must be applied.

5. Dissemination and protection of results

The dissemination, publication and protection of results is an ethical duty of research personnel, understood as a contribution to the increase and improvement of human knowledge and as part of the process of accountability to society for the use of public resources for research.



Scientific publication

Failure to publish the results of research or its excessive delay due to negligence of duties may constitute a serious offense for misappropriation of resources.

It is considered good practice to publish the results, including negative results, of any type of study, as it reduces publication bias and avoids unnecessary duplication of studies, which is especially important when working with people or animals. The publication of the results of studies in which people have participated as experimental subjects constitutes an ethical imperative.

Fragmented publication of a single piece of research is not acceptable unless justified for reasons of length or editorial policy. Duplicate or redundant publication is considered an unacceptable practice.

The UdG has an active commitment to open science, and for this reason it has an institutional repository in which research staff must deposit their publications. In addition, they must prioritize publications in open access publishers and follow the FAIR principles (findable, accessible, interoperable, reusable) in all steps of the research, whenever possible.

In any type of publication, patent filings, utility models or any other type of protection, reference must be made to all works directly related to the research and to the source of funding, if applicable. At the same time, honorary or unjustified references must be avoided. References to third-party works must sufficiently acknowledge their merit.



Management and protection of results

The institution has defined mechanisms to protect the exploitation rights on the results of the research. Researchers must comply with the indications established by the UdG. The UdG will encourage and promote its IPR (Intellectual Property Rights) policy and will adopt measures aimed at increasing the awareness and training of research staff in relation to IPR, its protection and exploitation.

If the results obtained in research are susceptible to protection, they must be communicated to the corresponding service as soon as possible, so that the institution can assess them. They cannot be disseminated without express authorization from the institution.

Researchers must do everything possible and actively collaborate with the institution so that the results can be protected and transferred.



Authorship

The status of author does not depend on belonging to a profession or occupying a specific hierarchical position, nor on the nature of the employment relationship, but on the type of contribution to the research, design or invention. When the order of signatures is indicative of the importance of each person's contribution to the work, this order must accurately reflect the role of each person.

In order to have full authorship, the following three conditions must be met:

- a) Having contributed substantially to the creative process, that is, to conceiving and designing it, or to analysing and interpreting the data.
- a) Have contributed to the preparation of the resulting communications, reports or publications.
- b) Be able to present in detail the personal contribution to the research and discuss the main aspects of the research as a whole.

Mere participation or responsibility in obtaining resources or collecting data, such as, for example, providing routine data or providing experimental subjects, does not necessarily justify the status of author, although this participation must be acknowledged in the acknowledgements section.

Any person linked to the research group or structure who does not meet the authorship requirements and who, due to their hierarchical or power position or similar, requests to be listed as an author ex officio violates academic freedom, commits an act of injustice and incurs an abuse of authority.

Conversely, the omission of the name of any person who has made proven contributions to the research, according to the criteria expressed above, constitutes an act of misappropriation of the IPR (Intellectual Property Rights) by the other authors. In research which plans to use samples, analyses or opinions carried out by third parties, it is advisable to previously establish a communication and authorship plan, which takes into account the potential intellectual contribution to the project and any other dimension related to IPR.



Acknowledgements, institutional credits and grants

The "Acknowledgements" section of a publication should be strict and help to reflect the effective contributions of all participants in the research, including the funding body, if applicable. The individuals or institutions mentioned have the right to decline to be mentioned. It should be checked whether it is necessary to ask for authorization from the individuals who will appear in the acknowledgements or in other types of mentions (for example, in those indicated as "personal communication").

Both in communications at conferences or other types of presentations and in the definitive publication of research results, it is necessary to explicitly mention:

- a) The institutions or centres to which the authors belong or belonged and where the research was carried out.
- b) Details of subsidies, grants or financial sponsorships received, which must include those from the institution itself derived from, for example, the use of central research services or subsidies for open publication.



Research staff profile and affiliation

Declarations of affiliation, authorship and invention constitute the mechanism for attributing credit for scientific production to research institutions. For this reason, a series of principles must be observed in these declarations in order not to distort this process and, eventually, avoid harm to third parties. Normalizing the name and affiliation facilitates the recovery and dissemination of publications, increases their visibility and allows statistics on research production to be obtained.

The institution must always be cited as the Universitat de Girona. Translations or abbreviations cannot be used. The UdG must be the first or main scientific affiliation of the articles signed by its research staff. Other affiliations can only be included in the signature if there is a formal agreement with another institution.

It is the responsibility of the author to declare affiliation honestly and truthfully, following the rules governing the institution to which they belong. In the case of multiple affiliations, equitable treatment must be respected in the order in which they are cited.

Research staff must create a digital profile on the main identification platforms that affect their field of knowledge (ORCID, for example), use the same author name as an identifier on these platforms and always use this name in the authorship of publications.



Communication of results to society

Research staff must ensure that their research activities are made known to society in general, to contribute to the public's understanding of the research.

The presentation of results, whether through the media, networks or other channels used in society, must always include an informative explanation with a presentation adapted to non-specialized audiences, avoiding sensationalism in the problems and the generation of false expectations regarding the results.

It is not considered acceptable to communicate and disseminate the results of a research in the mass media or other social communication channels before they have been subjected to peer review, that is, before they have been accepted for publication or for presentation at certain types of conferences.

The name of the authors must always be associated with that of the UdG, without, in any case, this link representing the official position of the institution. In this sense, an atmosphere of respect and tolerance towards the diversity of points of view within the research community must be promoted.

UdG staff must not use this link when publicly expressing opinions on topics that are outside their expertise or their attributions and areas of action at the institution.



Correction of errors and retraction

If an error is discovered that negatively affects the value of the published results, the co-authors must be notified to publish a correction as quickly as possible and establish the necessary reservations. If it is determined that there are substantial doubts, it is essential to publish a retraction as soon as possible.

6. Training, supervision and tutoring



Research training, which often begins during undergraduate studies, is one of the fundamental roles of the university. This training of researchers entails a great responsibility, especially in the initial stages of their professional careers.

In these beginnings, not only must the acquisition of specific knowledge of the field be pursued, but a complete training program must be promoted that allows progress in the research or professional career, as well as facilitating teamwork and good coexistence in the research group, in the workplace and in the institution.

In the case of research staff in training who are studying doctoral programs, the training process will be monitored according to the provisions of the UdG's internal quality assurance system (SIGQ) for doctoral studies and the Regulations of the Doctoral School.

The obligations of research staff in supervising or tutoring research are:

- » Assume the commitments and guidelines of this Code and urge those in training to comply with it.
- » Interact personally and facilitate regular meetings with the trainees under your care.
- » Establish a procedure to maintain an updated record of activity and periodic meetings to guarantee traceability.
- » Maintain responsible conduct and exemplary professional behaviour that avoids abuses of power, relationships that compromise impartiality and those that may negatively affect the people under supervision or the activity of the group.
- » Adapt the number of people in training under your supervision, so that it is compatible with fulfilling your obligations and commitments.
- » Provide research personnel in training with the appropriate resources and scientific environment, taking into account their training needs.
- » Recognize the contributions of people in training in a rigorous and fair manner, especially with regard to the authorship of publications.
- » Avoid assigning tasks to research staff in training that are not related to the research project or that may limit their academic and/or professional development.

Obligations of research staff in training:

- » Assume the commitments and guidelines of this Code.
- » Comply with general health and safety standards and procedures, as well as specific ones that concern your area of work.
- » Make responsible use of the scientific and material resources and facilities made available to you.
- » Become integrated into the assigned project, respect group members and, if necessary, cooperate with them.
- » Ensure that any activity outside the assigned project is authorized by their supervisors or tutors.
- » Value the tutor's advice and recommendations, and keep them informed and up to date on the progress of the project.
- » Recognize the contribution of your tutor in the dissemination of your results and respect the intellectual property rights concerning the work carried out.
- » Correctly deposit the materials, data and originals of the protocols generated during your research activity.
- » Maintain an updated record of your research activity and regular meetings with your tutor.

7. Review, evaluation and management of the research



Evaluation and management activities

Research and research support staff often participate in evaluation activities of projects, publications, groups or individuals. Typically, this evaluation, known as peer review, is carried out by expert personnel in the same field as those being evaluated, called peers or counterparts.

Peer review includes any assignment received as an expert to evaluate, revise, or critique a manuscript submitted for publication, a grant proposal, or an experimental procedure subject to review by an ethics committee. **These reviews must be objective, based on scientific criteria and not on personal opinions.**

The review should be rejected if there are conflicts of interest (such as links to the authors or direct competition) or if there is a perceived lack of preparation.

The reports and documents reviewed are always confidential and privileged. Consequently, this documentation must be treated with the utmost rigor and confidentiality, guaranteeing the security and protection of the information contained:

- » It cannot be used for the benefit of the person reviewing it until the information has been published.
- » It cannot be shared with any colleague, unless for specific reasons or without the explicit permission of the publisher or research agency.
- » It cannot be retained or copied, unless permitted by those responsible from the editorial process or the agency. The most common practice is that, once the process is complete, the material is destroyed or returned.



In personal or collective evaluations in which scientific publications are analysed, the evaluation will always be based on the quality and potential relevance of the scientific production, and not simply on the number of evaluations carried out when being considered for the purposes of promotion or any reward.

The assessment must be carried out according to the guidelines of DORA (San Francisco Declaration on Research Assessment) and the commitments of CoARA (International Coalition for the Advancement of Research Assessment). The use of exclusively quantitative criteria based on impact indicators of the journals or publishers in which it is published will be avoided, therefore making prudent use of systems based on exclusively quantitative and bibliometric criteria.

8. Conflicts of interest

Conflicts of interest are a reality in all areas of human activity, and manifest themselves when the judgment applied to a main interest, such as knowledge about a topic, the selection of people or the evaluation of research, may be unduly influenced by a secondary interest, such as a financial benefit or an improvement in the position of the researcher or people who are directly linked to them.

A conflict of interest occurs when personal, financial or professional interests may influence, or appear to influence, the objectivity, integrity and responsibility in research activities.



Being immersed in a conflict of interest does not necessarily imply an intrinsic lack of ethics; what is important is to recognize the situation and manage it appropriately.

Therefore, researchers must be honest about potential conflicts of interest. If they find themselves in this situation, they must avoid them or make them public and address them according to the policies established by the contracting agencies, evaluation bodies or publishers.

If conflicts of interest arise that cannot be resolved internally, they must be referred to a higher authority within the university for resolution.

9. Violations of research integrity

It is essential that researchers master the knowledge, methodologies and ethical practices related to their field. **Failure to apply good research practices is a breach of professional responsibilities**. It also harms research processes, damages relationships between researchers, undermines trust and credibility of research, wastes resources and can expose research participants and subjects, users, society or the environment to unnecessary harm.



Research malpractice and other unacceptable practices

Traditionally, research malpractice is defined as fabrication, falsification or plagiarism (so-called FFP practices) when proposing, conducting or reviewing research or presenting its results:

- » Fabrication is inventing data or results and recording them as if they were real.
- » Falsification consists of manipulating materials, equipment, images or research processes or modifying, omitting or deleting data or results unjustifiably.
- » Plagiarism is the use of other people's work and ideas without properly citing the original source.

There are other ways that violate good research practices and distort the research record or damage the integrity of the research process or researchers. In addition to the violations of good research practices established in this code of conduct, some examples of unacceptable practices are:

- » Allowing funders, sponsors, or others to jeopardize the independence and impartiality of the research process or the impartial reporting of results.
- » Not reporting the existence of conflicts of interest.
- » Misusing acquired experience to promote violations of research integrity or to advance one's own career.
- » Designing or developing projects that are not rigorous or that do not have a proven scientific value.
- » Misusing statistics, for example, to inappropriately suggest statistical significance.
- » Delaying or inappropriately hindering the work of other researchers.
- » Hiding the use of AI (Artificial Intelligence) or automated tools in content creation or publication writing.
- » Hiding data or research results without justification.
- » Dividing up research results with the specific aim of increasing the number of publications (salami publications).
- » Citing selectively or imprecisely or citing yourself unjustifiably
- » Unnecessarily expanding the bibliography of a study to please editors, reviewers or colleagues, or to manipulate bibliographical data.
- » Manipulating authorship or not acknowledging the authorship of all researchers who have participated in a publication.
- » Republishing substantial parts of your own previous publications, including translations, without acknowledging or citing the original (self-plagiarism).
- » Creating, funding or deliberately using journals, publishers, events or services that compromise the quality of research (predatory journals or conferences and article factories).
- » Participating in cartels of reviewers and authors colluding to review the work of others.
- » Misrepresenting the results and data of the research, or participation or interests in it.
- » Falsely (or without sufficient evidence) accusing a researcher of malpractice or other transgressions.
- » Pretending not to know each other, being complicit or trying to hide alleged transgressions of research integrity by others or covering up inadequate responses to malpractice or other transgressions by institutions.

In their most serious forms, unacceptable practices are subject to sanctions. Both the institution and the research staff must make every effort to avoid them through training, supervision and mentoring, and by creating a positive and welcoming research environment.

Procedure for addressing violation of good practices in research, transfer and exchange of knowledge and innovation, and allegations of malpractice

If an alleged violation of good practices in research, knowledge transfer and exchange and innovation is detected, it must be reported immediately following the procedure established by the University for this purpose. This procedure must ensure that alleged violations are dealt with in a fair, consistent and transparent manner, following the recommendations of ALLEA (European Federation of Academies of Sciences and Humanities).

The UdG will monitor the measures taken to ensure that conflicts or violations are adequately addressed and to prevent them from recurring in the future. A detailed record of the entire procedure and actions taken will be maintained for future reference and for reasons of transparency.

Cases where internal procedures do not satisfactorily resolve the conflict will be transferred to external bodies, such as the Committee for Research Integrity in Catalonia (CIR-CAT).

10. Institutional commitment to dissemination, application and updating

A basic responsibility of the entire community is to formulate the principles of research, define the criteria for appropriate research conduct, maximize the quality and soundness of research, and respond appropriately to threats to integrity or breaches in research.

The governing bodies of the UdG must:

- » Promote awareness and ensure a prevailing culture of integrity in research.
- » Exercise leadership in the formulation of clear policies and procedures relating to good research practices and the transparent and appropriate management of violations.
- » Support a suitable infrastructure for the management and protection of data and research material in all its forms, necessary for reproducibility, traceability and accountability.
- » Promote transparent and reproducible practices in the recruitment and promotion of researchers, taking into account the European quality award: Human Resources Strategy for Researchers (HRS4R).

The UdG will publish the content of the current CGP on its website, so that it can be freely consulted and used. It will also provide the necessary resources for its proper dissemination and application.

The UdG Research Ethics and Biosafety Committee will participate in these dissemination actions, given the fundamental role it plays in compliance with this Code of Good Practices. To this end, this committee, with the support of the OITT (Office of Research and Technology Transfer), will carry out specific dissemination and training activities on the concepts included in the CGP.

In addition, the directors of departments and research institutes will be responsible for disseminating the CGP to all their current staff, as well as to newly recruited staff upon their entry.

On the other hand, the people responsible for the coordination of master's degrees, doctoral programs, deans' offices and the management of the Escola Politècnica Superior of the UdG will be responsible for disseminating it to students who are trained in research: students on final degree projects (TFG), final master's projects (TFM) and doctoral students.

11. Reference documents

ALLEA (2023) Codi europeu de conducta per a la integritat en la recerca – revised edition in 2023 (Catalan). Berlin. DOI 10.26356/ECOC-Catalan

<u>Carta europea de l'investigador i codi de conducta per a la</u> <u>contractació d'investigadors</u> – March 2005

<u>Declaració de San Francisco sobre l'avaluació de la recerca</u> – San Francisco, California, 16 December 2012

<u>Acord de la Coalició per a l'Avenç de l'Avaluació de la Recerca (CoARA)</u> - July 2022

UdG web HRS4R (Human Resources Strategy for Researchers)

Codi de bones pràctiques de l'Escola de Doctorat de la UdG – April 2012

<u>Código de buenas prácticas científicas del CSIC</u> – revised edition March 2021

<u>Codi de bones pràctiques en la recerca per als professionals de</u> <u>l'IDIBGI</u> – April 2016

<u>Codi de bones pràctiques en la recerca Universitat Autònoma de</u> <u>Barcelona (UAB)</u> – September 2020

<u>Codi de bones pràctiques en recerca, formació per a la recerca,</u> <u>desenvolupament i innovació de la Universitat Rovira i Virgili (URV)</u> – October 2013

Codi ètic de la UdG – March 2023

Appendix 1. Code drafting process

The creation of the Code of Good Practices in Research, Development and Innovation of the University of Girona began through a participatory call to a broad representation of the university community.

Its drafting has been carried out in several phases:

1st phase: working group sessions in the four thematic areas of: research development; training, supervision and mentoring; data management and dissemination, and collaborative and evaluation work.

Code of Good Practice in Research, Transfer and Exchange of Knowledge and Innovation at the University of Girona		
First Phase (2-hour working sessions)		
 Research development Research Group Design and Methodology Resource Management Experiments on humans Experiments on animals Research in natural or cultural heritage sites Health and safety, protection of the environment 	 Data Management and Dissemination Collection and management of data and resources Obtention and record / physical and digital material Scientific publication / Open Science Acknowledgements, institutional credits and grants Authorship/affiliation Communication of results Correction of errors and retraction 	
Training, supervision and tutoring	Collaborations and evaluation	
 Tutoring and supervision of research staff in training Obligations of tutors and supervisors Obligations of research staff in training Resolution of conflicts 	 Third-party collaborations Subcontracting research Consulting Protection of results Conflicts of interest Review and evaluation 	

2nd phase: preparation of a draft and presentation for all participants to debate.

3rd phase: review of the Code by the Research Ethics and Biosafety Committee.

4th phase: favourable evaluation of the Code by the Delegated Committee for Research, Transfer and Doctorate and the Personnel Committee.

5th phase: approval of the Code by the Governing Council of the UdG.

Appendix 2. UdG participants in the working groups

Coordination team:

Maria Jose Martin Sanchez (assistant to the Rector for Infrastructures and Scientific and Technical Resources, HRS4R coordinator, member of the HRS4R Implementation and Monitoring Committee)

Maria Pla de Solà Morales (Vice-Rector for Research and Knowledge Transfer, member of the HRS4R Implementation and Monitoring Committee)

Pepus Daunis i Estadella (Vice-Rector for Quality and Transparency, member of the HRS4R Implementation and Monitoring Committee)

Joan Andreu Mayugo Majo (Vice-Rector for Personnel, member of the HRS4R Implementation and Monitoring Committee)

Gerardo Boto Varela (director of the School of Doctoral Studies)

Oriol Vidal Fàbrega (expert collaborator in the drafting of the Code)

Mercè Pibernat Carreras (HRS4R implementation technician, member of the HRS4R Implementation and Monitoring Committee)

Participants:

David Angelats i Lobo (technical, management, administration and service staff) Pau Blasco Franch (technical, management, administration and service staff) Gemma Boix Xamaní (technical, management, administration and service staff) Anna Bonmatí Tomás (teaching and research staff) Eva Bussalleu Muntada (teaching and research staff) Joan Canimas Brugué (teaching and research staff) Montse Estopà Bagot (technical, management, administration and service staff) Judit Fullana Noell (teaching and research staff) Maria Luisa Garcia-Romeu de Luna (teaching and research staff) Josep Garre Olmo (teaching and research staff) Adriana Grosu (technical, management, administration and service staff) **Isidre Llorente Cabratosa** (teaching and research staff) **Carolina Madeira** (teaching and research staff) Antonio Malo Larrea (teaching and research staff) Susana Mantas Jiménez (teaching and research staff) M. Lluïsa Matas Jordi (technical, management, administration and service staff) Mercè Pérez Escofet (technical, management, administration and service staff) Oriol Ponsatí-Murlà (teaching and research staff) Teresa Reixach Pagès (technical, management, administration and service staff) Alberto Ruda Gonzalez (teaching and research staff) Sílvia Simon Rabaseda (teaching and research staff) Miquel Solà Puig (teaching and research staff) Joan-Josep Suñol Martínez (teaching and research staff) Olga Taravilla Baquero (teaching and research staff)



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