

CODE OF GOOD RESEARCH PRACTICE

OFFICE OF THE VICE PRESIDENT FOR RESEARCH

Code of Good Research Practice

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1. OVERVIEW

The University of Alicante (UA) is a public institution with teaching, research and the transfer of results to society as its most outstanding features and is committed to ethical principles that serve as a guide to consolidate its institutional mission. These ethical principles are aligned with the Sustainable Development Goals (SDGs) set by the United Nations in its 2030 Agenda, which include ethical values to advance social, environmental and economic sustainability. In this sense, in 2019 the UA Governing Council approved the UA Code of Ethics, which sets out that, in their day-to-day activity, UA members should always keep a focus on harmony, honesty, respect, critical spirit, social equality, inclusion, responsibility, cooperation, sustainability and transparency.

On the other hand, as a research-driven institution, the UA is committed to creating an environment that recognises and supports research excellence, both by valuing and supporting individuals, and by creating a collaborative culture. For the UA it is of vital importance to promote the highest standards of quality, integrity and academic freedom in research activities. For this reason, the University of Alicante formally adhered in 2013 to the principles of the European Charter for Researchers. Code of Conduct for the Recruitment of Researchers. This document, approved by the European Commission in 2005, is one of the cornerstones of the European Research Area (ERA) and, among others, aims to ensure that researchers have the same rights across all EU countries. Thus, seeking to establish an appropriate framework for researchers and contribute to excellence, talent attraction and better research careers within the ERA, the University of Alicante has been recognised with the HRS4R (Human Resources Strategy for Researchers) Seal, which it uses in its efforts to promote a stimulating and suitable work environment for its researchers, guaranteeing that there are fair and transparent procedures in place for the hiring and evaluation of researchers at our Institution.

In view of the above, and to strengthen its responsibility and its institutional mission, this Code of Good Research Practice (CGRP) reflects the University of Alicante's commitment to safeguarding the ethics and principles set out in the <u>European Code of Conduct for Research Integrity</u> and the <u>European Charter for Researchers</u>. Code of <u>Conduct for Hiring Researchers</u>. This Code is a complementary instrument and not a substitute for existing legal regulations based on good scientific research practice documents.

2. PURPOSE

The purpose of the UA Code of Good Research Practice is to establish the general principles that should be observed when undertaking scientific activities at the UA. This code applies to all disciplines and sets out the responsibilities of all persons conducting research at the UA or on its behalf, whether they are academic and research staff, administration staff, students or staff with honorary positions, as well as non-UA staff undertaking scientific activities at this Institution.

For this reason, the Code of Good Research Practice aims to:

- a) Define the principles underlying research at the UA.
- b) Clarify the responsibilities and expectations of those who carry out research activities.
- c) Improve relations of trust between the University, society and research funding organisations.

3. GENERAL RESEARCH PRINCIPLES AT THE UA

Research activity is ultimately aimed at the good of humanity and the advancement of knowledge. To this end, UA researchers have freedom of thought and expression, as well as autonomy to determine problem-solving methods, always in accordance with recognised ethical principles and practices. The University of Alicante establishes the following general research principles:

Social responsibility. All persons involved in research at the UA must do everything possible to ensure that their work is relevant to society, respecting the dignity of human beings, protecting their rights, guaranteeing the welfare of animals and preserving the natural environment and cultural heritage.

Scientific integrity. Research staff must systematically pursue objective knowledge that can be assumed to be true, that is, based on proven and validated results in order to guarantee its credibility and soundness. They must use appropriate methods and procedures, verify the accuracy and consistency of their research results by interpreting them thoroughly and objectively, and base their conclusions on critical and independent analysis. They must also recognise the contributions of third parties, comply with the relevant agreements, terms and regulations and encourage good governance and transparency of their activity.

Honesty, rigour and excellence. Research staff must observe the highest standards of integrity, honesty and professionalism, both in their own research performance and in their response to research conducted by members of the scientific community. They must equally strive for excellence in conducting their research, understood as the fulfilment of high standards of performance and demand in public service, pursuing the production and dissemination of the highest quality work.

Ethics and responsibility. The research staff must be aware of and, at least, comply with all ethical and legal requirements in their field of study, as well as national, sectoral and institutional regulations governing training and/or working conditions. This includes regulations on intellectual and industrial property rights, legal requirements for data protection and confidentiality, research risk assessment and the conditions of any potential sponsor.

Safety and digital pact. Research staff must protect the dignity, rights, security and well-being of all persons involved in research and avoid unreasonable risks or harm to those under study, research staff and the social environment. Appropriate management and retention of research data and materials under secure protection for a reasonable period of time should be ensured, in accordance with the <u>digital pact</u> for the protection of people, which promotes privacy as an asset for public and private organisations.

4. THE RESEARCH PROCESS

4.1. Research design and implementation

Science is based on empiricism and logical reasoning. For this reason, research must be conducted following well-established guidelines.

- It is important to carry out research in accordance with well-designed work protocols that make it possible to obtain the necessary information to resolve the issues raised. Protocols should include the background, objectives and proposed methodology, a schedule with the research phases, necessary material and human resources, task allocation and a duly justified budget.
- Research planning must provide for **dissemination of the results** and criteria for authorship and order of authorship.
- All procedures and methods used in research must be properly referenced and
 documented to allow for subsequent review as accurately as possible. If the
 research consists of the development of a new methodology, its approach,
 development and application must follow the same principles of rigour and
 reproducibility as any other research.
- The planning foreseen must be **monitored** to verify that the activities being carried out are in accordance with what was planned, and if necessary make the appropriate changes.
- Research staff must be extremely careful in anticipating the risk that the results
 may be used for illegal or harmful purposes. If such risks are identified, they
 must seek information and guidance.

4.2. Infrastructures and resource management

Responsible use must be made of the available means and resources, allocating them to the intended purposes, administering and managing them in accordance with criteria of economy, transparency and efficiency. Therefore:

• It is the responsibility of the principal investigator to verify that the necessary resources to carry out the research are available. If the development of the project requires the purchase or acquisition of new equipment, the relevant institutional regulations must be complied with.

- All the facilities or places where the research work is carried out must be adapted so that the planned activities can be undertaken, both in terms of safety and accessibility for the people working in them and in terms of the quality of the results obtained.
- Anyone having to use scientific instrumentation must have received proper training and instructions of use.

4.3. Ethical aspects of research

All research conducted at the UA must comply, at least, with the legal, regulatory, professional and ethical requirements and standards set by the relevant authorities according to the type of research. Research staff must be aware of and know how to access these requirements and obtain all necessary permits before commencing research work. In addition, research staff must ensure that all ethical issues affecting their projects are identified and addressed throughout the research cycle.

4.3.1. Research involving humans

The University of Alicante and its staff guarantee that any research conducted within the framework of the Institution and requiring the participation or intervention of human beings, the handling of samples, the handling of personal data or experiments in human-machine interaction in robotics, artificial intelligence and other digital technologies will be in accordance with the regulations in force and meet all applicable ethical requirements, as well as current institutional instructions or guidelines.

In any case, before the start of the research, the person responsible for it must request the UA Research Ethics Committee to evaluate its ethical aspects. Where applicable, the person in charge must follow the relevant procedure for the use of personal data in research.

The right to privacy, the capacity for self-determination and the right to make a choice of persons who may participate in the research or provide their biological samples must be respected. In general, specific and unequivocal **consent** will be required. When the subjects participating in the research have not fully developed autonomy (for instance, children), their consent must be secured jointly with that of their legal representative. Before consent is requested, **appropriate information** (relevant, complete, clear and easy to understand) must be provided. Subjects must be informed about the nature, importance, purposes, benefits and risks of the research; in biomedical research, they must also be informed that they can obtain information regarding their or their family's health and that they have the right to decide whether and to what extent the results will be shared with them. The health and well-being of the research subjects must be prioritised, especially regarding the information about the purpose, discomfort and possible risks and benefits of the research. It must be emphasised that consent is revocable and can only be given knowingly and voluntarily. In order to effectively meet

all these objectives, the use of accessible language is required both in the **Information**Sheet and in the **Informed Consent** document.

Thus, special attention must be paid to **vulnerable groups** and people who do not have full autonomy. In particular, in the case of minors who are actively incorporated as subjects of research, the person in charge of the study must ensure that their gradual autonomy is taken into account and that their participation contributes to their education for responsibility in the light of child protection regulations. To this end, the person in charge must provide the means for them to be fully informed about the objective of the research, what their participation will involve, and the fact that, even if they give their consent to participate, it can be withdrawn at any time.

When the participation of UA staff and students as research subjects is envisaged, it must be ensured that their inclusion is free and voluntary, that measures are taken to avoid adverse consequences for those who decide not to take part or those who decide to leave the project, and that all aspects indicated in this document are considered. This is especially necessary in the case of students having the researcher as a lecturer of the course.

The taking of **samples**, the system for legitimately storing and preserving them (in connection with the relevant research project, as part of a collection or authorised biobank) and their subsequent use require the prior consent of the subject. Likewise, participants must be informed of and consent to what will be done with the sample (destruction, preservation) and how it will be stored once the research is finished, as well as the implications of their decision.

In relation to **personal data**, and in order to guarantee its fair and transparent processing, research participants must be informed of the specific purposes and the legal basis for the intended processing; particularly, they will receive the following information: whether data that identifies the person is being processed; whether the personal data will be encrypted, anonymised, or pseudonymised; the format in which the personal data will be stored; possible international transfers; use of cloud services; data recipients; storage periods and criteria; security measures adopted; and rights they are entitled to.

When necessary, the impact of the processing operations on the protection of the personal data of research participants must be **assessed**, in order to determine, on a preventive basis, whether such operations are necessary and proportionate and adopt any technical and organisational measures needed to reduce any risks to privacy and other rights and freedoms of natural persons to an acceptable level. Data subjects may contact the <u>UA Data Protection Office</u> and the data protection officer if they wish to exercise their data protection rights or for any other procedures or queries relating to their personal data.

4.3.2. Research involving animals

Research and teaching involving animals will be carried out when there are no other feasible alternatives and always in accordance with current regulations.

All species used in academic and research activities must be treated ethically, responsibly and respectfully. Moreover, all research on animals must be carried out in accordance with the principles of replacement (use of animals as a last resort), reduction (use of minimum numbers of animals) and refinement (ensuring the highest possible welfare of animals) and up-to-date legislation in this matter.

Any research project involving the use of animals must always be approved by the UA Research Ethics Committee and expressly authorised by the competent authority, where appropriate.

Any researcher who uses animals for experimental and other scientific purposes must comply with the qualification requirements of the regulations in force.

4.3.3. Research involving biological agents and/or genetically modified organisms

In the area of biosafety, it is particularly important to adopt measures and apply standards to ensure the safety of living beings and the environment from certain factors that could alter them, such as biological risk agents (bacteria, viruses, fungi, parasites, cell cultures, samples from treatment plants, etc.) and genetically modified organisms.

Research using biological risk agents and/or genetically modified organisms must promote the values of biosafety, information, precaution, prevention of personal and occupational risks, and environmental protection. It is necessary to verify that there is no alternative method to research of comparable effectiveness, and that the risks of research are not disproportionate to the potential benefits.

The persons involved in research using biological agents and/or genetically modified organisms must have been qualified for handling such samples for experimental purposes. In addition, the facilities and activities must comply with the regulations established by the UA and be authorised by the Research Ethics Committee.

4.3.4. Research involving natural, cultural and landscape heritage

Research activities carried out in natural areas and in places declared as heritage sites (natural, historical, archaeological, etc.), or using materials and assets that are protected or declared as assets of cultural interest, must respect the national, regional and international legislation in force in each place and adapt the research to ensure the maintenance, conservation and sustainable development of these spaces, places and assets that make up the natural, tangible and intangible heritage, bequeathed to future generations.

4.3.5. Occupational and environmental risks

Research activity often constitutes an environmental risk that the principal investigator must be aware of and manage appropriately. In these cases there may be a significant environmental risk:

- Due to the generation of waste with risk of infection or biological contamination.
- Due to use of species with risk of change or threat to biological diversity (invasive alien species, genetically modified organisms, etc.).
- Due to the corpses of experimental animals.
- Due to use of human corpses or remains from dissection.
- Due to carcinogenic or mutagenic waste.
- Due to other hazardous chemical waste (toxic, oxidising, flammable, explosive, suction hazard, hazardous to the aquatic environment or to the ozone layer, etc.).
- Due to waste electrical or electronic equipment.

In all these cases the UA waste management procedure must be followed:

The University will ensure that research is carried out in a way that guarantees the safety and health of people and respect for the environment. The research groups must be aware of the policies for the prevention of occupational risks and the protection of the environment and guarantee that their activities are carried out in accordance with these policies. They must also make appropriate use of the resources, means, facilities and services that the UA makes available to them. The facilities and activities must comply with the regulations established by the UA Health and Safety Committee.

5. MANAGEMENT OF DATA AND MATERIALS RESULTING FROM RESEARCH WORK

Research material is everything used in the research process and from which data is obtained. Research materials include, for example, samples, physical and other objects, documents, databases, archives and ideas.

The management of research data encompasses all the activities associated with the collection, recording, storage, preservation, custody and processing the data used or generated during the research process. The UA and its research staff must guarantee both the conservation and the proper management of all knowledge and materials created in research, published or unpublished, ensuring their protection and accessibility for a reasonable period of time. The management of research data and materials must be carried out in such a way as to guarantee their integrity, traceability, preservation and security at all times, since poor management can cause data loss or the violation of personal privacy.

- A plan for the collection, recording, preservation and custody of any type of data, material or sample generated during the research, as well as access to them, must be drawn up in the early stages of project design.
- In any research involving the use of **personal data**, there must be a guarantee that the data has been obtained and stored in accordance with the applicable legislation and relevant ethical standards. Particular attention must be paid to compliance with data retention regulations in certain disciplines, such as health and biomedicine, which may be subject to special regulations.
- Research staff must record all data resulting from research experiments or observations, using databases, laboratory notebooks or any other relevant format, in a way that this information is clear and can be reviewed by third parties. Records must also include changes, errors, negative, unexpected, or inconsistent results, the person who collected the data and the person making any data modifications, corrections, or observations.
- The access log, storage and preservation and custody of documentation and biological or chemical material resulting from research are the responsibility of the principal investigator. All members of the research team must be able to access the data obtained, with the exception of personal data, in which case the number of people with access to the data must be limited to the minimum. Access to the data under a pseudonym must be provided for, with the guarantees established by law.
- The research data **retention periods** may vary depending on the discipline, the specific contractual conditions or the nature of the research. The data and the biological or chemical material stored as a result of the research must be kept, as a general rule, for at least 10 years from the first publication of the results, except where shorter periods are permitted or longer periods required by law. Particularly, where information consists of non-repeatable documentation, it must be kept permanently and securely. In the specific case of personal data, the retention period will be the minimum essential for the development of the research activity for which it was collected.
- All the data generated and material obtained during the research are the property of the Institution and may be shared with the participating institutions, as previously agreed. The UA will promote the appropriate management of the ownership of its results, establishing and disseminating an intellectual and industrial property policy that provides for its effective evaluation, protection, relevance and commercialisation. Likewise, it will adopt measures and foster the awareness and training of research staff in relation to intellectual and industrial property and its exploitation.
- Similarly, data management must allow, in any case, for ease of search, accessibility, interoperability and reuse for other studies. The data and materials resulting from

research must be public and readily available to third parties, except where restrictions have been established for reasons of confidentiality or potential commercialisation.

• Any exchange of data or materials with other institutions must comply with the relevant transfer protocol. Thus, in order to grant access to data and materials to third parties, it is necessary to know the use that will be made of them and follow a transfer protocol that includes approval by the person responsible for the research. The granting of access may be limited for reasons of availability, competence or confidentiality. The material or data coming from persons must be shared in such a way that no subjects can be identified from the source; otherwise, specific consent is required from the persons they come from. The transfer requires prior knowledge of the use intended by the applicant, knowledge of the application by the research team, a transfer protocol with the approval of the person responsible for the research, and the applicant's willingness to bear any production and shipping costs.

6. RESPONSIBILITIES OF RESEARCH STAFF

6.1. Leadership and commitments of research staff

Research groups must have at least one **director leading the group** and representing it publicly. Likewise, all research studies must have at least one **principal investigator or supervisor**. The responsibilities of such leadership encompass training-related, ethical and organisational aspects:

- Research group directors must encourage cooperation within the research group and the exchange of ideas and knowledge, interaction between and the enrichment of group members, as well as the achievement of research objectives. They must also communicate any decisions affecting those who are part of the research team.
- Research directors must act in a fair, sensible and responsible manner. They must promote an enriching, collaborative and people-focused environment, in accordance with the <u>Ten guidelines to promote happiness in UA research groups</u> and in which research is conducted in accordance with good practice.
- Research directors must lead and supervise all phases of the research process, including the establishment of hypotheses, the preparation of funding applications, the design of research or experimental protocols, as well as the collection of data, its analysis and interpretation, and the dissemination of results.
- In particular, it is necessary to agree on the role of the research staff involved in the project in relation to intellectual property, publication and attribution of

authorship, knowing that such roles and contributions may change during the course of the research.

Research staff must commit themselves to the team's global objectives and assume their responsibilities within it, share their experience and actively participate in advising and training other researchers, and request guidance and follow appropriate recommendations when necessary. In general, research staff must only carry out tasks for which they are duly qualified and that are part of their duties.

It is the responsibility of all the members of a research team to maintain frank, open and continuous communication that allows the proper understanding and interpretation of the research developed within the group, also ensuring the well-being of all members.

All research staff must honour the commitments and observe the guidelines of this Code of Good Research Practice.

6.2. Research staff training

Research staff training is a great responsibility for scientists. The aim must be for trainee researchers to acquire scientific-technical knowledge, taking into account the defined objectives and the time frame for achieving them. A comprehensive training programme must also be promoted, including cross-curricular activities for trainees to acquire knowledge and skills allowing them to advance their scientific or professional career.

Directors or supervisors of trainee researchers must:

- Provide trainee researchers with the appropriate means and scientific environment, promoting integration into the research group.
- Carry out regular, systematic and diligent monitoring of the training of the staff under their direction.
- Promote the participation of trainee researchers in seminars, conferences, discussion forums and other scientific activities related to their work.
- Ensure that research is carried out in safe conditions, complying with risk prevention measures and insisting on their compliance.
- Ensure compliance with the code of good practice by trainee researchers.
- Carry out their own work in such a way that it serves as an example for trainee researchers.
- Guide trainee researchers in everything related to the advancement and promotion of their future research career.

For their part, trainee researchers must:

• Actively collaborate in all tasks related to their training and seek the support and help of the principal investigator when necessary.

- Integrate fully, both within the framework of the assigned project and into their research group, respecting and cooperating with their fellow group members and using the scientific resources, materials and facilities available with a view to furthering their training.
- Participate in seminars, conferences, discussion forums and other scientific activities related to their work.
- Deposit in the laboratory they are assigned to the materials, data and original protocols generated during their scientific activity, recognise their supervisor's contribution when disseminating their results and respect the intellectual property rights concerning the work carried out.
- Comply with general health and safety standards and procedures, as well as with those specific to their area of work.

In general, the Institution must provide its research staff with training allowing them to properly carry out their work and develop their skills and abilities. In this context, it must particularly support trainee researchers and ensure that they have access to institutional rules and procedures.

6.3. Research authorship

Research staff is responsible for the content of all their studies, reports, opinions or publications. Authorship must be restricted to those persons who have made a contribution to the conception, design, proposal and work elaboration, conduct of experiments, etc. The work of all contributors who do not meet the criteria for authorship must be noted in the acknowledgement section.

Research staff must indicate their affiliation with the UA in all work carried out as part of their research at the UA. They must also indicate the department or research institute to which they are assigned.

When disseminating the results of research, all sources used in the research must be clearly indicated, and the funding and sponsoring institutions must be explicitly identified.

6.4. Evaluation, monitoring and control of third-party research

When UA research staff act as evaluators of projects, research papers or publications by third parties, as well as in selection processes of all kinds, they must do so in accordance with criteria of confidentiality, impartiality, objectivity, independence and diligence. Participation in these activities must be declined if the necessary expertise is not available or the appropriate capacities are lacking.

Research staff must follow the guidelines of any entity for which they carry out an assessment. They must not retain any copies or material evaluated without the express written authorisation of the organisation that requested the evaluation. They must not make use of the designs or research results of an article under review without the express permission of the author(s) and must not allow others to do so.

If, during the evaluation process, research staff discover any malpractice, such as plagiarism, fabrication or falsification, or have ethical concerns about the design or conduct of the research, they must report this confidentially to the person representing the organisation that requested the review, such as the editor of the journal, or the person chairing the relevant ethics committee or the committee awarding the grants in question, if applicable.

6.5. Research staff in the media

UA staff participating in teaching, dissemination and popular science activities must not compromise the image or credibility of the UA.

Scientific information disseminated through social media and Internet portals or other means must be checked, verified, updated and contextualised as required by scientific communication. Accessible and neutral language must be used, so that it can be understood by non-specialists and distortions, sensationalist exaggerations and improper disclosure of personal data are avoided.

Likewise, when personal opinions are expressed, it must be emphasised that such views do not necessarily reflect the position or criteria of the Institution. UA staff must not claim to act on behalf of the Institution when carrying out popular science activities in their individual capacity.

6.6. Collaboration with other institutions, contracted research and advice

Research staff may act as consultants on matters in which they have the appropriate training and expertise, as well as participate in research contracts with public or private entities, as long as there is no conflict of interest and the regulations on incompatibilities are complied with. The performance of advisory tasks must be known by the Institution and must always be stipulated by means of a contract or agreement.

In research carried out in collaboration with other institutions, a formal agreement must negotiated and reached at the beginning of their collaboration on their expectations and standards regarding research integrity, applicable laws and regulations, protection of intellectual property and procedures for managing conflicts and possible misconduct. Any issues that may arise as a result of collaborative work must be anticipated and agreed on how they will be addressed. This agreement must be in writing and have the explicit approval (signature) of those involved. Each partner's responsibility is twofold: collective, in order to guarantee the credibility and soundness of the overall results; and individual, for each contribution made.

7. DISSEMINATION OF RESULTS AND INTELLECTUAL PROPERTY

7.1. Dissemination, publication and open access

The University encourages its staff to disseminate the results of their research, once they have been checked and validated. This dissemination must be done with transparency and honesty, avoiding subjective or abusive interpretations of the results, as well as intentional omissions of information that could generate confusion or create false expectations.

Decisions on the publication of research work must be agreed with the funding institutions. In any case, the research staff must comply with the conditions established by the latter.

When the need arises to postpone the publication of results for reasons of intellectual property protection, this will be negotiated and agreed between the research staff and the funding institutions.

If there is pressure to publish and disseminate research results or to present or interpret them in a self-serving, biased, inappropriate or misleading manner, this must be reported to the UA Research Ethics Committee.

Publications must not be submitted to more than one editorial board simultaneously unless the editorial boards involved are aware of and agree with this.

The University is committed to the dissemination of research and to respect for academic freedom to choose the place and nature of publication. Publication in journals with suspect systems of selection, evaluation and publication of manuscripts should be avoided. It is advisable to consult the information provided by the Spanish Research Agency (document N-AEI18-01).

The UA institutional policy determines that publicly funded research production is open access by registering the relevant publication in the RUA repository. This commitment entails the following:

- Publications which are the result of research and academic activity must be deposited in the University of Alicante's institutional repository.
- This deposit will take into account editorial policies, respect copyright and intellectual property rights, as well as the usual conditions for self-archiving in institutional repositories.
- The deposit of documents published by University of Alicante staff must be carried out within a period of no more than 12 months once they have been published.
- The version of the articles published in scientific journals permitted by the editor must be deposited. If the editor establishes an embargo period, open access to the content of the article in the institutional repository must be delayed for the required time.

• Teaching and research staff may deposit their teaching materials or other unpublished materials in the institutional repository.

The UA recommends that full copyright clearance should be avoided when publishing a work, in order to allow for the deposit of the work in open access repositories.

7.2. Intellectual property, industrial property and exploitation of results

Research staff must comply with the UA intellectual and industrial property policies. It is presumed that any results obtained using public funds or resources must be disseminated in order to have a beneficial effect on society at large. This presumption can be rebutted when there is an express restriction on its dissemination, such as projects involving private companies (e.g. via Article 83).or when it conflicts with the moral rights of the author. Otherwise, research staff will be free to make their own decisions on the dissemination of their research.

Research staff must ensure that all contracts or agreements related to their research include provisions on intellectual property and its use, such as ownership of property rights, licensing or assignment of exploitation rights. They must comply with any additional conditions relating to intellectual property set by the funding institutions, as well as anticipate any circumstance that may arise in relation to intellectual property, and jointly agree how to deal with it, communicating any decisions to those who make up the research group.

The Office for Transfer of Research Results (OTRI) is responsible for providing information and advice on intellectual property and industrial exploitation at the UA.

8. DEVIATIONS OF RESEARCH PURPOSES

8.1. Conflicts of interest

Conflict of interest is defined as a situation in which the personal interests of an individual and those she or he must protect as a member of a group, institution or governing body come into conflict. Research staff must identify and declare any real, potential or apparent financial, professional or personal conflict, as described in the applicable regulations, or any other situation that could unduly influence or compromise the proper performance of research activity, collaboration with other institutions, staff training, evaluation tasks or the dissemination of results.

Conflicts of interest must be declared to the UA Research Ethics Committee. The Committee will identify the type and seriousness of the conflict and will take the appropriate measures in accordance with the applicable regulations. These may include preventing participation in decisions, activities or bodies in accordance with institutional

regulations and guidelines, or even prohibiting the continuation of research when conflicts pose a risk that compromises the integrity of the work.

Given that conflicts of interest may represent a threat to scientific integrity, it is essential to publicly declare any potential conflicts of interest as a precautionary and preventive measure.

8.2. Malpractice

Science, as a search for knowledge, is in principle the enemy of fraud, although there is the possibility of deviations in the activities of researchers. These deviations constitute a breach of scientific practice and are the ultimate responsibility of the scientist involved.

Malpractice is understood as any conduct that violates the principles previously described in this Code of Good Research Practice, and in particular the fabrication, falsification or misrepresentation of data, the manipulation of interests and of the research authorship, plagiarism, the failure to follow accepted procedures or the failure to exercise due diligence in the responsibilities related to the avoidance of risks or harm to humans, to animals used for experimentation, to the environment, to the cultural heritage, or to the proper handling of the private information of the participants involved in the research.

Research staff must be aware of what conduct constitutes research malpractice in order to avoid it. Good research practice also includes reporting reasonable evidence of malpractice in third parties and cooperating with any inquiry for which they are required to do so.

The UA expects its research staff to strictly and actively adhere to all ethical principles and professional standards outlined in this code. Failure to respect these rules, either intentionally or due to lack of knowledge, damages the scientific process and may be detrimental to those involved in research, the scientific community, the University and society as a whole.

Deviations from the correct exercise of research can be very serious, severe or moderate. Very serious behaviours include the invention of results, falsification, plagiarism, failure to publish a retraction when serious errors are detected in an article, or failure to comply with legal obligations. Inappropriate behaviour in peer review, failure to warn of errors detected, misrepresentation of data, improper handling of allegations of misconduct or duplicate publication, among others, constitute serious malpractice. Moderate malpractice includes, for example, supporting publications that do not comply with the quality control process in peer review, ignoring misconduct by others, or unnecessarily expanding the bibliography of a study. More exhaustive lists are available at the following links: European Code of Conduct for Research Integrity and UMH Code of Good Scientific Research Practice (in Spanish).

Misconduct may be punishable. Every effort must be made to prevent and avoid it through training and supervision, developing a positive and collaborative research environment.

9. MONITORING AND COMPLIANCE: RESEARCH ETHICS COMMITTEE

Supervision of compliance with this code will be carried out by the <u>Research Ethics</u> <u>Committee</u>, a multidisciplinary body chaired by the Vice President for Research, made up of different scientific and technical members, whose appointment will correspond to the University President at the proposal of the Vice President for Research. In terms of organisation, composition and functioning, this Committee be governed by its own regulations approved by the Governing Council, with the sole aim of supporting the quality of research and contributing to maintaining its integrity.

The Research Ethics Committee must at all times ensure managerial diligence and confidentiality, as well as independence, impartiality and fairness in its decisions.

Complaints, allegations or claims for breaches or conflicts of this code may be submitted in any University registry offices, addressed to the Vice President for Research or to the University Ombudsperson, who will process them in a timely manner.

10. INSTITUTIONAL COMMITMENT

The University of Alicante is committed to maintaining and promoting **ethical conduct in research** by informing research staff of the potential risks of their activity and of the procedures and responsibilities for compliance with current legislation. Thus, the Institution will foster the development of a suitable, **people-focused** scientific environment, where everyone acts with honesty and responsibility. The UA will strive to **facilitate** the work of research staff, avoiding redundant controls and minimising bureaucracy.

The University will ensure, on the one hand, that research is carried out in a way that guarantees the **safety and health** of people and respect for the environment, and, on the other hand, that the **resources**, means, facilities and services made available to researchers are appropriate.

In general, the Institution will provide all its staff with suitable **education and training**, and, particularly in the case of research staff, with training that allows them to properly carry out their work and develop their skills and abilities.

The UA will promote **equal** opportunities, without discrimination on the grounds of birth, race, sex, sexual orientation, religion, marital status, opinion or any other social condition or circumstance. It will promote the **inclusion** of the gender perspective in science, technology and innovation in order to achieve equality between men and women. In accordance with the regulations in force, the necessary measures will be taken to make

sure that UA staff are not subject to workplace or sexual harassment, encouraging behaviours based on good treatment and respect.