GOOD PRACTICE CODE

The goal of the University of Cantabria Doctoral School (EDUC) is to educate its doctoral candidates, that is, the preparation of research professionals in the different scientific disciplines, through the University doctoral programmes. The Good Practice Code of a good researcher is applicable to researchers in training and to administrative and services staff of the EDUC.

All the members of the EDUC must carry out their activities within the framework of this code, following the ethical principles that have inspired the present Good Practices Code. This will ensure that the activities related with the promotion of knowledge adhere to the universally adopted expectations of common good and improvement of the life conditions of humanity.

The common good must prevail over the specific interests of the EDUC's activities, without hindering individual freedom and creativity. Members of the EDUC will assume the responsibilities derived from their professional activity, which should in no case go against the health or dignity of human beings. Furthermore, the scientific activity should be transparent, giving the necessary importance to peer review and the social impact of the research.

The good practice code of the EDUC must be in agreement with the Research Good Practice Code adopted by the University of Cantabria. Good practices affect both the procedures and the results of the research undertaken.

1. PRINCIPLES OF THE EDUCATIONAL ACTIVITY OF RESEARCH PERSONNEL

The Doctoral Programmes will establish an organizational structure clearly defining the responsibilities and means of communication between Directors, Advisors and Research Personnel in Training, as well as the Academic Commissions.

The total number of Researchers in Training under the tutelage of one Advisor must be appropriate and compatible with his or her obligations and commitments.

The total number of researchers in training being supervised by one Thesis Director must be appropriate and compatible with his or her obligations and commitments.

1.1. OBLIGATIONS OF THE ACADEMIC COMMITTEE MEMBERS

a) Ensure that the training activities of the doctoral candidates within their Doctoral Programmes are formulated with the goal of reaching the highest quality and promoting the candidate's development, both from a training and research perspective.

b) Evaluate objectively and periodically both the training and research plan of the doctoral candidates as well as the development of the Doctoral Programme.

1.2. OBLIGATIONS OF THE DIRECTOR OR ADVISORS

a) Provide the Researcher in Training access to appropriate resources and an adequate scientific environment.
b) Guarantee that the research is conducted according to the terms and conditions defined by the funding institution and previously agreed upon by the UC.
c) Inform of workplace safety and prevention regulations, urging them to follow them.
d) Instill in the Researcher in Training the importance of following the Scientific Good Practices Code and analyzing his or her own work.
e) Carry out his or her work so that it can be an example to follow for the Researcher in Training.
f) To be an expert in his or her discipline so as to adequately instruct and direct the Researcher in Training.
g) Promote the cooperation with other research teams, R&D Centres and Knowledge Agents to facilitate the exchange of information between researchers, research itself and knowledge transfer.
h) Recognize the work carried out by the Researcher in Training and be rigorous and fair in the authorship of the publications.

1.3. OBLIGATIONS OF RESEARCHERS IN TRAINING

a) Fully integrate oneself in the assigned educational project.
b) Follow the advice and recommendation of the Advisor and inform him or her of any possible initiatives and advancements in the results.
c) Participate in scientific activities, discussion fora, seminars, etc. related with the development of the work.
d) Recognize the contribution of the Advisor in the oral and written dissemination of the results.
e) Respect and value the management, administrative and other tasks related with the research activity, and make good use of material resources and facilities available.

2. PRINCIPLES OF THE RESEARCH TRAINING ACTIVITY

2.1. FORMULATION OF THE DOCTORAL THESIS

All suggested thesis projects must have sufficient resources to be carried out, and must have previously received all necessary authorizations, according to the nature of the project.

Thesis projects must deal with new, current and competitive problems according to the current state of Science in its different areas and furthermore, ensure the responsible use of the assigned resources.

The experiments and observations must be carefully designed, with rigor and intelligence, striving to use the available resources in the best possible way and adhering to the laboratory work regulations in place at any given time.

The research must be carried out following well-designed work protocols which, if need be, can be examined, understood and reproduced by any researcher in the field. This is even more pertinent when human beings or animals are the object of research or when human or environmental safety could be compromised.

2.2. RESPONSIBILITY IN THE USE AND ADMINISTRATION OF THE RESOURCES AND FACILITIES RELATED WITH THE RESEARCH TRAINING.

Material resources assigned to the research training must be used effectively and efficiently. They must be administered correctly and responsibly to reach the desired objectives, and generate in the community the highest possible degree of confidence.

All the facilities and scientific equipment must be adequate in order to carry out the training activities for the planned research, both in regards to safety of the personnel utilizing them, and the quality of the obtained results.

All EDUC personnel must use the resources responsibly, economically and efficiently according to the safety and work health regulations, while respecting the environment.

Precise instructions for the use of the equipment available in the research training process must be readily available for the users and must be user friendly.

Any equipment used during the research training activities must be in the right conditions to ensure the validity of the results obtained.

Researchers in Training will not make changes or alterations to the facilities without prior knowledge and authorization of the Thesis Director and the Institution in which the research work is being developed.

3. RESOURCE AND DATA MANAGEMENT

The data and observations obtained through the experiments, as well as the materials utilized, are the basis of the results and publications of the scientific research. In the case of any possible doubt, it is required that all information be accessible in order to rebuild the experiments and understand the basis of its interpretation. This implies that the experimental protocols and the original data must be kept by the researcher, research group or the Institution, for a determined period of time, following the current regulations of the Institution in which the work was carried out.

The Institution in which the research work resulting in a doctoral thesis is carried out must support the research activity and the transfer of its results. To this end, it must dedicate part of its budget to expenses related with the advancement of research, as well as the acquisition and maintenance of research facilities, and the provision of adequate storage for the data obtained, thereby ensuring that any expert in that field can understand and reproduce it.

4. HONESTY AND CONFLICTS OF INTEREST

4.1. DEVIATIONS IN THE RESEARCH PRACTICE

Scientific honesty is an essential component of the validity of the research process. To this effect, deviations in this process are the greatest impingement towards the development of the research in all of its phases. Researchers and research personnel in training are responsible for their own practices, but must also report and fight cases of fraud, which may come to their knowledge. This includes cases of fabrication or falsification of results as well as plagiarism of other works.

Thesis Advisors and Directors must orient the Researcher in Training so that he or she does not incur in such deviations, which will be their own responsibility, as the practicing scientist that he or she is as of the precise moment in which they commence their training activities.

4.2. CONFLICTS OF INTEREST

A researcher is considered to be suffering a "conflict of interest" when he or she is concurring personal, financial, professional, political or legal interests, which represent a possible interference with his or her ethical or legal duties.

In the case of a conflict of interest, a Researcher in Training must abstain from participating in the project. The Researcher in training must then communicate the existence of this conflict to the Direction of the EDUC and await its resolution. In any case, the existence of the conflict of interest will be noted in the results or registers of the authorized activity.

5. MANAGEMENT OF DATA, INTELECTUAL PROPERTY, INDUSTRIAL PROPERTY AND STATE OF THE ART PROTECTION

The results obtained within the framework of a contract or agreement signed with public or private institutions will be published according to the clauses stipulated in the document.

If the results obtained by a Researcher in Training can lead to inventions or applications potentially susceptible to be protected due to their commercial interest, the Thesis Director has the obligation to communicate such information to the UC and manage the publication of the results in scientific publications, taking into consideration this potential.

The Thesis Advisors and Directors will adopt measures to increase the awareness and training of Researchers in Training in regards to intellectual and industrial property and their exploitation.

If the Researcher in Training is going to execute and develop an R&D+i project in collaboration, or under contract with another organization, they must, during the negotiation process, safeguard all the pre-existing information and knowledge property of the Institution. The Advisors and Directors must ensure that the necessary contractual documents are subscribed. These documents must include the different interests, tasks or contributions of the parties, as well as the adherence to secrecy and confidentiality assumed by all intervening parties and the assignment of the property of the results generated within

the framework of the project, including the possibility of its adequate and efficient legal protection, and the exploitation conditions.

6. PUBLICATION, PROTECTION AND SCIENTIFIC COMMUNICATION PRACTICES

The publication and dissemination of results in journals or others means is an inevitable part of the research protocol. This includes those results, which, although not in line with the hypothesis established, could possibly be of scientific interest.

The Thesis Directors, Advisors and Researchers in Training, must, when possible, promote the dissemination and access to publications generated during the doctoral process, in order to promote social and scientific advancements.

To this effect, the institutional repository belonging to the UC is recommended. It is managed by the BUC and is completely compatible with traditional scientific editions although it aims to facilitate a wider dissemination.

The Thesis Directors and Advisors will ensure that the publications and communications, which come about as a consequence of the development of the research training activities, meet the indicators below mentioned.

Oral communications on the contents of undertaken research must follow the same rules of honesty as journal publications, and should avoid exaggerating the importance and practical applicability of the results.

6.1. REVISON OF ERRORS

If mistakes are detected in the contents of any publication, these must be publicly recognized in the same media in which it was originally published. A retraction of the entire work is required if serious errors are found.

6.2. NON-PUBLISHED RESULTS

The non-publication of research results obtained with public funding or its exaggerated delay can constitute a type of resource misappropriation or embezzlement, unless the delay is related with the legal protection of the obtained results. The publication of clinical study results with the participation of people is an ethical imperative.

6.3. FRAGMENTED PUBLICATION

The capricious fragmented publication of a unit of research is not acceptable. The fragmentation is only justified due to its length or as a requirement of the Editors.

6.4. REPEATED PUBLICATION

Duplicated or redundant publications are considered an unacceptable practice.

6.5. THIRD PARTY BIBLIOGRAPHICAL REFERENCES

References to all the works directly related with the research must be included both in publication and in patent files or utility models. Furthermore, unjustified or honorific

references should be avoided. References to third party works should sufficiently recognize the merit of these works.

6.6. ACKNOWLEDGEMENTS

The “acknowledgements” section in a publication is strict. The persons or institutions mentioned have the right to decline being included. This same practice is applicable to those mentions referred to as “personal communications”. Any person who has collaborated on the work in any way, but who is not an author (such as support staff) should be appropriately recognized, for example, in the acknowledgements section.

6.7. INSTITUTIONAL CREDITS AND FUNDING

Conference proceedings and any other type of previous presentations, as well as the final publication or results, must specifically declare:

a) The Institutions or centres which the authors of the work belong to or belonged to and where the research has taken place.
b) The independent ethical committees which supervised the research protocol, as well as the specific permits obtained, if pertinent.
c) The acknowledgement of any grants, funding or sponsorships received.

6.8. PRESENTATION IN MASS COMMUNICATION MEDIA

The presentation of results in communication media should always include an explanation for the general public or an adapted part of the publication for non-specialized publics. In this type of public presentations, the names of the authors should always be associated with their institutions and, whenever possible, the grants and funding received should be mentioned.

6.9. PREMATURE PRESENTATION TO MASS MEDIA OUTLETS

The communication and dissemination of research results to mass media outlets is not acceptable, until it has been subjected to peer review, that is, before its acceptance for publication or presented in a specific type of conference (academic communication).

6.10 EMERGENCY PRESENTATION

The previous or premature dissemination or publication is only justified exceptionally in cases of public service. In these cases, the authors must be sure that the results will be subject to an expedited revision in parallel by a scientific editorial. Likewise, the editors of the journals in which the works were going to be published must be informed of the reach of the prior communication.

7. AUTHORSHIP OF PUBLICATIONS

To be an author of a publication, the person must have participated in the proposal and design of the work, participated in the experimental aspects of it, or analyzed and interpreted the results and its discussion based on the current background information on the topic.

All researchers who have participated significantly in the work have the right to be included as authors of the resulting publications.

All authors referenced in a specific publication must have knowledge of its text, and are responsible for its contents unless otherwise specified.

The order of the authors must be executed according to the standards accepted in the discipline in which the work is presented and should be known beforehand by all of them.

The work and contributions of collaborators and support staff should be adequately recognized.

Together with the authors, the institution in which the research has taken place should also be cited. The grants, funding or economic sponsorships received to carry out the research should be declared, and thanked, unless mention has been previously declined.

Likewise, any conflict of interests must be made public.

7.1. RECOGNITION OF PRIOR AUTHORS

Authors must reference in their publications all the previously disseminated works, which have served as background for the publication at hand. References which are not actual background to the work should be avoided.

8. INSTITUTITONAL ENVIRONMENT

8.1. INFORMATION ON THE RESEARCH CONDITIONS

Directors and Advisors will ensure that the Institution in which the research project is carried out promotes the value of the collaboration and the quality of the research. The EDUC will ensure that all its members have access to the Good Practices Code and to the current legislation regarding the different areas of activity. It will promote the awareness of its members towards “good practices in research”.

8.2. EVALUATION CRITERIA OF RESEARCH PERSONNEL IN TRAINING

The EDUC must establish transparent evaluation procedures for its doctoral candidates. To this effect, the EDUC must determine, in agreeance with the current and specific rules and regulations, well defined criteria which will be made public in advance.

The evaluation criteria must be objective, clear and stable, so that they are not subject to discrimination, and respond to the quality or excellence of the work carried out.

Every evaluation, to be fair and expert, must be objective.

8.3. NON-DISCRIMINATORY CONDITIONS

In agreement with the current regulations, the EDUC will promote equal opportunities with no discrimination due to place of birth, race, sex, religion, civil state, opinion or any other condition or social circumstance including sexual orientation, especially when referred to:

a) Access to training and education activities
b) Selection processes and the responsible bodies
c) Access to tender and contractual activities
d) Access to Directive positions and higher level positions.

Likewise, the EDUC will adopt the measures necessary so that its members are not subject to workplace bullying. This will be done by installing work conditions based on respect and good management, ensuring the implementation of instruments to detect and solve any possible deviation to this concept.