Inserm

La science pour la santé
From science to health

Scientific integrity at Inserm

The authorship of scientific papers

Good practices

You are perhaps directing, or participating in, a research project the results of which will be published in a scientific journal. Whether you are a researcher, an engineer, a technician or a student, the aim of this guide is to **make you aware of the problems arising from conflicts over authorship, and to help you anticipate them.**

Inserm (the French National Institute of Health and Medical Research) expects its staff to publish the results of their research in **the best scientific journals,** and also encourages them to abide by **the strictest ethical standards.**

In this context, drawing up **the list of co-authors of an article remains a sensitive subject,** to which ethical rules are difficult to apply, especially given that researchers are mainly assessed on the basis of their name appearing in the articles and their position in the list of authors, attesting to the importance of their contribution to the joint effort involved.

It is therefore a question of considerable importance for each participant, and this may create conflicts in research teams that **can even block the entire publication process.**

At Inserm, **40% of the individual files processed over the last ten years** by the Scientific Integrity Office (DIS) related to conflicts concerning the list of authors.

How can these problems be prevented?

What are the ethical rules to be applied?

When you draft a manuscript for the purposes of publishing the results of your research in a scientific journal, **you must ascribe legal authorship to all those persons who:**

- have played **a substantial role in designing the project and its experimental protocol, in preparing the results, and/or in analyzing and interpreting the results;**
- have taken part in drafting the article, or have **carried out a revision of the text representing a significant contribution** in terms of its intellectual content;
- **explicitly endorse the final version of the manuscript,** both in terms of its scientific content and the list of authors, and **thus accept direct personal responsibility for it;** the latter being also a requirement of the publishers.

These rules of authorship are applied independently of any question of status, and remain equally valid if in the meantime you have moved to another laboratory.

Those persons who have contributed to the research conducted without fulfilling the three criteria above should be **thanked at the end of the article,** if they agree.

How can authorship be determined?

Your authorship can be established on the basis of facts demonstrated through laboratory logbooks, recordings of measurements, exchanges of emails between team members, public appearances, etc. – in other words, all the evidence linked to the research work in which your name is mentioned.

As for your position in the list of authors, this must obviously be agreed by all the other signatories, which means that in the event of any disagreement you will need to convince them, by justifying the importance of your contribution in relation to that of other participants in the project. This is a difficult exercise to carry out, which explains why conflicts arise so often and are so difficult to resolve.

Note that these basic rules are also valid for presentation purposes at conferences (in terms of posters, synopses, talks, etc.), for Ph.D. and research theses.

How best to approach the question?

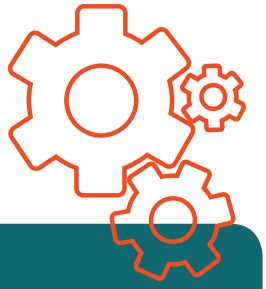
At the beginning of a joint research project

- **Decide with all the other participants in a project how to transmit an accurate impression of each person's contribution to any publications arising from the research work.**

All team members can discuss together to understand the rationale for establishing a link between the expected contribution and a prospective ranking in the list of authors. Such an approach will be particularly important as a training exercise for younger participants who do not yet have the experience required to establish this link.

- **Define the conditions for the participation of each team member in the running of the project and the drawing-up of the publications, in order to help prevent any dispute.**

The project managers must define with all the members of the team the rules for running the project; those rules will specify how each member will participate in the discussions (regular meetings, progress meetings, e-mail exchanges, actively maintaining a means to be reached) and, with regard to the preparation of the manuscript, the time limit by which a contributor's lack of participation will require them explicitly to give up any claim to status as an author so as not to block the publication of the entire team's work results.



In practice

In order to keep a record of the decisions made, many project managers simply draft minutes of the discussions held on the subject of the preparation of the manuscripts. Others make use of various specific tools: tables to assign contributions, lists of definitions of individual responsibilities, agreements concerning intentions in relation to authorship, agreements concerning the final version of the manuscript. These documents, which often include commitments in relation to time limits, are particularly useful for resolving disagreements between authors. Extensive advice and numerous examples of such documents are available on the Internet.

As a project develops

- **Monitor the progress made with the project's content and individual contributions** (rejection of unsuccessful experiments, redesigning of experiments, modification of hypotheses, new experiments planned, etc.).

Project managers must therefore regularly redefine "who has (actually) done what" and "who is (now) going to do what". This provides the opportunity to discuss possible changes to the list of authors. The final version of the manuscript ready to be sent to the publisher can thus be accompanied by a final document detailing "who has done what", known to all and compiled openly as work progresses. It should be noted that more and more publishers ask for this document to be sent to them with each manuscript.

Throughout the editorial process

- **Make sure you stay in contact and can be easily reached.**

Project managers must stay in contact with all contributors, including those who have left the team, so that they can continue to collaborate, if they so desire, in the drafting of the manuscript and its subsequent revision. Reciprocally, all authors must commit themselves to being easily reached at all times.

In short, a constant effort to communicate between those participating in a project is the key.

What to do in the event of...

... a disagreement?

Project managers provide the initial momentum for establishing the list of authors, and it is here that disagreements may arise. These may be caused by **collaborators being included in the list although they do not meet the three criteria mentioned** or, contrariwise, by **contributors who meet the criteria but are not on the list,** or problems may be caused by **the ranking of the authors' names.** Whatever the reasons, such conflicts of authorship are highly damaging, since they block the dissemination of the research results and delay the recognition of the work of all potential contributors. This is why numerous institutions **have introduced ethical rules and working methods designed to prevent such problems, and provide mediations to resolve conflicts,** as is the case with Inserm and its Scientific Integrity Office. It is necessary to compare different viewpoints with reality in order to establish a list of authors that can be accepted by everybody.

... authors with equal contributions?

In an increasing number of cases, the difficulties arise from defining precisely each person's contribution and lead to the drawing-up of lists of authors who are given equal status, in other words **authors "who have contributed to an equal extent" to published articles.** The logical practice is for these "equal" authors to be **listed according to the alphabetical order of their surnames.** This practice, which is rather recent but is becoming increasingly widespread, must be clearly indicated to the readers of the publication concerned, and must be taken into account both in databases and by assessment committees.

Where to find further information?

On the website of the Scientific Integrity Office at Inserm:
inserm.fr/en/professional-area-in-french/scientific-integrity

And particularly in the *Charte nationale de déontologie des métiers de la recherche* (French National Ethical Charter for Researchers):
inserm.fr/sites/default/files/2017-08/Inserm_CharteNationaleDeontologieRecherche_2016.pdf

On the website of Aviesan, the French National Alliance for Life Sciences and Health: **www.aviesan.en**

And particularly the *Recommandations pour la signature des articles scientifiques dans le domaine des sciences de la vie et de la santé* (Recommendations for the authorship of scientific articles in the fields of life sciences and health):
aviesan.fr/mediatheque/fichiers/version-francaise/lire-la-charte-des-publications

For any further information or advice, please contact us:

Ghislaine Filliatreau,
Scientific Integrity representative
+33 (0)6 72 79 93 35
ghislaine.filliatreau@inserm.fr

Michelle Hadchouel, project manager
michelle.hadchouel@inserm.fr

The Scientific Integrity Office at Inserm

Created in 1999, the Office has the following missions:

- to lead on going debate scientific integrity, and to promote national and European sharmonization of adopted procedures;
- to contribute to disseminating good research practices;
- to act as a mediator with a view to resolving scientific conflicts;
- to respnd to queries and handle reports concerning breaches of integrity or ethic.

Complaints may be made to the Office by any Inserm staff member or any person working in an Inserm-accredited body. The Office works in the strictest possible conditions of impartiality and confidentiality. In the case of joint units, the Scientific Integrity Office will investigate the case in conjunction with its counterparts from the other institutions concerned.

Director of publication: Yves Lévy - Design and content: Yann Cornillier, Ghislaine Filliatreau - Graphic design: Frédérique Koulikoff - Editorial secretariat: Marie-Charlotte Ferran – The following have also contributed to this publication: Michelle Hadchouel, DIS project coordinator, Inserm; Claire Hivroz, team leader at the Institut Curie - Photo credits: Inserm François Guenet - Pictograms: noun project - March 2018 - Print :