



dépasser les frontières

Integrity and responsibility of researchers

Ethical views

Michèle LEDUC

President of COMETS (*Comité d'éthique du CNRS*)



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Members of COMETS

Michèle LEDUC
Physicienne
DR CNRS,
ENS, Paris



Françoise BIRG
Biologiste moléculaire
DR INSERM,
Marseille



Danièle BOURSIER
Juriste
DR CNRS
Univ. Paris 2



Didier GOURIER
Chimiste
Prof. Ecole Chimie
-ParisTech



Lucienne LETELLIER
Biophysicienne
DR émérite CNRS
Univ. Paris Sud



Michel CAMPILLO
Géophysicien
Prof. Univ. JF
Grenoble



Rémy MOSSERI
Physicien
DR CNRS,
UPMC, Paris

Experte associée au COMETS
Anne CAMBON-THOMSEN
Médecin,
DR CNRS
INSERM Toulouse



Amy DAHAN
Historienne des sciences
DR émérite CNRS,
Centre A. Koyré, Paris



Pascal PETIT
Economiste
DR CNRS, ENS, Paris



Isabelle DESGUERRE
Neuropédiatre
PUPH,
Hôpital Necker, Paris



Norbert SCHAPPACHER
Mathématicien
Prof. Univ. Strasbourg



Jean-Gabriel GANASCIA
Informaticien
Prof. UPMC, Paris



Pierre-Henri TAVOILLOT
Philosophe
Maître de conf. Univ.
Paris-Sorbonne

Ethics at CNRS

COMETS : *an independent structure which chooses on what to give advices*

Missions

- Develop a reflexion on research practices
- Define principles about individual behaviour and collective attitudes
- Formulate recommendations on the researcher responsibility and duties facing his institution and society

Why to worry about research integrity today

The facts

- **The number of conflicts in strong increase in the academic world**
- **More and more cases of misconduct**
 - appropriation of results found by others
 - alteration of data or creation of false results
 - plagiarism
- **And also, more frequently**
 - wrong attribution of authorship
 - lack of mentorship of students and postdocs

Why to worry about research integrity today

The reasons

More and more pressure on researchers

- Increasing internal and international competition
- *More and more time devoted to answer funding calls*
- Wrong evaluation criteria based on bibliometric indices
- *High impact factor reviews over-estimated*
- Insecure situation of young researchers
- *Running after the scoop in the media*

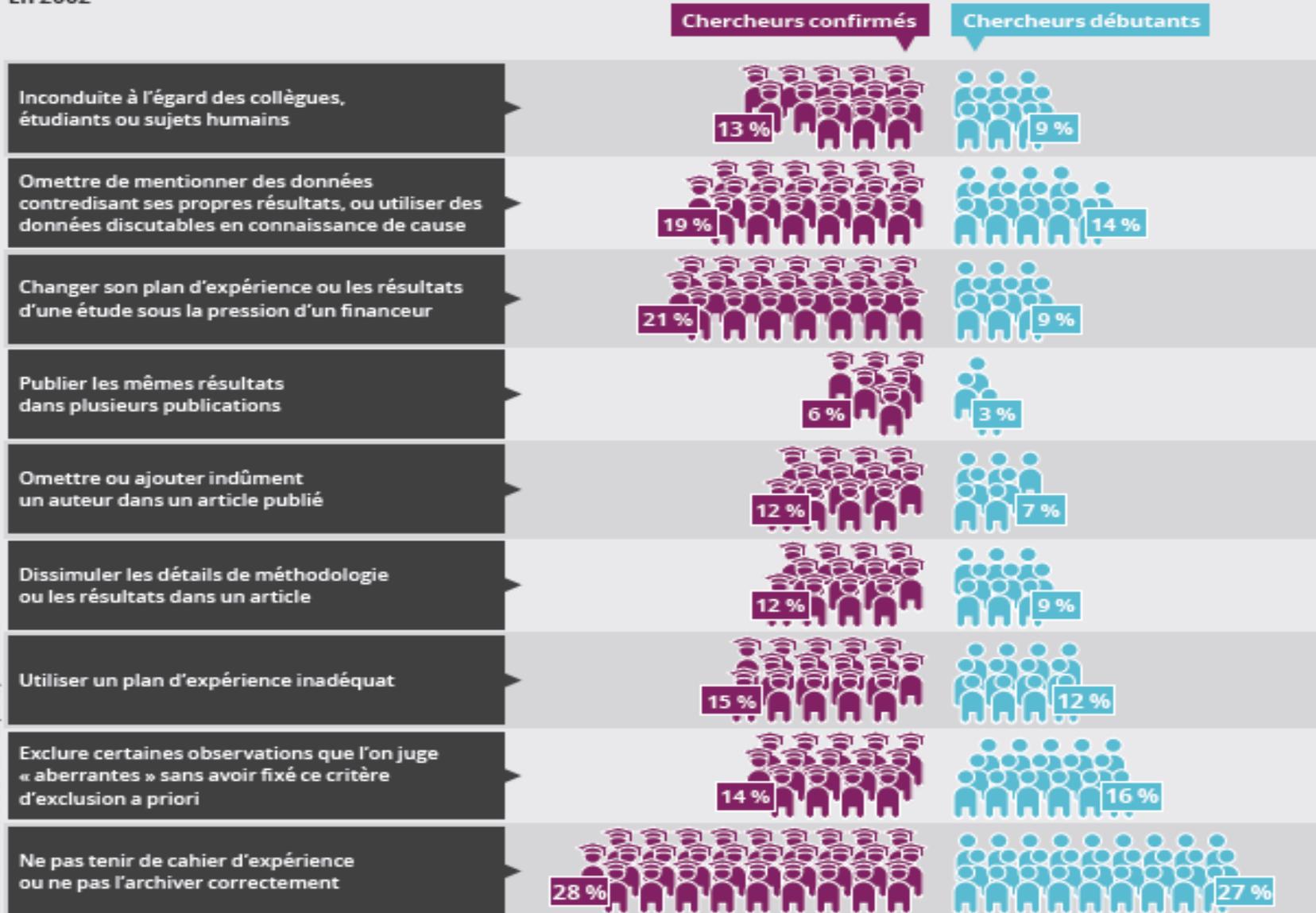
Seven reasons to care about research integrity (RI)

(Science Europe, briefing paper)

- RI safeguards the foundations of Science and Scholarship
- *RI maintains public confidence in research evidence*
- RI underpins continued public Investment in research
- *RI protects the reputation and careers of researchers*
- RI prevents adverse impact on Patients and the Public
- *RI promotes economic advancement*
- RI prevents avoidable Waste of resources

Misconducts acknowledged by researchers in the US

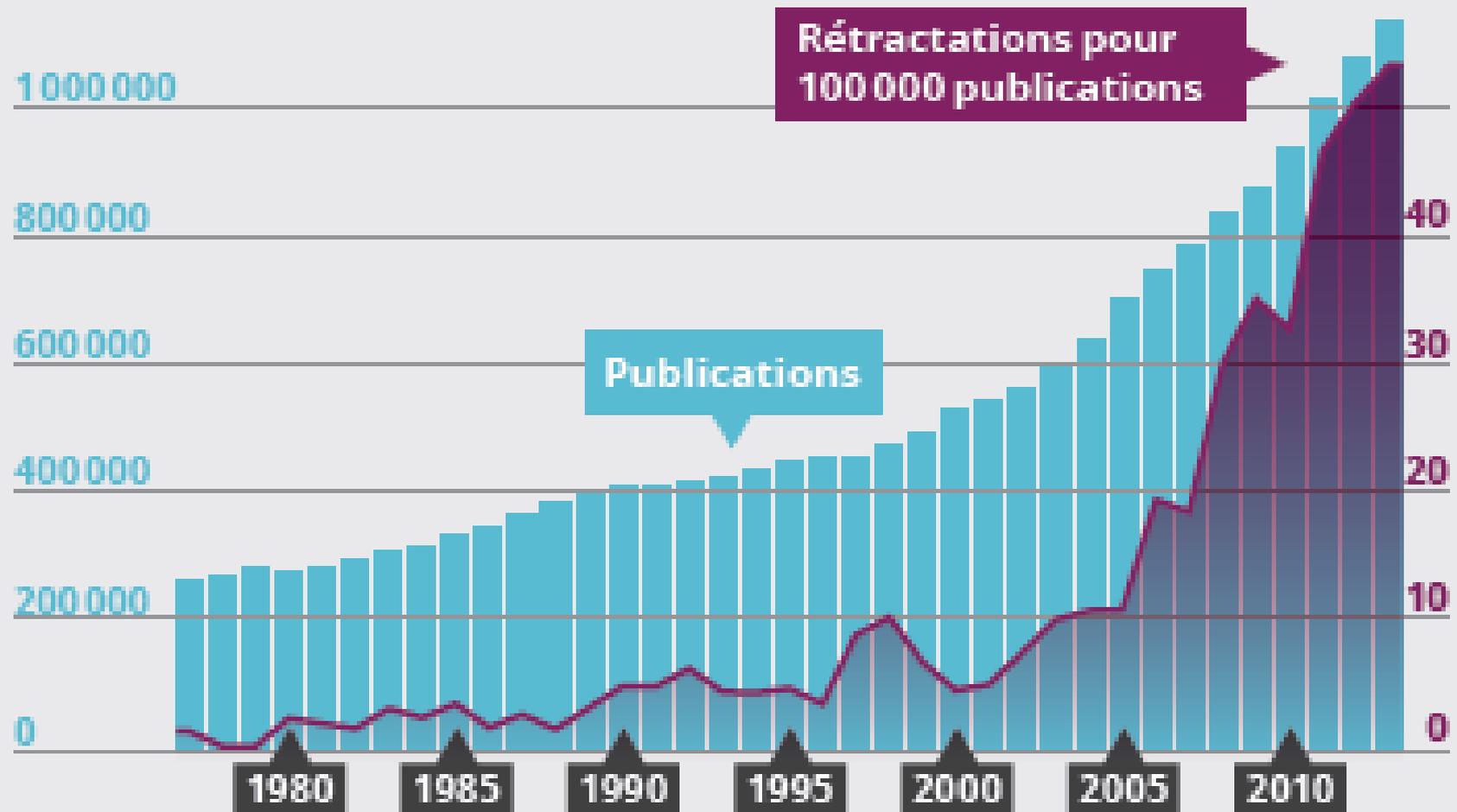
Inconduites reconnues par les chercheurs durant les trois dernières années
En 2002



Retraction of scientific articles (*Retraction watch*)

Nombre de publications et rétractations

De 1977 à 2013



2nd world conference on research integrity

Singapore July 21-24 (2010)

Accepted by CNRS en juin 2012

Singapore Statement on Research Integrity

Preamble. The value and benefits of research are vitally dependent on the integrity of research. While there can be and are national and disciplinary differences in the way research is organized and conducted, there are also principles and professional responsibilities that are fundamental to the integrity of research wherever it is undertaken.

PRINCIPLES

Honesty in all aspects of research

Accountability in the conduct of research

Professional courtesy and fairness in working with others

Good stewardship of research on behalf of others

RESPONSIBILITIES

<http://www.singaporestatement.org/>

The COMETS guide book (*July 2014*)

« Promoting an honest and responsible research »



Provided to the
2000 lab directors (*all disciplines*)

Given and signed each year
to all the newly recruited members

Discussed in the laboratories

<http://www.cnrs.fr/comets/>

Promoting an honest and responsible research:

1. CONDUCTING A RESPONSIBLE RESEARCH

Respect of ethical principles and regulations. Good practices

2. DATA PRODUCTION, PROCESSING AND ARCHIVING

Collecting, processing and archiving personal data, big data, data archiving,

3. PUBLICATIONS

*Authorship, Open access publishing, large impact factor journals in evaluation.
Copyright. Intellectual property, patents*

4. RESPONSIBILITIES OF RESEARCHERS IN COLLECTIVE WORK

5. RESEARCH EVALUATION

6. SOCIAL RESPONSIBILITIES OF RESEARCHERS

Communicating with the media and the public, expertise, conflict of interest

7. HOW TO COPE WITH INAPPROPRIATE BEHAVIORS

Plagiarism, Falsification and fabrication of data, How to deal with frauds

About Authorship



« Introduction to the responsible conduct of research » Nicholas Steneck, drawing David Zinn

Benefits of collaborative research



Mentor-trainee relationship



National Charter of Ethics for the Research Professions



This Charter constitutes a French national version of the main international texts in this field: the European Charter for Researchers (2005); the Singapore Statement on Research Integrity (2010); the European Code of Conduct for Research Integrity (ESF-ALLEA, 2011). The Charter falls within the reference framework put forward in the European research and innovation program, HORIZON 2020.

When
the media
come into
the game...

Des faussaires dans les labos

...
 ...
 ...



*Le Monde,
April 2015*

Research facing social networks, blogs, etc.



The image shows the homepage of PubPeer, a platform for discussing research. The background is a dark blue color. At the top center, the word "PubPeer" is written in a large, white, sans-serif font. Below it, the tagline "The online journal club" is written in a smaller, white, sans-serif font. In the center, there is a white search bar with a magnifying glass icon on the left and the text "Search by DOI, PMID, arXiv ID, keyword, author, etc." inside. Below the search bar, there is a line of smaller white text: "The PubPeer database contains all articles. Search results return articles with comments. To leave a new comment on a specific article, paste a unique identifier such as a DOI, PubMed ID, or arXiv ID into the search bar." Below this text is an orange button with the text "Search Publications" in white. Further down, the text "PubPeer comments on PubMed and journal websites with our browser extension!" is displayed in white. At the bottom, there is a navigation menu with links: "Blog | Recent | Featured | About | Press | Contact | Journals | FAQ | Topics | Privacy Policy | Terms | Login". Below the navigation menu is the copyright notice "Copyright © 2015 PubPeer, LLC". At the very bottom, there is a Twitter social media widget showing the text "Follow @PubPeer" and "4,820 followers".

Discussion forum on published articles

But also: frauds are revealed anonymously

Relations between science and citizens

The context keeps changing

After the second world war: the progress of science is considered the primary factor of economical and social development

In the 70s: the notion of progress is reconsidered in view of new challenges (*environment, energy, health ...*) and the awareness of the limited resources on earth

Today: in the public, admiration but apprehension /contestation

URGENT NEED to build a relation of **TRUST**
between scientists and citizens

Participation of the citizens to science

The upsurge of participatory science in the 20th century

Collection of scientific data by amateurs linked by internet network
Amateurs can work with researchers in co-creation and co-design

Societal benefit:

Useful for the advancement of science
Training for amateurs to scientific methods and rational thinking
Development of vocations for science among the young ones

Ethical concerns

Validation of collected data
Protection of private life
Reward for contributors

Examples in the environmental sciences



Les observatoires de vigie-nature





MUSÉUM
NATIONAL D'HISTOIRE NATURELLE

Communiqué de presse – 19 mars 2015

**Le projet collaboratif « 65 Millions d'Observateurs »
porté par le Muséum national d'Histoire naturelle**



Observatoire Spipoll © M.N.H.N – M. Evanno



Sortie scolaire, Biolit –
Observatoire du littoral © Planète Mer

Renewing the dialogue between scientists and citizens

- **Dissemination of scientific culture**
 - Make a good use of media
 - Work with teachers
- **Controversies around the social impact of technological choices**
 - Increase democratisation of scientific strategies
 - Limitations by the freedom of the researchers
- **Active role of scientists**
 - Help to public controversial debates
 - Disconnect personal views and scientific knowledge
 - Necessary implication of research institutions

***science sans conscience
n'est que ruine de l'âme***
Rabelais, Gargantua et Pantagruel,

