

EDITORIAL

To contribute to the dissemination of great interest topics and controversy among the academic community, the editorial board of Momento Revista de Física decided to reproduce as editorial of number 50, the interesting editorial written by Dra. Maryory Astrid Gómez Botero, editor in chief of Revista Facultad de Ingeniería de la Universidad de Antioquia (No 74 - marzo 2015), for which we have obtained her kind permission.

“Since the beginning of science, motivation for the search of knowledge was simple curiosity. However, nowadays the relationship between science and society has changed. Currently, conducting high quality research in some areas requires expensive equipment and very qualified staff, forcing researchers to compete fiercely for the limited resources and for a greater recognition. The pressure to publish research papers, and the lack of resources, has led to the detrimental of quality and ethics concerns of the published works, sometimes falling into scientific misconducts such as: scientific fraud (misrepresentation in data and results or manipulation thereof, plagiarism), unethical (fictitious authorship, repeated publications) and negligence in publishing (bibliographic mistakes) [1, 2].

There are some requirements that must be considered in any investigation such as: i) the intrinsic need for research, ii) the methodological quality (scientific rigor) and iii) the ethics; certainly, *not all that is technically possible is ethically valid* [3]. Research conducted with these requirements is a fundamental tool for the development of knowledge, without forgetting that the final step in the research process should include the presentation of the results to the academic and scientific community in the best possible manner. Now then, the author's motivations for publishing their work are usually diverse in nature, as to contribute to the advance of the art and knowledge, gain prestige, show intellectual ability, propose a solution to a problem, achieve financial reward, accomplish agreements, etc. However, when personal interests to publish are placed above to the society's interests, it could lead to conflict of interest and unethical conducts; what unfortunately is becoming more common in the scientific community. Whatever the author's interest to publish is, every scientific publication must give priority to the general interests of humanity; relying on criteria such as honesty, authenticity, accuracy, originality, quality of results and ethical principles.

To investigate ethical issues and misconducts, the scientific community has created several agencies and consultative institutions such as the Committee for Scientific Integrity for US, founded in 1990, or the Ethics Committee for Sciences of the Centre National pour Scientific Research for France, founded in 1994, or similar centers in Australia, Denmark, Finland and Norway, among others [2]. In addition, there are agencies that focus on the publishing activity as the Committee on Publication Ethics (Cope), Council of Science Editors (CSE), World Association of Medical

Editors (Wame) and the International Committee of Medical Journal Editors (ICMJE), originally known as the Vancouver group [4].

Next, I describe some concepts related to the academic and scientific fraud:

Misrepresentation: when the authors “make up” all or part of the data of a study submitted for publication [3].

Falsification and data manipulation: consists of manipulating research material, equipment, or the different processes involved in the research, as well as changing or omitting data to obtain a favorable result to the interests of the authors [1, 3].

Plagiarism: is the appropriation of ideas, processes, results, or phrases of other authors and present them as original work without citing the source [1, 3].

Self-plagiarism: using texts from the author himself, copied from previously published works without mentioning the original source.

Fictitious authoring: it is a practice to include as an author a person who did not participate in the original work, nor contribute substantially to the development of research [3].

Ghostwriting: occurs when people who have substantially contributed to the work are not listed among the authors [1].

Duplicate publication: consists of the publication, in part or in whole, of a work previously published, in print or electronic media. It is performed without the knowledge of the journal’s editors involved [3].

Salami publication: when a work is subdivided into smaller portions to publish them as separate articles. Such isolated papers do not make a substantial contribution and difficult the work of other researchers [2, 3].

Meat extend publication: are papers that are artificially duplicated by the technique of adding results to previously published manuscripts. The article is published with the same conclusions of the previous one.

References

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