Dr. Ain-Elmar KAASIK Estonian Academy of Science

The Role of Publishers, Funders and Research Institutions in Research Integrity^{*}

Abstract

There is no common, worldwide definition for research misconduct, conflict of interest or plagiarism. Fortunately, misconduct in research is not a common occurrence. However, the rules for funding research and for promoting academic careers are predominanly based on the "past performance" of the applicants, *i. e.* solely on the bibliometric data. This creates questionable practices of "salami slicing" of the results to make more publications or issues of self-plagiarism, especially for the early-career researchers. Fostering frank debate about misconduct at the institutional level is a basic mission of the tutors and opening more tenure track positions to the qualified early-career researchers should be considered by the funders. **The Code of Ethics for Estonian Scientists** does not foresee any formalized mechanism to deal with individual cases of research misconduct. Nevertheless, the principles listed in the **Code** require researchers to adhere to the highest professional standards and preserve integrity in all steps of research process¹.

The term *integrity* emphasizes the wholeness or intactness of a moral creed or attitude. It derives etymologically from the Latin word *intactus*, meaning untouched. The integrity of research relies on the scientific method which includes a great variety of procedures and data collecting practices. However, a general consensus has been reached for the reliability and transparency of the

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¹ Estonian Academy of Science (2002). Code of Ethics for Estonian Scientists. http://www.akadeemia.ee/_repository/File/ALUSDOKUD/Code-ethics.pdf

results, and also for the independence, honesty and non-biased interpretation of the scientific evidence. Fortunately, misconduct in research is not a common occurrence. Nevertheless, there are several temptations and pressures to misbehave. Competition for the research funds and especially for the positions is definitely a great stimulus and challenge but competition as a major factor in the research environment can engage the early-career researchers in the different forms of misconduct. It does not necessarily mean any of the worst forms, *i. e.* fabrication, falsification, and plagiarism – there are several other forms of objectionable activities that deserve attention, which could be combined under the term of "bad practice".

The rules for funding research and for promoting academic careers are predominantly based on the "past performance" of the applicants, *i. e.* solely on the bibliometric data. This creates questionable practices of "salami slicing" of the results to make more publications or issues of self-plagiarism, especially for the early-career researchers. However, even old professors are not immune for the scientific behavior that does not correspond to the best scientific practices. Those who witness misconduct face difficult decisions. Nevertheless, fostering frank debate about the misconduct at the institutional level is a basic mission of both the tutors and the early-career researchers. Competition for funding and for positions should not be ignored but the funders ought to pay adequate attention to the concept and aims of the research project even if the "past performance", reflected in the bibliometric data is somewhat less distinguished. Opening more tenure track positions to the adequately qualified early-career researchers should be considered by the funders and institutions. However, this is justified only if there is enough tight competition for these positions.

A working group set up by the Estonian Academy of Sciences drafted a *Code* of *Ethics for Estonian Scientists*. After broad consultations with the scientific community in Estonia, the code was adopted in December 2002 by the EAS General Assembly (1). The code lists a set of principles to which Estonian researchers must adhere to in their activities. The code is divided into six parts, each addressing a specific aspect of research ethics: 1) general principles; 2) scientific research; 3) self-regulation in the scientific community; 4) the scientists as a mentor and as a student; 5) the scientist as an expert; and 6) the scientist in society.

The Code of Ethics for Estonian Scientists does not foresee any formalized mechanism to deal with individual cases of research misconduct. Nevertheless, the principles listed in the code require researchers to adhere to the highest professional standards and preserve integrity in all steps of research process.