An opportunity for more open scientific discussion?

In late April of this year, Professors Didier Raoult and Eric Chabrière announced their intention to file a complaint for harassment, attempted blackmail and extortion against Elisabeth Bik, a microbiologist now specialising in the critical review of published scientific articles, with charges of collusion levelled against Boris Barbour, a CNRS neurobiologist and administrator of the PubPeer website, which hosts comments from (often anonymous) users. These comments may concern questions of ethics (failure to abide by applicable patient protection regulations), deontology (failure to declare conflicts of interest) or research integrity (manipulation of images). It is not the business of OFIS to comment on individual cases, since the handling of specific allegations of violations of research integrity is first and foremost the responsibility of the research organisations involved. Nevertheless, this case serves to highlight some new and significant issues relating to scientific best practice.

We should perhaps begin by reiterating the fact that the scientific method implies an ability to engage in a critical discussion of results, their interpretation and the conditions in which they were attained. Such discussions must be dispassionate, impersonal and backed up by verified facts. Previously largely the preserve of academic institutions, and particularly the peer review process for manuscripts submitted for publication, these discussions may now take new forms. They may also use new means of dissemination, and involve new participants, thus contributing to the ongoing process of opening up science. Scientific output is now disseminated more rapidly and exposed to new forums of critical discussion: ahead of publication, with the sharing of "preprints" on open-access servers,¹ and after the traditional peer-review process on platforms allowing users to comment on publications, which are also open to all comers. The result is a trend for more transparency and increased public visibility of the self-correction processes at work in academia.

This opening up to a broader critical analysis represents a major opportunity for the sciences to strengthen the systems put in place to guarantee their reliability and credibility. Nevertheless, this assumes that new forums of scientific discussion will uphold the inviolable principles of factual, dispassionate and impersonal debate. As long as critics abide by these principles, researchers have a duty to engage with and respond to their remarks with utmost diligence, applying the same principles in return. Although all involved remain entitled to defend themselves by legal means, the use of such measures should not be regarded as a means of escaping the duty of academic debate.

At the institutional level, questions arise as to how the vigilance and postpublication correction functions performed by such blogs and specialist platforms can be effectively integrated into the research ecosystem. If it can be clearly established that such functions have positive consequences for the quality and reliability of academic output, then why not consider some form of official recognition, or even bring them under the aegis of academic institutions? This would enable the academic world to fully embrace these new forms of critical discussion, and collectively establish best practices along the

Founded in 2017 as a department of Hcéres, the French Office for Research Integrity (OFIS) is a national body charged with promoting and

promoting and coordinating policies concerned with research integrity. The work of OFIS takes three main forms: observation, resources, reflection and forward thinking. OFIS is led by Stéphanie Ruphy. The French Research Integrity Council (CoFIS), chaired by

Olivier Le Gall, guides and supervises its work. lines of those already in place for existing processes of self-correction. We might, for example, come to regard responding to post-publication comments as part of a researcher's normal responsibilities, on a par with traditional forms of peer review. We might also do more to support pertinent interventions by actors who are not, or no longer, active researchers, acknowledging their legitimacy and usefulness.

Such developments would represent a significant step forward for the institutional efforts already deployed by the research community in recent years, committed to improving practices in matters pertaining to ethics, deontology and research integrity. OFIS looks forward to making further proposals in this respect.

¹ On the subject of the vigilance required when dealing with preprints, see the CoFIS statement dated 30 June 2020. <u>https://www.hceres.fr/sites/default/files/media/downloads/cofisjun20_ri-os-covid_fren.pdf</u>