

It's a Bad Bad World ...

... in which today's life scientists are living and working. At least, this might be your initial impression when flicking through the pages of this *Lab Times* issue.

Take, for example, Bettina Dupont's article on the concept of free movement of researchers within the European Research Area (p. 20). In 2000, EU politicians promised to pave the way for an easy and unbureaucratic mobility of scientists across intra-European borders as well as to remove all hurdles that might cause them career obstacles, financial loss, pension problems, etc. A recent survey on the topic, however, has come to the conclusion that ten years later this has basically turned out to be just another chapter of the old but never-ending story "Politicians once promised but not much has since happened".

In contrast, a more recent development has meanwhile seen dubious 'businessmen' obviously jumping at the chance to lure money from the pockets of over-credulous scientists. One blatant example is described in the news section of this issue, whereby scientists were invited to participate and pay quite a hefty price to attend what turned out to be a fake congress in Shanghai (p. 6). Unfortunately, some actually fell for it.

However, let's not only blame the outside world for bringing all the 'badness' into science. Apparently, the proportion of 'homemade' misbehaviour is also steadily rising. Within recent weeks, at least three studies have reported on different aspects of scientific malpractice, each of them describing an increasing trend in 'bad behaviour'.

The first is a meta-analysis of 18 studies on scientific misconduct – with rather disturbing results. One in 50 researchers have admitted to serious forms of misconduct such as making up or modifying data to improve their results. When asked about "less serious" acts, such as dropping data points to achieve a better-looking graph or using improper study-design if pressured by a funding agency, one in three researchers were guilty. More details and conclusions on pages 24-27.

The second study, described in our news section (p. 8), was conducted to reveal some numbers on image manipulation in scientific articles. The result: in six out of 48 papers published in *PLoS Biology* or *PLoS Medicine*, images showed clear traces of digital manipulation. Interestingly, the investigators found that in 25% of the cases, authors of "problem papers" mysteriously lost their original data as well.

Study no. 3 is not covered in this issue but has already been presented in an editorial on our website www.labtimes.org. For the many who haven't yet read it: we learn from the study that, apparently, researchers are much more reluctant to share raw data with their colleagues than they are actually obliged to, after publication (*PLoS ONE* vol. 4(9): e7078).

In the – admittedly – small study, the authors of ten papers, published in *PLoS Medicine* and *PLoS Clinical Trials*, were request-

ed to provide the raw data on which the articles were based. What thereafter actually happened (or didn't happen), as summarised by the authors, was that "[...] three investigators did not respond, four authors responded and refused to share their data, two email addresses were no longer valid and one author requested further details. A reminder of *PLoS's* explicit requirement that authors share data did not change the reply from the four authors who initially refused. Only one author sent an original data set".

That meant, the vast majority of authors clearly violated *PLoS's* strict guidelines concerning data sharing as a requirement for publication. Since the majority of scientific journals similarly require "open access" to the raw data used for a publication, one has to ask whether those guidelines have been virtually ineffective, so far.

As the author of our online editorial further wrote, the most interesting aspect for the moment might be how *PLoS* actually responds. If taking the violations of their own rules seriously, theoretically, the *PLoS* people would have to publicly pull the corresponding papers from the journals. "Such a case has not yet arisen, however, there's a first time for everything. Perhaps, *PLoS* should seize this opportunity to set a deterrent example. It seems necessary."

Well, those were dull days for our Chief Ed whilst working on manuscripts about the 'badness' in life science research. So, immediately afterwards, he decided to spend a whole day out of the office and attend a small but sweet scientific conference, which happened to be taking place nearby. You know the kind of conference: beautiful setting, perfect accommodation, smart people, interesting topics, fascinating talks, stimulating discussions, rounded off with delicious food and enjoyable evening drinks. Definitely no place for any scientific misbehaviour, publication malpractice or ethical lapses – or so he thought.

And so it came that around the afternoon coffee table, our Chief Ed started discussing one of the previous talks with one of the better known scientists. At the end, he stated, "Very interesting idea." "Do you want to know where he got it from?" his counterpart suddenly asked with a sour grin. And before our Chief Ed could answer, he continued, "He was the grant reviewer for one of my former postdocs who had applied for exactly this project – and he rejected it!"

"You can go wherever you like", was the Chief Ed's somewhat resigned thought. "There's an 'evildoer' lurking around every corner!"

