

Industry and academia

This refers to the Guest editorial by Gangan Prathap¹ and the rejoinder by Vidyasagar².

If we look at the issue in a broader perspective, every profession has coolies – cyber coolie if employed in an IT company, lab coolie if one works as a scientific worker and so on. One should understand that because of the opening of the Indian economy with less Government interference, many jobs were created in the Indian IT industry. But for this our young professionals would have been unemployed or the cream would have gone to other countries to do the same work. Without

the IT industry, what would be the fate of the educated, talented, middle class Indian youth?

It is unfortunate that in India unlike in the West, there is a wide gap between academics and industry. The industry blames the scientific community for using tax-payers' money in publishing just papers and producing graduates for overseas market without contributing anything in return, while the scientific community blames the industry for not investing and doing scientific research. It is high time industry and academia join together to

address these issues without blaming each other.

-
1. Prathap, G., *Curr. Sci.*, 2005, **89**, 1063–1064.
 2. Vidyasagar, M., *Curr. Sci.*, 2005, **89**, 1645–1646.
-

N. MUKUND

535, 10th Main Vth Block,
Jayanagar,
Bangalore 560 041, India
e-mail: nmuk@eth.net

Journal of negative results

Writing a manuscript essentially presents a mode of sharing information about the discoveries in a laboratory. This scientific communication is in the interest of making diseases, disorders, molecular mechanisms, etc. more predictable with least amount of time, effort and money.

Many experiments are performed during a tenure of research and frequently only positive results are reported. The negative results, though informative, are reported less often or documented, if they have a direct relation with the concerned experiment. For example, if a negative result is obtained after performing an interaction assay of two proteins, other targets are investigated. However, the former experiment may go unnoticed, and another scientist may attempt it in his/her laboratory. Or for example, one may find that an antibody for a certain batch number from a commercial antibody supplier does not work. Then efforts of performing a Western blot may actually go waste. This result can also be brought to the notice of research workers, which can aid in selecting a proper commercial antibody. Reporting such results could drastically decrease the workload on researchers and make negative result more useful.

The contribution of negative results in scientific research has been recognized recently; journals have started publishing negative results predominantly since 2002. However, they do not cover all aspects of negative results. Some of these journals are:

- *The Journal of Negative Results in Speech and Audio Sciences*, started publication in 2004.
- *Journal of Negative Results in Ecology and Evolutionary Biology* initiated publication in 2004.
- *Journal of Negative Results in Biomedical Science*, started in 2002.
- *Journal of Articles in Support of the Null Hypothesis* (Negative Results in Psychology) initiated in 2002.
- *The Journal of Negative Observations in Genetic Oncology (NOGO)* (publishes the absence of mutations in genes implicated in cancer and some rare reports of absence of hypermethylation), started in 1997.

The editorial boards of these journals include renowned scientists, which increases the importance of negative results in science. However, these journals have published very few articles.

I believe there should be only one journal of negative results, common to all disciplines of science. In such a journal, results (whether small or elaborated), can be screened (not extremely rigorous) for reliable data to be published. This journal can actually become a platform for those who want to share ideas and discuss their results, which do not follow empirical dogma. It can also publish experiments as mentioned earlier. *NOGO* makes a database of mutations; likewise a database of chemicals examined on different cell lines/*in vivo* systems, which

failed in anticancer, chemopreventive and other trials can be published.

The right prediction, if the reported interpretation of a result were a mistake, would be an interesting task and debatable. Nonetheless I believe that the results of experiments are never wrong. Reporting an uncommon finding (appearing negative) may also lead to a breakthrough, e.g. Barbara McClintock's results, which were initially not appreciated by many scientists^{1,2} and considered as negative. When her work was published, McClintock won a Nobel Prize (Physiology or Medicine in 1983). This journal of negative results can initiate publishing such relevant findings to aid the rapid growth of science.

-
1. http://profiles.nlm.nih.gov/LL/B/B/G/C/_/l/lbbgc.pdf
 2. http://profiles.nlm.nih.gov/LL/B/B/G/D/_/l/lbbgd.pdf
-

DEEPAK KANOJIA

Biochemistry and Cell Biology,
Advanced Centre for Treatment,
Research and Education in Cancer,
Cancer Research Institute,
Tata Memorial Centre,
Kharghar,
Navi Mumbai 410 208, India
e-mail: dk_actrec@yahoo.co.in