ELSEVIER

Contents lists available at ScienceDirect

Gynecology and Minimally Invasive Therapy

journal homepage: www.e-gmit.com



Editorial

A call to end the beauty contest in China's science and technology





When it comes to the number or variety of awards and prizes in science and technology (S&T), China is undisputedly second to none in the world. Each and every year, countless awards and prizes are handed out at the national, provincial, municipal, and, in many cases, institutional levels, based purportedly on innovation and contribution to the society. The Chinese Medical Association and its various branches also hand out many awards every year.

What is truly distinctively and uniquely Chinese is that, to be a winner, contenders have to apply for these awards/prizes themselves. They have to convince the review panel, in written application and subsequent oral presentations often characterized by unveiled immodesty and glowing superlatives, that they are worthy recipients. Because these awards/prizes carry some aura of prestige, and since winning some national awards is a prerequisite for membership of the prestigious Chinese Academy of Science which, in turn, carries a great deal of perks and trappings and a lot of political clout, the stakes are often high. Naturally, many researchers vie fiercely for these honors, even though in many instances the review process is long, arduous, and often grueling, and requires several rounds of oral presentations.

After the end of the Cultural Revolution that ravaged S&T in China, many S&T awards/prizes were handed out and these have played positive roles in jump-starting S&T research. After over 35 years, however, these awards/prizes seem to have outlived their purpose. The whole process of competing for awards/prizes has now become a beauty contest, seriously undermining the advancement of S&T in China, for the following reasons.

First, perhaps without exception, all the awards/prizes require the researchers themselves to initiate their applications, which are then screened by various administrative hierarchies before making it onto the short list. As these awards/prizes sometimes carry substantial honor and prestige, being a winner is effectively tied to professional gains and tangible and intangible benefits, monetary or otherwise. This provides a strong inducement for almost all contenders to do whatever it takes to get the prize, opening the door to various irregularities. To get ahead, some unscrupulous scientists pad their dossiers, others make misleading claims, misrepresenting their achievements or even misappropriating others' discoveries, or even make false or fraudulent claims. The Hanxin incident, in which an unscrupulous scientist sanded off the Motorola logo on a digital signal processing microchip, posed it as his own invention, and then garnered numerous awards and tons of funding, is a prime example.

One case in point: this year's candidate list for the National Science and Technology Awards contains an application that purportedly used traditional Chinese medicine (TCM) successfully to treat polycystic ovarian syndrome (PCOS; http://www.nosta.gov.cn/ upload/2014slgb/jb_234/303-4013.html, accessed on March 13, 2014; each candidate application is put online for public comments for 40 days). It claims to have elucidated the mechanisms underlying ovarian insulin resistance manifested by patients with PCOS. In addition, it claims to have elucidated the mode of action for several TCM medicines in treating PCOS, and demonstrated increased insulin sensitivity after treatment with TCM. More remarkably, it claims that, after treating over 16,000 PCOS patients in nine hospitals throughout China in a time span of 4-20 years (during which the diagnostic criteria of PCOS have been changed at least once), the patients who received TCM treatment had an average ovulation rate of 80%. The pregnancy rate, after treatment, reached an average of 27% and could be as high as 66.7%, higher than that achieved using the prevailing Western medicine. Dr Richard Legro of Pennsylvania State University, a leading PCOS expert, dismissed such claims, saying that the claims for the mechanism and efficacy have no merit (R. Legro, personal communication). It should be noted that such an example is by no means isolated or rare.

Second, the process is a hotbed for rent extraction, rigging, and other irregularities. As scientific misconduct appears to be rather rampant in China and rent extraction is quite common, the ostensible screening process through various administrative levels opens the door for various irregularities. Even in the last round of screening, when the application is reviewed by putative experts, bribing, rigging, and under-the-table dealings are not unheard of. One rumor says that, on one occasion, a contender heading a hospital dispatched 20 students to Beijing to *tag along* with the reviewers, presumably exerting undue influences through offering financial incentives.

Third, as of now there are simply way too many awards/prizes across the country. Too many hard-working scientists/clinicians,

Conflicts of interest: The author declares no conflicts of interest.

who are already complaining about dubious evaluation procedures and limited time for research and who are seriously pursuing their scientific endeavors, find the competition at various levels simply a nuisance distraction, putting more undue pressure on them.

Lastly, the kaleidoscopic variety of awards and prizes would inevitably send the wrong message to young scientists that winning awards and prizes is the ultimate goal of S&T and the only way to get ahead. Clearly, this is not the case.

Indeed, despite the fact that tens or perhaps thousands of awards/prizes have been granted in medicine in the last 30 years, very few have actually made any tangible impact on patient care, or have been well recognized by Western scientists.

This seems to be unfortunate, since these grandiose discoveries should have been better recognized by scientists/clinicians outside China. In the last 60 years, the Chinese have benefited, almost in a unilateral fashion, from the hard work of their Western colleagues and a certain reciprocity would be more compatible with China's size, population, and economic power. If, by contrast, the claims are exaggerated, misleading, misrepresented, or simply fraudulent or false, then the awardees cheapen the hard work carried out by many dedicated scientists, making a mockery of the intelligence of their peers at home and abroad.

No country in the West has this kind of system for promoting S&T development. The way that awards/prize winners is scored and judged is uncannily similar to a beauty contest, in which each contender tries to parade his/her best but rather superficial part to claim the throne. S&T advances not because of the beauty contest, but rather because of the hard work of countless dedicated scientists/clinicians in their endeavors in pursuing the truth. S&T

advance would be greatly impeded if it is sidetracked by numerous beauty contests that are often extravagant and wasteful.

More disturbingly, the exaggeration, misrepresentation, misappropriation, or even fraud, is probably not the worst part of this beauty contest. The worst part may be that such a contest would generate a culture of brazen and shameless self-promotion, self-serving, and of getting ahead at all costs. In addition, few, if any, would voice anything about these irregularities when fraud is suspected for fear of retribution. Indeed, when the putative epistemic authority is established effectively by beauty contests, it would be foolish not to pad one's own dossier. When this happens, everyone is living in a glasshouse and no one is willing to cast stones at the sinners. If this keeps on, pretty soon all good coins will be driven out by the bad ones.

It is now time to re-evaluate the merits, if any, of the beauty contest and perhaps to end it once and for all.

Sun-Wei Guo* Shanghai Obstetrics and Gynecology Hospital, Fudan University, Shanghai, China

* Shanghai Obstetrics and Gynecology Hospital, Fudan University Shanghai College of Medicine, 419 Fangxie Road, Shanghai 200011, China.

E-mail address: hoxa10@gmail.com.

25 July 2014 Available online 10 September 2014