Opinion Paper

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Nobelitis: a common disease among Nobel laureates?

Abstract: Winning a Nobel Prize is a great personal achievement. Some Nobel laureates may consider that their award is a certificate of competence in any field. This may prompt them to undertake projects or accept positions which are beyond their capabilities. Since Nobels are awarded when the laureates have usually passed their prime, caution should be exercised when these individuals are offered highly influential positions in academia and elsewhere.

Keywords: audacity; Nobelitis; Nobel Prize; scientific competence.

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Scientists may win many awards in their lifetime, but one award that stands out among all others is the Nobel Prize. Those few who manage to win this award become instant and eternal celebrities. The award is life-changing since suddenly, everybody wants to invite them for all sorts of events from scientific, to cultural, to political. If you are an English subject, the Nobel guarantees knighthood by the Queen and just about every Nobel laureate secures a full-page obituary in *Nature* and *Science*.

Does the Nobel Prize changes the winners themselves? And how? Over the years, I observed, mostly through published interviews and media coverage, that many Nobel laureates (but certainly not all) contract a disease which I call "Nobelitis". The most common symptom of this disease is megalomania, and a sense that the gold medal from Stockholm is a passport for saving the world, whatever this means. The Nobel seems to provide reassurance that the laureates have some super-human powers that they did not realize before, and that the prize will help them to go on and do even bigger and better things.

We should remind ourselves that most laureates receive the prize usually 20, 30, 40 and sometimes 50 years after their seminal discoveries, and at the time of the award, most of them are well beyond their prime. It has been reported that even the likely greatest genius of all time, Albert Einstein, who spent the last part of his academic career at Princeton University, was rather inactive, spending most of his time alone in his office, behind a closed door. Another fact is that the Nobel laureates represent the lucky few who have been recognized by the Swedish Academy, among thousands of equals, or nearly equals, in discovery and scientific capacity. Many awards have been won for a single, usually serendipitous discovery that had high impact, by scientists who have subsequently produced relatively little for the rest of their careers.

There are many examples of laureates who seem to suffer from Nobelitis, and I can mention here a few, to make the point. Fredrick Banting, who discovered insulin, after winning the Nobel Prize in Physiology or Medicine in 1923, tried to cure cancer (unsuccessfully) with little knowledge of this disease. One of the most versatile minds of the 20th century, Linus Pauling, a double Nobel Prize winner, claimed that he could cure cancer with megadoses of vitamin C and was subsequently ridiculed for the sloppy design of his clinical trials, making the point that brilliance in chemistry and ignorance in epidemiological design can bring about disastrous results.

Some more recent examples of Nobelitis include the case of Egyptian-born laureate Ahmed Zewail, who is spearheading an effort to create a science and technology city in Egypt that bears his name; reminiscent of actions similar to those of ancient Egyptian emperors or communist dictators (remember Leningrad?). While Zewail is undoubtedly a brilliant chemist, his name was also mentioned for the Presidency of Egypt and he now has serious clashes with the Nile University regarding building ownership in his city [1].

Nobel Prize winners can gain quick political power since politicians have faith that the Nobel Prize should be a reliable certificate of competence. For example, Sir Paul Nurse has recently become the most powerful scientist in the UK and serves as President of the Royal Society, as well as Chief Executive of the newly formed Francis Crick Institute, one of the future largest biomedical research campuses in Europe (if not the world) with claims that it will have 1500 staff and an operating budget of over \$150 million [2]. Nurse's symptoms of Nobelitis include his statement, "I am rather arrogant, I prefer to do something which wouldn't happen unless I was doing it". His superhuman abilities are also illustrated by his claim that he is still running an active research laboratory. One wonders how somebody will find time to supervise a laboratory, read the literature and think, while leading the Royal Society and the Francis Crick Institute.

Audacious individuals are a valuable species in science but I have written on some dangers associated with audacity in a previous commentary [3].

It seems that the value of winning a Nobel Prize is overrated by the public, scientists and politicians alike. Winners are honored for discoveries done in the past and in a very specific area. The award does not guarantee contemporary competency, or in other fields, including big administrative jobs. The aura of the prize allows

winners to secure powerful jobs and access to huge sums of money. The associated extraordinary confidence could lead them to believe that whatever they may think, it will be a good idea. Not many will confront a Nobel Laureate! To this end, some Nobel laureates could be a dangerous species. A more realistic vision of the actual abilities of Nobel laureates to lead in science, administration and public policy is necessary. As for the Nobelitis, my best bet for avoiding it is through prevention, since I cannot see that our current therapies would be effective in curing it.

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