

A Beautiful Mind

The boy looked at me with incandescent eyes, "Shall I take up the scheme and be a Clinician-Scientist?"

What should I say? I had known the kid, since, well, he WAS a kid in secondary school. I was his Science Quiz team coach. To a certain extent, I got him into this mess. Months and years of training after school: studying minutiae of physics, chemistry and biology. Mugging textbooks two years ahead of his age. Sec. 3 in Sec. 1, Sec. 4 in Sec. 2, Pre-U 1 in Sec. 3, and so on. After a while in the Science Quiz business and a few trophies later, you actually believe you are destined for science, you are "A Beautiful Mind". (OK, maybe not so good-looking like John Nash, I mean, Russell Crowe.)

At 28 now, his dream/delusion hasn't left him. Graduated on the Dean's list, he is now offered a scholarship to do a PhD programme to go with his MBBS. In other words, he will become a MD/PhD if he takes up the offer. In plain English, the kid hasn't grown up yet to the realities of life. Me? I woke up when some jerk raised my university fees from \$3,900 to \$10,800 over 5 years of medical school. Show me the money, chum.

If only lies were so easy for me, I would say an emphatic "yes" to the kid. But if age and experience haven't dulled me, the disappointment in other lives has certainly made me an involuntary cynic.

This is a little before my time, but I was told two stories. One was a surgeon who went to train in Britain in a certain branch of surgery. He was so good he had an audience with the Queen. But hey, when he came back, there wasn't a job for him and he had to cross the Causeway to develop the discipline he was trained in.

Another was an internist and a Colombo Plan Scholar. Likewise, he came back to find out they did not have an opening for the subspecialty he was trained in. He quit Singapore and became a citizen of the country that trained him in medicine.

The key point here is follow-through. Robert Frost may want us to walk the path less travelled, but in Singapore, the path may not lead you to anywhere.

Because there is poor follow-through, as the above two examples suggest. We have the will and money to produce MD/PhDs, but then what? Will there be enough funds, not just to produce a MD/PhD, but to sustain him for life? Follow-through requires commitment.

The American model of clinical research excellence is more than producing PhDs. It's a whole system of training, funding and patronage that goes beyond setting up of a graduate medical school or an active PhD programme. To quote Churchill, "This is not the end. This is not even the beginning of the end. This is just the end of the beginning."

The MD/PhD programme which some have tried to promote here is by and large funded by the government in the United States. On top of that, they have a lifelong commitment to a person that undertakes to be a Clinician-Scientist. For an internal medicine Clinician-Scientist, he spends 75% of his time on research and only 25% of time on revenue-generating clinical service. Surgeon Clinician-Scientists spend a little less time: still a whopping 50%. The vast majority of research (>80%) is funded by public National Institute of Health (NIH) funds. This is not a once-off thing. It is life-long. As long as the person works hard at generating research proposals and conducting the approved research on time, the funds are there. And then there is the chance that having worked all his life and published some notable papers, none of his ideas will ever translate to money.

Will some kind soul in Singapore still fund this guy with a red personal profit and loss research statement after 5 years? Or a negative delta NEV? Life science may be the next big thing. But there is more uncertainty and lag-time than say, selling seawater to a bunch of industrialists and declaring, "Let there be land."

The local view so far is that we see producing MD/PhDs as pivotal to having the life sciences industry taking off. Yet, to this day, we have yet to hear or see what are the steps that funding agencies will undertake to ensure these MD/PhDs are gainfully employed here after they graduate. It appears the MD/PhDs are an end in themselves, and hopefully,

the life sciences industry will employ them. Well, so far, this has NOT been the case in United States. Most MD/PhDs involved in research actively are still employed by educational institutions and hospitals.

Commitment to research funding requires a certain level of maturity that goes beyond financial parameters. I am just fearful that a lack of maturity will just ruin too many young eager lives now contemplating taking their vows of priesthood in science. When the funds aren't there, and you have to fight tooth and nail just to justify a test-tube, one gets embittered and disillusioned.

It would have been better if you went to a nice Ivy League Business School and became an investment banker. Which is exactly what the guy who was MY Science Quiz team coach did after he left secondary school. He went to Wharton and now works as an investment banker on Wall Street.

Compare this to another of my seniors (also "A Beautiful Mind" produced by the Science Quiz team) who is now an active clinician researcher. He has just been told that his research funds don't cover rent. Yet, public hospitals have to pay rent to the taxman for all floor space. They don't receive funding from MOH to do this and the patients are certainly not paying the hospitals to fund rent for research space. So what gives? The guy is simply in no man's land and living (or shall I say squatting) on hospital goodwill. As long as administrators are understanding and the hospital is in the black, life goes on. But in a place that puts price tags on roadside trees, I'll wager goodwill doesn't command much of a premium.

Back to the kid before me. I remember that old poem I learnt in Secondary 3 and I said softly to him:

*"I would not tell some children
desperate for some ardent glory,
The old lie: Dulce et decorum est,
pro patria mori."¹*
(*Dulce et Decorum*, Wilfred Owen) ■

Note:

1. *It is sweet and proper to die for one's country.*¹