Online Submissions: wjg.wjgnet.com
wjg@wjgnet.com
doi:10.3748/wjg.15.5626

World J Gastroenterol 2009 November 28; 15(44): 5626-5627
World Journal of Gastroenterology ISSN 1007-9327

SCIENTIST'S STORY

So you aspire to be a Professor?

Nicholas J Talley

Nicholas J Talley, Department of Internal Medicine, Mayo Clinic Jacksonville Professor of Medicine and Epidemiology, Division of Gastroenterology & Hepatology, Mayo Clinic College of Medicine Consultant, 200 First Street S.W., PL-6-56, Rochester, MN 55905, United States
Author contributions: Talley NJ solely contributed to this paper.
Correspondence to: Nicholas J Talley, MD, PhD, FACP, FRACP, FRCP Chair, Department of Internal Medicine, Mayo Clinic Jacksonville Professor of Medicine and Epidemiology, Division of Gastroenterology & Hepatology, Mayo Clinic College of Medicine Consultant, 200 First Street S.W., PL-6-56, Rochester, MN 55905, United States. talley.nicholas@mayo.edu
Telephone: +1-904-9532000 **Fax:** +1-904-9537366
Received: July 3, 2009 **Revised:** October 19, 2009
Accepted: October 26, 2009
Published online: November 28, 2009

Peer reviewer: Montgomery Bissell, MD, Professor of Medicine, Chief, Liver Center, Gastroenterology Division, University of California, Box 0538, San Francisco, CA 94143, United States

Talley NJ. So you aspire to be a Professor? *World J Gastroenterol* 2009; 15(44): 5626-5627 Available from: URL: http://www.wjgnet.com/1007-9327/15/5626.asp DOI: http://dx.doi.org/10.3748/wjg.15.5626

Figure 1 Nicholas J Talley, MD, PhD, FACP, FRACP, FRCP Chair.

"The truth is that life is delicious, horrible, charming, frightful, sweet, bitter, and that is everything." Anatole France (François-Anatole Thibault, 1844-1924).

When I was in medical school and early on in residency, I dreamed of undertaking research and becoming an academic but I did not really know how to start; in the end, I settled for trying to master internal medicine as I sweated to pass the formidable barrier examination for admission to Fellowship of the Royal Australasian College of Physicians (comprising both a written test and an even more challenging clinical "viva"). My entry into research was entirely fortuitous; having completed Basic Training I wanted a change (I like change), and I was lucky to learn from my father (a prominent Sydney gastroenterologist in private practice) that one of Australia's most famous academic gastroenterologists, Professor Douglas (Doug) Piper, was looking for someone to undertake a PhD with him. Remarkably few had expressed an interest in doing so; a PhD would require 3 years of ones life living on a National Health and Medical Research Council (NH&MRC) scholarship that would hardly keep body and soul together. Actually I was not sure I wanted to become a gastroenterologist (in fact, I favored neurology because my Dad was a gastroenterologist, and two Nicholas Talley's in the specialty seemed a formula for confusion). However, I saw working with Doug as a real opportunity, so I took the risk and said yes, one of the best decisions of my life (Figure 1).

Professor Doug Piper was particularly interested in peptic ulcer disease, and our initial NH&MRC grant application (developed before the observation of spiral bacteria in the stomach had been announced), aimed to determine the natural history of peptic ulcer disease. This grant failed to attract funding, which at the time seemed quite devastating. Remarkably, this apparent setback turned out to be very fortunate, because we then were forced to look at alternative projects. Almost by chance we fell upon a common clinical problem; it had been long observed that most patients with ulcer-like symptoms had no ulcer crater or other obvious explanation for their complaints. Little was known about this mysterious and vague entity, then called non-ulcer dyspepsia, and the topic seemed ripe for a comprehensive clinical research project that would fulfill the requirements for a higher degree in Australia. As a clinician I became quite fascinated by the problem (I still am). After reading the proceedings from a Scandinavian symposium pointing out many of the gaps in knowledge (published by the makers of cimetidine, Smith Kline), I decided to pursue the topic. I was blissfully unaware of how difficult such a task might be, but had the gift of youthful enthusiasm and energy.

And so my odyssey began; with the help of Doug's team I designed several protocols and set out to learn about the epidemiology, etiopathogenesis and treatment of non-ulcer dyspepsia. It was very hard the first year; there were the inevitable setbacks and it took a while to become used to research rather than full time practice. I

thought about quitting. But I learned that guts and grit count more than any other characteristic in the research setting. I undertook classes in clinical epidemiology and biostatistics which I loved, and learnt how to apply rigorous clinical research methods and avoid some of the obvious pitfalls. Momentum helps too; my first paper on the topic was published in 1985[1] and I caught the publishing bug (once you know how, it is great fun to collect, analyze and share your data with the world). The research efforts eventually spilled over into a two volume thesis entitled "Non-ulcer dyspepsia: A study of the psychosocial, environmental, clinical, therapeutic and prognostic aspects - with particular reference to a subgroup with dyspepsia of unknown cause (essential dyspepsia)." Doug used to say a thesis should be judged first by its weight and then by its quality, which I took to heart. The publication of several papers led to the offer of a fully paid Research Fellowship at Mayo Clinic in Rochester, Minnesota in the famous Gastroenterology Unit [headed then by a very prominent and brilliant expatriate Australian, Professor Sidney (Sid) Phillips]. Sid was an inspiring mentor who trained many of the most brilliant minds in motility research; I learned how to do physiological research and joined the staff during one of the happiest times of my life.

As my career trajectory exploded upwards, a further boost came after presenting new work as a very raw Assistant Professor of Medicine at Digestive Diseases Week. After the oral symposium, Douglas Drossman and Grant Thompson strode up to me to introduce themselves. I was invited to join a new consensus group that would meet in Rome; the idea was to develop diagnostic criteria for the first time for all of the functional gastrointestinal disorders, including non-ulcer dyspepsia (the precursor of the famous Rome criteria!). I said yes, and have been involved ever since with what is now known as the Rome Foundation (and the Rome Ⅰ, Ⅱ and Ⅲ criteria-Rome Ⅳ is currently being planned).

So if you want to eventually reach the rank of Professor and, more importantly, contribute to our field, the formula in my mind is uncomplicated. Try to choose a great mentor first and foremost; they are the ones eager to impart their knowledge, leave a legacy and develop the science (you can find most of the talented names on PubMed today with ease - look at how much and where they have published as a guide). Search for someone who thinks outside the box and has a strong team working with them; teams tend to perform best in the research world. The project is important too, but without the right mentor your chance of major success greatly diminishes. Second, in my humble view brains matter much less than drive. Be prepared to work hard and realize you will have to overcome all sorts of roadblocks to succeed; if you are prepared to be persistent and flexible, you will make it. Do not neglect to read the literature widely and deeply in your chosen topic area; critically appraise the science, know intimately all of the relevant papers, and look for the gaps (there are always many!). I tell my Research Fellows I know they will become experts by the time they complete their projects. Third, continuously develop your skill set. Learn how to not only do the science but also how to analyze, present and write it up. Submit and personally present your work at major international meetings whenever you have the opportunity; this is very good exposure, allows you to learn the state of the art and will promote making professional contacts around the world who will likely prove invaluable. Scientific presentation is a skill that can be learned and improves with practice; seek out ways to become a better public speaker. Above all, dedicate yourself to publishing any and all important data you generate (if your work is not published in a peer review journal, it essentially does not exist!). Serendipity helps too, but chance usually only plays a role if you are well prepared. If you follow these simple strategies, academic opportunities and promotion are almost guaranteed; it is straightforward to become a Professor once you learn the trade, and most importantly the journey is great fun too.

REFERENCES

1 **Talley NJ**, Piper DW. The association between non-ulcer dyspepsia and other gastrointestinal disorders. *Scand J Gastroenterol* 1985; **20**: 896-900

S- Editor Cheng JX **E- Editor** Zheng XM