Chapter 6.1 How to become a successful researcher

Authors: Barach P, Van Zundert AAJ.

Further reading

1. Harris R. Rigor Mortis. How Sloppy Science Creates Worthless Cures, Crushes Hope, and Wastes Billions. Basic Books. 2017.

Summary of this document: This reading introduces the history and craft of research and shows how well researched arguments can motivate policymakers to accept a claim; how to anticipate the reservations of decision makers and to respond to them appropriately; and, most importantly, how to answer the most demanding question, "So what?.

COVID and highlighted and amplified the crisis of reproducibility in biomedical research. This book highlights the cultural problems of academic research and how it contributes to wasteful, poor research practices and indirectly fake science such anti-vaxxers. We need a new approach to research training based on real world challenges that emphasizes study design and meaningful statistics to bring about lasting improvements to the public's and policy makers confidence in biomedical research.

2. National Institute for Health Research. Good Clinical Practice Course. 2019 [online resource] https://www.nihr.ac.uk/health-and-care-professionals/learning-and-support/good-clinical-practice.htm (accessed 22 February 2022)

Summary of this document: Good clinical practice (GCP) holds researchers to an international ethical and scientific standard and can protect study participants and researchers. GCP is an international ethical and scientific quality standard for the design, conduct, performance, monitoring, auditing, recording, analyses and reporting of clinical trials. It also serves to protect the rights, integrity and confidentiality of trial subjects and researchers. It is very important to understand the background of the formation of the ICH-GCP guidelines as this, in itself, explains the reasons and the need for doing so. Today, the GCP guidelines are required in clinical trials throughout the globe with the main aim of protecting and preserving human rights.

3. Sacks O. The Man Who Mistook His Wife for a Hat and Other Clinical Tales. Summit Books. 1985.

Summary of this document: Existing approaches to treating neurological disorders tend to be mechanistic, but a more interpersonal approach based on first person encounters may yield better outcomes for patients and deep rewards for physicians and other care team members. In his most extraordinary book, Sacks recounts the case histories of patients inhabiting the compelling world of neurological disorders, from those who are no longer able to recognize common objects to those who gain extraordinary new skills. The author concludes that an empathetic and narrative-based approach to medicine can better place the patient at the forefront of a clinician's plan of care.

4. Schwartz K, Vilquin JT. Building the translational highway: toward new partnerships between academia and the private sector. Nature Medicine. 2003: 9: 493-5.

Summary of this document: Patients continue to suffer from adverse care as new innovations and drugs are delayed due to large translational gaps. Redesigning research and clinical practices in a horizontal and vertical aligned manner will help bridge the divide between researchers and clinicians to enhance patient outcomes and wellness. There is an urgent need to rethink staid regulatory frameworks and training opportunities available to scientists that span academia and the care delivery. These linkages have the possibility to increase the speed at which basic science discoveries are converted into clinical interventions.

5. Skloot R. The Immortal Life of Henrietta Lacks. Crown Publishing. New York 2010.

Summary of this document: Race, class, and ethics frequently intersect with research. Understanding these areas can allow researchers to better appreciate the societal context in which they work. In 1951, an African-American woman named Henrietta Lacks was diagnosed with terminal cervical cancer. She was treated at Johns Hopkins University, where a doctor snipped cells from her cervix without telling her. For the past 60 years Lacks' cells have been cultured and used in experiments ranging from determining the long-term effects of radiation to testing the live polio vaccine. Her cells were commercialized and have generated millions of dollars in profit for the medical researchers who patented her tissue. It highlights the key and growing importance of research ethics and lack of consent involved in the collection of Lacks' cells, along with the lasting influence the HeLa cell line has had on cancer research.