Dr. Dean Pettit: Just. The Essentials for a Career in Biotech Startups

Dean Pettit was our last invited speaker for the 2023 calendar year. Dean's career combines a broad scientific background with his deep commitment to advancing innovative technologies and developing students to meet future challenges in the healthcare industry. Although he is currently a lecturer in the Department of Bioengineering at the University of Washington, Dean's talk centered around his experiences as the former Co-Founder of Just Biotherapeutics. Topics included his academic and work history, startup opportunities and challenges, and personality types for science and business.

Dean, a fellow husky, received his PhD in bioengineering with a thesis focused on corneal epithelial cell interactions with synthetic materials. After a post-doc stint at the NIH as a Cardiovascular Training Grant Recipient, he returned to UW and transitioned to protein-polymer engineering for drug delivery. This springboarded him into a career in the biotech industry at companies such as Immunex and Amgen in Seattle where he continued to work on drug development and pharmaceuticals research. After accruing nearly 20 years of experience in this field and climbing up the corporate ladder through multiple senior leadership positions, he took a leap and co-founded Just. Biotherapeutics (later becoming Just – Evotec Biologics). Dean helped to navigate the company from start-up, through series A funding, and eventually to acquisition by Evotec. Key contributions at Just Biotherapeutics and Just Evotec included working with the Bill and Melinda Gates Foundation to develop anti-Ebola antibodies and other protein therapeutics, and working with the Department of Defense on anti-covid-19 antibodies.

For students interested in starting a biotech company, Dean has a few suggestions. First, look for opportunities. What needs exists that could be solved through the creation of a new product or service. Are there resources available to meet this need and does it seem like the correct time to implement something innovative? Second, outline the challenges. What obstacles are there for for-profit or non-profit organizations? Where might you be able to get funding (or other resources) from? Lastly, consider the potential rewards of founding a productive startup. Is there an important mission that you would like to achieve or is there the potential to grow a self-sustaining operation that can help people succeed? It is helpful to have a team that shares your vision. Starting a company isn't for everyone and it can be beneficial to understand the differences in the roles and responsibilities of being in each environment. Startups generally require more flexibility and commitment as compared to pharmaceutical companies that have systems in place to improve efficiency. Analyze your work having and see how they may lead you to enjoy one type of work or the other.

Some additional key takeaways from the talk were:

- 1. When looking at your resume (or your "personal brand") ask yourself why you include certain items. Are you trying to demonstrate certain competencies? What do they say about you?
- 2. After you finish your day of work, your brain is probably still working and it is important to think about what it is saying and what that tells you about yourself or your situation.
- 3. Professional attributes (marketable skills when looking for jobs or things to talk about during annual reviews or when setting career development goals) are innate but can also be learned and improved. These include job capabilities (technical and managerial skills), output (publications, reports, accomplishments), and teamwork (which is the hardest to demonstrate in a resume, so be able to talk about this).