

Setting the Path Early: Early Drug Development and the Road to Commercialization

Reframing Value: HEOR and the Healthcare Landscape (Dan Touchette, PharmD & MA)

How do we measure value in healthcare today and in the future? Assessing the value of specific healthcare interventions is becoming increasingly important in the US and beyond. Dr. Touchette will discuss how to assess the value of a medicine and how this can be incorporated early in the development process.

Daniel Touchette is Professor in the Department of Pharmacy Systems Outcomes and Policy. Dr. Touchette received his BS in Pharmacy from the University of Manitoba in Canada, and his PharmD and Master of Economics degrees from Wayne State University in Detroit, U.S.A. He also completed a fellowship in pharmacoeconomics and outcomes research at Wayne State. Dr. Touchette's primary research interests are in pharmacoeconomics and outcomes research. In particular he is interested in assessing the effectiveness and cost-effectiveness of clinical pharmacist and other health practitioner services, developing and assessing methods for improving adherence to medications, and evaluating the cost-effectiveness of pharmaceutical agents. Dr. Touchette has numerous publications assessing clinical services, including medication therapy management (MTM) services and the impact of formulary and benefit designs on medication use. Scientific methods in Dr. Touchette's research have included observational (cohort and case-control) study designs, prospective naturalistic clinical trials, and decision modeling with sensitivity analysis.

Bridging the Academic-Commercial Gap: Early Stage Product Development at UIC (Nelson Grihalde, PhD)

What is the commercialization process for early stage medicines coming out of academia? Dr. Grihalde will discuss how several products developed at UIC were commercialized and brought to market.

Nelson Grihalde is the Technology Transfer Coordinator for the UIC Office of Technology Management. He completed his studies at Northwestern University and the Illinois Institute of Technology and secured his first job at Abbott Laboratories Diagnostics Division (ADD) working on developing novel reagents based on phage display technology. His first assignment was to travel to Columbia, Missouri and work with George P. Smith from the UofMo who originated the phage display technology and would later receive the 2018 Nobel Prize in Chemistry for this groundbreaking work. Years later, phage display would be used to discover Humira® one of Abbvie's most profitable products. From ADD, Nelson transitioned to PPD under the Thrombolytics Venture group which supported Abbott's first biologic, Abbokinase® a Urokinase Plasminogen Activator. Nelson then moved to the Gregory Okasinski laboratory working on oncology related therapeutics until being assigned to the Metabolic Disease Research

(MDR) therapeutic area where he conducted research on dyslipidemia therapeutics, and Glucocorticoid biology. After MDR was disbanded Nelson joined the University of Chicago Tech Transfer Office (UChicagoTech) where he co-managed IP for the Department of Medicine. During this period he managed the portfolios of Skip Garcia (Aqualung Therapeutics) and Kevin White (Tempus Health CSO) and the Craig Thompson IDUN Portfolio. The IDUN discovery tools were the reagents used to discover and finally develop Venclexta[®], Abbvie's first in class anti-apoptosis therapeutic. Nelson was also the founding manager for Aarvon Biosciences a start-up company launched from the University of Chicago. Nelson transferred to the University of Illinois and today is one of the senior members of the Office of Technology Management and works closely with the College of Pharmacy and Department Chemistry on pharmaceutical innovation and with the UIC drug discovery unit as well as with West loop Innovations, the Deerfield Partners vehicle on campus. The University of Illinois is one of the most successful academic medical innovation centers in the Midwest with 4 FDA approved drugs/vaccines and one medical device.

The Birth of Venclexta: Early Drug Discovery at AbbVie (Stephen Tahir, PhD)

What are the challenges and decisions made in the early drug development process? Dr. Tahir will share his experience and insights on some of the early work Abbott/AbbVie did to develop the drug Venclexta, a first-in-class medicine that selectively binds and inhibits the B-cell lymphoma-2 (BCL-2) protein.

Stephen Tahir is a principle research investigator in Oncology Early Discovery at Abbvie Inc. (formally associated with Abbott Laboratories). He graduated from the University of Toronto studying the effects of physical and chemical agents on the structure and expression of cytoskeletal proteins in normal and cancer cells. He was hired by Abbott Laboratories initially to establish confocal and 3-D rendering technologies and a cell/molecular biology core in the Electron Microscopy group in the Drug Safety Division to evaluate the toxicity profiles and mechanisms of action of drug candidates. He conducted drug safety profiling studies that helped launch Ziluteon (Zyflo), a 5-lipoxygenase inhibitor used for the treatment of asthma, Ritonavir, a HIV-protease inhibitor, and Lansoprazole (Prevacid), a proton pump inhibitor to decrease the amount of acid produced in the stomach. He later moved to Drug Discovery where he was an original member of the Cancer Division where he worked on the discovery and characterization of novel farnesyl transferase inhibitors, anti-mitotic tubulin binding agents, HSP90 inhibitors, and CDK9 inhibitors. For the past 20 years he has been involved in the discovery and development of novel, potent, first-in-class inhibitors of the intrinsic apoptotic Bcl-2 family members including navitoclax and venetoclax. He conducted seminal studies that helped establish that some tumor cells can be "addicted" to BCL-2 and established both patient stratification biomarkers and effective combination therapies for clinical studies involving Bcl-2 family member antagonists. Recently he has been involved in the successful FDA approval for FIH studies of ABBV-621, a novel death receptor agonist that engages the extrinsic apoptotic pathway.