

2022-2023 POCC Lecture Series

Oct 27, 2022, 7:30 PM **Dr. Nikki Goodwin**

GlaxoSmithKline Driving efficiencies in drug discovery via the tactical application of high-throughput chemistry solutions

IN PERSON Seminar @: Carolyn Hoff Lynch Lecture Hall Chemistry Building, University of Pennsylvania

> <u>6:30 Reception in the Nobel Hall</u> Food and drinks to be provided!



POCClub.org

Abstract: High-throughput chemistry platforms are increasingly becoming a part of modern Medicinal Chemistry departments due to the strategic advantages they offer in terms of improving drug discovery efficiencies. Herein, we will introduce the audience to the recent evolution of new design principles in medicinal chemistry and culminate with our recent work on merging synthetic chemistry, high density experimentation and biological assays - a concept that we term direct-to-biology (D2B) - through the disclosure of several case studies that highlight the effectiveness of this approach in the rapid discovery of novel Proteolysis Targeting Chimeras (PROTACSs) and other small molecule modalities.

Bio: Nicole (Nikki) Goodwin received a B.S. with honors in chemistry from the University of Delaware where a two year undergraduate research experience with Doug Taber cemented her interested in organic chemistry. She subsequently earned her Ph.D. from Caltech working with Dave MacMillan on the development of novel organocatalytic strategies. After graduation, Nicole started her industrial career as a medicinal chemist at Lexicon Pharmaceuticals in Princeton, NJ where she most notably was an team member and inventor of ZynquistaTM (sotagliflozin) for the treatment of diabetes and more recently for the potential treatment of heart failure. In 2014, Nicole transitioned from the biotech sector to big pharma with a move to GlaxoSmithKline where she is currently a director in the Discovery High-Throughput Chemistry Group in Medicinal Chemistry. Over the course of her career, Nicole has worked in a variety of therapeutic areas, including metabolic diseases, ophthalmology, immunology, and respiratory. She is an active member of the American Chemical Society and serves in an advisory capacity to the Chemistry Biology Interface Program and Pharmaceutical Science Initiative, both centered at the University of Delaware. Nicole grew up in southern New Jersey outside of Philadelphia and enjoys spending her spare time at the gym, cycling on the SRT, cooking, and travelling.

The Philadelphia Organic Chemists' Club • Great chemistry for more than seventy years!