

September 30, 2026 | Snell Engineering Center Room 108 | 12:00PM

Distinguished Seminar Speaker

Discovery of BMS-986526, an EP4 agonist for the treatment of IBD using a direct-to-biology platform

Prof. Trevor Sherwood

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Abstract: This seminar will cover a brief overview of medicinal chemistry and the discovery of an EP4 agonist for IBD. The EP4 receptor is a GPCR expressed in multiple tissues. In the intestines, the activation of EP4 is linked to restitution of the intestinal epithelial barrier and anti-inflammatory effects on immune cells, making it a target of interest for IBD. However, EP4 expression in other tissues complicates the utility of EP4 agonists. For instance, EP4 agonism in systemic circulation has been shown to result in changes in heart rate and blood pressure. We set out to identify selective EP4 agonists with minimal systemic exposure outside of the gastrointestinal tract. Our campaign began with a high throughput screen which identified a triazine chemotype that was elaborated into a lead compound which demonstrated high circulating exposure. To identify compounds with lower exposure, a direct-to-biology campaign leveraging a nanosynthesis platform was undertaken, enabling us to rapidly explore novel chemical space and identify BMS-986526, a lead that was subsequently nominated as a development candidate. This presentation will describe our lead chemotype, the execution of our nanosynthesis and direct-to-biology campaign, and the in vivo profile of BMS-986526 and other related lead compounds.

Biography: Trevor is a Scientific Associate Director in the Bristol Myers Squibb Discovery Chemistry group in Princeton, NJ. He earned his B.S. in chemistry at Rensselaer Polytechnic Institute in 2008 and then earned his Ph.D. in 2013 with Prof. Scott Snyder at Columbia University where he completed multiple total syntheses of alkaloid and polyphenolic natural products. In 2013, Trevor joined BMS where he has performed research in immunology, oncology, and neuroscience and has led multiple drug discovery programs. He is passionate about LGBTQ representation in chemistry and co-organized a session at the 2024 Spring ACS National Meeting featuring presentations from LGBTQ medicinal chemists.