



Coulter Seminar Series Presents

## “Pushing the Limits of Oral Drug Delivery Systems”

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Ameya Kirtane is an Instructor in Medicine at the Brigham and Women's Hospital, Harvard Medical School. Ameya received his undergraduate training in Pharmacy in India, before moving to the US for graduate school. He earned his PhD under the guidance of Prof. Jayanth Panyam at the University of Minnesota and carried out his postdoctoral training under the supervision of Profs. Bob Langer and Gio Traverso at MIT. Ameya has co-authored 25 research articles and has been a co-inventor on 4 patent applications. His contributions have been recognized by several awards (including the American Association of Pharmaceutical Scientists' graduate student award, and STAT magazine's Wunderkind award). His work has been highlighted in popular news media outlets such as the BBC, NPR, CBS news, Boston Globe to name a few. Ameya is passionate about using pharmaceutical engineering principles to solve the most pressing medical problems, and in training young scientists in this discipline.

### ABSTRACT

Oral delivery remains the most preferred form of drug administration for patients, caregivers and drug makers. Despite their widespread use and long history, oral drug delivery systems can be used for only limited applications. For example, while injectable systems have shown the capacity to deliver drugs for months-years, typical oral drug delivery systems last for just 1-2 days. Hence, truly long term drug delivery is not possible with most orally administered products. Further, the harsh gastrointestinal environment precludes the delivery of sensitive drugs such as nucleic acids via the oral route. In this seminar, I will describe our efforts in designing systems to overcome these long-standing challenges in oral drug delivery.

**Friday, March 12th  
12:00 Noon**

Seminar will be presented virtually via Zoom:  
<https://go.unc.edu/j5W3E>