

**Title: Valuing Pharmaceutical Drug Innovations**

**Speaker: Prof. Gaurab Aryal, Boston University**

**Area: Economics**

**Date: 08.01.2026, Venue: P22 @ 10.00AM**

**Abstract:**

We propose a methodology to estimate the market value of pharmaceutical drugs. Our approach combines an event study with a model of discounted cash flows and uses stock market responses to drug development announcements to infer the values. We estimate that, on average, a successful drug is valued at \$1.62 billion, and its value at the discovery stage is \$64.3 million, with substantial heterogeneity across major diseases. Leveraging these estimates, we also determine the average drug development costs at various stages. Furthermore, we explore applying our estimates to design policies that support drug development through drug buyouts and cost-sharing agreements.

**Speaker Profile:**



Gaurab Aryal is an empirical industrial organization economist, who uses game theory and econometrics method to study markets and industries, with and without informational frictions. His current research includes designing auctions for annuities and high-speed internet for schools, measuring market values of pharmaceutical drugs, merger analysis and understanding causal link between competition and productivity.

**Webpage Link:** <https://www.bu.edu/econ/profile/gaurab-aryal/>