



## Cort Breuer

Ph.D. Student in Immunology, admitted Autumn 2022

### Bio

---

#### BIO

Cort Breuer is currently an Immunology PhD student in the lab of Nathan Reticker-Flynn. Cort received his BS in Biological Engineering from Cornell University in 2022, where he studied lymphatic-cancer interactions and T cell mechanosensing in the lab of Esak Lee. Previously, he worked with James Moon at Massachusetts General Hospital to develop in vivo gene therapies for the immune system and with Michelle Krogsgaard at NYU Perlmutter Cancer Center to investigate structural biology of TCR signaling. Cort's current work focuses on mechanisms of tumor-immune tolerance and decoding the antigen specificity of T cell receptors. Drawing on his engineering background, he designs new molecular tools to record how immune cells communicate and constructs therapeutics to target impaired immune responses.

#### HONORS AND AWARDS

- Graduate Fellow, Arc Institute (2022-2026)

#### EDUCATION AND CERTIFICATIONS

- BS, Cornell University College of Engineering , Biological Engineering (2022)

### Research & Scholarship

---

#### LAB AFFILIATIONS

- Nathan Reticker-Flynn, Reticker-Flynn Lab (6/1/2023)

### Publications

---

#### PUBLICATIONS

- **Bioengineered in vitro models of leukocyte-vascular interactions** *BIOCHEMICAL SOCIETY TRANSACTIONS*  
Lee, J., Breuer, C. B., Lee, E.  
2021; 49 (2): 693-704
- **In vivo engineering of lymphocytes after systemic exosome-associated AAV delivery** *SCIENTIFIC REPORTS*  
Breuer, C. B., Hanlon, K. S., Natasan, J., Volak, A., Meliani, A., Mingozi, F., Kleinstiver, B. P., Moon, J. J., Maguire, C. A.  
2020; 10 (1): 4544