Stanford

Paul Täufer

Ph.D. Student in Bioengineering, admitted Autumn 2026

Bio

BIO

Paul is a graduate physics student from Germany interested in research at the intersection of biology, medicine, engineering, and physics.
At Stanford, he is researching the biophysics of immune cells, focusing on NETosis, a process by which certain immune cells, particularly neutrophils, release extracellular traps (NETs) composed of DNA, histones, antimicrobial and cytotoxic proteins to capture and neutralize pathogens. This process plays a crucial role in the immune system's defense against infections but can also damage the host and correlate with the worsening of chronic inflammatory diseases. In particular, Paul investigates how membrane fluidity impacts membrane tension and the downstream cellular process of NETosis. He ultimately aims to comprehensively characterize NETosis and its influence on plasma membrane biophysics, shedding light on the underlying mechanisms of immune response.