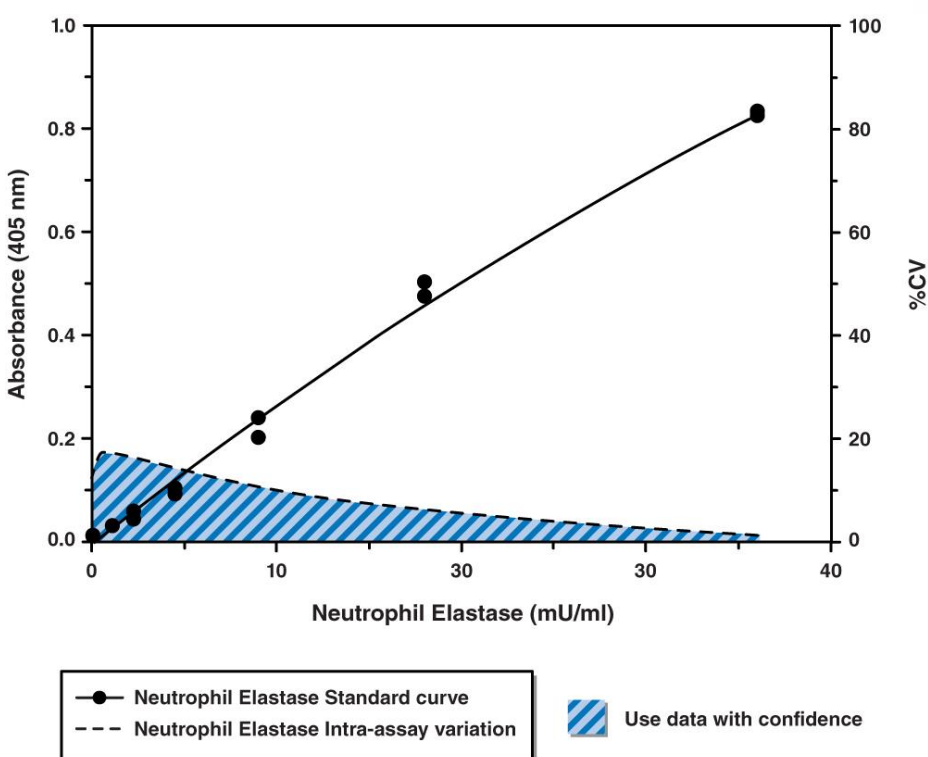
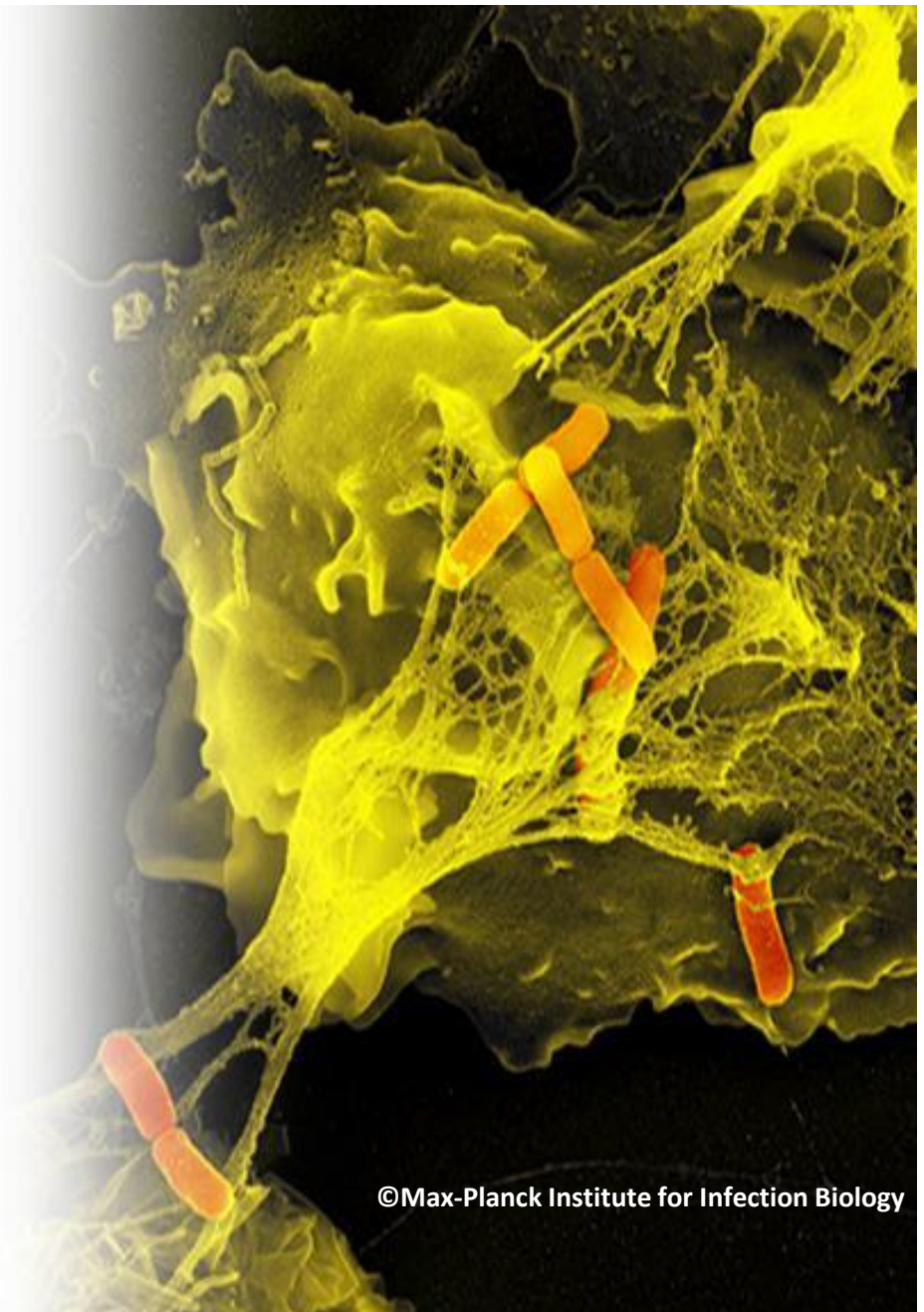


Production of neutrophil extracellular traps (NETs) is a key feature of the neutrophil antimicrobial response in which neutrophils weave web-like nets from DNA, histones, and antimicrobial macromolecules upon encountering a bacterial challenge. These NETs, which are also comprised of myeloperoxidase, neutrophil elastase, and lactotransferrin, are extruded to capture and possibly kill any nearby bacteria. Once released, NETs are rapidly cleared by the action of plasma DNase and by macrophages *via* scavenger receptor-mediated phagocytosis of the NET/neutrophil complex.

Previous methods for detection of NET generation have used fluorescent DNA-intercalating dyes. However, because DNA release can also occur as a result of mechanical cellular injury or necrosis, the use of DNA as a definitive readout of NET production has been called into question



Cayman's NET Assay Kit offers a DNA-independent readout of NET generation.

By employing a specific elastase substrate, N-methoxysuccinyl-Ala-Ala-Pro-Val *p*-Nitroanilide, this assay measures the enzymatic activity of neutrophil elastase that has been released from NETs through the action of S7 nuclease.