6th Annual Meeting on
Infectious Diseases, Microbiology & Beneficial Microbes
May 21-22, 2025 | Webinar
Volume : 16

Infection and herbicide exposure implicate c-Abl kinase in α-Synuclein Ser129 phosphorylation

Mr. Zeyang Sun

Institute of Clinical Molecular Biology,Christian-Albrechts-Universität zu Kiel and University HospitalSchleswig-Holstein, Kiel, Germany

Chronic infection with Helicobacter pylori often results in gastritis, inflammation of the gastric epithelial layer of the stomach. Alpha-protein kinase 1 (ALPK1), an intracellular pattern recognition receptor (PRR), is a key driver of inflammation in epithelial cells by activating the NFκB-mediated proinflammatory response. Its ligand ADP-heptose is produced by almost all Gram-negative bacteria as a by-product of lipopolysaccharide (LPS) biosynthesis. In innate immune cells, a plethora of PRRs contribute to enhance inflammatory conditions, yet the role of Alpk1 in these cells, in particular macrophages, is not well deciphered.

Results: This study highlights the opposing roles of Alpk1 in different cell types, in epithelial cells driving the production of proinflammatory cytokines in an ADP-heptose dependent manner, in macrophages acting as a negative regulator of inflammasome activation.

Biography

Zeyang Sun is a researcher at the Institute of Clinical Molecular Biology, Christian-Albrechts-Universität zu Kiel, and University Hospital Schleswig-Holstein in Kiel, Germany. His work focuses on molecular biology and clinical research, contributing to advancements in medical science and patient care..

zeyangsun47@gmail.com

Abstract received : April 25, 2025 | Abstract accepted : April 28, 2025 | Abstract published : Dcember 17, 2025