



NATO BIOTECHNOLOGY CONFERENCE

“Prepare, Foster, Protect”

Royal Military Academy,
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Biography

Dr. Markus H. ANTWERPEN



Markus H. ANTWERPEN is a senior microbiologist and bioinformatics specialist at the Institute of Microbiology of the Bundeswehr in Munich, Germany. He leads several key research and operational units, including the Medical B-Reconnaissance and Bio-forensics group, the Microbial Genomics and Bioinformatics division, and the Technical Development of Diagnostic Products team. His work focuses on the molecular detection, genomic analysis, and forensic investigation of pathogenic microorganisms relevant to public health and biological defense.

Dr Antwerpen has played a central role in advancing the Bundeswehr's capabilities in rapid diagnostics, genomic surveillance, and outbreak response. During the COVID-19 pandemic, his team was among the first in Germany to sequence the SARS-CoV-2 genome, helping to trace viral mutations and monitor transmission patterns, particularly within military contexts and international deployments. Beyond viral genomics, his research includes high-resolution sequencing of *Bacillus anthracis* strains to understand anthrax outbreaks, as well as broader studies in microbial evolution, antibiotic resistance, and the application of next-generation sequencing for biodefence.

At the Bundeswehr Institute of Microbiology, Dr Antwerpen's work integrates scientific research with applied defense medicine, supporting national and NATO-level preparedness against infectious and biological threats. His expertise and leadership have made him one of the key figures in Germany's modern bio surveillance and military microbiology community.