Unique coverage of proteomic and glycomic approaches to better distinguish highly dangerous pathogens, as well as using these to explore novel treatment and prevention options.

The editors and authors are either part of a specialized European network initiated to develop fast and reliable detection and therapy options, or are associated with the core military research complex of the United States.

With its description of the methods, their advantages and limitations, as well as the principle outcomes, this is a must-have resource for all professionals dealing with BSL3 and/or BSL 4 agents.

Prof. J. Stulik, MD, PhD is a head of the Institute of Molecular Pathology, Faculty of Military Health Sciences. This institute is the only facility in Czech Republic engaged in biodefense research. The research activity is focused on intracellular pathogen Francisella tularensis that is classified as a class A agent by the U.S. government. The institute exploits the methods of functional genomics and system biology for the identification of both microbial and host molecules involved in host-pathogen interaction. The results of this study are important for development of new prophylactic and therapeutic agents against tularemia.
Rudolf Toman, PhD, DSc is head of the Laboratory for Diagnosis and Prevention of Rickettsial and Chlamydial Infections at the Institute of Virology of the Slovak Academy of Sciences in Bratislava, Slovakia. The laboratory is engaged in microbiological and glycomics/proteomics studies of BSL3 bacteria that potentially can be used as biological warfare agents. The special emphasis is put on the intracellular pathogen Coxiella burnetii that is classified as a category B biological warfare agent by the US authorities. Structure/function relationship studies of the surface macromolecules (lipopolysaccharides and proteins) of C. burnetii, Rickettsiae and Chlamydiae are performed together with characterization of their immunodominant epitopes with the aim to develop new diagnostic and prophylactic agents against these highly infectious pathogens.

Patrick Butaye is a veterinary researcher at the Veterinary and Agrochemical Research Center in Brussels with a focus on antimicrobial resistance in bacteria from animal origin.

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