

## Special Issue

# Cellular and Molecular Mechanisms in Mycobacterial Infection 2.0

### Message from the Guest Editors

*Mycobacterium tuberculosis* (*M.tb*) caused an estimated 10 million cases of tuberculosis (TB) and 1.5 million deaths in 2018. The primary host cell of *M.tb*, the macrophage, serves as the first line of defense. Multiple pattern-recognition receptors sense mycobacterial molecular patterns, triggering intracellular signaling cascades and the induction of proinflammatory cytokines, chemokines, and antimicrobial molecules. Macrophage-derived cytokines such as tumor necrosis factor, interleukin-12, IL-1 $\beta$ , and IL-18 are critical for host defense against tuberculosis. Adaptive responses, including antigen-specific T cells, are critical in controlling the growth of *M. tb* by producing interferon- $\gamma$ , activating macrophages, and orchestrating granuloma formation. This Special Issue will cover a selection of original research articles, short communications, and current review articles in mycobacterial research, including immunity against mycobacteria, signaling transduction in TB, host-pathogen interactions, mycobacterial metabolism, drug resistance mechanisms, biomarkers of disease, and novel drugs and vaccines within the scope of molecular biology.

### Guest Editors

Dr. Natalie Nieuwenhuizen

Institute for Hygiene and Microbiology, Julius-Maximilians-Universität Würzburg, Josef-Schneider-Str. 2, 97080 Würzburg, Germany

Dr. Joanna Evans

The Francis Crick Institute, 1 Midland Road, London NW1 1AT, UK

### Deadline for manuscript submissions

closed (30 April 2023)



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Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[ijms@mdpi.com](mailto:ijms@mdpi.com)

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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### Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences,  
Sez-Biochimica, Faculty of Medicine, Università Politecnica delle  
Marche, Via Ranieri 65, 60100 Ancona, Italy

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