Special Issue

Techniques and Diagnosis of Viruses in Electron Microscopy

Message from the Guest Editor

Electron microscopy is an essential method for visualization of virus particles and virus-cell interactions. Due to the distinctive ultrastructure of virus particles, the technique has a key role in the identification of viruses in infected tissues up to the family level, with direct implications for new virus discovery and diagnosis. This volume presents the scientific and technological knowledge needed to understand the diagnostic rationale and procedures and to successfully implement the transmission electron microscopy (TEM) methods for virus identification. Dedicated chapters by experienced microscopists will address virus ultrastructural characteristics at the family level, practical issues of virus morphological identification, negative staining and thin section methods, and their diagnosis-related variations. Quick identification of unknown pathogens, differentiation between viruses producing skin lesions and other viruses, and other significant diagnostic contributions of TEM will be discussed in comprehensive chapters. This will empower researchers and clinicians to take advantage of the methods presented.

Guest Editor

Dr. Antonio P. Alves de Matos
Centro de Investigação Interdisciplinar Egas Moniz, Egas Moniz-Cooperativa de Ensino Superior CRL, 2829-511 Caparica, Portugal

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Microorganisms
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
microorganisms@mdpi.com

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"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

Editor-in-Chief

Dr. Nico Jehmlich
Department of Molecular Toxicology, UFZ-Helmholtz Centre for Environmental Research, 04318 Leipzig, Germany

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