

Microbiology involves the study of organisms that are too small to be observed with the naked eye – including bacteria, viruses, and various single-cell organisms. These organisms are used by humans in many different ways, with applications in the food, pharmaceutical and chemical industries, amongst others. It is this industrial use of microbes along with increasing antimicrobial resistance and emergent diseases that all contribute to making applied microbiology the thriving and important field it is today.

These proceedings from the BioMicroWorld 2005 conference in Badajoz, Spain, all indexed and cross-referenced, provide an interdisciplinary view of the field, with reports on key research from the frontiers of applied microbiology.

From the content:

- Environmental Microbiology, Water/Aquatic Microbiology,
- Industrial Microbiology – Future Bioindustries
- Food Microbiology
- Agriculture, Soil, Forest Microbiology
- Bioremediation
- Microbial Biotechnology
- Microfactories – Microbial Production of Chemicals, Pharmaceuticals and Biopolymers
- Medical Microbiology
- Microbial Physiology, Metabolism and Gene Expression
- Analytical Techniques, Imaging Techniques, Microscopy
- Methods in Basic and Applied Microbiology. Microbiology Education



Antonio Mendez-Vilas is currently the President-Director of FORMATEX, a regional Spanish private research centre. With an academic background on Physics (University of Extremadura in Badajoz), he moved to the private R&D sector, while at the same time, he has developed applied research as an active member of the Biosurfaces and Interfacial Phenomena Group of the University, with an emphasis on the application of nanotechnological tools to the study of microbial cells characterization and adhesion to surfaces of biomedical interest. He has acted as guest editor for a number of journal special issues, and has acted as editor for two previous books.

ISBN 3-527-31611-6



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