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# Cellular Stress in Applied Microbiology, Biotechnology, and Processes Bioengineering

Guest Editors:

### **Message from the Guest Editors**

Prof. Dr. Rafał Rakoczy

Prof. Dr. Agata Markowska-Szczupak

Dr. Adrian Augustyniak

Deadline for manuscript submissions: closed (31 July 2022) Microorganisms are used in many biotechnological processes. During the process, microorganisms may be exposed to internal and external stressors, including produced metabolites, reactive oxygen species, or xenobiotics such as nanomaterials. These factors can affect the viability and metabolic activity of cells leading to surprising effects on the process outcome such as the formation of persister cells or the induction of prophages. There are also reports showing that cellular stress can induce metabolic traits in microorganisms, that could be used to more effectively (or specifically) produce metabolites of interest.

This Special Issue focuses on abiotic and biotic stressors that can play a positive or negative role in biotechnological processes and bioengineering. We sincerely invite you to share your results regarding all aspects of physical, mechanical, chemical, or biological stressors in applied microbiology, biotechnology, and bioengineering.

- antimicrobials
- bioengineering
- cellular stress
- microbial physiology
- process optimization
- metabolic stimulation
- nanomaterials









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# **Editor-in-Chief**

### Message from the Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo** Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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*Applied Sciences* Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/applsci applsci@mdpi.com X@Applsci