Special Issue

Bacterial Stationary Phase Transition and Stress Adaptation: A Matter of Survival?

Message from the Guest Editors

The bacterial stationary phase is often regarded as a less active period of the growth cycle, which is associated with the transition into a dormant state in which the population's numbers do not increase and in which cell division is balanced by cell death. The associated mechanisms may include cell differentiation, modification of cell structures, and sporulation or entry into viable, non-culturable states. The stationary phase is often triggered by nutrient starvation, particularly lack of availability of essential carbon and nitrogen sources, accumulation of toxic end-products, or exposure to stressors, which inhibit further cell division and prematurely induce the onset of the stationary phase.

The aim of this Special Issue is to provide a useful reference tool on the mechanisms underpinning the transition into the stationary phase across bacterial genera to summarize the common and divergent strategies used by bacteria from diverse environments and how this knowledge can be exploited for biotechnological and medical benefit.

Guest Editors

Prof. Dr. Margaret L. Britz

Tasmanian Institute of Agriculture, University of Tasmania, Hobart, TAS 7005, Australia

Dr. Kayode Titus Adu

Merieux Nutrisciences, Australia

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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.

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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