Special Issue

Genetics of Biodegradation and Bioremediation

Message from the Guest Editors

Industrial activity has resulted in the accumulation of huge amounts of contaminants in the environment. However, several bacteria have evolved to metabolize many of them and new biodegrading activities and their coding genes are continuously being reported. New biodegradation pathways can be assembled by recruiting biodegradation genes through horizontal gene transfer. Gene regulation is also an important issue to adjust expression of the biodegradation genes to the bacterial physiological needs. Abundance and diversity of biodegradation genes is an indicator of the biodegradation potential of a niche and is used to follow the progress of natural or programmed bioremediation programs. This Special Issue will cover the genetic, genomic or metagenomic identification and characterisation of biodegradation genes, gene products and their host strains, as long as gene regulation, transport, monitoring in the environment or utilisation of biodegradation genes or regulatory systems as reporters, biosensors or expression platforms, either in oxic, anoxic or extreme environments. We cordially invite researchers working in these areas to contribute with original research or review papers.

Guest Editors

Prof. Dr. Eduardo Santero

Departamento de Biologia Molecular e Ingenieria Bioquimica, Centro Andaluz de Biologia del Desarrollo, Universidad Pablo de Olavide, Ctra. Utrera Km 1, 41013-Sevilla, Spain

Prof. Dr. Eduardo Díaz

Microbial and Plant Biotechnology Departament, Biological Research Centre (CIB)-CSIC, Madrid, Spain

Deadline for manuscript submissions

closed (31 March 2019)

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

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Message from the Editor-in-Chief

Genes is central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fast-moving field. There is a need for good quality, open access journals in this area, and the Genes team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised. Why not consider Genes for your next genetics paper?

Editor-in-Chief

Prof. Dr. Selvarangan Ponnazhagan

Department of Pathology, The University of Alabama at Birmingham, 1825 University Blvd, SHEL 814, Birmingham, AL 35294-2182, USA

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