Special Issue

Heterologous Expression of Difficult to Produce Proteins in Bacterial Systems

Message from the Guest Editors

Many proteins of interest are produced in recombinant prokaryotic or eukaryotic expression systems. Among the prokaryotic expression systems, bacterial hosts are widely used for the production of recombinant proteins. Under overexpression conditions, the overproduced heterologous protein in recombinant bacteria can partition into two separate fractions: soluble and insoluble (also known as inclusion bodies). Often, the proteins of interest are difficult to express and, as a consequence, the final yields are unacceptable. In other cases, the proteins are prone to aggregation, making it challenging or impossible to obtain protein from the soluble fraction. In light of these issues, much of the research effort during the last few decades has gone towards the development of strategies to increase the efficiency of the production process for those difficult-to-obtain proteins. Thus, this Special Issue of *IJMS* will cover recent research activity towards the development of novel strategies used to obtain optimal yields of difficult-to-produce heterologous proteins which use bacterial expression systems as cell factories.

Guest Editors

Dr. Elena Garcia-Fruitos

Department of Ruminant Production, Institut de Recerca i Tecnologia Agroalimentàries (IRTA), Torre Marimon, 08140 Barcelona, Spain

Dr. Neus Ferrer-Miralles

1. Institut de Biotecnologia i de Biomedicina, Universitat Autònoma de Barcelona, 08193 Cerdanyola del Vallès, Spain
2. Institut de Biotecnologia i de Biomedicina, Universitat Autònoma de Barcelona, 08193 Cerdanyola del Vallès, Barcelona, Spain
3. Departament de Genètica i de Microbiologia, Universitat Autònoma de Barcelona, 08193 Cerdanyola del Vallès, Barcelona, Spain
4. CIBER de Bioingeniería, Biomateriales y Nanomedicina (CIBER-BBN), Universitat Autònoma de Barcelona, 08193 Cerdanyola del Vallès, Barcelona, Spain
5. Plataforma de Producción de Proteínas, CIBER de Bioingeniería, Biomateriales y Nanomedicina (CIBER-BBN) and Universitat Autònoma de Barcelona, 08193 Cerdanyola del Vallès, Barcelona, Spain

Deadline for manuscript submissions

closed (30 November 2019)

International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed

mdpi.com/si/26655

International Journal of Molecular Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
ijms@mdpi.com

mdpi.com/journal/ijms

International Journal of Molecular Sciences

an Open Access Journal by MDPI

Impact Factor 4.9
CiteScore 9.0
Indexed in PubMed

mdpi.com/journal/ijms

MDPI

About the Journal

Message from the Editor-in-Chief

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

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, MEDLINE, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)