

Special Issue

Heterologous Expression of Difficult to Produce Proteins in Bacterial Systems 2.0

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. 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.

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