

Special Issue

Drug Discovery and Development Based on Native/Engineered Microorganisms

Message from the Guest Editors

Most of the molecules utilized as drugs are obtained from microorganisms. These molecules can be natural compounds or their derivatives. In most cases, the useful compounds are obtained at low titers or are cryptic, so various metabolic engineering/genetic engineering approaches are utilized to enhance the production titer. Recent advances in the isolation/culture of previously uncultivable microorganisms and the availability of versatile genetic engineering approaches have taken microbial engineering to the next horizon. However, in cases where the molecules are not accessible from the native host under natural conditions, alternative/heterologous production platforms are utilized. Approaches such as “genome mining” have enabled the connection of secondary metabolites to their respective biosynthetic genetic codes, whereas the application of metabolic engineering, synthetic biology tools, and genome engineering has contributed remarkably to drug development based on engineered microorganisms. Hence, this Special Issue will cover all aspects of drug discovery and development utilizing native/engineered microorganisms.

Guest Editors

Dr. Dipesh Dhakal

Dr. Michail Christodoulou

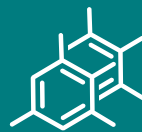
Dr. Marialuigia Fantacuzzi

Dr. Komal Kalani

Dr. Matej Sova

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MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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Message from the Editor-in-Chief

As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt

Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Corrensstrasse 48, D-48149 Münster, Germany

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