

Special Issue

Genetic and Process Engineering Tools for Next Generation Cell Factories

Message from the Guest Editors

This Special Issue is on the production and processing of therapeutic proteins and industrial enzymes from microbial hosts, with a focus on host cell engineering strategies to minimize host synthetic burden, reduce the impact on down-stream purification processes and to maximize the productivity of manufacturing processes.

* Genetic engineering strategies:

- i) expression control tools;
- ii) host engineering to introduce novel function;
- iii) host engineering to reduce unwanted characteristics;
- iv) product engineering approaches for enhanced expression, functionality or purification;

* Process engineering strategies:

- i) HTP small-scale techniques for process optimization, characterization, clone and process condition screening;
- ii) advanced automation concepts for process operation, data processing, storage and retrieval;
- iii) methodologies for process monitoring, modeling and model predictive process control;
- iv) bioprocess integration and intensification along scales and unit operations and across disciplines;
- v) issues related to batch or continuous process operation mode;
- vi) media design concepts.

Guest Editors

Dr. Neil Dixon

University of Manchester, Manchester Institute of Biotechnology,
Manchester, United Kingdom

Prof. Dr. Gerald Striedner

Department of Biotechnology, Universitat für Bodenkultur Wien, Vienna,
Austria

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

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Editor-in-Chief

Prof. Dr. Anthony Guiseppi-Elie

Department of Biomedical Engineering, Texas A&M University, College Station, TX 77843, USA

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