



Genetic and Process Engineering Tools for Next Generation Cell Factories

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Deadline for manuscript
submissions:

closed (15 January 2019)

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.





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Message from the Editor-in-Chief

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Journal Rank: JCR - Q2 (*Engineering, Biomedical*)

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