

1. Record Nr.	UNINA9910161647503321
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Titolo	Quantitative Systems Biology for Engineering Organisms and Pathways
Pubbl/distr/stampa	Frontiers Media SA, 2016
Descrizione fisica	1 electronic resource (126 p.)
Collana	Frontiers Research Topics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>Studying organisms as a whole for potential metabolic(ally) engineering of organisms for production of (bio)chemicals is essential for industrial biotechnology. To this end, integrative analysis of different –omics measurements (transcriptomics, proteomics, metabolomics, fluxomics) provides invaluable information. Combination of experimental top-down and bottom-up approaches with powerful analytical tools/techniques and mathematical modeling, namely (quantitative) systems biology, currently making the state of art of this discipline, is the only practice that would improve our understanding for the purpose. The use of high-throughput technologies induced the required development of many bioinformatics tools and mathematical methods for the integration of obtained data. Such research is significant since compiling information from different levels of a living system and connecting them is not an easy task. In particular, construction of dynamic models for product improvement has been one of the goals of many research groups. In this Research Topic, we summarize and bring a general review of the most recent and relevant contributions in quantitative systems biology applied in metabolic modeling perspective. We want to make special emphasis on the techniques that can be widely implemented in regular scientific laboratories and in those works that include theoretical presentations. With this Research Topic we discuss the importance of applying systems biology approaches for finding metabolic engineering targets</p>

for the efficient production of the desired biochemical integrating information from genomes and networks to industrial production. Examples and perspectives in the design of new industrially relevant chemicals, e.g. increased titer/productivity/yield of (bio)chemicals, are welcome. Addition to the founded examples, potential new techniques that would frontier the research will be part of this topic. The significance of multi 'omics' approaches to understand/uncover the pathogenesis/mechanisms of metabolic diseases is also one of the main topics.
