

Emerging Trends in
Computer Science & Applied Computing

Emerging Trends in
Applications and Infrastructures
for Computational Biology,
Bioinformatics, and Systems Biology

Systems and Applications

Edited by
Quoc Nam Tran
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Explores the emerging trends
in computational biology, bioinformatics,
and systems biology with particular emphasis
on Systems & Applications.

Emerging Trends in Applications and Infrastructures for Computational Biology, Bioinformatics, and Systems Biology: Systems and Applications attempts to cover the emerging trends in the field, with a special emphasis on systems and applications.

This edited work is composed of thirty-five chapters, which cover:

- the major areas of computational biology, development and application of data—analytical and theoretical methods—mathematical modeling, and computational simulation techniques for the study of biological and behavioral systems.
- bioinformatics—an interdisciplinary field concerned with the methods for storing, retrieving, organizing, and analyzing biological data.
- systems biology—including how to obtain, integrate, and analyze complex data sets from multiple experimental sources using interdisciplinary tools and techniques.
- data analytics and numerical modelling in computational biology.
- medical applications, medical systems and devices.

Taken together, the book shows that these topics share an underlying foundation and framework collectively referred to as "infrastructure."

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