

Dear Researcher/Author

Greetings!

This is a general invitation to all authors for book chapter(s) contribution to our forthcoming book series entitled “**Essentials of Bioinformatics Vol. I-III**” to be published by Springer Nature Group. We expect to receive chapter(s) in line (but not limited to) with the central theme of our books (The detailed scope of book and submission dates can be seen below). The current book series is expected to act as an easily accessible platform for young biologists, biomedical scientists and medical researchers into the fascinating world of Bioinformatics. Through this book, we aim to encourage the independent analysis and interpretation of the molecular data using publicly available bioinformatics platforms instead of using complicated computational algorithms and programming or costly commercial tools. Additionally, this book series shall highlight the essentials of modern bioinformatics tools to unravel the complexity of the genomes and to exploit the biological information to benefit the humankind through medical and agricultural science.

The detailed schedule of the special issue is as follows:-

| MAIN TITLE OF BOOK | ESSENTIALS IN BIOINFORMATICS | LAST DATE FOR SUBMISSION |
|--------------------|---|--------------------------------|
| Volume I | Basics of Bioinformatics: <i>Gene to Proteins Level Analysis</i> | 30 th January, 2018 |
| Volume II | Practical Bioinformatics in Molecular Medicine: Computers to Clinics | 30 th March, 2018 |
| Volume III | Practical Bioinformatics in Agriculture: Computer to Field | 30 th March, 2018 |

PROPOSED OUTLINE OF BOOK CHAPTERS (BUT NOT LIMITED TO):

Volume I. Understanding Bioinformatics: Gene to Proteins

1. Introduction to Biological Data
2. Introduction to Bioinformatics
3. Biological Databases
4. Sequence Bioinformatics
5. Functional Bioinformatics
6. Structural Bioinformatics
7. Cheminformatics

Volume II. Practical Bioinformatics in Molecular Medicine: Computers to Clinics

1. Molecular Diagnostics of Genetic Disorders
3. Genetic Risk Marker Studies

4. Disease Prognostics
5. Gene Therapy
6. Infectious Disease Biology
7. Metabolomics
8. Disease Therapeutics – Data analysis tools and application
9. Computational Drug Discovery

Volume III. Practical Bioinformatics in Agriculture: Computer to Field

1. Practical bioinformatics techniques for biologists studying plants, and biotic and abiotic stresses;
2. System analyses of Agricultural crops.
3. Bioinformatics significance in the new crop diseases-emergence;
4. Bioinformatics importance in the high crop production;
5. Solving the salt stress tolerance in Crop Plants: A Bioinformatics Approach
6. Bioinformatics tools for high-throughput marker discovery using microarrays and high-throughput sequencing.
7. Identification of novel peptides/proteins involved in oxidative stress tolerance using bioinformatics.
8. High-throughput data analysis tools in plant bioinformatics.
9. Bioinformatics versus experimental analyses of plant small RNAs.
10. Functional genomics approaches in plant research.
11. Cereal crops: Genetics and Genomics Database
12. Metabolomic approaches in plant research.
13. Assessment of the confidence of phylogenetic tree selection.
14. Systems analyses of plant functions and structures.
15. Application of bioinformatics in agriculture
16. Application of bioinformatics in horticulture

All interested authors are Initially requested to fill their details in the following Google form weblink ([form](#)) or directly access google form from below QR CODE, and email a brief chapter proposal (500 words max.) including the tentative chapter (s) title, author(s) affiliations (CV, if possible), and outline of the chapter. Your proposals should reach our scientific editorial team (bioinformatics.e@gmail.com) on or before 15th Oct 2017. All the proposals will be initially assessed for their alignment with the central theme of our proposed book series and notification to authors for full chapter submissions will be sent on or before 30th October 2017. The length of the book chapter should be 25-40 type-written pages (A4, Font, Time new Roman, size 12 double-spaced) with figures and tables. Full details on author instructions can be found in the following web link <http://www.springer.com/gp/book/9783319231617>. If you have any questions regarding this matter, then we would be happy to answer them.

Sincere Regards

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