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# **CELLULAR and MOLECULAR BIOLOGY, BIOPHYSICS and BIOENGINEERING**

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*Proceedings of the 3<sup>rd</sup> WSEAS International Conference  
on CELLULAR and MOLECULAR BIOLOGY, BIOPHYSICS  
and BIOENGINEERING (BIO '07)*

*Vouliagmeni, Athens, Greece,  
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## Preface

The book you are currently holding contains the Proceedings of the 3rd WSEAS International Conference on CELLULAR and MOLECULAR BIOLOGY, BIOPHYSICS and BIOENGINEERING (BIO'07) which was held in Vouliagmeni, Athens, Greece, August 26-28, 2007.

Cellular and molecular biology, biophysics and bioengineering may be the most difficult and significant science, as it borrows a lot of elements from other sciences (physics, chemistry, computer science, etc.), in order to give answers about human life and illnesses.

Molecular dynamics, biochemistry, biophysics, quantum chemistry, molecular biology, cell biology, immunology, neurophysiology, genetics, population dynamics, dynamics of diseases, bioecology, epidemiology, photobiology, photochemistry, plant biology, bioinformatics, signal transduction, environmental systems, psychological and cognitive systems, evolution, game theory and adaptive bioengineering, biotechnologies, medical imaging, 2-dimensional and 3-dimensional signal processing, nuclear biology and medicine, cancer therapy, mathematical models are some of the most important branches of cellular and molecular biology, biophysics and bioengineering. Many papers from all these branches are published in this Volume.

The Plenary Speeches of BIO '07 were:

- *Prediction Models for Analysis and Classification of Modern Biological Data* by Assc. Prof. Tuan Pham, James Cook University, Australia.

- *The SQUID as Diagnostic Tool to Evaluate the Effect of Transcranial Magnetic Stimulation in Patients with CNS Disorders* by Prof. Photios Anninos, Democritus University of Thrace, Greece.

We would like to thank all members of the organizing laboratories for their contribution to the organization of the conference.

The contents of this Book are also published in the CD-ROM Proceedings of the Conference. Both will be sent to the WSEAS collaborating indices after the conference: [www.worldses.org/indexes](http://www.worldses.org/indexes).

In addition, the papers of this book are permanently available to all the scientific community via the WSEAS E-Library.

Expanded and enhanced versions of papers published in these conference proceedings are also going to be considered for possible publication in one of the WSEAS journals that participate in the major International Scientific Indices (Elsevier, Scopus, EI, Compendex, INSPEC, CSA .... see: [www.worldses.org/indexes](http://www.worldses.org/indexes) ) these papers must be of high-quality (break-through work) and a new round of a very strict review will follow. (No additional fee will be required for the publication of the extended version in a journal).

We cordially thank all the people of WSEAS for their efforts to maintain the high scientific level of conferences, proceedings and journals.

The Editors

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MOLECULAR BIOLOGY, BIOPHYSICS and BIOENGINEERING  
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