

New Horizons in Biotechnology— An Introduction

Biotechnology has enormous and endless benefits to offer to mankind. It is considered the fastest growing applied science of recent times and has become a significant part of human lives as it contributes to the most important areas, such as industrial chemicals and products, food production and crop protection, human health care, and waste disposal and treatment, which are the thrusts of biotechnological developments all over the world. In order to bring together a multinational body of scientists, engineers, policy planners, industries, and other experts including those from government to deliberate on global developments in the fields of industrial, food, and environmental biotechnology, and health care products, it was thought timely to organize an international conference called New Horizons in Biotechnology (NHBT-2001). This conference was hosted by the Regional Research Laboratory (CSIR), Trivandrum on April 18–21, 2001, in collaboration with the Institute of Research for Development (IRD), France; Federal University of Parana (UFPR), Brazil; University of Ioannina, Greece; and University of Venice, Italy.

This issue of *Applied Biochemistry and Biotechnology* is a special issue consisting of the papers presented at NHBT-2001. The conference was attended by more than 350 participants from 30 countries. The scientific program consisted of 90 invited speakers for the plenary and technical sessions, in addition to 250 contributory papers for oral and poster presentations. The technical papers focused on a variety of topics covering several important sectors such as food; beverages; bioactive natural products; drugs; and various other pharmaceuticals, chemicals, paper, textile, agroproducts, alcohol fermentation, and speciality products. NHBT-2001 was organized with the technical and financial support of several national and international agencies, academic and research institutions, and companies.

The papers included in this issue cover the major areas of industrial biotechnology, environmental biotechnology, food biotechnology, and health care. The specific topics were on animal cell culture, protein engineering, solid-state fermentation, production of enzymes and organic acids, bioconversion of agroindustrial residues, biosynthesis and chemistry of bioactive compounds, bioprocess monitoring, modeling and control, downstream processing, biosensors, biocatalysis, biofertilizers, biopesticides, biopolymers, bioseparation, bioleaching, biotransformations, anaerobic digestion, aerobic treatment of effluents, enzyme technologies related to

textile and paper/pulp industries, solid waste management, bioremediation, biodiversity, biopulping, biological detoxification, microbial ecology, groundwater pollution, food microbiology, food safety and biotechnology, fermentation and enzyme technology related to food products, mushrooms, probiotics, microbial polysaccharides, fermented beverages, genetically modified microorganisms for food and feed, plant tissue culture and micropropagation, production of antibiotics and drugs, drug design and delivery, vaccines, plant tissue culture for medicinal compounds, and animal health care. From a large number of papers received for publication, after normal reviewing as per journal style, 40 were found suitable and included in this special issue.

It is our great pleasure to place on record our appreciation and thanks to Dr. Vijay Nair, Director, RRL-T and Chairman, NHBT-2001 for his extremely valuable support and encouragements since the day NHBT-2001 began. The organizing committee is grateful to Dr. Manju Sharma, Secretary, Department of Biotechnology, Government of India, New Delhi, who inaugurated the conference. The unstinted support from the international coordinators of NHBT-2001—Prof. E. M. Papamichael, Dr. S. Roussos, Prof. C. R. Soccol, Dr. L. Szpyrkowicz, Prof. H. Veeramani, and the members of the International Scientific Committee and International Organizing Committee—was of utmost importance in helping us to achieve our goal. We are indeed indebted to these persons.

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The review process of the NHBT-2001 papers was an important task with a view to accomplish it as early as possible. In this regard, we sincerely acknowledge the help and timely support of all the reviewers from all over the world who happily agreed to render their services. We are extremely grateful to the members of the International Advisory Board for their efforts

and help in the review process and also thank all the authors for their contribution as well.

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Ashok Pandey, Guest Editor
Rintu Banerjee, Co-Guest Editor