

The biotechnology and bioengineering are two complementary disciplines that are focused mainly on the application of concepts and methods of using biological systems (microorganisms, plant cells or tissues as well as animal cells or tissues) and secondarily of biophysics, biochemistry, mathematics and computer science to solve the real-world problems related to life sciences. The application of these disciplines to discover new knowledge regarding in vitro studying of mushroom life cycle complexity can be achieved by using pure cultures cultivated in laboratory scale installations or industrial robotic systems in order to drive and control all the physical and chemical parameters that influence the mushroom development bioprocesses in safety conditions.

The book presents a state-of the art-overview of recent developments in the fields of mushroom biotechnology and bioengineering concerning procedures, methods and techniques of performing cultivation of mushrooms by using automatic controlled bioreactors, developing molecular mushroom genetics, producing pharmaceuticals and protecting the agricultural crops.

In this volume are concentrated all full papers that were presented as main lectures by renowned professors and Ph.D. researchers who are working at prestigious universities and research institutes from all over the world in the framework of the International School of Advanced Studies on Mushroom Biotechnology and Bioengineering organized by the University of Pitesti on September 23rd- 27th 2012. This event was granted through the project number PN-II-ID-SSA-2012-2-012 and supported by C.N.C.S. – U.E.F.I.S.C.D.I.

The book “Mushroom Biotechnology and Bioengineering” is dedicated especially to young researchers as well as Ph.D. and master students in biological sciences, biotechnology, bioengineering and related specialisations, who want to find out the recent advances in such scientific disciplines.

We trust this volume will contribute to a better knowing of the new trends in applied biotechnology and bioengineering of using edible and medicinal mushroom species as the main biological tools in agro-food industry, medicine and health care, biopharmaceutical producing, molecular genetics and environmental protection.

Editors:

Assoc. Prof. PhD Marian PETRE
University of Pitesti
Romania

Prof. PhD Marin BEROVIC
University of Ljubljana
Slovenia

ISBN 978-606-528-146-2

M. Petre and M. Berovic
MUSHROOM BIOTECHNOLOGY and BIOENGINEERING

INTERNATIONAL SCHOOL OF ADVANCED STUDIES
ISASMBB 2012

MUSHROOM BIOTECHNOLOGY and BIOENGINEERING

Editors:
M. Petre and M. Berovic

UNIVERSITY OF PITESTI
23rd - 27th September 2012


EDITURA CD PRESS
www.cdpress.ro