

Preface

This volume introduces in a coherent and comprehensive fashion the Stanford Series on Nanobiotechnology by defining and reviewing the major sectors of Nanobiotechnology and Nanobiosciences with respect to the most recent developments. Nanobiotechnology indeed appears capable of yielding a scientific and industrial revolution along the routes correctly foreseen by the numerous programs on Nanotechnology launched over the last decade by numerous Councils and Governments worldwide, beginning in the late 1995 by the Science and Technology Council in Italy and by the President Clinton in USA and ending this year with President Putin in Russian Federation.

The aims and scope of the Series and of this Volume are to cover the basic principles and main applications of Nanobiotechnology as an emerging field at the frontiers of Biotechnology and Nanotechnology. The publishing policy of the Series consists of at least one volume per year up to two per year with the title and authors chosen among leading scientists active in the field and will have the form of full manuscript single or multiauthored, and of a coherent collection of chapters-reviews edited by one or more leading scientists to cover a given topics. A Scientific Committee formed by Wolfgang Knoll (Max Planck Institute Mainz), Joshua LaBaer (Harvard University, Boston), Michael Kirpichnikov (Moscow University) and Christian Riekkel (ESRF, Grenoble) has been established by the Publisher to act as an Editorial Board to discuss with myself as Series Editor for the purpose of sourcing and peer-reviewing manuscripts and providing advice on the series of future high quality Volumes.

I am particularly grateful to all numerous members of the Nanoworld Institute and Fondazione EL.B.A. active in this field cited in the list of publications contained in the Bibliography. Our research activities here reported were supported by several multinational companies, by the Italian Ministry of University and Scientific - Technological Research through an annual allocation granted to the Fondazione EL.B.A. and through numerous FIRB and FISS research contracts on Organic and Biological Nanosciences and Nanotechnology to both the Fondazione Elba and the CIRSDNNOB-Nanoworld Institute of the University of Genoa, including a very recent one on Functional Proteomics jointly with Harvard University.

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Genoa, 30 March 2008