

## PREFACE

During the last few decades, Life Sciences research has been experiencing an unprecedented progress especially due to the advancement of technology and conglomeration of physical and chemical sciences with biology world wide. Living organisms are probably the most fascinating creation of nature and human being occupies the central position among all who can utilize both the biotic and abiotic resources in a sustainable manner. However, plants and animals including human being are being threatened in the recent years because of unforeseen changes in global climatic pattern. Very often the natural resources available to us especially the biodiversity either remains unexplored or over explored and both are non-advantageous to the mankind. In this context, 'Bioprospecting' is emerging as a new scientific discipline linked to modern Biotechnology. Bioprospecting is basically the exploration of Biodiversity for commercially valuable Genetic and Biochemical resources with the use of modern tools along with a suitable strategy for conservation of wild lands and wild life and should bolster economic goals underpinning medical and agricultural advances required to combat dreadful diseases for maintenance of a sustainable livelihood. This Book has been the outcome of the contributions of excellent scientific articles from persons of high scientific stature especially in the fields of modern biological sciences who attended the National Conference on "Bioprospecting of Life Sciences Research for Human Welfare" organized by the School of Life Sciences, Sambalpur University, Sambalpur, Odisha, India. Our objective is to bring out high quality innovative science with a focus on Bioprospecting across various areas of advance Biological Sciences and we further state that our efforts in this book will definitely strengthen the academic world both in research and development and may be of great help to the students, researchers and teachers for their scientific endeavor.

We have tried our best to keep few excellent articles with new ideas ensuring that the book calls to be the best science done across broad disciplines of biological sciences. In his book, 24 articles have been considered for publication which is contributed by about 63 eminent personalities and broadly divided into Six sections such as Heavy metal stress and ecotoxicology, Biodiversity and Bioprospecting of silkworm, Immune response and disease biology, Medicinal plants, Advance techniques in Life Sciences and Climate change. Eventually, it gives us immense pleasure and satisfaction in bringing out this publication as an edited volume with a lot of expectation to meet the fundamental needs of the students, teachers and researchers in different areas of Biological Sciences. We acknowledge the authors of various books and published research articles in the journals which have been referred in different articles in this book by our authors. We are also extremely grateful to all

the participants of the National conference and students, staff members and teachers of School of Life Sciences, Sambalpur University for their co-operation and help and M/s. Narosa Publishing House Pvt. Ltd., New Delhi for timely printing and bringing out this publication in the form of an edited Book.

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