

Suchandra Chowdhury
Shyamasree Ghosh

Stem Cells

Biology and Therapeutics



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Suchandra Chowdhury
Department of Zoology
Bethune College
Kolkata, West Bengal, India

Shyamasree Ghosh
SBS
NISER
Bhubaneswar, Odisha, India

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About the Authors

Suchandra Chowdhury is currently working as an Assistant Professor of Zoology at Bethune College, Kolkata. She has worked in the field of immunology and glycosylation in stem cells, protein chemistry working on haematopoietic malignancy. She did her Ph.D. from CSIR-IICB, Kolkata, India, Jadavpur University, post-graduation and graduation from the University of Calcutta.

Shyamasree Ghosh has worked and published in the domain of glycobiology, cancer biology, nanotechnology, immunology, and computational biology. She completed her graduation and post-graduation studies under Calcutta University and Ph.D. from IICB, Kolkata, India. In her Post-Doctoral Research, she worked in stem cells and nanotechnology. Later she joined as a faculty and held the position of Chair in college affiliated to Bangalore University. Currently, she is serving as Scientific Officer at NISER, Bhubaneswar, Orissa, India. She is a member of many scientific bodies and has received many awards.

Suchandra Chowdhury · Shyamasree Ghosh

Stem Cells

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Stem cells hold great promise for cell therapy, tissue engineering, regenerative medicine, pharmaceutical and biotechnological applications. This book highlights the potency of stem cells, their property of self-renewal and their ability to differentiate into different cell lineages. It further describes the different markers to identify stem cells, their sources, methods of isolation, culture including 2D, 3D and beyond and their cryopreservation. This is among the first books to discuss glycosylation and sialylation in stem cells. Chapters describe application of stem cells in regenerative medicine and therapy, and highlight their application in cancer therapy and spinal cord injury. The book also highlights the plant stem cells, discussing their pluripotent nature.

This book is exciting and cutting edge. It will be of great interest to doctors, students and researchers in the field of regenerative medicine, cancer, biotechnology and plant sciences.

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