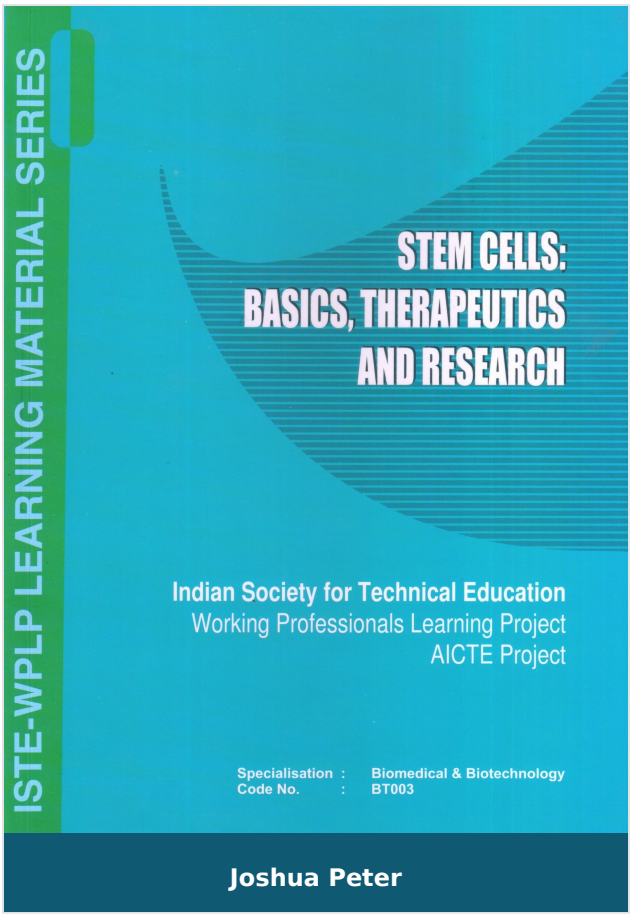


# Stem Cells: Basics, Therapeutics and Research

| | |
|---|---|
| **Author :** | Joshua Peter |
| **ISBN 13 :** | 978-93-55388-30-8 |
| **ISBN 10 :** | 9355388306 |
| **E-ISBN 13 :** | 978-93-55388-30-8 |
| **Edition :** | 1 |
| **Pages :** | 120 |
| **Type of book :** | Physical |
| **Year :** | 2016 |
| **Language :** | English |
| **Publisher :** | Khanna Publishing House |
| **M.R.P :** | Rs 175.00 |
| **Categories :** | ISTE Series, Book Store, BIOMEDICAL & BIOTECHNOLOGY |
| **Condition Type :** | New |
| **Country Origin :** | India |

## Product Description

The objective of this book is to provide basic knowledge on types of stem cells, its isolation, and its application in both research and clinical fields, and also to know ethical aspects involved in stem cell culture and application.

**Stem cells:** Stem Cells are Master cells. There are three kinds of stem Cells: Totipotent (literally al powerful), a newly fertilized egg, Pluripotent (Pluri-Many), an embryo with 50-100 cells, beings to differentiate, Multipotent (Range of Cell Types), obtained from fetal and mature human. This book covers sources, properties of different types of stem cells.

**A Clone:** There are two types of Cloning, derived from nuclear transfer technology. Therapeutic Clone- Production of replacement of cells and tissues genetically compatible with patient. Reproductive clone-this will  will produce genetically identical offspring to one of his or her parents (Dolly the sheep).

**Embryonic Stem Cells:** These are isolated from inner cell mass (ICM) of the Blastocyst. It proliferates extensively "in-vitro", maintains a normal diploid karyotype over extended culture and differentiates with derivatives of all the three germ layers - ectoderm and mesoderm. Express high levels of Oct 4, a transcription factor specific to ICMs of Blastocyst, show high level of telomerase activity.

**Khanna Publishing House**

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320

## Table Of Contents


- FOREWORD
- PREFACE
- Stem Cells- Basics
- Adult Stem Cells in Therapy and Research
- Human Reproduction and Stem Cells
- Human Embryonic Stem Cell
- Application of Human Embryonic Stem Cells and Their Derivatives
- Cloning
- Scientific and Ethical Debate


## Author


**Joshua Peter**

Joshua Peter



**Khanna Publishing House**

4C/4344, Ansari Road, Daryaganj, New Delhi-110002

Email: contact@khannabooks.com | Tel: 011-2324 44 47 - 48 | Mobile: +91-99109 09320