

Stem Cell Biology and Regenerative Medicine

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Babak Arjmand

Editor

Perinatal Tissue-Derived Stem Cells

Alternative Sources of Fetal Stem Cells

 Humana Press

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*This book is dedicated to my **parents**,
who have been my support during my life,
to my loving wife **Parisa** who has always
believed in me.
Also I want to dedicate it to my daughter
Rasta and my brothers, **Afshin** and **Farzin**.*

Preface

Nowadays, stem cells have a crucial role in tissue engineering and regenerative medicine. Also, basic researches in this field and its clinical applications are growing rapidly. Therefore, investigators, clinicians, and other relevant professionals have focused on regenerative medicine as a multidisciplinary area of interest.

Because of the unique biological characteristics and therapeutic potentials of perinatal tissue-derived stem cells, they are frequently suggested as an invaluable source for cellular therapy and regenerative medicine. In this volume, we address different types and properties of perinatal stem cells and also ethical considerations of their use in regenerative medicine. Furthermore, a brief review of their multi- or pluripotent and immunomodulatory properties, regenerative capacity, and therapeutic potentials is presented in this work. Additionally, we talk about the cGMP facility design and GMP-compliant manufacturing of perinatal stem cells for clinical translation.

It is my pleasure having the collaboration of prominent contributors in this volume, which could be valuable to both basic and clinical investigators who are interested in regenerative medicine.

I would like to acknowledge **Dr. Kursad Turksen**, Editor in Chief of the *Stem Cell Biology and Regenerative Medicine*, for his advice and support.

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Tehran, Iran

Babak Arjmand

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