

Human Embryonic Stem Cell Protocols

Second Edition

Edited by

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Despite political and ethical controversies surrounding the study of human embryonic stem (hES) cells, new freedoms in regard to using them for research has allowed interest to remain high in understanding the regulatory mechanisms of stem cell self-renewal, their differentiation along various lineages, and their potential use in regenerative medicine. In *Human Embryonic Stem Cell Protocols, Second Edition*, internationally respected researchers expand upon the popular first edition and describe in detail their most useful techniques for the molecular and cellular manipulation of these intriguing cells. This diverse collection of readily reproducible methods has been optimized for the derivation, characterization, and differentiation of hES cells, with special attention given to regenerative medicine applications. As a volume of the *Methods in Molecular Biology*™ series, chapters include brief introductions to their respective topics, lists of the necessary materials and reagents, step-by-step laboratory protocols, and notes on troubleshooting and avoiding known pitfalls.

Comprehensive and cutting-edge, *Human Embryonic Stem Cell Protocols, Second Edition* offers both novice and expert researchers powerful tools essential to understanding the maintenance and differentiation of human embryonic stem cells, as well as their applications in regenerative medicine today.

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