Special Issue

Pluripotent Stem Cells: From Basic Research to Therapeutic Applications

Message from the Guest Editors

Pluripotent stem cells (PSCs) are remarkable cells that can differentiate into any cell of the embryonic lineage, and depending on their state of pluripotency and species, they can also generate extraembryonic cell types. PSCs can be derived from early-stage embryos as embryonic stem cells (ESCs) or from adult somatic cells through reprogramming, creating induced pluripotent stem cells (iPSCs). These cells have revolutionized medical research and clinical applications due to their unique potential for therapy and regenerative medicine. This Special Issue aims to explore the recent advances in PSC research, covering the molecular mechanisms of pluripotency, genetic modification, tissue engineering, disease modeling, drug discovery, and early-stage clinical trials.

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