

Special Issue

Pluripotent Stem Cell Biology and Engineering

Message from the Guest Editors

Pluripotent stem cells have proven to be powerful tools in bioengineering due to their enormous potential regarding disease modelling, drug discovery and cell therapy. Strategies towards a more efficient and reliable recapitulation of embryonic development are still required, and this can be achieved through further study of pluripotency mechanisms and methods to direct pluripotent stem cells towards a specific fate.

By carefully controlling the culture microenvironment, either using biochemical or biophysical cues, in combination with different bioengineering approaches, either at a cellular, multicellular, and multiorgan levels, it will be possible to fully comprehend and recreate the embryonic development, accelerating the discovery of novel applications and strategies for human pluripotent stem cells and their derivatives. This includes high-throughput screening for efficient and personalized new drugs, platforms that provide a better understanding of disease mechanisms or even the development of robust cell therapy products.

We are welcoming original research articles, review articles and short communications.

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