

## Special Issue

# Molecular Research in Three-Dimensional Model Systems for Pharmacological Approaches

### Message from the Guest Editors

Three-dimensional (3D) cell culture systems provide a novel method for the study of the stem cell culture and differentiation process. Stem cells are widely studied for organ repair because they are easy to obtain and have great potential for multiline differentiation. For example, epithelial stem cells can be differentiated into absorbant cells, goblet cells, Panet cells and oligodendrocytes via 3D culture, and mesenchymal stem cells with self-renewal and differentiation also have the ability to differentiate into various types of cells, including chondrocytes, bone cells, fat cells, and nerve cells under specific culture conditions. They even form simple or complex three-dimensional structures such as spheres and organoids. As such, 3D culture models can more effectively reproduce complex structures and the physiology of living tissues. The current Special Issue focuses on novel developments and trends in 3D stem cell culture models in vitro. Authors are invited to contribute original research articles and reviews to this Special Issue focusing on molecular studies related to 3D culture models and the application of stem cells in translational medicine.

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### Guest Editors

Dr. Guya Diletta Marconi  
Dr. Francesca Diomedea  
Dr. Jacopo Pizzicannella

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### Deadline for manuscript submissions

closed (31 July 2024)



## International Journal of Molecular Sciences

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