SPHERICALPLATE 5D[®] Ecosystem for Regenerative Medicine





Stem Cell Research



Prof. Dr. Dr. Maximilian Y. Emmert Institute for Regenerative Medicine, IREM University of Zurich



The Benefits

- uniformity standardization of spheroid formation
- no surface attachment due to pre-applied coating
- scalability- production of high quantities of spheroids to do high throughput analysis/screening (e.g. Omics > Proteomics/Genomics/Metabolomics)
- compatibility with standard, existing imaging, and automatization technologies/ equipment/systems > especially centralized position of spheroid within microwell
- Long and short time culture possible to generate sufficient spheroids
- co-culture of different cell-types possible
- collection of secretome from the spheroids possible

Example of stem cells successfully cultivated in SP5D

- Human bone marrow-derived mesenchymal stromal cells
- Human adipose-derived mesenchymal stromal cells
- Human amniotic epithelial cells

Literature:

- Eishi Aizawa, Anton Wutz, *et al.*, Stem Cell Reports Journal, 2021.
 https://doi.org/10.1016/j.stemcr.2021.11.006
- Siddharth Shanbhag, Salwa Suliman, et al., Frontiers Bioengineering Biotechnology Journal, 2021.
 https://doi.org/10.3389/fbioe.2021.783468
- 3. Ingrid Zahn, Gundula Schulze-Tanzil, *et al.*, Internation Journal of Molecular Sciences, 2021. ⊕ https://doi.org/10.3390/ijms222011011
- Dominik Egger, Cornelia Kasper, *et al.*, Engineering in Life Sciences Journal, 2021.
 ⊕ https://doi.org/10.1002/elsc.202100097
- > Further information:
 www.sp5d.com

Bahnhofstrasse 40 CH-8703 Erlenbach

