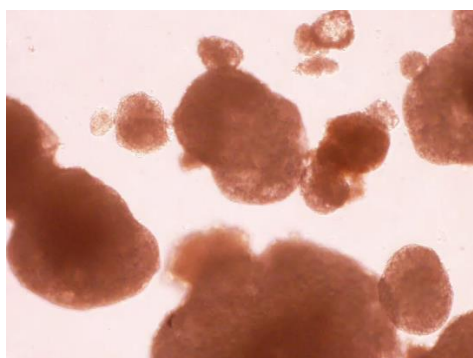
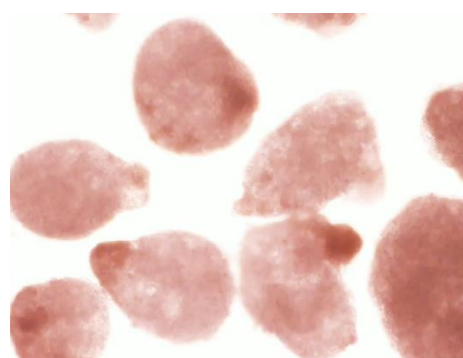


### Myoridge and Hitachi develop a novel 3D cell culture technology

Myoridge Co. Ltd. and Hitachi, Ltd. have co-developed a novel three-dimensional (3D) cell culture technology to help realize the potential of regenerative medicine. The collaborative research underlying the new technology was initiated in October 2018 and combines Myoridge's proprietary culture platform, including specialized medium and methodology, with Hitachi's automated cell manufacturing bioreactor system. The new technology enables unprecedented uniform and high-density culture by utilizing cell spheroids formed through precise oscillation of the culture container, where the oscillation conditions are tailored to cell type and culture medium volume. In large-scale culture, this system provided a yield increase of several fold as well as remarkably increased cell quality compared to conventional culture in the same medium volume. The new technology is expected to contribute to the development of scalable, cost-effective manufacturing of cellular therapeutics in the amounts and quality required for widespread clinical application.



Large-volume differentiation using  
manual culture  
(Cardiomyocyte purity: 68.1%)



Scalable large-volume differentiation using an  
automated bioreactor with novel 3D culture  
(Cardiomyocyte purity: 92.2%)

iPSC : 253G1 (Used with permission from Kyoto University and iPS Academia Japan)

References : Nakagawa M. et al. (Nat Biotechnol. 26(1):101-6(2008))

**About Myoridge Co. Ltd.**

Myoridge Co. Ltd.( <https://myoridge.co.jp/en>), headquartered in Kyoto, Japan, is a startup company spun out from Kyoto University. Myoridge's award-winning core technology is a suspension culture system for scalably differentiating pluripotent cells into desired lineages, including cardiomyocytes, using a novel small-molecule compound and without requiring proteins. This technology is licensed from Kyoto University.