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## Using Droplet Microfluidics to Help Identify Alternative Hydrogel Systems to Support Stem Cell Growth

The premise of this research is to identify alternative hydrogel systems to the gold standard Matrigel, which is ill-defined and variable. The employment of droplet microfluidics (DM) will aim to achieve single cell encapsulation in coherent microdroplets with highly tunable chemistry and size, and generate a large number of reproducible microcapsules for high-throughput studies. Studying a combination of bioactive hydrogels with DM can better support stem cells for ideal human organoid growth.