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Protocol for Invasion Assay in a 384-well plate

1. Magnetize cells either by static incubation overnight or centrifugation, using a concentration of 1 µL/1 x 10^4 cells

   Note: Invasion is easier to image with fluorescently tagged cells, either by transfection, or a dye like CellTracker Green
2. Detach, count, and resuspend cells to a concentration of 2 x 10^5 cells/mL
3. Plate the cells into a cell-repellent 384-well plate (Greiner Bio-One) at a concentration of 50 µL/well (1 x 10^4 cells/well)
4. Print cells into spheroids by placing the plate full of magnetized cells onto a 384-well spheroid drive
5. Leave plate on drive between 1 h to overnight for cells to form spheroids
6. In the meantime, take thawed Matrigel and dilute to 2.9 mg/mL in media
7. After spheroids have formed, move plate onto a 384-holding magnet and remove media
8. Add 25 µL of Matrigel solution to each well and remove plate off the magnet to gel the Matrigel in the incubator
9. After 1.5 h of incubation, add 25 µL media on top of the gels
10. Image plate at regular timepoints to view invasion into the Matrigel