

Experimental Procedure for Real Tumor Radius Data

A 3 mm-diameter glass coverslip was placed in a 10 cm cell culture dish and seeded with HeLa cells. Cells were cultured in MEM supplemented with 10% fetal bovine serum (FBS) and 1% penicillin/streptomycin until the coverslip reached full confluence. The coverslip was then transferred to a new 6-well plate, and the culture medium was replaced with media containing different serum concentrations (0%, 1%, 5%, and 10% FBS) to mimic varying nutritional conditions. Cell images were captured 72 hours after the serum change and subsequently at 24-hour intervals to monitor cell spreading from their initial rounded morphology. The diameter of the cell edge was measured, and a scale bar was included in all images.