

1.1. Methods M2

Image analysis: To obtain cell outlines, snake algorithm parameters were set to a tension (α) of 0.0002, rigidity (β) of 0.0005, step size (γ) of 1.0 and an external force (κ) of 1.0. Cell shape metrics were determined from snake outlines using a custom written MATLAB program [28,29]. Boundary curvature was determined at each boundary point of the snake outline by fitting a circle to that boundary point and 3 boundary points away from it.