

A hybrid model to test mechanical cues driving cell migration in angiogenesis
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Abstract: Many studies are stressing the crucial importance of the mechanical component in angiogenesis, but still, very few models really integrate mechanics. We propose to investigate the importance of mechanical cues for cell migration in this context with a new hybrid continuous-discrete model that describes the individual migration of contracting cells on an elastic matrix of fibres. The matrix is described as a continuum whereas the cells are described as discrete elements.