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Modeling collective cell motility¹

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Eukaryotic cells often move in groups, a critical aspect of many biological and medical processes including wound healing, morphogenesis and cancer metastasis. Modeling can provide useful insights into the fundamental mechanisms of collective cell motility. Constructing models that incorporate the physical properties of the cells, however, is challenging. Here, I discuss our efforts to build a comprehensive cell motility model that includes cell membrane properties, cell-substrate interactions, cell polarity, and cell-cell interaction. The model will be applied to a variety of systems, including motion on micropatterned substrates and the migration of border cells in *Drosophila*.

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