Sperm Motility in Groups

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Sperm motility is a major indicating factor for fertility potential and driven by undulating flagella. This complex process involves sperm swimming through low Reynolds number, viscous fluids to ultimately reach the egg. We will use a model, based on the method of regularized Stokeslets, that is robust to three-dimensional effects to investigate the interactions of mammalian sperm in groups. As we will see, these models can provide insight—at the cellular level—into advantages and disadvantages of reproductive strategies adopted by species.