## Helical bacteria, spirochetes and fluid mechanics

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## Abstract:

The mechanisms producing the cell-shape changes that drive the swimming of spirochetes and other helical bacteria are not well understood. However, understanding the mechanics of locomotion is the first step in a rational approach to controlling some of the modes of infection of important families of parasites. I'll show the application of low-Reynolds number hydrodynamic theory to the motility of helical mollicutes, such as Spiroplasma, and spirochetes, such as Borrelia, and I'll explore the role of dynamics in determining underlying biophysical mechanisms.