

**Center for Fluid Mechanics, Division of Applied Mathematics
Fluids, Thermal and Chemical Processes Group, School of Engineering
Joint Seminar Series**

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Interaction Between an Elastic Filament and the Vesicle Membrane

The primary cilium is found for all non-dividing mammalian cells. Since its discovery a century ago, only recently has more understanding of the biological role of primary cilia been gained. In this work slender-body formulation is utilized to describe the dynamics of the primary cilium, modeled as an elastic filament attached to a solid wall or membrane. Comparison with the experimental data will be provided. Coupling between the filament/membrane system and the mechanosensitive channel (MscL) show how the primary cilium functions as a probe of the extracellular flow.

TUESDAY - APRIL 26, 2011

4:00 PM

Barus & Holley, Room 190