

Center for Fluid Mechanics Seminar

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**Multiscale Computational Simulations of Cardiovascular
Mechanics**

In the study of arterial disease, one needs to understand how the entire cardiovascular system responds to a variety of external factors that impact local mechanical characteristics. The fluid dynamic and solid stresses experienced by the vascular wall tissues lead to a cascade of critical biological events ranging from continuum to molecular scales, which may contribute to disease progression. Computational simulations provide a powerful tool for understanding such complexities inherent in biological systems. I will present some preliminaries toward multi-scale models of cardiovascular function as related to arterial disease.

**October 14, 2003
Barus & Holley, Room 160
4:00pm**