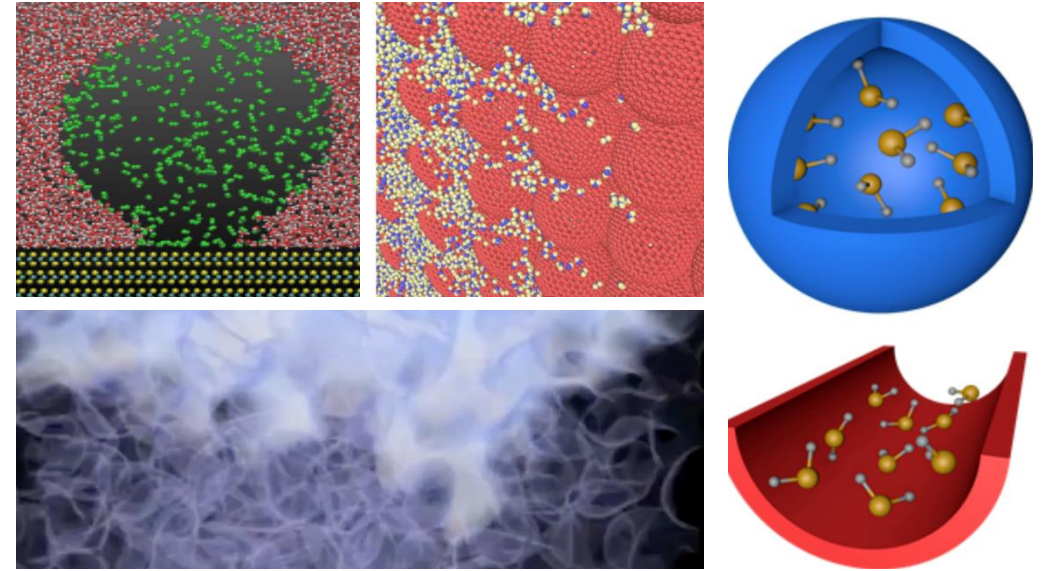


# Multi-scale Fluid-Solid Interactions in Architected and Natural Materials (MUSE)

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**MISSION:** To synthesize geo-inspired materials with repeatable hierarchical heterogeneity and develop an understanding of transport and interfacial properties of fluids confined within these materials.

<https://efrcmuse.utah.edu/>



## RESEARCH PLAN

Geo-inspired materials at various levels of hierarchical porosity and complexity are synthesized and used to probe thermodynamic and transport interactions of multi-phase fluids over many length scales, including at the nanometer scale. Dynamic operando measurements are performed and provide the basis for the development of experimentally-validated and atomistic-informed modeling tools and frameworks.



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