



## Faculty & Expertise

<https://umaine.edu/first/>



---

**Sharmila M. Mukhopadhyay**, *Mechanical Engineering & Director (Ph.D. Cornell)*  
**Nanomaterials for sensing, water purification, tissue engineering and catalysis**

**Carl P. Tripp**, *Chemistry (Ph.D. Ottawa)*  
**Surface chemistry, nanoporous materials, ispectroscopy, thin films, colloids**

**Scott D. Collins**, *Chemistry (Ph.D. Brigham Young)*  
**MEMS, nanofabrication, micromechanical components, microphotonic devices**

**Brian G. Frederick**, *Chemistry (Ph.D. Cornell)*  
**Surface catalysis, vibrational spectroscopy, time-of-flight detection**

**Robert J. Lad**, *Physics, (Ph.D. Cornell)*  
**Materials science, ceramics, thin film synthesis, surface characterization, sensors**

**Robert W. Meulenber**, *Physics (Ph.D. UC Santa Barbara)*  
**Nanomaterials, magnetic materials, synchrotron spectroscopies, heterostructures**

**Rosemary L. Smith**, *Electrical & Computer Engineering (Ph.D. Utah, 1982)*  
**Bio-MEMS, microinstruments, microsystems engineering**