

**7.342, Spring 2007**

**G-Protein Coupled Receptors: Vision and Disease**

***March 8, 2007: Undergraduate Instructional AFM Laboratory***

1. introductory tutorial/discussion (20 min.)
  - AFM fundamentals: major functional blocks
  - translating cantilever bending into useful data
  - measurement modes and applications
  
2. interactive lab (80 min.)
  - introduction to the Instructional AFM (for the 20.309 lab)
  - calibration, biasing, signal readout
  - imaging
  - other experiments: force spectroscopy, thermomechanical noise
  - (optional) “real” AFM demo
  
3. Q & A / additional demo / wrap-up (20 min.)