Molecular Visualization with UCSF Chimera: Question & Answer Session

- New features in Chimera 1.7:
  - Improved graphics
    - performance increase for newer video cards
    - higher default frame rate for smoother motions
    - glossy lighting
    - interactive shadows
  - New tools
    - PDB2PQR - assignment of atomic partial charges and radii
    - APBS - continuum electrostatics calculation
    - AutoDock Vina - molecular docking
    - Model/Refine Loops - interface to Modeller
    - Notepad - save user-entered descriptive text with sessions
  - New image/movie features
    - export in HTML/WebGL format for interactive web viewing
    - Animation tool for creating simple movies
- Future directions:
  - Chimera 2.0 - web- and desktop-based application
    - Web-based application using modern web standards (HTML5, JavaScript, WebGL)
    - Desktop-based application using modern cross-platform toolkits (Qt, OpenGL)
    - Performance from parallelization (threads, GPU)
    - Integration with web services (databases, computation, storage)
  - interface to cloud computing infrastructure such as Amazon Web Services
    - Access to extensive computational resources
    - Minimize cost for hardware setup and maintenance
    - Pre-made system images for common tasks (molecular dynamics, virtual screening)
- What is a feature you would like to see in Chimera?
  - Tell us now
  - Mail suggestions to chimera-users@cgl.ucsf.edu later