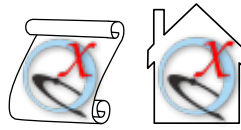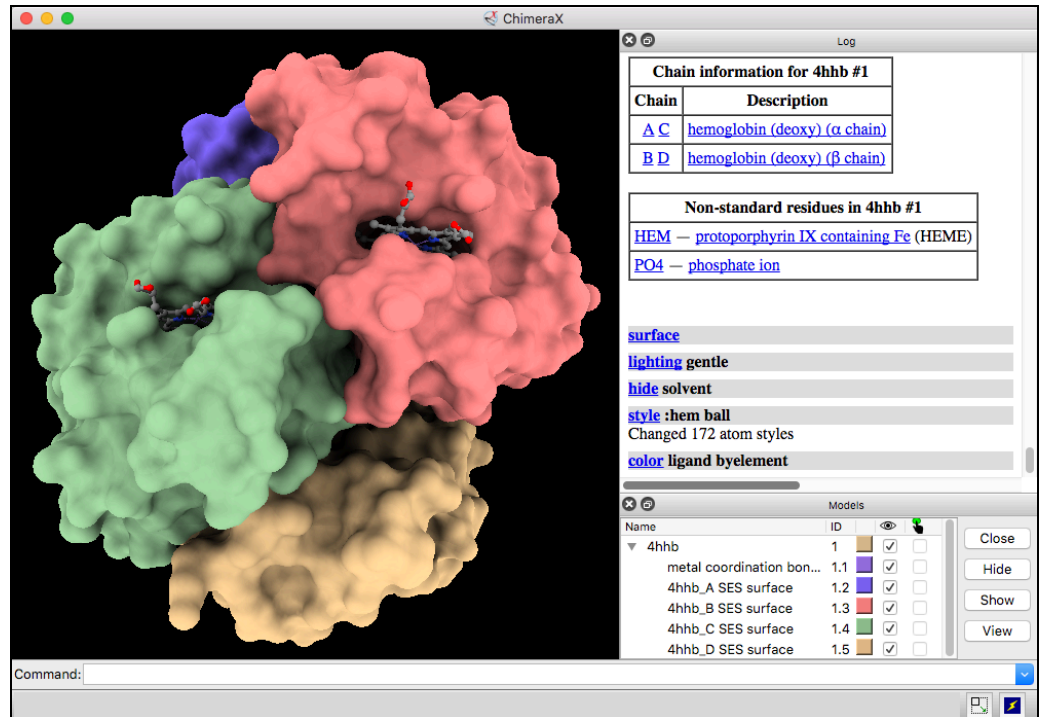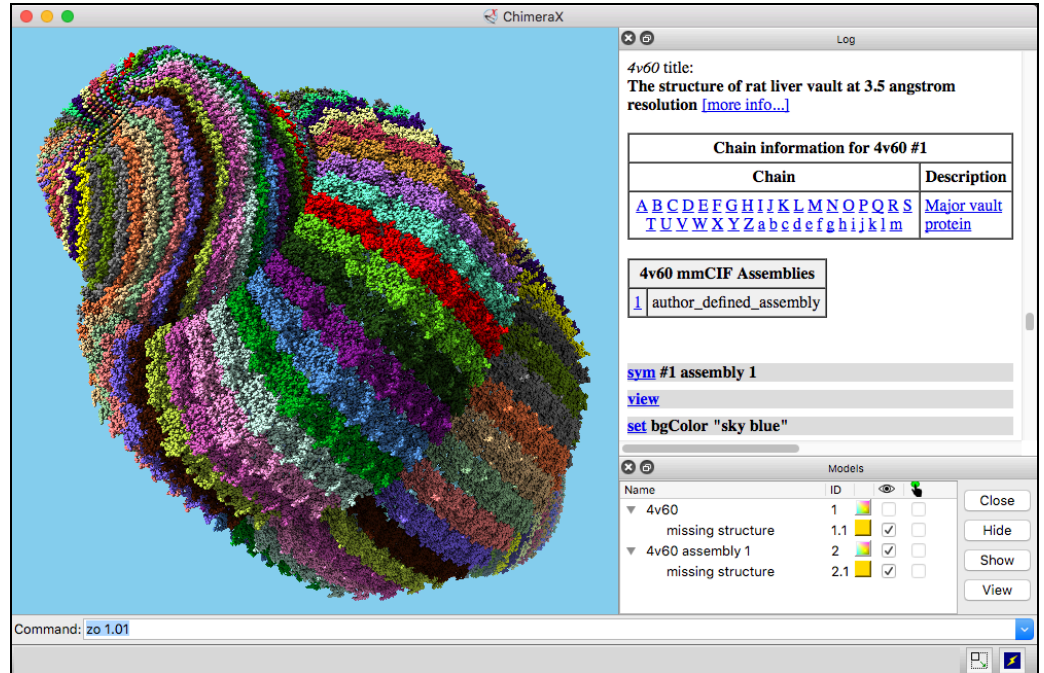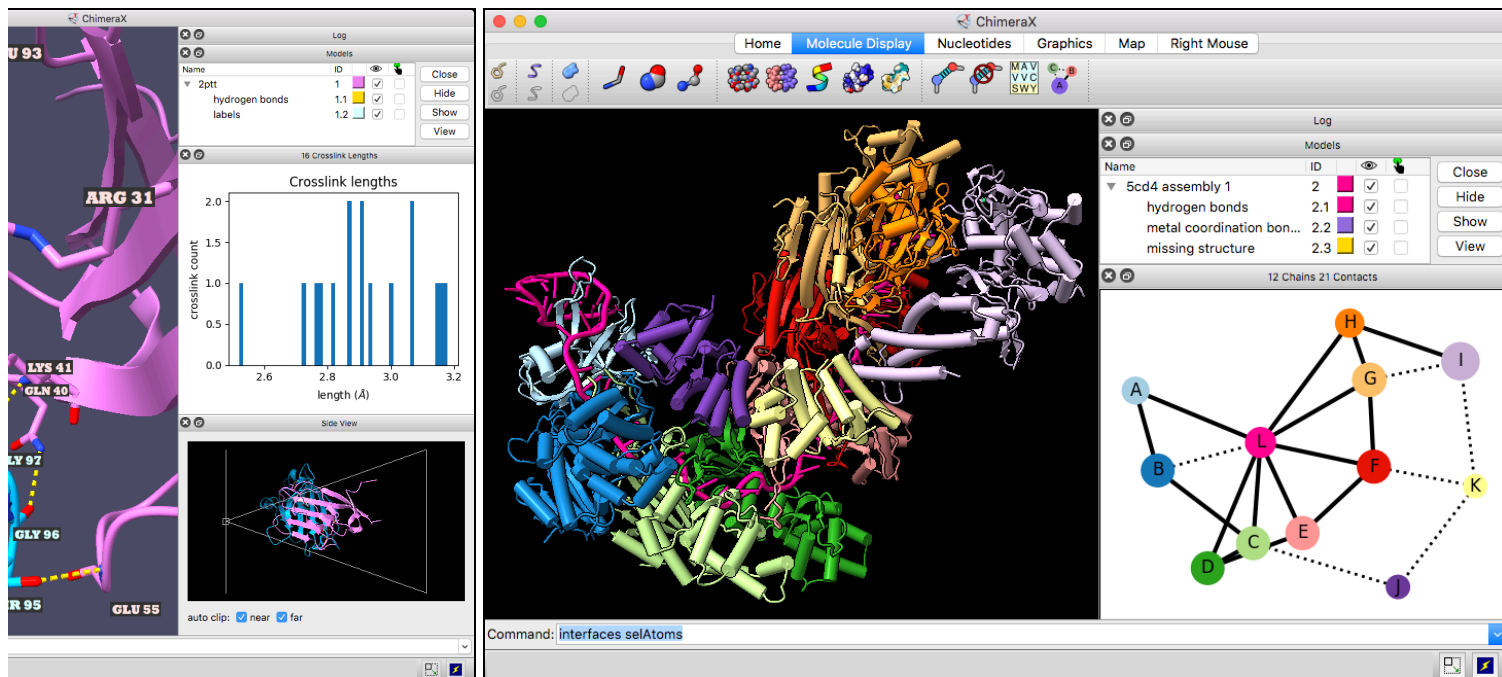# UCSF ChimeraX Advantages

ChimeraX provides several advantages relative to Chimera, and the list will continue to grow. A small sample is given below. See also: feature highlights, example images

- High-performance manipulation and rendering of large numbers of atoms

- Fast mmCIF reader and ability to write mmCIF

- Fast and robust solvent-excluded surfaces

- Interactive ambient-occlusion lighting modes

- Curved-cylinder "tube" helices integrated with cartoon style

- Virtual reality mode for systems supported by SteamVR (Oculus Rift, HTC Vive, Samsung Odyssey), as shown in PBS Newshour: Flu Vaccine and UCSF School of Pharmacy News

- Toolbar with icons to change display styles,

lighting modes, or mouse-button assignments with a single click

- All-in-one window in which tool interfaces are panels that can be shown, hidden, and repositioned

- Tool panels may incorporate interactive 2D plots and diagrams, and HTML with links and images

- Built-in HTML browser with simple mechanism to execute ChimeraX commands by clicking links (handy for demonstrations)

- Toolshed web repository of ChimeraX plugins for easy installation and updates, supporting community development

- Modeller interface for the comparative modeling of homo- and hetero-multimeric complexes (in addition to single-chain modeling)

- Features for working with DICOM medical imaging data

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