

3-D VISUALIZATION IN SCIENCE: GROSS SPECIMENS FROM AN INTERACTIVE STEREOSCOPIC STANDPOINT. *E. Topley, C. Grande. P. Craig*, Department of Biochemistry, and R. Doolittle*, Department of Medical Science; edt2450@rit.edu, cmg4862@rit.edu*

Currently, there are only limited amounts of 3-D educational materials available, and of those, very few allow a substantial degree of interactivity. This research aims to develop a new way to experience anatomical detail at the gross level through the use of virtual reality and stereoscopic technology. The goal is to create a simple and universal method to capture 3-D images and videos that can be incorporated into an academic setting. Photographed materials include the liver, lungs, heart, vertebrae, vertebral column, forearm, and skull. The end products are interactive QuickTime Virtual Reality movies that can be viewed in 3-D with the aid of polarized or anaglyph glasses. Users have the ability to freely rotate the object 360° in the horizontal plane, zoom in and zoom out. This multimedia will be compiled into an instructional image bank that will enhance student learning in ways that cannot be achieved in a 2-D setting. This technology could be used in concert with other virtual reality 3-D products to extend photographic images from the gross down to the microscopic environment. Once refined, advances in 3-D technology could pave the way for other applications such as 3-D videos of dissections or 3-D reconstructions of tissues in ultrasound, MRI, CT or other imaging modality scans.