

Harvard Center for Biological Imaging Honored as Recipient of the 2014 Microsoft Life Sciences Innovation Awards

Cambridge, MA — July 17, 2014 — The Harvard Center for Biological Imaging (HCBI) today announced it has been named a recipient of the 2014 Microsoft Life Sciences Innovation Award.

The award, which was announced at the Drug Information Association's (DIA) 50th annual meeting in San Diego, honors organizations that are using novel software solutions to revolutionize the field of health science.

The HCBI, in partnership with software developer arivis AG and imaging system manufacturer Carl Zeiss Microscopy, presented a solution for imaging, visualizing, and sharing over the web, high-resolution images of the neuronal connections inside a mammalian brain. The field of *Connectomics* (the process of constructing a detailed map of the neurons within the brain) has presented an enormous challenge to optical engineers, biologists and bioinformaticists. New methods to process brain tissue for imaging, along with rapid 3D volume imaging techniques, are now making it possible to image the entire neuronal network of a brain at high resolution in a relatively short period of time. However, the datasets produced by these techniques are often too large to be visualized and analyzed by many widely available software packages or without the aid of a super-computer. Working with both arivis and Zeiss, scientists at the HCBI developed a pipeline for rapidly imaging intact mouse brains at high resolution and passing these large files to a standard desktop, or even a laptop, for 3D visualization and analysis. Now, in a single day, an entire mouse brain can be imaged and reconstructed in 3D, a process that previously required weeks, if it was at all possible. This opens the

door to large-scale comparison studies of healthy and diseased brains; experiments that were never thought to be possible prior to the recent technological advances in sample preparation, imaging hardware, and image analysis software.

The HCBI's winning joint-submission along with arivis AG and Carl Zeiss Microscopy was selected from many proposals by fellow academic, pharmaceutical, biotechnology, clinical resource, and medical device organizations around the world. Winners, chosen by an esteemed panel of industry experts, were selected based on how their innovation represents a breakthrough for the industry, and how their innovation goes beyond incremental improvements on existing technologies. The HCBI's winning submission is highlighted on the Microsoft website at <http://goo.gl/vJRHcW>.

About the Harvard Center for Biological Imaging

The Harvard Center for Biological Imaging (HCBI) is a state-of-the-art light microscopy imaging facility located on the Cambridge campus of Harvard University. Since 2010, the HCBI has provided imaging services to Harvard researchers as well as other academic and commercial life scientists throughout the United States. For more information about the HCBI, please visit www.hcbi.fas.harvard.edu