

ALLEN INSTITUTE *for* BRAIN SCIENCE

For Immediate Release

ALLEN INSTITUTE FOR BRAIN SCIENCE RELEASES UPDATE TO ALLEN BRAIN ATLAS

Enhancements offer users improved browsing capabilities and powerful search tools

SEATTLE, WASH. — July 26, 2007 — The Allen Institute for Brain Science today announced the release of an update to the Allen Brain Atlas, a freely accessible Web-based atlas of gene expression in the mouse brain that is helping scientists worldwide advance brain research. This update incorporates powerful search tools and new options for easily browsing the vast data resource.

“A cornerstone of our mission is to help scientists advance their research programs, whether they are focused on the fundamentals of brain function or on brain diseases and disorders,” said Allan Jones, chief scientific officer of the Allen Institute for Brain Science. “Although we completed the Allen Brain Atlas last September, we have continued to develop tools designed to make this resource even more useful to researchers. This update offers neuroscientists more and better ways to tap into the Allen Brain Atlas data and extract the information most relevant to their research.”

The Allen Brain Atlas is an open access Web-based three-dimensional map of gene expression in the mouse brain detailing more than 20,000 genes at the cellular level. Similar in scale to the Human Genome Project, the Allen Brain Atlas provides all scientists with a uniquely comprehensive resource that reveals where each gene is expressed, or “turned on”, in the brain. Scientists worldwide are using the Allen Brain Atlas regularly, with approximately 10,000 distinct users accessing the Atlas each month. Researchers in academic, pharmaceutical, government and other labs are using the data to address a wide range of questions about the brain in health and disease.

Updates to the Allen Brain Atlas Web application include:

- **NeuroBlast, an advanced mining tool** that offers Atlas users powerful searching capabilities to help extract relevant data quickly and easily. Once a gene of interest is identified, this “find genes like me” search tool allows users to retrieve a list of genes exhibiting similar patterns of expression, or turned on in similar places, throughout the brain.
- **Easy Browsing and Quick View** options that allow viewers to quickly access and flip through, representative images, data summaries, and anatomic reference plates from the integrated Allen Reference Atlas.
- **Improved navigation** that allows users to zoom and pan through the data while tracking where in the brain they are looking. Raw data images are automatically synchronized with corresponding views of the Allen Reference Atlas anatomic map.

- **Programmatic access** that allows third-party search programs to see and retrieve Allen Brain Atlas metadata programmatically for research, semantic web or other applications. The available metadata includes computed informatics values characterizing gene expression, gene symbols, probe sequences used for data generation, and other information.
- **Additional Fine Structure Annotation** options that direct researchers immediately to the 50 genes most specific to defined fine brain structures of interest. These manually curated gene lists are now available for nearly 60 brain structures.

In conjunction with the enhancements to the Allen Brain Atlas, the Allen Institute has also released Version 1.4 of its downloadable three-dimensional viewing application, Brain Explorer. Brain Explorer offers a fully interactive three-dimensional version of the Allen Reference Atlas, the anatomic map integrated with the Allen Brain Atlas. It enables visualization of Allen Brain Atlas gene expression data in 3D, navigation from the reconstructed three-dimensional images to the original two-dimensional data, manipulations such as custom image rotation and virtual slicing of the brain, and gene search capabilities including NeuroBlast.

The Allen Brain Atlas, including direct access to new browsing features, is publicly available at no cost at www.brain-map.org. Technical details of the latest release can be found by following the <More> link in the Announcements box on the Atlas start page.

About the Allen Institute for Brain Science

Located in Seattle, Washington, the Allen Institute for Brain Science, www.alleninstitute.org, is an independent, 501(c)(3) non-profit medical research organization dedicated to performing innovative basic research on cellular function in the brain and distributing its discoveries to researchers around the world. In doing so, the Institute aims to advance a new understanding of diseases that result from disorders of the brain. Founded in 2001 and launched in 2003 with a seed contribution from philanthropist Paul G. Allen, the Institute seeks federal and state funds, along with private contributions and foundation awards, as part of an ongoing public-private partnership to sustain the organization. The Institute's first project, the Allen Brain Atlas, is available online at www.brain-map.org.

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