

Allen Institute for Brain Science announces new data release on Allen Brain Atlas resources

December 20 2013

The [Allen Institute for Brain Science](#) recently announced major updates to the online public resources available through the [Allen Brain Atlas data portal](#). The updates include feature enhancements and data additions to four different atlas resources: the Mouse Brain Connectivity Atlas, the BrainSpan Atlas of the Developing Human Brain, the Human Brain Atlas and the Mouse Brain Atlas. The tools and data are freely available for download and analysis to the entire global research community, constituting a key resource of high-quality neuroscience datasets.

Included in this data release are substantial updates to the most recent product from the Allen Institute for Brain Science: the Allen Mouse Brain Connectivity Atlas. This resource allows users to search and browse connections between the over a hundred million neurons that make up the mouse brain. Axonal projections have been mapped from ~230 anatomical regions and diverse neuronal populations defined by ~90 Cre driver lines. By collecting the data on a highly standardized platform that allows for quantification on a large scale, many datasets can be compiled and compared, leading to a uniquely comprehensive view of [mouse brain](#) neural connections.

"The quantification allows individuals to look at all the data at the same time, and ask more comprehensive questions than would be allowed by looking at a single experiment or a small number of datasets," explains

Lydia Ng, Director of Technology. "For example, by merging and visualizing multiple datasets you are able to explore the topological relationship between the source and target regions. And by turning all data on its head, you can create virtual retrograde experiments."

With its friendly user interface and easy to use search and visualization tools, including an interactive display that offers thumbnails with links to 2-D and 3-D views of detailed anatomy and projection signals, the Allen Mouse Brain Connectivity Atlas has already become an integral source for neuroscientists around the globe, and has been cited in several publications.

The Allen Mouse Brain Connectivity Atlas was first released in November 2011, with periodic data releases to update the atlas. The Allen Brain Atlas resources have been regularly updated since their original publication in 2008. The next and final public data release will be on March 6, 2014.

Provided by Allen Institute for Brain Science

Citation: Allen Institute for Brain Science announces new data release on Allen Brain Atlas resources (2013, December 20) retrieved 3 March 2023 from <https://medicalxpress.com/news/2013-12-allen-brain-science-atlas-resources.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--