ALLEN INSTITUTE for BRAIN SCIENCE
Fueling Discovery

ALLEN **Mouse Brain Atlas**

ACCESSING ANNOTATION AND GRIDDED EXPRESSION DATA MAPPED TO CCF V2 (OCTOBER 2014)

OVERVIEW

In the May 2015 data release, we introduced a next generation common coordinate framework (CCF v3) based on a population average to support the integration of new mouse brain datasets in the Allen Brain Atlas Data Portal. See the Allen Mouse Common Coordinate Framework whitepaper for detailed construction information.

The Nissl volume and 3-D annotation from the Allen Reference Atlas were deformably registered to the new common coordinate framework to support potential cross-modality analysis of gene expression with new data modalities as they become available in the Data Portal.

All data from the Allen Mouse Brain Atlas were remapped to the modified Nissl and 3-D annotation. This documents details how to access archival annotation, structure-level expression summary and gridded data from the October 2014 release as mapped to CCF v2.

3-D REFERENCE MODEL

Six volumetric data files are available for download. All volumetric data is stored in an uncompressed format with a simple text header file in MetaImage format. See API documentation page for details.

File	Description
atlasVolume	UCHAR (8bit) grayscale Nissl volume of the reconstructed brain at 25 µm resolution http://download.alleninstitute.org/informatics-archive/october-2014/annotation/atlasVolume.zip
P56_Mouse_annotation	UINT (32bit) gray matter structural annotation volume at 25 µm resolution based on the **Allen Reference Atlas**. The value represents the ID of the finest level structure annotated for the voxel. http://download.alleninstitute.org/informatics-archive/october-2014/annotation/P56_Mouse_annotation.zip

P56_Mouse_annotationFiber	UINT (32bit) fiber tract structural annotation volume at 25 µm resolution based on the **Allen Reference Atlas**. The value represents the ID of the finest level structure annotated for the voxel. http://download.alleninstitute.org/informatics-archive/october-2014/annotation/P56_Mouse_annotationFiber.zip
P56_Mouse_gridAnnotation	UINT (32bit) gray matter structural annotation volume based on the **Allen Reference Atlas** at grid (200 µm) resolution for gene expression analysis http://download.alleninstitute.org/informatics-archive/october-2014/annotation/P56_Mouse_gridAnnotation.zip
P56_DevMouse2012_annotation	UINT (32bit) gray matter structural annotation volume at 25 µm resolution based on the **Allen Developing Mouse Brain Reference Atlas**. The value represents the ID of the finest level structure annotated for the voxel. http://download.alleninstitute.org/informatics-archive/october-2014/annotation/P56_DevMouse2012_annotation.zip
P56_DevMouse2012_gridAnnotation	UINT (32bit) gray matter structural annotation volume based on the **Allen Developing Mouse Brain Reference Atlas** at grid (200 µm) resolution for gene expression analysis http://download.alleninstitute.org/informatics-archive/october-2014/annotation/P56_DevMouse2012_gridAnnotation.zip

DOWNLOADING EXPRESSION GRIDS

Expression summaries for each SectionDataSet from October 2014 release (mapped to CCF v2) have been archived on our download server:

http://download.alleninstitute.org/informatics-archive/october-2014/mouse_expression/

The index file mouse_expression_data_sets.csv list all SectionDataSet from the Allen Mouse Brain Atlas and includes links to download grid data as a zip file and StructureUnionize results as a csv file. See API documentation page for detailed information on data format.