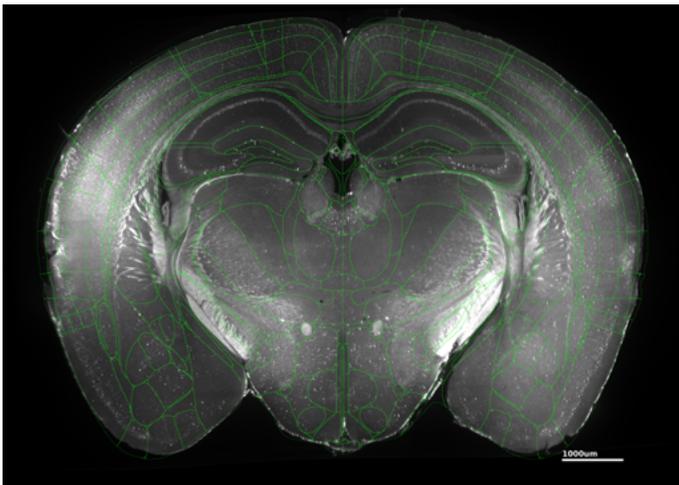


# SmartAnalytics

Powerful & user-friendly workstation optimized for 3D image datasets

With an intuitive graphical interface to walk you through every step, SmartAnalytics makes data analysis easy. Quantify your experiment with precise cell counts, fluorescence intensity, and co-localization measurements. Generate robust data and export outputs such as heat maps directly from the software.

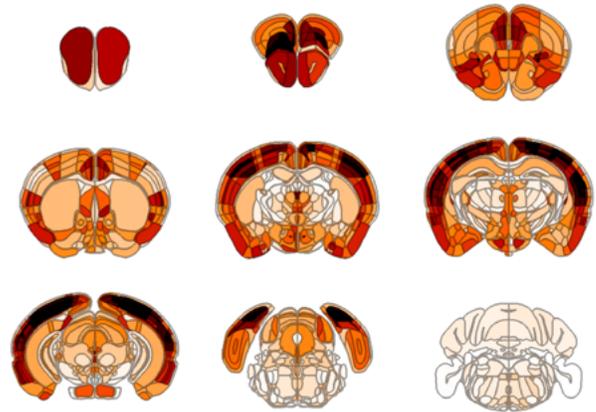


Allen Brain Atlas overlay of NeuN-stained mouse brain.

## ADAPTABLE DETECTION MODELS

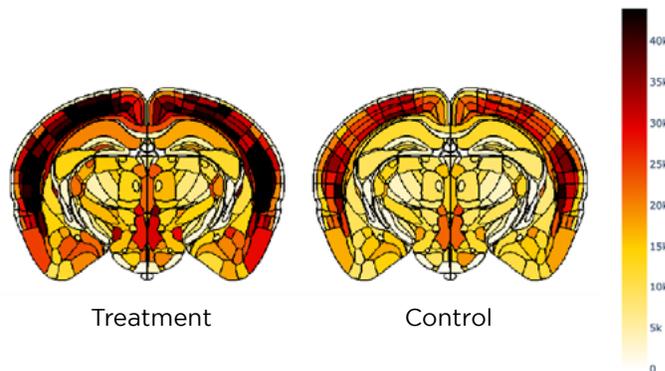
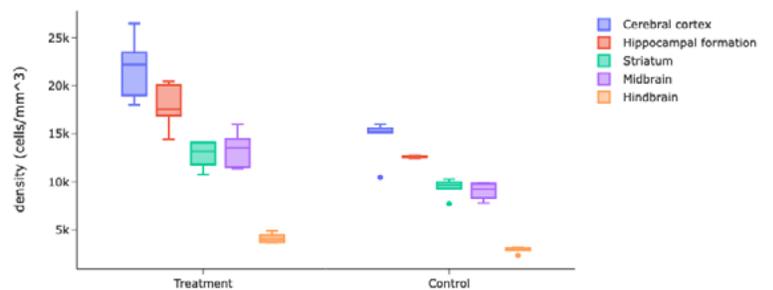
SmartAnalytics is packaged with machine learning models to detect cells for a wide variety of research applications:

- Neural activity patterns (cFOS)
- Endogenous fluorescent proteins such as GFP, tdTomato, and YFP
- Cell-type markers such as NeuN (neurons), GFAP (astrocytes), and Iba-1 (microglia)
- Neurological disease markers such as  $\beta$ -amyloid deposits
- Other neural biomarkers such as TH, PV, and more



## AI-ASSISTED ATLAS REGISTRATION

Register your samples to the Allen Brain Atlas to accurately map signals to brain regions. Use a combination of automated and manual registration steps to ensure a perfect fit. Compare experimental results region-by-region and find every brain area that might be involved in your experimental question.



Comparisons of cFOS+ cells in mouse brains by brain region and treatment group.