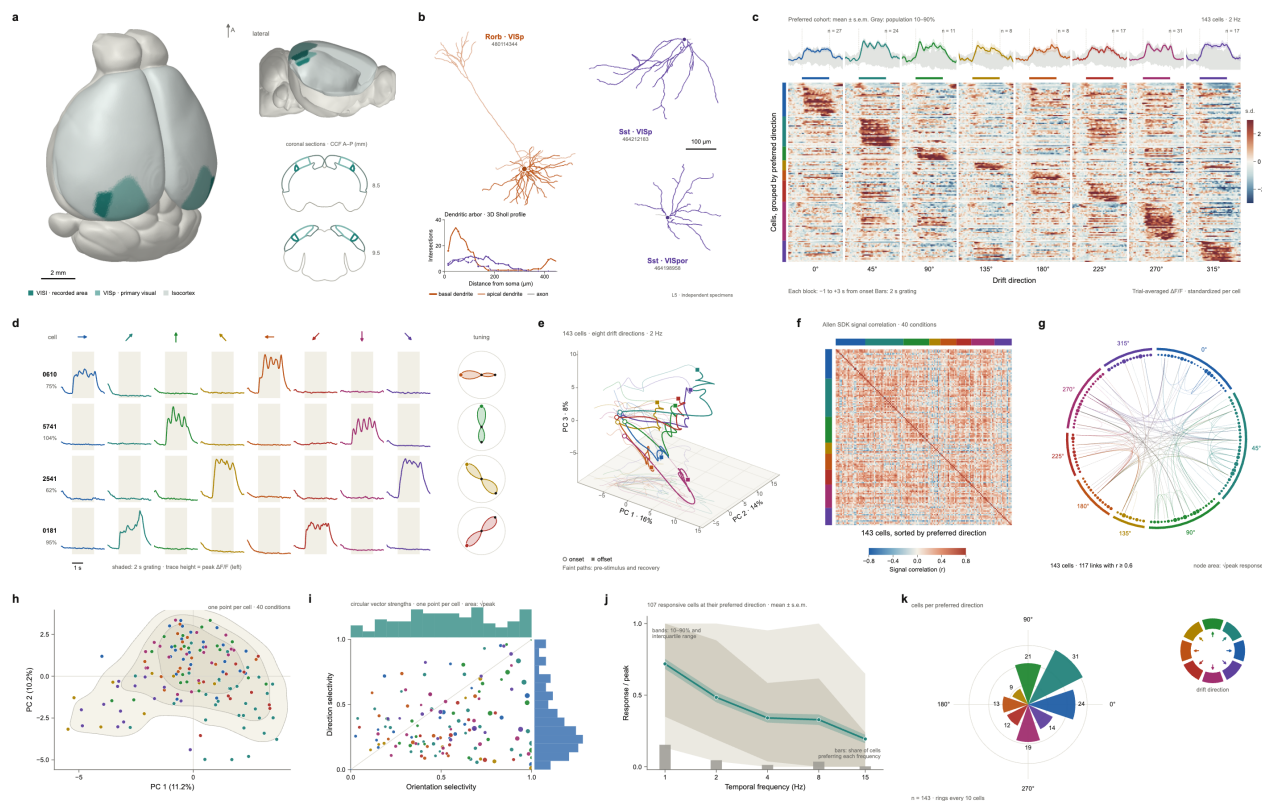


Neuronal networks flexibly encode diverse stimuli

Flux demonstration project · Public data, original visualizations

A population view of neural information

A stimulus can recruit many neurons without producing the same response in every cell. We explore this simple idea through public neuronal recordings, reconstructed cell shapes and anatomical surfaces. Each view offers a different scale for the same question: how does activity across a population make information visible?



Original Flux figure · Public Allen Institute data. See project provenance for source specimens and processing.

The visual story moves from anatomy to activity: the recorded area on the brain surface and reconstructed cortical neurons; the whole population's responses to eight drift directions; four example cells with their tuning; population trajectories; the similarity structure among cells; and the distributions of selectivity, temporal-frequency tuning and preferred direction. All panels were designed for this demonstration. They are exploratory illustrations, rather than evidence for the paper's intentionally broad working title.

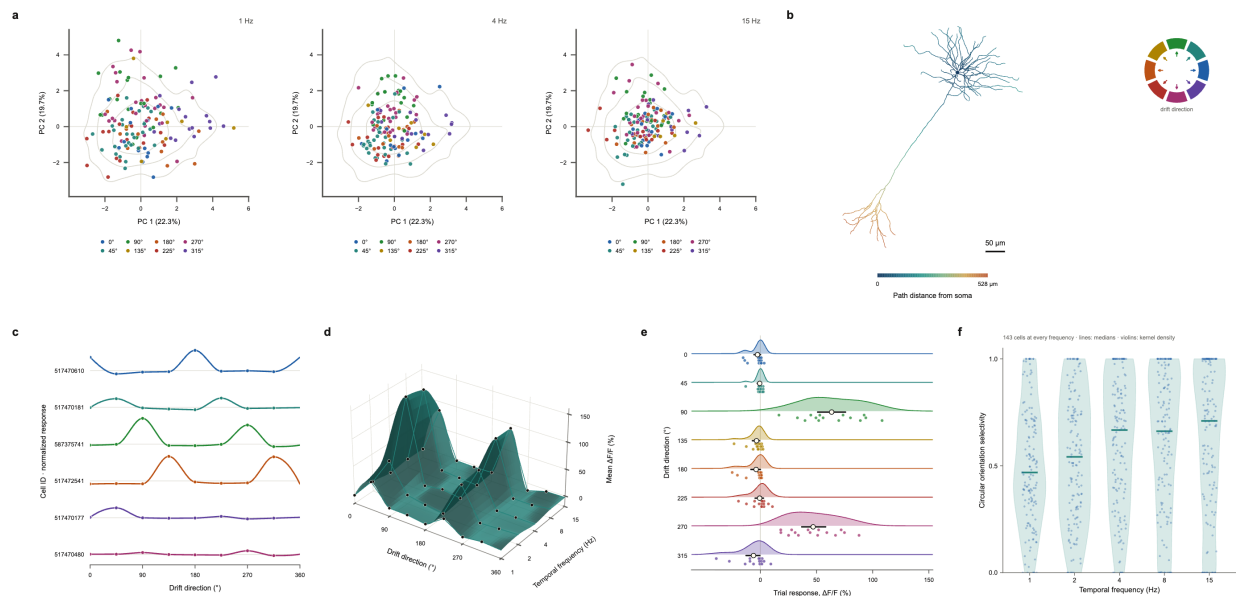
From a response map to a connected result

A single summary cannot show every relationship in a dataset. The figure combines complementary views while retaining the observations, plot sources and processing notes that produced each panel. The original data sources are identified in the project bibliography (Allen Institute; source records in the project bibliography).

The interactive explanation is available in the editable Flux project.

Variation is part of the pattern

Neurons differ in their response profiles, their selectivity and the way they share activity. Looking at individual measurements alongside population summaries makes that variation visible: the same cells drift through a common response space as temporal frequency changes, single cells show their trial-by-trial spread and their joint tuning, and an independent reconstruction recalls the anatomy behind the signal.



Original Flux figure · Public Allen Institute data. See project provenance for source specimens and processing.

A working example, ready to edit

The manuscript, compositions, plots and slides are ordinary project files. Their visual vocabulary is shared, so a selected neuron, response group or comparison remains recognizable as the explanation moves between a paper and a presentation.

Data and interpretation

This is an original Flux showcase project, not a scientific report. Public source datasets supply the numerical and anatomical material; our selection, transformations, visual compositions and wording are new. Anatomical context and activity panels may come from different public specimens or experiments and must not be interpreted as one matched biological sample. The project methods and provenance records identify those boundaries.