

# Resource Summary Report

Generated by [kravitz2](#) on Sep 4, 2026

## Rafael Yustes Laboratory

RRID:SCR\_001845

Type: Tool

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### Proper Citation

Rafael Yustes Laboratory (RRID:SCR\_001845)

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### Resource Information

**URL:** <http://www.columbia.edu/cu/biology/faculty/yuste/>

**Proper Citation:** Rafael Yustes Laboratory (RRID:SCR\_001845)

**Description:** Laboratory that aims to understand the function of the cortical microcircuit by reverse-engineering of the cortical microcircuit using the mouse neocortex in vitro and in vivo as their experimental preparations. The techniques applied are electrophysiology, anatomy, and a variety of optical methods, including infrared-DIC, voltage- and ion-sensitive dye imaging with confocal, two-photon and second harmonic microscopy. They also use laser uncaging, biolistics, electroporation, electron microscopy and numerical simulations, and make extensive use of genetically modified mouse strains. They focus is on two major questions: (1) What is the function of dendritic spines? (2) What are the multicellular patterns of activity under spontaneous or evoked activation of the circuit? Resources include: \* Cell Reconstructions: Cell Database, PDF Images, .DAT Files \* Circuit Diagrams: Full Circuit Diagram, Inhibitory Circuit Diagram, Excitatory Circuit Diagram, Simplified Circuit Diagram, Layer to Layer Simplified Circuit, Circuit diagram references

**Abbreviations:** Yuste Lab

**Synonyms:** Rafael Yuste's Laboratory, Cortical Circuits and Dendritic Spines

**Resource Type:** data or information resource, database, image collection, laboratory portal, organization portal, portal

**Keywords:** electron microscopy, electrophoration, electrophysiology, anatomy, biolistics, circuit, confocal, cortical, infrared-dic, ion sensitive dye imaging, voltage sensitive dye imaging, microcircuit, microscopy, mouse, multicellular, neocortex, optical method, second harmonic, two-photon, laser uncaging, cortical circuit, dendritic spine, cortical microcircuit, canonical microcircuit, cell reconstruction, cell, image, inhibitory circuit, excitatory circuit

**Availability:** Free, Freely available

**Resource Name:** Rafael Yustes Laboratory

**Resource ID:** SCR\_001845

**Alternate IDs:** nif-0000-10407

**Record Creation Time:** 20220129T080209+0000

**Record Last Update:** 20260903T234509+0000

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## Ratings and Alerts

No rating or validation information has been found for Rafael Yustes Laboratory.

No alerts have been found for Rafael Yustes Laboratory.

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## Data and Source Information

**Source:** [SciCrunch Registry](#)

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## Usage and Citation Metrics

We have not found any literature mentions for this resource.