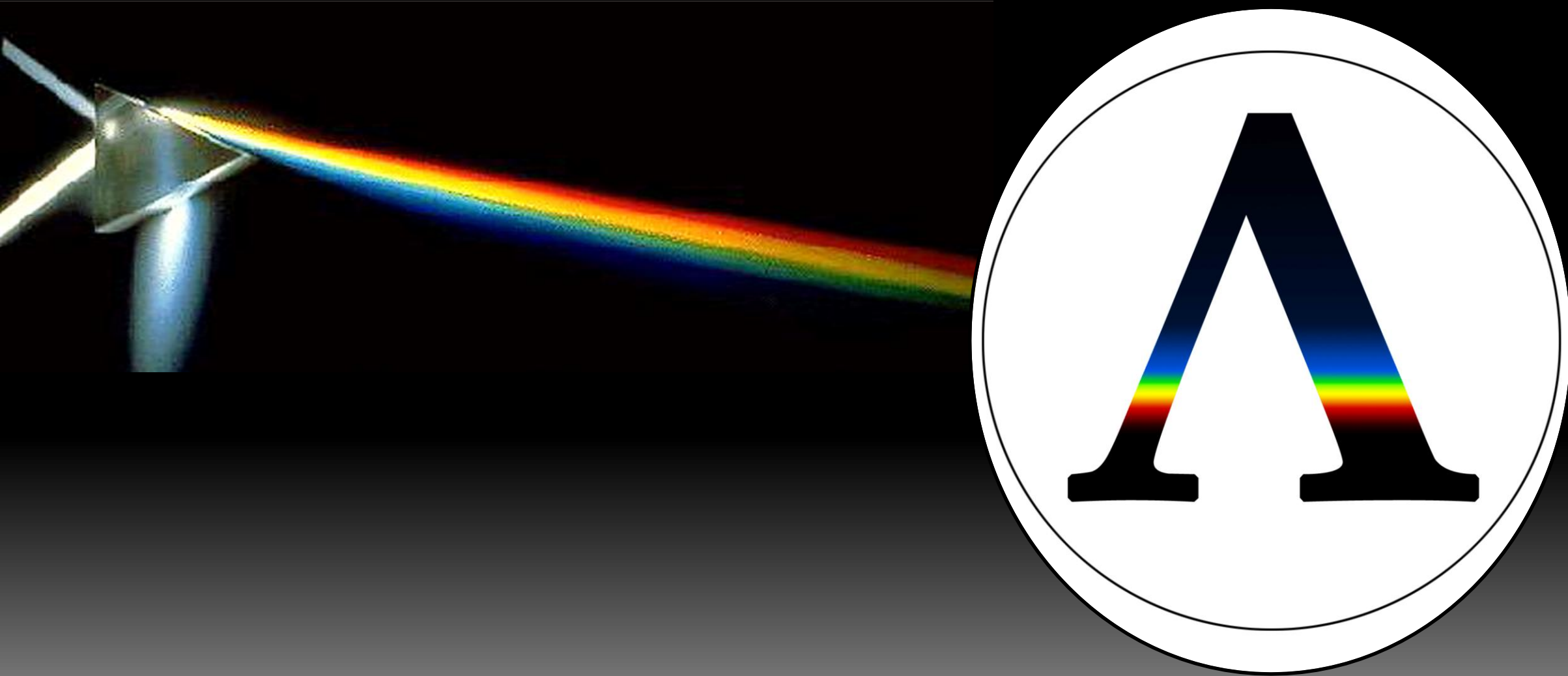




LAMBDA NEUROSCIENCE FOUNDATION

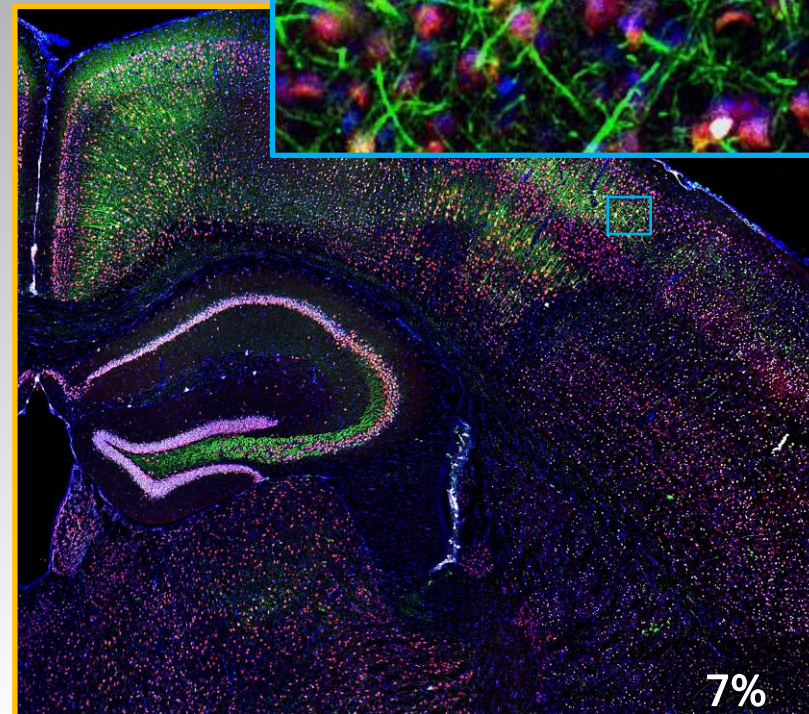
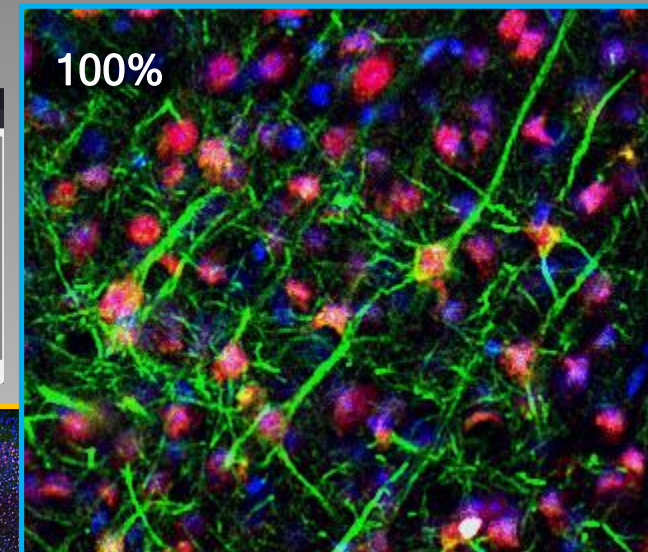
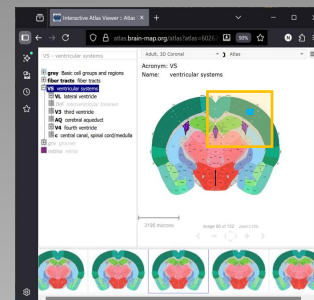
ADVANCING BRAIN RESEARCH & STEM ENGAGEMENT

nicklaussparrow.com/LNF



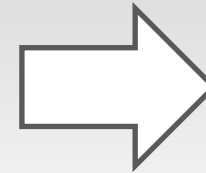
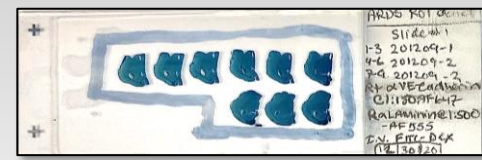
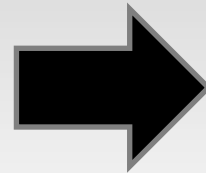
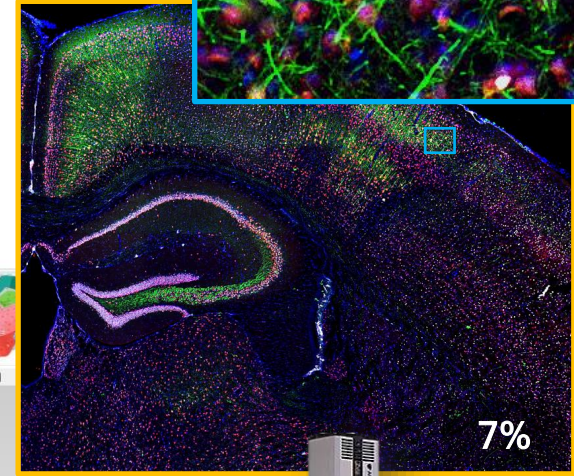
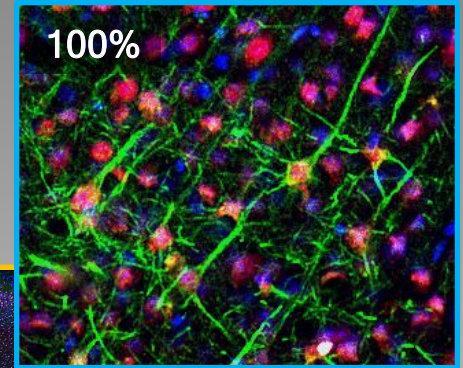
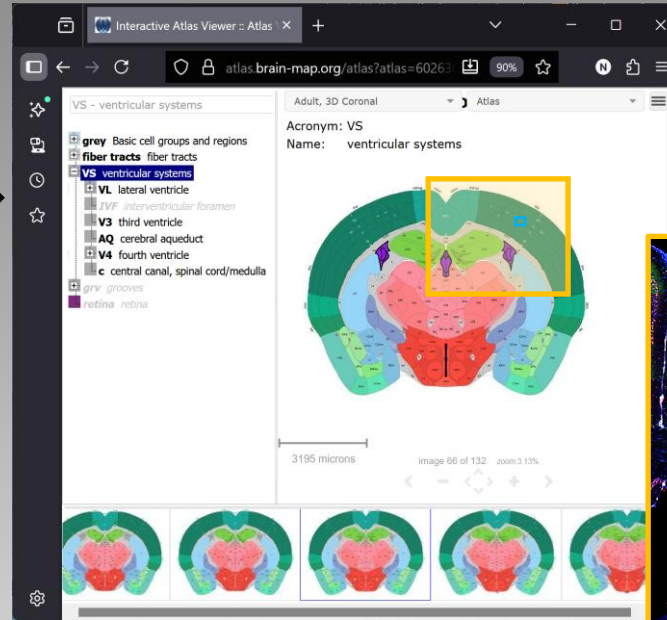
OUR CHARITABLE PURPOSE

- Lambda Neuroscience Foundation is a nonprofit in its pre-launch phase that aims to provide specialized histology services (microscopic tissue analysis) to qualified neuroscience researchers at no cost.
- Brain diseases like autism, Alzheimer's, stroke, multiple sclerosis, and brain cancer are studied by using mouse models. Researchers submit brains from these mice to Lambda, and they are processed to produce highly detailed digital images.
- Lambda Neuroscience Foundation's (Lambda's) planned workflow will exceed standard lab imaging and generate a greater visualization of the entire brain. This will lead to new insights into neurological disease progression, and possible new drug therapies.
- As a condition of no-cost service, participating investigators will agree to public release of the resulting images and other data in Lambda's online, open-access database, facilitating new scientific data sharing.



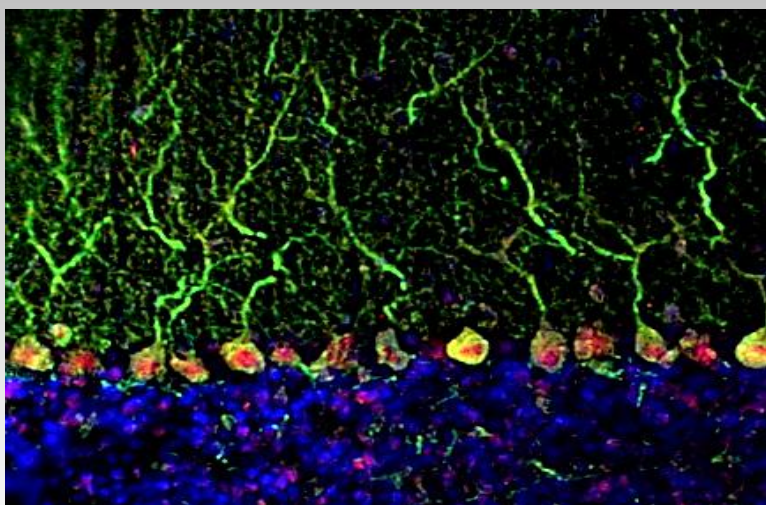


WHAT WE DO AT LAMBDA





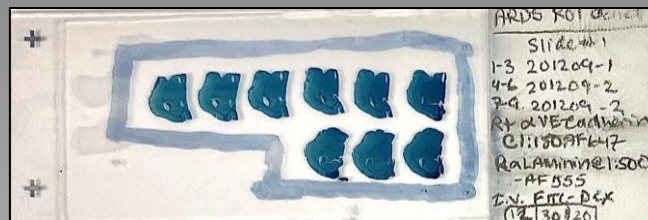
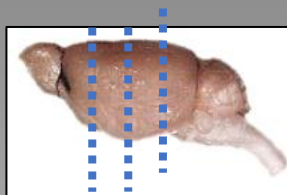
OUR COMMUNITY IMPACT



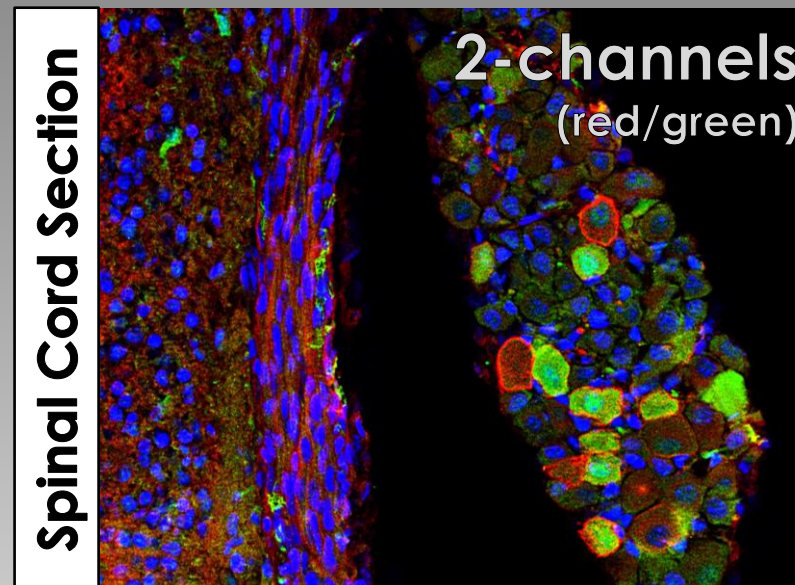
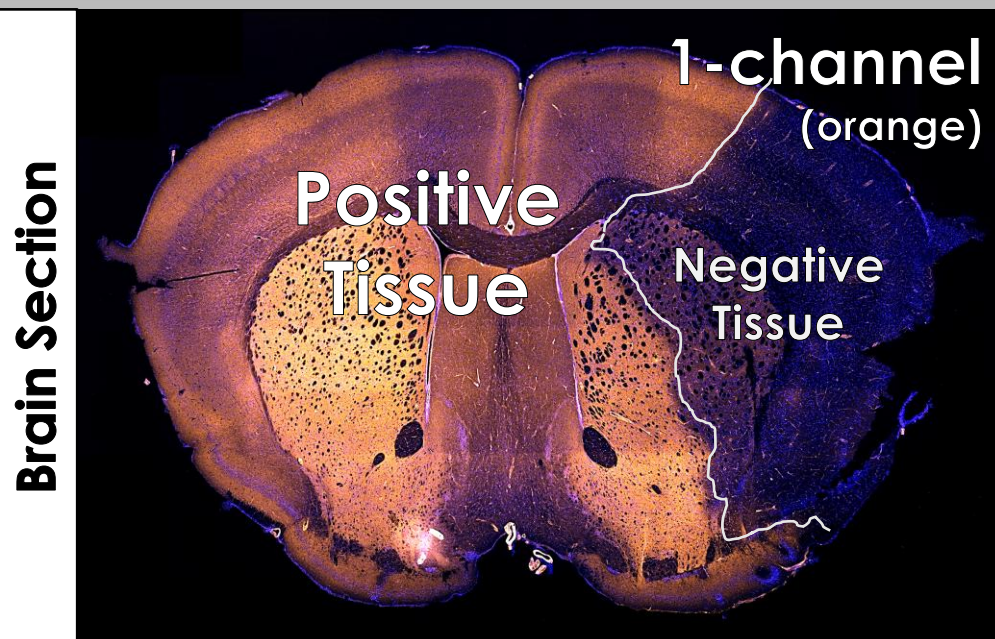
- Alongside its planned research services, Lambda aims to advance public STEM education to demystify the process of therapeutic discovery and inspire the next generation of scientists.
- Lambda will produce video “lab diaries” documenting future research projects, along with educational content explaining brain diseases and the scientific principles behind its microscopy workflow. An email newsletter will provide subscribers with summaries of active projects and new opportunities to engage.
- Planned outreach includes guided laboratory tours for middle school students, and hands-on experiences for high school students interested in biomedical science careers.
- Lambda’s unique model: donor support funds both research services and community outreach; public images and educational content help donors directly see the work their contributions make possible.



STANDARD LABORATORY WORKFLOW



- Brains are thinly sliced and attached to slides
- Brain sections are stained and imaged
- Analyze only a specific brain region (~5% total)

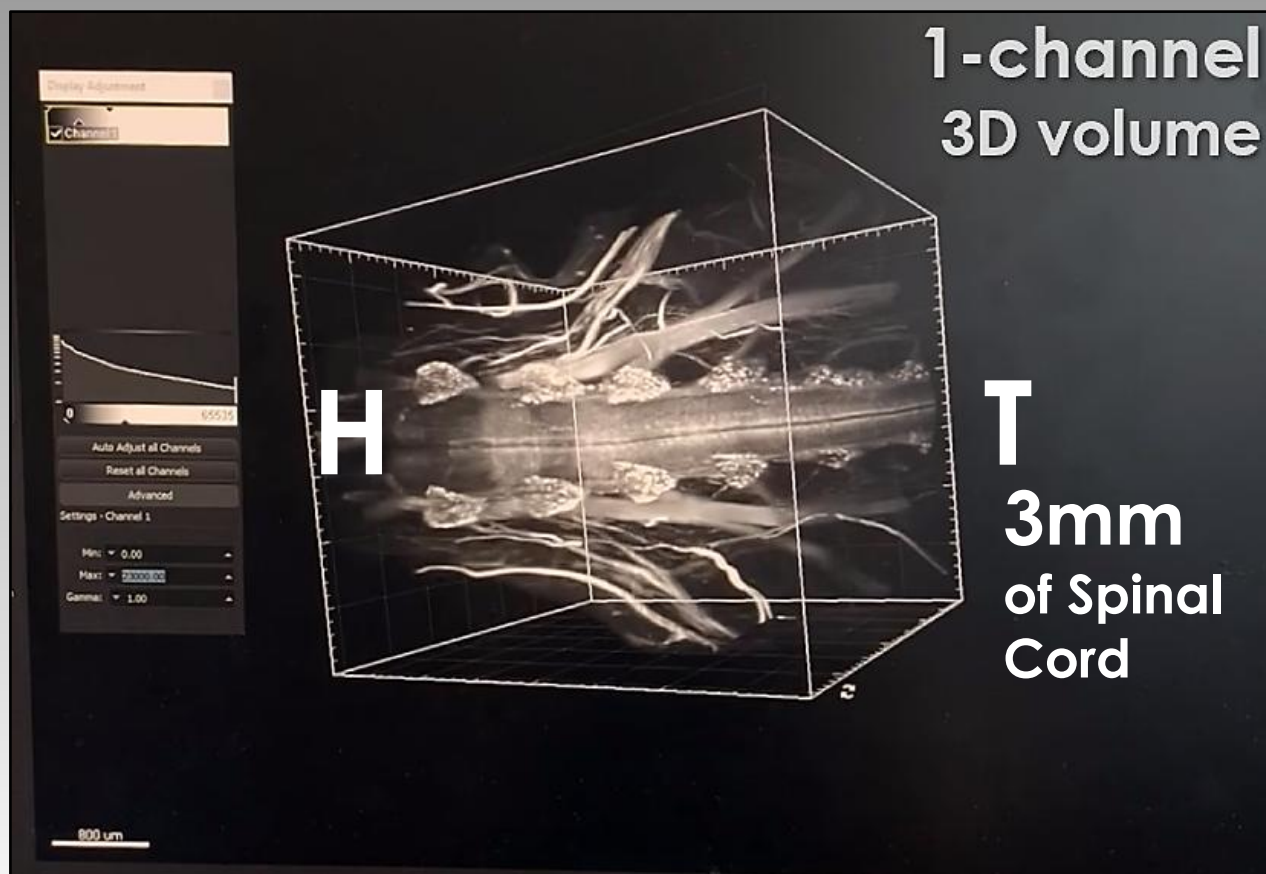


- Antibodies are used to label specific cellular structures with specific colors
- Typically, only two channels are used, therefore it's possible to distinguish only four cellular populations:
R-/G-, R+/G-, R-/G+, R+/G+



WHY SCIENTISTS WILL WORK WITH US

Our comprehensive & highly detailed method of visualization



What we will offer...

6-channels
across
the entire brain

64 populations
in 12mm



LAMBDA'S FOUNDER

- Dr. Sparrow holds a PhD in Biomedical Sciences with a focus in Neurobiology and has authored multiple peer-reviewed primary neuroscience publications and presented at national and international scientific conferences.
- He most recently served as laboratory manager of a translational neuroscience research laboratory in the Neurology Department at Cedars-Sinai Medical Center.
- He established that laboratory from the ground up while conducting his own research and managing compliance, operations, and project support for four additional researchers through project completion.
- He brings nearly 20 years of hands-on experience in histological staining, advanced molecular imaging, 2D and 3D digital tissue analysis, and end-to-end biomedical research workflows.



Nicklaus A. Sparrow, PhD

- **Ph.D., Biomedical Sciences**, 2011-2017,
University of Central Florida
- **B.S., Molecular Biology & Microbiology and
B.S., Biotechnology, Honors** 2005-2010
University of Central Florida



LAMBDA'S NAME, LOGO, BRAND



- The lowercase Greek letter lambda (λ) is used in physics equations as the variable to indicate wavelength of light. Using discrete wavelengths of light is fundamental to Lambda's process of visualizing brain tissue microscopically.
- The capital Greek letter lambda (Λ) was chosen for LNF's logo because it resembles a prism like those used in optical workbenches. The prism motif is reinforced by the spectrum of light shining through the letter.
- Together, the two sides of the capital lambda resemble supporting pillars, reflecting Lambda's two-part mission: helping neuroscience researchers and inspiring Los Angeles students.
- Lambda is also associated with light and the rainbow, a longstanding symbol of celebrating diversity. Inclusivity is a top priority for Lambda both in-house, and when conducting its future community outreach.



OUR GROWTH VISION

Year 1

- Establish laboratory space with core instrumentation, including a vibratome and fluorescence microscope.
- Develop standardized experimental protocols, launch LNF database website, and produce initial public-facing lab content.
- Secure Year-2 funding through focused outreach to major donors and public fundraising campaigns.

Year 2

- Conduct foundational collaborative work with neuroscience investigators at Cedars-Sinai Medical Center.
- Deliver free, high-throughput histology services to ~350 academic and industry neuroscience projects across greater Los Angeles.
- Provide tours for younger students, and hands-on experiences for LA high school students (AP Biology).

Year 3

- Expand services first to labs state-wide and then to national through targeted infrastructure growth and staff expansion.
- Partner with/acquire sponsorship by LAUSD to integrate STEM educational programs and student research engagement.
- Secure long-term funding via large scale donations, NIH R21 grants, and NIH Blueprint CRO designation.



WHAT WE NEED TO GET STARTED

GoFundMe
for:



Leica
Biosystems
VT1200 S
Vibratome

\$35k

Leica
Biosystems
Aperio VERSA
Microscope

\$70k



Category	Amount	Notes
Vibratome	\$35,000	Cornerstone instrument for reproducible brain sectioning (Leica VT1200 S)
Microscope	\$70,000	Core imaging system with multichannel fluorescence (Leica Aperio VERSA)
Lab rental, utilities, and compliance	\$50,000	Small private suite with visitor access; waste disposal; permits (overhead)
Laboratory Materials & IT	\$30,000	Bench equipment, consumables, reagents, antibodies, and digital infrastructure
Education/outreach content	\$5,000	Online lab diaries, videos, and classroom materials
Strategic reserve	\$10,000	Buffer for unexpected costs and rapid growth (contingency & scaling)
TOTAL:	\$200,000	Requested Year-1 seed budget