

# Project Timeline

Interactive Project Timeline - Click on tasks to edit details

Filter by Lane:

All Lanes



Filter by Status:

All Statuses



Filter by Priority:

All Priorities



Export PDF



Export CSV



Print

## Project Status Overview

Total Tasks

98

Timeline Span

720 days

High Priority

50

In Progress

1



2025-08-27 – 2027-08-17

Today  
Laser

## Committee

Planning Document • Aaron • In Progress • High

Proposal Draft • Aaron • Planned • High

Milestone • Aaron • Planned • High

Proposal Draft • Aaron • Planned • High

Committee Formation • Aaron • Planned • High

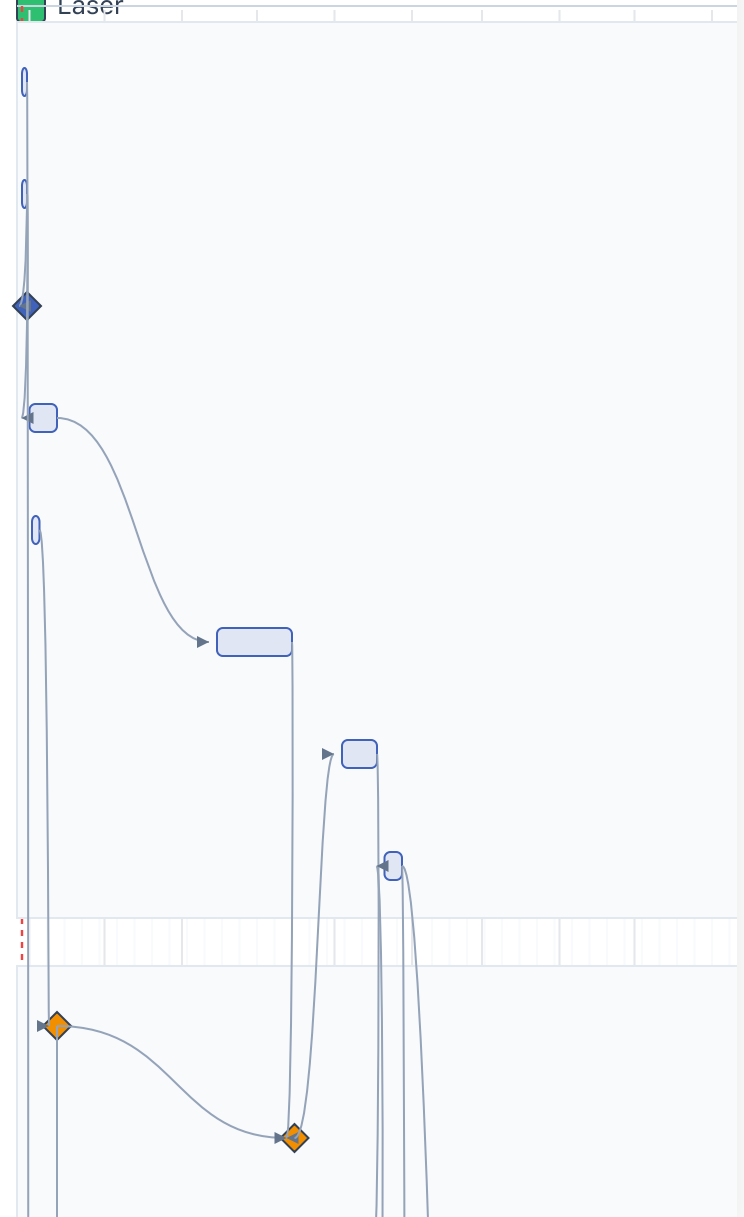
Proposal Draft • Aaron • Planned • High

Presentation Prep • Aaron • Planned • High

Document Revision • Aaron • Planned • High

Committee Milestone • Aaron • Planned • High

Committee Milestone • Aaron • Planned • High



## Oral PhD Proposal Exam (Qualifying Exam)

Committee Milestone • Aaron • Planned • High

## PhD Dissertation & Defense Completion

Committee Milestone • Aaron • Planned • High

### Draft Dissertation: Introduction & Background

Dissertation Chapter • Aaron • Planned • Medium

### Draft Dissertation: Aim 1 Methods & Results

Dissertation Chapter • Aaron • Planned • Medium

### Draft Dissertation: Aim 2 Methods & Results

Dissertation Chapter • Aaron • Planned • Medium

### Circulate preliminary results (methods & data) to committee

Committee Feedback • Aaron • Planned • Medium

### Draft Dissertation: Aim 3 Methods & Results

Dissertation Chapter • Aaron • Planned • Medium

### Draft Dissertation: Conclusions & Future Work

Dissertation Chapter • Aaron • Planned • Medium

### Schedule final oral defense (coordinate committee & form)

Committee Milestone • Aaron • Planned • High

### Prepare professional development & IDP section (for defense)

Defense Prep • Aaron • Planned • Medium

### Milestone: Full dissertation draft completed

Milestone • Aaron • Planned • High

### Update committee membership (if changes needed)

Administrative Task • Aaron • Planned • Medium

### Apply to graduate (Summer 2027 term)

Administrative Deadline • Aaron • Planned • High



Finalize post-graduation plans (postdoc/job transition)

Career Prep • Aaron • Planned • Low

PhD Final Oral Defense (Dissertation Defense)

Committee Milestone • Aaron • Planned • High

Revise dissertation per committee feedback

Document Revision • Aaron • Planned • High

Submit final dissertation to Graduate School

Committee Milestone • Aaron • Planned • High

Complete exit paperwork and surveys

Administrative Task • Aaron • Planned • Medium

Seed laser alignment to  $\geq 30$  mW (pre-pump)

Laser Alignment • Aaron • Planned • Medium

Amplifier alignment to  $\geq 130$  mW output

Laser Alignment • Aaron • Planned • Medium

Pulse compression check ( $\leq 200$  fs pulses)

Laser Alignment • Aaron • Planned • Medium

Calibrate microscope with USAF target

Laser Alignment • Aaron • Planned • Medium

Milestone: Laser system ready for in vivo imaging

Milestone • Aaron • Planned • High

Plan imaging cohort ( $\approx 3$  pilot mice) + IACUC approvals

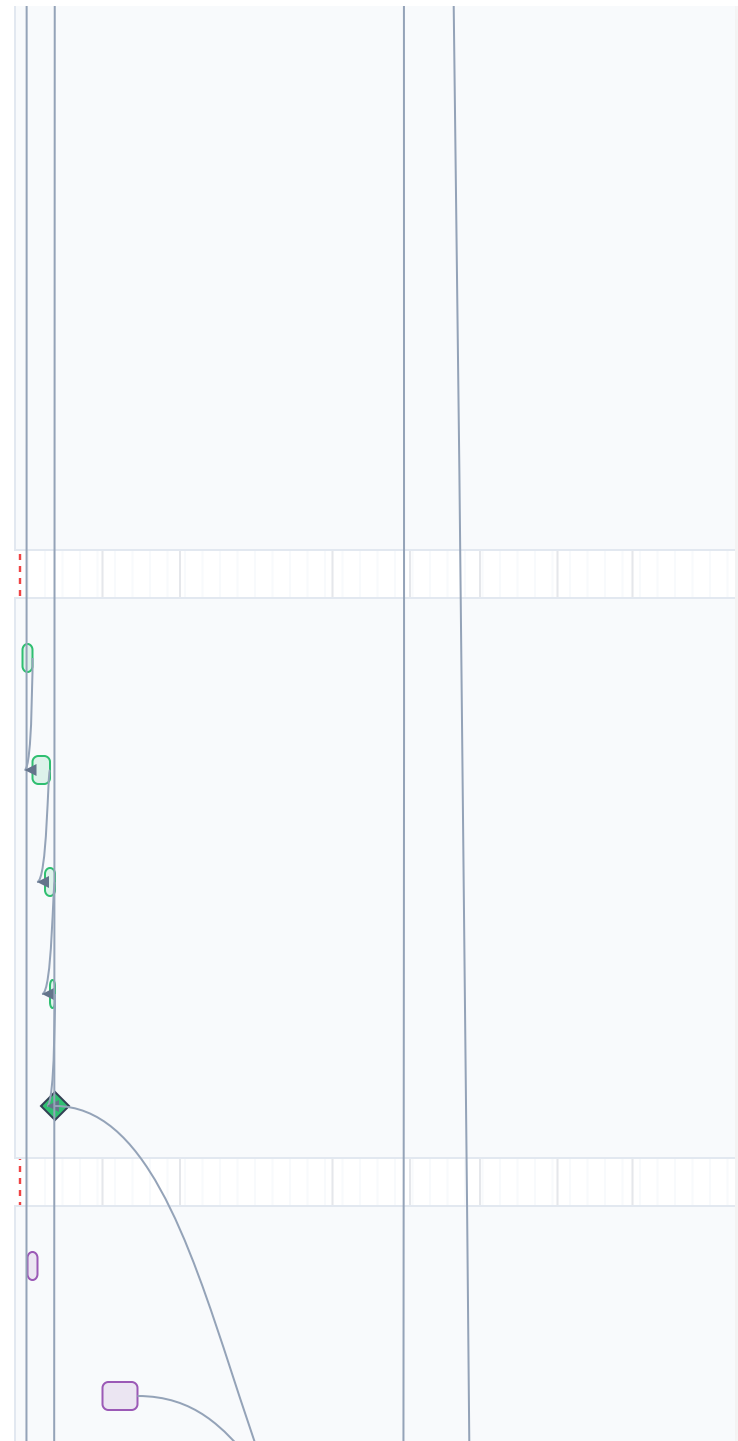
Experiment Planning • Aaron • Planned • Medium

Design & order AAV-mScarlet & jRGECO1b vectors (vascular & neuronal labels)

AAV Production • Aaron • Planned • High

Laser

Imaging



AAV Production • Aaron • Planned • High

### Milestone: AAV vectors ready for in vivo use

Milestone • Aaron • Planned • High

### Cranial window surgery + AAV injection – Pilot Mouse #1

Surgery • Aaron • Planned • High

#### Post-op recovery – Pilot Mouse #1 (no imaging)

Post-Op Care • Aaron • Planned • High

### Develop U-Net segmentation pipeline (initial version)

Analysis Pipeline • Aaron • Planned • Medium

### Cranial window surgery + AAV injection – Pilot Mouse #2

Surgery • Aaron • Planned • High

#### Post-op recovery – Pilot Mouse #2 (no imaging)

Post-Op Care • Aaron • Planned • High

### Cranial window surgery + AAV injection – Pilot Mouse #3

Surgery • Aaron • Planned • High

#### Post-op recovery – Pilot Mouse #3 (no imaging)

Post-Op Care • Aaron • Planned • High

### Pilot imaging session #1 (AAV vs dye)

Imaging Session • Aaron • Planned • High

### Process pilot imaging data (registration & SNR analysis)

Data Analysis • Aaron • Planned • Medium

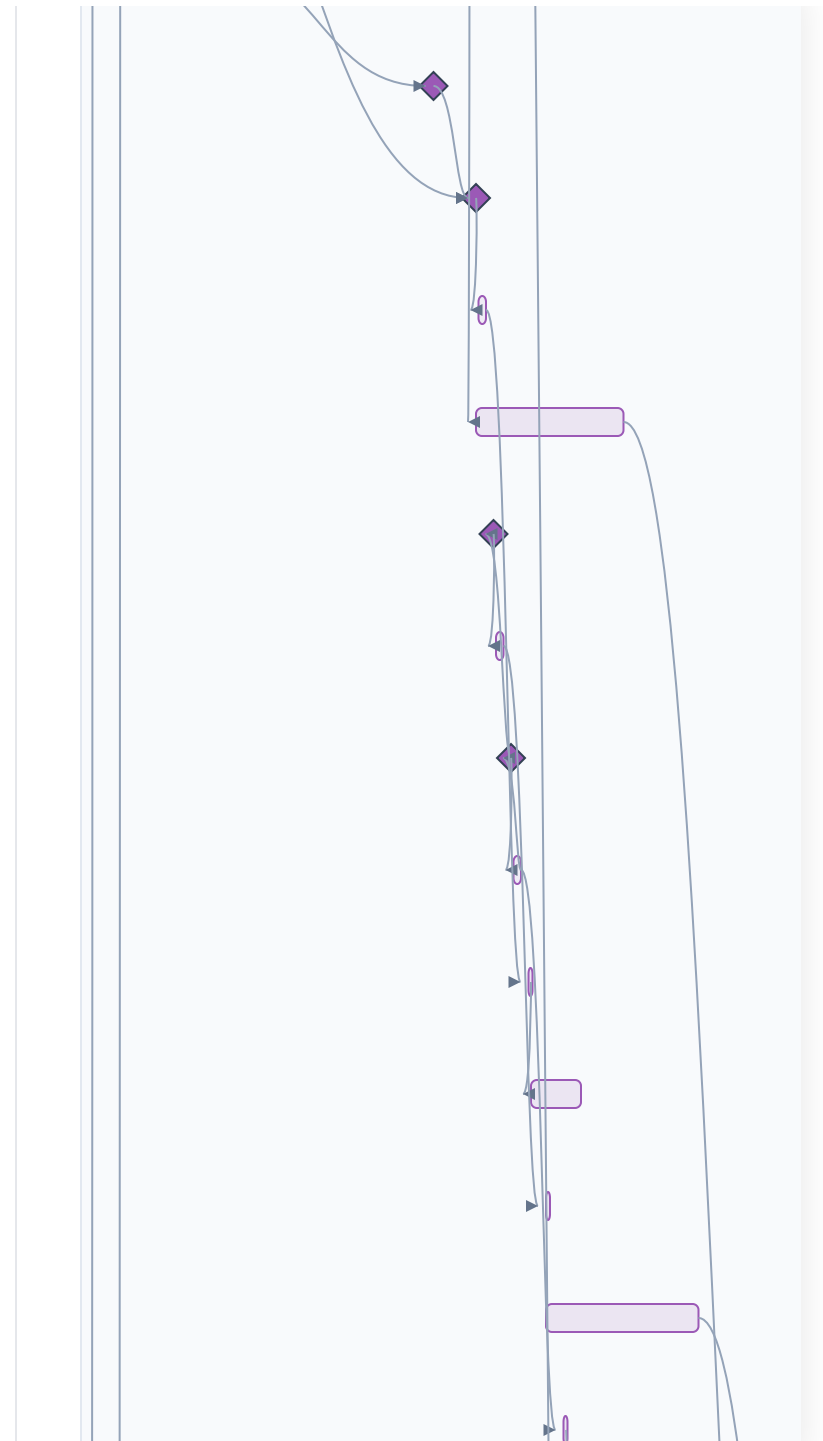
### Pilot imaging session #2 (AAV vs dye)

Imaging Session • Aaron • Planned • High

### Deliver enhancer-based AAV for improved expression (Aim 2)

AAV Production • Aaron • Planned • Medium

### Pilot imaging session #3 (AAV vs dye)



Imaging Session • Aaron • Planned • High

Milestone: Pilot imaging datasets (Aim 1 validation) complete

Milestone • Aaron • Planned • High

Optimize two-photon dual-color imaging setup

System Optimization • Aaron • Planned • Medium

Optimize laser speckle (LSCI) imaging integration

System Optimization • Aaron • Planned • Medium

Conduct systematic imaging comparisons (labeling methods)

Imaging Experiment • Aaron • Planned • Medium

Establish stroke model protocol (training & IACUC approval)

Surgery Prep • Aaron • Planned • High

Induce stroke in experimental cohort (surgery)

Surgery • Aaron • Planned • High

Acute-phase post-stroke imaging (0–1 week post-stroke)

Imaging Session • Aaron • Planned • High

Refine ML segmentation & analysis pipeline (stroke data)

Analysis Pipeline • Aaron • Planned • Medium

Milestone: Enhancer-based AAV vector delivered

Milestone • Aaron • Planned • High

Transition-phase imaging (2–4 weeks post-stroke)

Imaging Session • Aaron • Planned • High

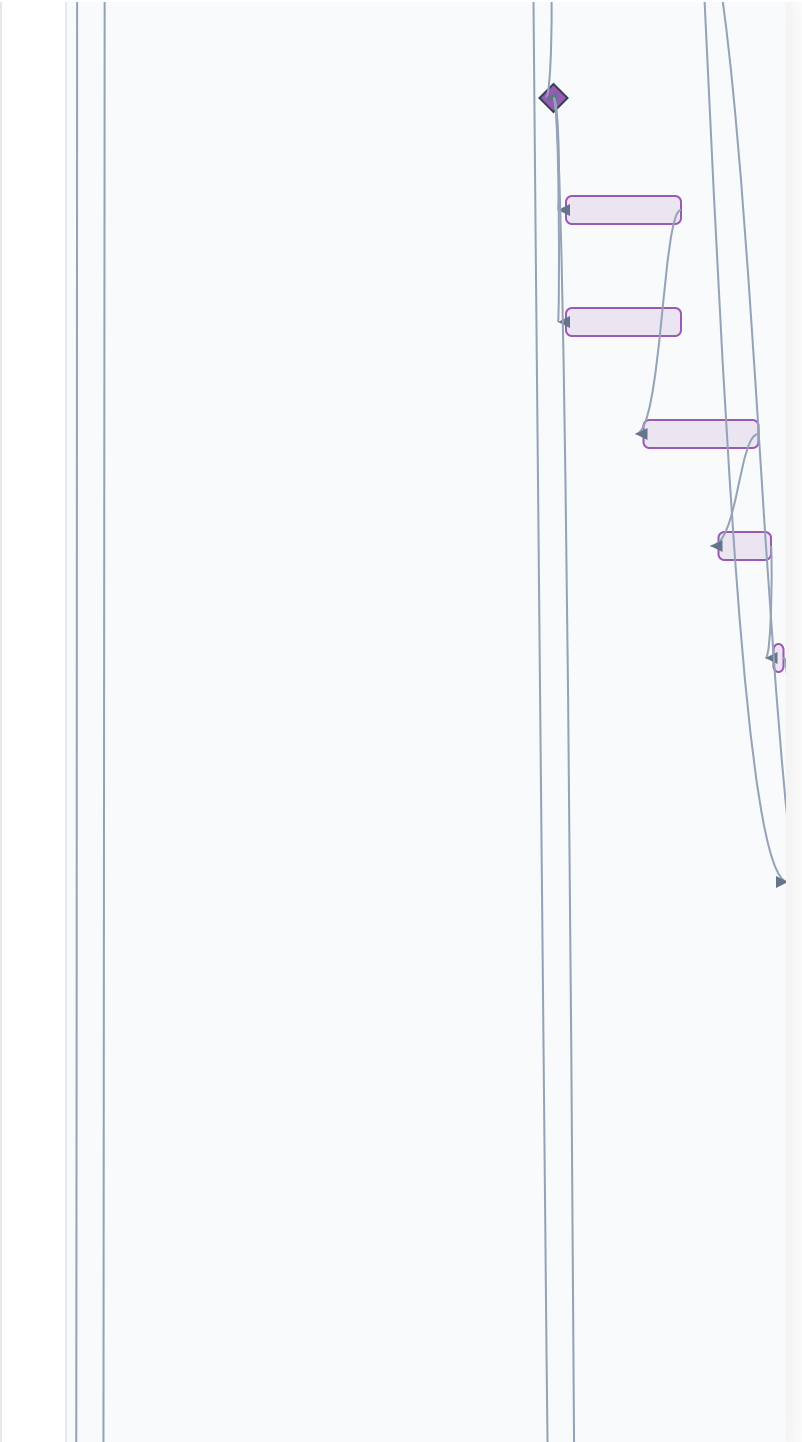
Stabilization-phase imaging (5–8 weeks post-stroke)

Imaging Session • Aaron • Planned • High

Extended chronic-phase imaging (~12 weeks post-stroke)

Imaging Session • Aaron • Planned • Medium

Milestone: All stroke imaging data acquired



Milestone • Aaron • Planned • High

Integrate LSCI flow data with two-photon results

Data Analysis • Aaron • Planned • Medium

Network & neurovascular coupling analysis (post-stroke)

Data Analysis • Aaron • Planned • High

Finalize all quantitative analyses (imaging data)

Data Analysis • Aaron • Planned • High

Admin/Accountability

Strict carprofen schedule – SOP review & backups

Animal Care Protocol • Aaron • Planned • High

Rig log & Slack updates after any optical change

Safety Protocol • Aaron • Planned • Medium

SPIE 2025 Annual Report & 2026 Grant Application

Grant Application • Aaron • Planned • High

Review SPIE chapter requirements & timeline

Preparation • Aaron • Planned • Medium

Gather chapter activity data and documentation (2025)

Documentation • Aaron • Planned • Medium

Draft SPIE Annual Report + 2026 Grant proposal

Report Draft • Aaron • Planned • Medium

Advisor review of SPIE report draft

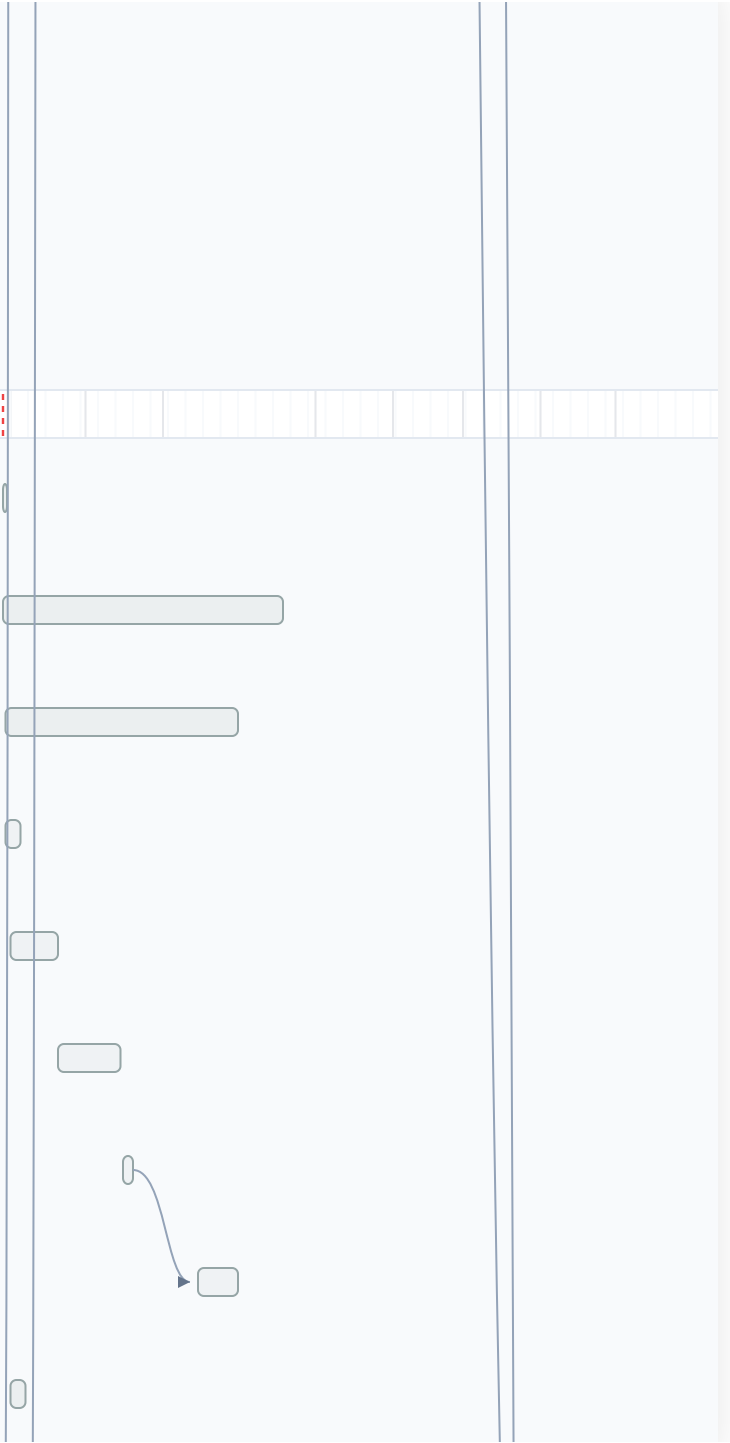
Review Meeting • Aaron • Planned • Medium

Submit SPIE Annual Report & Grant Application (2025 deadline)

Submission Deadline • Aaron • Planned • High

Admin: Annual progress review (department form) 2025

Progress Review Form • Aaron • Planned • High





### Milestone: 1:1 meeting to review timeline

Meeting • Aaron • Planned • Medium

### Weekly 1:1 with advisor (Tues 3:30pm) – Fall 2025

Meeting • Aaron • Planned • Medium

### Take ownership of microscope (SOPs & training plan)

Training Plan • Aaron • Planned • Medium

### Admin: Proposal exam paperwork (room booking, forms, POW)

Administrative Task • Aaron • Planned • High

### Rig log & Slack updates (optical changes) – Year 6

Safety Protocol • Aaron • Planned • Medium

### Weekly 1:1 with advisor (Tues 3:30pm) – Spring 2026

Meeting • Aaron • Planned • Medium

### Implement automated QC checks & data backup

Automation • Aaron • Planned • Medium

### Apply for TA position (Fall 2026 term)

Application • Aaron • Planned • Medium

### SPIE chapter leadership transition to new officers

Transition Plan • Aaron • Planned • Medium

### Train surgical assistant in stroke surgery protocol

Training • Aaron • Planned • Medium

### Admin: SPIE 2026 Annual Report & 2027 Grant Application

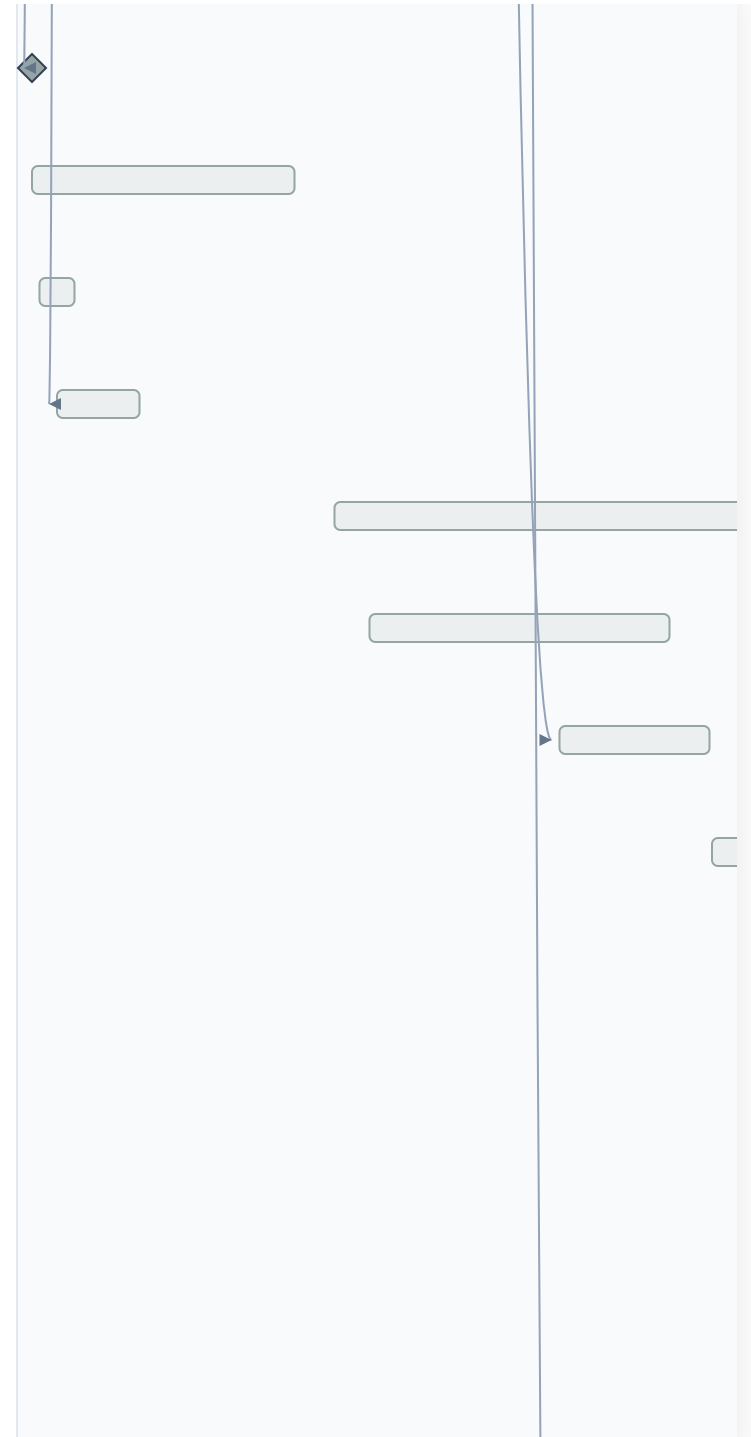
Grant Application • Aaron • Planned • High

### Compile 2026 chapter events, finances, member list

Documentation • Aaron • Planned • Medium

### Draft 2026 Annual Report & 2027 Activity Grant request

Report Draft • Aaron • Planned • Medium



Report Draft • Aaron • Planned • Medium

Finalize and submit SPIE report & grant (2026)

Submission Deadline • Aaron • Planned • High

Teaching Assignment – Serve as TA (Fall 2026)

Teaching Assignment • Aaron • Planned • Medium

Admin: Annual progress review (department form) 2026

Progress Review Form • Aaron • Planned • High

Weekly 1:1 with advisor (Tues 3:30pm) – Fall 2026

Meeting • Aaron • Planned • Medium

Weekly 1:1 with advisor (Tues 3:30pm) – Spring 2027

Meeting • Aaron • Planned • Medium

Draft methodology paper on AAV-based imaging (Aim 1 results)

Manuscript Draft • Aaron • Planned • Medium

Submit methodology paper to journal

Manuscript Submitted • Aaron • Planned • High

Draft second manuscript (Aim 2/3 research results)

Manuscript Draft • Aaron • Planned • Medium

Prepare conference presentation (research results)

Conference Presentation • Aaron • Planned • Medium

Submit second manuscript for publication

Manuscript Submitted • Aaron • Planned • High

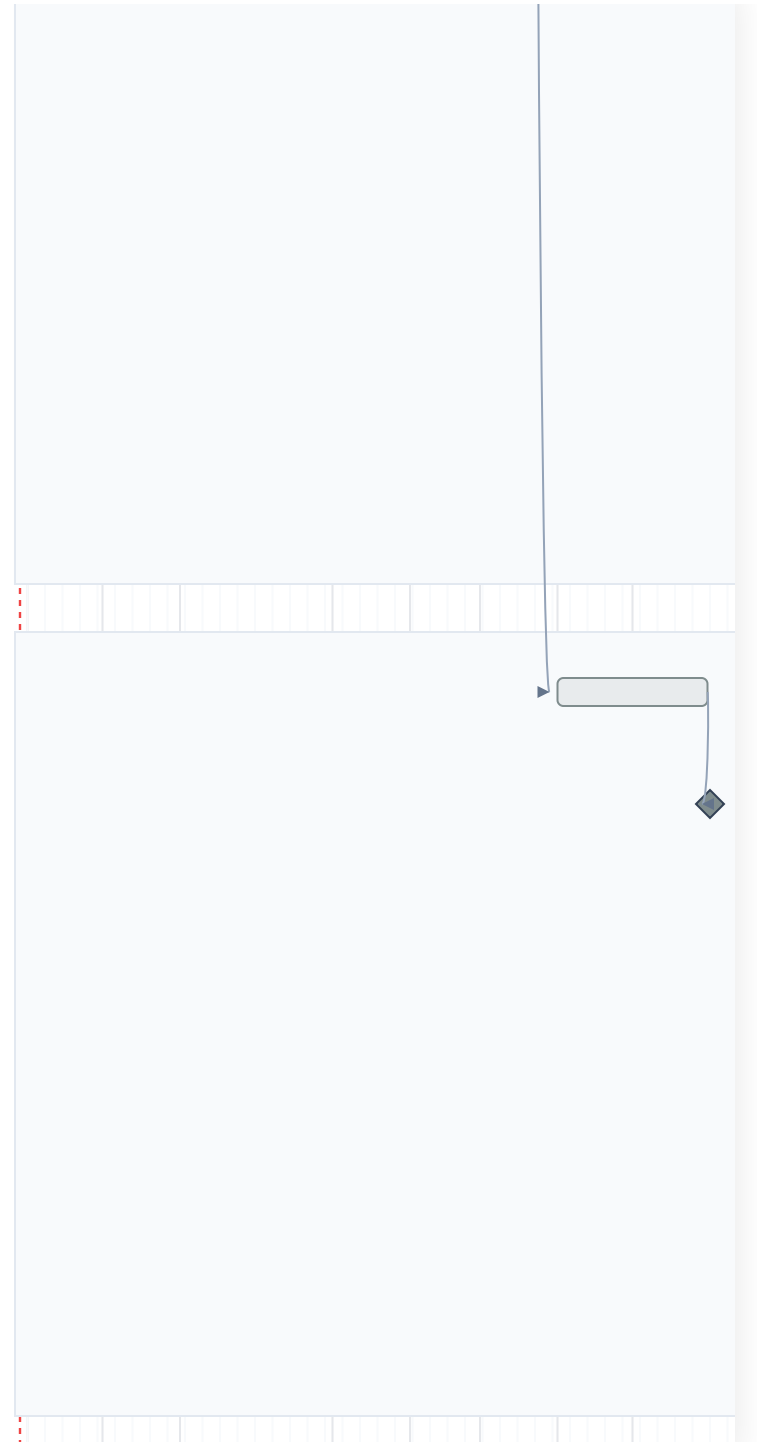
Draft third manuscript (additional results)

Manuscript Draft • Aaron • Planned • Low

Submit third manuscript for publication

Manuscript Submitted • Aaron • Planned • Low

Other



Aug 2025 Sep 2025 Oct 2025 Nov 2025 Dec 2025 Jan 2026 Feb 2026 Mar 2026 Apr 2026 May 2026

💡 **Interactive Features:** Click on any task bar to edit details • Use filters above to focus on specific areas • Export options available for sharing with your advisor