

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 31					1	2	3
Week 32	4	5	6	7	8	9	10
Week 33	11	12	13	14	15	16	17
Week 34	18	19	20	21	22	23	24
Week 35	25	26	27	28	29	30	31

Align seed laser
 Achieve 30 mW output in fiber core (pre-pump configuration) for stable laser operation.

2025 Q3 September

August | October

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 36	1 Identify committee members and schedule oral exam date.	2 Identify committee members and schedule oral exam date.	3 Define proposal and align with committee.	4 Restore amplified output to previous benchmark power.	5 Align amplified output with previous benchmark power.	6 Confirm exam date. MILESTONE Oral exam date scheduled.	7 File committee forms. Complete and submit all required committee proposal.
Week 37	8	9	10	11 Annual...	12 Check pulse...	13 Prepare Program... 2 weeks prior to exam.	14 Committee proposal.
Week 38	15 Plan imaging...	16 Calibrate...	17 Plan imaging...	18 Laser system ready MILESTONE Laser output and imaging.	19 Book and logistics for live animal imaging.	20 Design AAV vectors. Design and order AAV-mScarlet (vascular) and jRGECO1b (neuronal) vectors. Finalize constructs and submit production orders to facility.	21
Week 39	22	23	24	25 Submit final paperwork. Submit all completed paperwork to graduate office and confirm exam scheduling.	26	27	28
Week 40	29	30					

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 44						1	2
Week 45	3	4	5	6	7	8	9
Week 46	10	11	12	13	14	15	16
Week 47	17	18	19	20	21	22	23
Week 48	24	25	26	27	28	29	30

Complete proposal draft
Write full proposal document (~13 pages) including all aims and research strategy for committee review.

2025 Q4 December

November

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 49	1	2	3	4	5	6	7
Week 50	8	9	10	11	12	13	14
Week 51	15	16	17	18	19	20	21
Week 52	22	23	24	25	26	27	28
Week 1	29	30	31				

Send
proposal
to com-
mittee
MILESTONE:
Email
proposal
to
committee
2 weeks
before
exam date
(satisfies
pre-exam
require-
ment).

2026 Q1 January

February

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1				1	2	3	4 Prepare presentation Create slide deck and practice oral exam presentation. Aim for two practice runs with lab members.
Week 2	5	6	7	8	9	10	11
Week 3	12	13	14	15 AAV vectors ready MILESTONE: AAV vectors received	16	17	18
Week 4	19	20 PhD Proposal Exam Qualifying Exam: Defend dissertation proposal in oral exam with committee members.	21	22 AAV injections to begin expression studies.	23	24 Address committee feedback Incorporate committee revisions into proposal and submit signed approval form for final approval.	25
Week 5	26	27	28	29	30	31	

2026 Q1 February

January | March

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 5							1 Cranial window surgery #1 Install cranial window
Week 6	2	3	4 Post-op recovery #1 Monitor and medicate Mouse #1 after surgery. No imaging during recovery period to allow healing.	5	6	7	8 and inject AAV in first pilot mouse. Begin expression timeline for
Week 7	9	10	11	12	13	14	15 Cranial window surgery #2 Install cranial window
Week 8	16	17	18 Post-op recovery #2 Monitor and medicate Mouse #2 after surgery. Maintain analgesia schedule during recovery.	19	20	21	22 and inject
Week 9	23	24	25 Post-op recovery #3 Monitor and medicate Mouse #3 after surgery. Complete recovery period before imaging.	26	27	28	29 Cranial window surgery #3 Install cranial window and inject AAV in third pilot mouse (further staggered timing).

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 9							1 <div>Pilot imaging session #1 Acquire in vivo images for Mouse #1</div>
Week 10	2	3	4 <div>Pilot imaging session #2 Acquire in vivo images for Mouse #2 under dual-label vs dye conditions for comparison.</div>	5	6	7	8 <div>comparing AAV fluorescence vs traditional dye injection methods.</div>
Week 11	9	10	11 <div>Pilot imaging session #3 Acquire in vivo images for Mouse #3. Complete final pilot dataset for Aim 1 validation.</div>	12	13	14 <div>Pilot datasets complete MILESTONE Three pilot two-photon images.</div>	15 <div>Process... Optimize... Order...</div>
Week 12	16	17	18	19	20	21 <div>Develop U-Net pipeline Begin developing automated image segmentation pipeline using U-Net architecture for vascular features.</div>	22
Week 13	23	24	25	26	27	28 <div>figures.</div>	29
Week 14	30	31					

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 14			1 <div></div>	2 <div></div>	3 <div></div>	4 <div></div>	5 <div></div>
			<div>Draft methodology paper</div> <div>Write manuscript on AAV-based vascular imaging methodology and pilot results from Aim 1 studies.</div>				
Week 15	6 <div></div>	7 <div></div>	8 <div></div>	9 <div></div>	10 <div></div>	11 <div></div>	12 <div></div>
Week 16	13 <div></div>	14 <div></div>	15 <div></div>	16 <div></div>	17 <div></div>	18 <div></div>	19 <div></div>
Week 17	20 <div></div>	21 <div></div>	22 <div></div>	23 <div></div>	24 <div></div>	25 <div></div>	26 <div></div>
Week 18	27 <div></div>	28 <div></div>	29 <div></div>	30 <div></div>			

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 18					1	2	3
Week 19	4	5	6	7	8	9	10
Week 20	11	12	13	14	15	16	17
Week 21	18	19	20	21	22	23	24
Week 22	25	26	27	28	29	30	31

Compare labeling methods
Systematically compare imaging depth; SNR; and contrast across different labeling methods (AAV vs dye) in vivo.

2026 Q2 June

May | July

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 23	1	2	3	4	5	6	7
		Establish stroke protocol Complete training and IACUC approval for stroke induction method (photothrombosis). Ensure all regulatory approvals are in place.					
Week 24	8	9	10	11	12	13	14
	Induce stroke Perform stroke induction surgeries on experimental animal cohort to initiate Aim 3 longitudinal imaging study.						
Week 25	15	16	17	18	19	20	21
	Submit methodology paper Submit Aim 1 imaging methodology paper to journal for peer review and publication consideration.			Acute-phase imaging Conduct two-photon + LSCI imaging sessions in acute phase (0-1 week post-stroke) to capture immediate vascular changes.			Refine ML pipeline Adapt and improve machine learning segmentation pipeline for stroke dataset analysis and vascular feature detection.
Week 26	22	23	24	25	26	27	
Week 27	29	30					

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 27			1 <div>Enhanced...</div>	2 <div>Transition-phas...</div>	3	4	5
Week 28	6	7	8	9	10	11	12
Week 29	13	14	15	16	17	18	19
Week 30	20	21	22	23	24	25	26
Week 31	27	28	29	30 <div>Stabilization-phase imaging Conduct imaging sessions in early chronic phase (5-8 weeks post-stroke) to observe vascular remodeling processes.</div>	31		

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 31						1	2
Week 32	3	4	5	6	7	8	9
Week 33	10	11	12	13	14	15	16
Week 34	17	18	19	20	21	22	23
Week 35	24	25	26	27	28	29	30
Week 36	31						

Extended chronic imaging
Conduct imaging at ~12 weeks post-stroke (if needed) to capture long-term vascular remodeling and recovery patterns.

Stroke data complete MILESTONE:
Completion of all planned longitudinal imaging sessions for stroke study (Aim 3).

2026 Q3 September

August | October

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 36		1 Integrate flow...	2	3	4	5	6
				Annual progress...			
Week 37	7	8	9	10	11	12	13
Week 38	14	15	16	17	18	19	20
Week 39	21	22	23	24	25	26	27
Week 40	28	29	30				

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 40				1	2	3	4
Week 41	5	6	7	8	9	10	11
Week 42	12	13	14	15	16	17	18
Week 43	19	20	21	22	23	24	25
Week 44	26	27	28	29	30	31	

Analyze neurovascular coupling
Quantify microvascular network changes and neurovascular coupling dynamics from post-stroke imaging data.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 44							1
Week 45	2	3	4	5	6	7	8
Week 46	9	10	11	12	13	14	15
Week 47	16	17	18	19	20	21	22
	Draft second...						
	Prepare...						
Week 48	23	24	25	26	27	28	29
Week 49	30						

2026 Q4 December

November

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 49		1	2	3	4	5	6
		PhD Dissertation & Defense Complete dissertation write-up; final defense; and all graduation requirements by Summer 2027.					
Week 50	7	8	9	10	11	12	13
Week 51	14	15	16	17	18	19	20
		Draft Introduction					
		Submit second...					
Week 52	21	22	23	24	25	26	27
Week 53	28	29	30	31			

2027 Q1 January

February

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 53					1 <div>Draft Aim 1 chapter Write chapter detailing Aim 1 (AAV imaging) methods; experiments; and results for dissertation.</div>	2	3
Week 1	4	5	6	7	8	9	10
Week 2	11	12	13	14	15 <div>Draft Aim 2 chapter Write chapter detailing Aim 2 (dual-color imaging platform) methods and results for dissertation.</div>	16	17
Week 3	18	19	20	21	22	23	24
Week 4	25	26	27	28	29	30	31

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 5	1	2	3	4	5	6	7
	Draft Aim 3 chapter Write chapter detailing Aim 3 (stroke model imaging study) methods; data; and findings for dissertation.						
Week 6	8	9	10	11	12	13	14
Week 7	15	16	17	18	19	20	21
Week 8	22	23	24	25	26	27	28

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 9	1	2	3	4	5	6	7
	Draft Conclusions Write final dissertation chapter summarizing findings; implications; and future research directions.						
Week 10	8	9	10	11	12	13	14
Week 11	15	16	17	18	19	20	21
Week 12	22	23	24	25	26	27	28
Week 13	29	30	31				

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 13				1	2	3	4
Week 14	5	6	7	8	9	10	11
Week 15	12	13	14	15	16	17	18
Week 16	19	20	21	22	23	24	25
Week 17	26	27	28	29	30		

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 17						1 <div>Dissertation draft complete MILESTONE: Complete PhD dissertation draft compiled and ready for committee review.</div>	2
Week 18	3	4	5	6	7	8	9
Week 19	10	11	12	13	14	15	16
Week 20	17	18	19	20	21	22	23
Week 21	24	25	26	27	28	29	30
Week 22	31						

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 22		1	2	3	4	5	6
Week 23	7	8	9	10	11	12	13
Week 24	14	15	16	17	18	19	20
Week 25	21	22	23	24	25	26	27
Week 26	28	29	30				

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 26				1	2	3	4
Week 27	5	6	7	8	9	10	11
Week 28	12	13	14	15	16	17	18
Week 29	19	20	21	22	23	24	25
Week 30	26	27	28	29	30	31	

PhD Defense
Defend PhD dissertation in oral exam with committee (must occur 2 weeks before final submission deadline).

Revise dissertation
Incorporate committee feedback and revisions after defense. Obtain final approval signatures.

2027 Q3 August

July | September

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 30							1
Week 31	2	3	4	5	6	7	8
Week 32	9	10	11	12	13	14	15
Week 33	16	17	18	19	20	21	22
Week 34	23	24	25	26	27	28	29
Week 35	30	31					

Submit dissertation
Upload approved dissertation PDF
and submit all required forms
to Graduate School by deadline.