

	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 sensor
Achieve 30 mW
core (pre-pump
for stable las

Submit
proposal
outline
MILESTONE:
Send initial
proposal draft
to advisor for
review before
Monday
deadline.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 36	1	2	3	4	5	6	7
		Identify commit	Restore amplified output to 130 mW (previous benchmark performance level).	Align amplifier			
			oral exam date. Reserve room for exam.				
Week 37	8	9	10	11	12	13	14
			Check pulse compression				
			Verify 200 fs pulse duration and record specifications in equipment log.				
Week 38	15	16	17	18	19	20	21
Week 39	22	23	24	25	26	27	28
Week 40	29	30					

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 40			1 Design and order AAV-mScarlet (vascular) and jRGECO1b (neuronal) vectors. Finalize constructs and submit production orders to core facility.	2	3	4	5
Week 41	6	7	8	9	10	11	12
Week 42	13	14	15	16	17	18	19
Week 43	20	21	22	23	24	25	26
Week 44	27	28	29	30	31		

	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.

	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 Send proposal to committee MILESTONE: Email proposal to committee 2 weeks before exam date	17	18	19	20	21
Week 52	22	23 (satisfies pre-exam requirement).	24	25	26	27	28
Week 1	29	30	31				

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

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 5							1 Cranial window surgery #1 Install cranial window and inject AAV in first pilot mouse. Begin
Week 6	2 Monitor and medicate Mouse #1 after surgery. No imaging during recovery period to allow healing.	3 Post-op recovery #1	4	5	6	7	8 Cranial window surgery #2 Install cranial window and inject AAV in second pilot mouse
Week 7	9 Monitor and medicate Mouse #2 after surgery. Maintain analgesia schedule during recovery.	10 Post-op recovery #2	11	12	13	14	15 Cranial window surgery #3 Install cranial window and inject AAV in third pilot mouse (further
Week 8	16 Monitor and medicate Mouse #3 after surgery. Complete recovery period before imaging.	17 Post-op recovery #3	18	19	20	21	22 Pilot imaging session #1 Acquire in vivo images for Mouse #1 comparing AAV fluorescence vs traditional dye injection methods.
Week 9	23	24	25	26	27	28	

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 9							1 Pilot imaging... Ord
Week 10	2	3	4	5	6	7	8 Pilot imaging session #3 Acquire in vivo images for Mouse #3. Complete final pilot dataset for
Week 11	9	10	11	12	13 Pilot...	14	15 Aim 1 Develop U-Net...
Week 12	16	17	18	19	20	21	22
Week 13	23	24	25	26	27	28	29
Week 14	30	31					

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 14			1 Write manuscript on AAV-based vascular imaging methodology and pilot results from Aim 1 studies.	2	3 Draft methodology paper	4	5
Week 15	6	7	8	9	10	11	12
Week 16	13	14	15	16	17	18	19
Week 17	20	21	22	23	24	25	26
Week 18	27	28	29	30 Compare labeling methods Systematically compare imaging depth; SNR; and contrast across different labeling methods (AAV vs dye) in vivo.			

	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

Establish stroke protocol
Complete training and IACUC approval for stroke induction method (photothrombosis).
Ensure all regulatory approvals are in place.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 23	<div>1</div> <div>Submit methodology paper</div> <div>Submit Aim 1 imaging methodology paper to journal for peer review and publication consideration.</div>	<div>2</div>	<div>3</div>	<div>4</div>	<div>5</div>	<div>6</div> <div>Induce stroke</div> <div>Perform stroke induction surgeries on experimental animal cohort to initiate Aim 3 longitudinal imaging study.</div>	<div>7</div>
Week 24	<div>8</div>	<div>9</div>	<div>10</div>	<div>11</div>	<div>12</div>	<div>13</div>	<div>14</div>
Week 25	<div>15</div>	<div>16</div>	<div>17</div>	<div>18</div> <div>Acute-phase...</div>	<div>19</div>	<div>20</div>	<div>21</div>
Week 26	<div>22</div>	<div>23</div>	<div>24</div>	<div>25</div>	<div>26</div>	<div>27</div>	<div>28</div>
Week 27	<div>29</div>	<div>30</div>					

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 27			1 Enhanced...	2	3 Transition phas...	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 Stabilization-phase imaging Conduct imaging sessions in early chronic phase (5-8 weeks post-stroke) to observe vascular remodeling processes.	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						

Stroke data complete

MILESTONE:

Completion of all planned longitudinal imaging sessions for stroke study (Aim 3).

Extended chronic imaging

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

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 36		1	2	3	4	5	6
					Integrate flow...		
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 Quantify microvascular network changes and coupling dynamics from post-stroke imaging data.	2 Analyze neurovascular coupling	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	

	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 Prepare...
Week 47	16	17	18	19	20	21	22
Week 48	23	24	25	26	27	28	29
Week 49	30						

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

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 53					1 Draft Aim 1 chapter Write chapter detailing Aim 1 (AAV imaging) methods; experiments; and results for dissertation.	2	3
Week 1	4	5	6	7	8	9	10
Week 2	11	12	13	14	15 Draft Aim 2 chapter Write chapter detailing Aim 2 (dual-color imaging platform) methods and results for dissertation.	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
	<div> <div>Draft Aim 3 chapter</div> <div>Write chapter detailing Aim 3 (stroke model imaging study) methods; data; and findings for dissertation.</div> </div>						
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 Dissertation draft complete MILESTONE: Complete PhD dissertation draft compiled and ready for 8 committee review.	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 PhD Defense Defend PhD dissertation in oral exam with committee (must occur 2 weeks before final submission deadline).	16 Revise dissertation Incorporate committee feedback and revisions after defense. Obtain final approval signatures.	17	18
Week 29	19	20	21	22	23	24	25
Week 30	26	27	28	29	30	31	

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 30							1 Submit dissertation Upload approved dissertation PDF and submit all required forms to Graduate School by deadline.
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					