

|         | 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.

● PROPOSAL    ● ADMIN    ● IMAGING    ● LASER

2025 Q3 September

August | October

|         | Monday  | Tuesday | Wednesday       | Thursday  | Friday         | Saturday | Sunday |
|---------|---|---------|-----------------|---|----------------|----------|--------|
| Week 36 | 1   | 2       | 3               | 4   | 5              | 6        | 7      |
|         | Identify committee members and schedule oral exam date. |         | Define proposal | Align amplifier<br>Restore amplified output to 130 mW (previous benchmark performance level).                   |                |          |        |
|         | Plan...   |         |                 |   |                |          |        |
|         |   |         |                 |   |                |          |        |
| Week 37 | 8   | 9       | 10              | 11  | 12             | 13       | 14     |
|         |   |         |                 |   | Confirm...     |          |        |
|         |   |         |                 |   | Check pulse... |          |        |
| Week 38 | 15  | 16      | 17              | 18  | 19             | 20       | 21     |
|         |   |         |                 | Laser system ready<br>MILESTONE: Laser output and imaging optics meet all requirements for live animal imaging. |                |          |        |
| Week 39 | 22  | 23      | 24              | 25  | 26             | 27       | 28     |
|         |   |         |                 |   |                |          |        |
| Week 40 | 29  | 30      |                 |   |                |          |        |

|         | Monday | Tuesday | Wednesday  | Thursday | Friday | Saturday | Sunday |
|---------|--------|---------|--|----------|--------|----------|--------|
| Week 40 |        |         | 1  | 2        | 3      | 4        | 5      |
|         |        |         | Design AAV vectors<br>Design and order AAV-mScarlet (vascular) and jRGECO1b (neuronal) vectors. Finalize constructs and submit production orders to core facility. |          |        |          |        |
| 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.

● PROPOSAL

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 committee**  
**MILESTONE:** Email proposal to committee 2 weeks before exam date (satisfies pre-exam requirement).

2026 Q1 January

February

|        | Monday | Tuesday  | Wednesday | Thursday   | Friday   | Saturday | Sunday   |
|--------|--------|--|-----------|--|--|----------|--|
| Week 1 |        |  |           | 1  | 2  | 3        | 4<br><b>Prepare presentation</b><br>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<br><b>AAV vectors ready</b><br>MILESTONE: AAV vectors received from core facility. Ready for in vivo animal injections to begin expression studies. | 16   | 17       | 18   |
| Week 4 | 19     | 20<br><b>PhD Proposal Exam</b><br>Qualifying Exam: Defend dissertation proposal in oral exam with committee members. | 21        | 22   | 23<br><b>Address committee feedback</b><br>Incorporate committee revisions into proposal and submit signed approval form for final approval. | 24       | 25   |
| Week 5 | 26     | 27   | 28        | 29   | 30   | 31       |  |

● IMAGING

2026 Q1 February

January | March

|        | Monday | Tuesday | Wednesday  | Thursday | Friday | Saturday | Sunday   |
|--------|--------|---------|--|----------|--------|----------|--|
| Week 5 |        |         |  |          |        |          | 1<br>Cranial window surgery #1<br>Install cranial window and inject  |
| Week 6 | 2      | 3       | 4<br>Post-op recovery #1<br>Monitor and medicate Mouse #1 after surgery. No imaging during recovery period to allow healing. | 5        | 6      | 7        | 8<br>Cranial window surgery #2<br>Install cranial window and inject  |
| Week 7 | 9      | 10      | 11<br>Post-op recovery #2<br>Monitor and medicate Mouse #2 after surgery. Maintain analgesia schedule during recovery.       | 12       | 13     | 14       | 15<br>Cranial window surgery #3<br>Install cranial window and inject   |
| Week 8 | 16     | 17      | 18<br>Post-op recovery #3<br>Monitor and medicate Mouse #3 after surgery. Complete recovery period before imaging.           | 19       | 20     | 21       | 22<br>Pilot imaging session #1<br>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  |               |   |                                   |               |   |               | <div>1</div> <div>Pilot imaging...</div> <div>Order enhanced AAV</div>                               |
| Week 10 | <div>2</div>  | <div>3</div>  | <div>4</div>                      | <div>5</div>  | <div>6</div>                                | <div>7</div>  | <div>8</div> <div>Pilot imaging session #3</div> <div>Acquire in vivo images for Mouse</div>         |
| Week 11 | <div>9</div>  | <div>10</div>   | <div>11</div> <div>Pilot...</div> | <div>12</div> | <div>13</div> <div>Process pilot data</div> | <div>14</div> | <div>15</div> <div>Optimize imaging systems</div> <div>Tune microscope optics for dual-channel</div> |
| Week 12 | <div>16</div> | <div>17</div> <div>Develop U-Net pipeline</div> <div>Begin developing automated image segmentation pipeline using U-Net architecture for vascular features.</div> | <div>18</div>                     | <div>19</div> | <div>20</div>                               | <div>21</div> | <div>22</div> <div>configure LSCI for blood flow measurements.</div>                                 |
| Week 13 | <div>23</div> | <div>24</div>   | <div>25</div>                     | <div>26</div> | <div>27</div>                               | <div>28</div> | <div>29</div>  |
| Week 14 | <div>30</div> | <div>31</div>   |                                   |               |   |               |  |



|         | Monday | Tuesday | Wednesday   | Thursday | Friday | Saturday | Sunday |
|---------|--------|---------|---|----------|--------|----------|--------|
| Week 14 |        |         | 1   | 2        | 3      | 4        | 5      |
|         |        |         | Draft methodology paper<br>Write manuscript on AAV-based vascular imaging methodology and pilot results from Aim 1 studies. |          |        |          |        |
| 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       |        |          |        |

|         | Monday | Tuesday | Wednesday | Thursday | Friday  | Saturday | Sunday |
|---------|--------|---------|-----------|----------|---|----------|--------|
| Week 18 |        |         |           |          | 1 <div>Compare labeling methods<br/>Systematically compare imaging depth; SNR; and contrast across different labeling methods (AAV vs dye) in vivo.</div> | 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     |

|         | Monday  | Tuesday       | Wednesday  | Thursday                                | Friday        | Saturday      | Sunday        |
|---------|---|---------------|--|---|---------------|---------------|---------------|
| Week 23 | <div>1</div> <div>Submit A<br/>ogy paper<br/>view and p</div> | <div>2</div>  | <div>3</div> <div>Complete training and IACUC approval for stroke induction method (photothrombosis). Ensure all regulatory approvals are in place.</div>        | <div>4</div>                            | <div>5</div>  | <div>6</div>  | <div>7</div>  |
| Week 24 | <div>8</div>  | <div>9</div>  | <div>10</div> <div>Induce stroke</div> <div>Perform stroke induction surgeries on experimental animal cohort to initiate Aim 3 longitudinal imaging study.</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> |
|         |   |               |  | <div>Refine ML pipeline</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<br>Enhanced... | 2<br>Transition-phas...  | 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<br>Stabilization-phase imaging<br>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     |         |           |          |        |          |        |

**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).

|         | Monday | Tuesday                        | Wednesday | Thursday | Friday | Saturday | Sunday |
|---------|--------|--------------------------------|-----------|----------|--------|----------|--------|
| Week 36 |        | 1 <div>Integrate flow...</div> | 2         | 3        | 4      | 5        | 6      |
|         |        |                                |           |          |        |          |        |
| 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      |
|         |        |         |           | Analyze neurovascular coupling<br>Quantify microvascular network changes and neurovascular coupling dynamics from post-stroke imaging data. |        |          |        |
| 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     |
| 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<br>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   | 2        | 3      |
|         |        |         |           |          | <b>Draft Aim 1 chapter</b><br>Write chapter detailing Aim 1 (AAV imaging) methods; experiments; and results for dissertation.   |          |        |
| Week 1  | 4      | 5       | 6         | 7        | 8   | 9        | 10     |
| Week 2  | 11     | 12      | 13        | 14       | 15  | 16       | 17     |
|         |        |         |           |          | <b>Draft Aim 2 chapter</b><br>Write chapter detailing Aim 2 (dual-color imaging platform) methods and results for dissertation. |          |        |
| 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<br>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<br>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        |          |        |          |        |

2027 Q2 April

March | May

|         | 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        | 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     |         |           |          |        |          |        |

**Dissertation  
draft complete**  
MILESTONE: Complete  
PhD dissertation draft  
compiled and ready  
for committee review.

2027 Q2 June

May | July

|         | 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        |          |        |          |        |

2027 Q3 July

June | August

|         | 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.



|         | 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.