## LEARNING OBJECTIVES: EL PATHOLOGY NEUROPATHOLOGY ELECTIVE

<table>
<thead>
<tr>
<th>Overarching Goals of Curriculum</th>
<th>Elective objectives: By the end of the rotation, students will be expected to:</th>
<th>Where/how taught (location or learning activity)</th>
<th>Taught by (attending, fellows, etc.)</th>
<th>How student’s achievement of objective is assessed (assessment method)</th>
<th>How feedback is given (feedback method)</th>
<th>Quantity target (target number of patients/events during rotation)</th>
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</table>
| 1, 2, 3, 4, 5, 6, 7, 8         | 1. **Knowledge/diagnostic skills**: Know the intelligent analysis of structural features in tissues for a variable extensive diagnosis process  
   a. Understand the basic principle behind routine and immunohistochemical stains that are commonly used in neuropathology.  
   b. Describe succinctly and accurately the postmortem brain grossly and microscopically.  
   c. Understand the reason why various routine histochemical and enzyme histochemical stains are needed for the evaluation of the skeletal muscle  
   d. Develop knowledge on histological and biological differences among common brain tumors, and on the principle of histological grading, if applicable.  
   e. Describe salient neuropathological features in various neurological disorders including neurodegenerative and metabolic disorders  
   f. Understand the processing and handling of “excess” tissues for banking and translational research  
   g. Communicate pathologic findings in a variety of clinical, educational or academic conferences  
   h. Evaluate consultation cases  
   i. Translate histologic findings into collaborative and primary academic efforts including biochemical and molecular tissue analysis and the interpretation of the results, funded by and supporting:  
      - Department of Neurosurgery (research in brain tumors and epilepsy)  
      - Department of Psychiatry (dementia research)  
      - Department of Neurology (research in neuromuscular disease)  
      - National Institute of Neurological Diseases and Stroke | Signout microscope  
   Autopsy suite  
   Signout microscope  
   Signout microscope  
   Signout microscope  
   Smilow tissue accession suite  
   Conference sites  
   Signout microscope  
   Student desk | Vortmeyer  
   Vortmeyer  
   Vortmeyer  
   Vortmeyer  
   Vortmeyer  
   Vortmeyer  
   Vortmeyer  
   Vortmeyer | On site by instructor  
   On site by instructor  
   On site by instructor  
   On site by instructor  
   On site by instructor  
   On site by instructor  
   On site by instructor  | Directly by instructor  
   Directly by instructor  
   Directly by instructor  
   Directly by instructor  
   Directly by instructor  
   Directly by instructor  
   Directly by instructor  | 10  
   3  
   5  
   10  
   10  
   5  
   1-2 |
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<td>4</td>
<td>2. <strong>Laboratory Procedural Skills:</strong> Students will perform the following:</td>
<td>Smilow tissue accession suite</td>
<td>Vortmeyer</td>
<td>On site by instructor</td>
<td>Directly by instructor</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>a. Handle different types of tissue (muscle, CNS and PNS, for example) proficiently</td>
<td>Smilow tissue accession suite</td>
<td>Vortmeyer</td>
<td>On site by instructor</td>
<td>Directly by instructor</td>
<td>10</td>
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<td></td>
<td>b. Procurement, documentation and processing of patient tissues obtained from surgical resection or biopsy</td>
<td>Signout microscope</td>
<td>Vortmeyer</td>
<td>On site by instructor</td>
<td>Directly by instructor</td>
<td>20</td>
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<tr>
<td></td>
<td>c. Histopathologic evaluation of specimens and the initiation of special studies if necessary</td>
<td>Signout microscope</td>
<td>Vortmeyer</td>
<td>On site by instructor</td>
<td>Directly by instructor</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>d. Histopathologic evaluation and selection of case material for specific molecular tests</td>
<td>Signout microscope</td>
<td>Vortmeyer</td>
<td>On site by instructor</td>
<td>Directly by instructor</td>
<td>20</td>
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<td>e. Finalization of neuropathology diagnostic reports</td>
<td>Smilow tissue accession suite</td>
<td>Vortmeyer</td>
<td>On site by instructor</td>
<td>Directly by instructor</td>
<td>5-10</td>
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<td>f. Intraoperative frozen section consultation</td>
<td>Autopsy suite</td>
<td>Vortmeyer</td>
<td>On site by instructor</td>
<td>Directly by instructor</td>
<td>5-15</td>
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<td>g. Evaluation of autopsy brain and spinal cord tissue including gross examination, histopathologic evaluation with special studies and finalization of an autopsy report</td>
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<td>4, 5, 6</td>
<td>3. <strong>Attitude:</strong> Demonstrate professional responsibility in working as a team member with other members of the Laboratory medicine team.</td>
<td>All sites listed above</td>
<td>Vortmeyer</td>
<td>On site by instructor</td>
<td>Directly by instructor</td>
<td>n/a</td>
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<td></td>
<td>a. The student should exhibit honesty, accuracy and integrity in all interactions with staff, residents, attendings, fellows, and others.</td>
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<td>5, 6, 8</td>
<td>4. <strong>Career/context:</strong> Know the theoretical, technological, and clinical underpinnings of the specialty of Laboratory Medicine</td>
<td>Any training site</td>
<td>Vortmeyer</td>
<td>On site by instructor</td>
<td>Directly by instructor</td>
<td>n/a</td>
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<td></td>
<td>a. Know the training pathways for Anatomic Pathology</td>
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<td>b. Know 3 aspects of career satisfaction in this specialty</td>
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<td>c. Know key roles that Anatomic Pathology plays in the health care system</td>
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