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<tr>
<th>DATE</th>
<th>SUBJECT</th>
<th>INSTRUCTOR</th>
<th>LECTURE</th>
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<tr>
<td>5/29</td>
<td>Introduction Rodent biology</td>
<td>Benavides</td>
<td>Introduction to Course Rodent biology, mouse anatomy, biology and physiology</td>
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<td>Rodent Genetics</td>
<td>Benavides</td>
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<td>6/5</td>
<td>Animal Study Design Intro</td>
<td>Bedford</td>
<td>Formulating the hypothesis Choosing an experimental system</td>
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<td>Genetic Models of Human Disease</td>
<td>Benavides</td>
<td>Spontaneous Mutations Transgenic mice and inducible systems Targeted Mutagenesis (KOs, KIs) Conditional mutant alleles (Cre/loxP and Flp/FRT systems) Gene editing using ZFN, TALEN, and CRISPR/Cas9</td>
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<td>Standardized genetic nomenclature Genetic drift and substrains Influence of genetic background Modifier genes and passenger mutations</td>
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<td>Histology</td>
<td>Sebastian</td>
<td>Basic concepts of histopathology</td>
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<td>7/3</td>
<td>EXAM #1</td>
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<td>Spontaneous lesions on inbred strains</td>
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<td>Post Mortem Morphologic Characterization</td>
<td>Jimi L Young</td>
<td>40 min</td>
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