Lecture outline for “Experimental Approaches in Molecular and Cell Biology”

<table>
<thead>
<tr>
<th>Topic</th>
<th>High Throughput Next Generation Sequencing</th>
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<tbody>
<tr>
<td>Lecturer</td>
<td>Mei-Yeh Lu</td>
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| Course Outline | I. Introduction  
II. Current NGS Platforms  
1. General comparisons  
2. Sequencing chemistry  
3. Data output  
III. Applications  
1. Genomic sequencing  
2. Transcriptome sequencing  
3. Other applications  
IV. Bioinformatic analyses:  
1. Software tools  
2. Public databases  
3. Challenges |