# Lecture Outline for “Experimental Approaches in Molecular and Cell Biology”

<table>
<thead>
<tr>
<th>Topic</th>
<th>Protein localization</th>
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<tbody>
<tr>
<td>Lecturer</td>
<td>Dr. Hsou-min Li</td>
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<td>Course Outline</td>
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<td></td>
<td>Targeting and retention signals for sub-cellular compartments</td>
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<td>The endomembrane system</td>
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<td>In vitro transcription</td>
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<td>Use of endoglycosidase to determine localization</td>
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<td>Fluorescence vs. chemiluminescence</td>
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<td>Immunogold microscopy (peroxisome)</td>
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<td>Nucleus</td>
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<td>Chloroplasts and mitochondria</td>
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<td>In vitro translation</td>
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<td>Cell lysis</td>
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<td>Centrifugation: differential, rate zonal, isopycnic</td>
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<td>Run time conversion using k factor</td>
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<td>Protease treatment</td>
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<td>Alkaline and high salt extractions</td>
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<td>Nuclear and cytoplasmic bodies</td>
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