

國立清華大學 111 學年第 1 學期新開課程課程大綱

科號	11110LSMC546200	組別		學分	2	人數限制	0			
修課年級	<input checked="" type="checkbox"/> 大學部 3 年級以上 <input checked="" type="checkbox"/> 碩士班一年級以上(含博士班) <input checked="" type="checkbox"/> 碩士班二年級以上(含博士班)									
上課時間	M5M6	教室	生科一館 421A							
科目中文名稱	染色體同源重組特論二									
科目英文名稱	Special Topics in Homologous Recombination of Chromosomes II									
任課教師	李政昇									
擋修科目		擋修分數								

※下列各欄由任課教師提供※

一、課程說明	This class will introduce the major concepts and methods in homologous recombination of chromosomes. The students will learn how DNA double strand breaks are repaired by homologous recombination mainly in budding yeast. Both conceptual background in yeast genetics and detailed molecular approaches to analyze chromosomes will be covered.
二、指定用書	DNA Recombination Editor(s): Tsubouchi, Hideo ISBN: 978-1-61779-129-1 Humana Press
三、參考書籍	Selected papers from high profile journals
四、教學方式	All students are required to read all assigned chapters and papers and then participate in classroom discussion.
五、教學進度	1-2. Analysis of Meiotic Recombination Intermediates by Two-Dimensional Gel Electrophoresis 3-4. Mapping of Crossover Sites Using DNA Microarrays 5-6. Using the Semi-synthetic Epitope System to Identify Direct Substrates of the Meiosis-Specific Budding Yeast Kinase, Mek1

	<p>7-8. Genetic and Molecular Analysis of Mitotic Recombination in <i>Saccharomyces cerevisiae</i></p> <p>9-10. In Vivo Site-Specific Mutagenesis and Gene Collage Using the Delitto Perfetto System in Yeast <i>Saccharomyces cerevisiae</i></p> <p>11-12. Detection of RNA-Templated Double-Strand Break Repair in Yeast .</p> <p>13-14. Tracking of Single and Multiple Genomic Loci in Living Yeast Cells</p> <p>15-16. Cell Biology of Homologous Recombination in Yeast</p> <p>17-18. Live Cell Imaging of Meiotic Chromosome Dynamics in Yeast</p>
六、成績考核	Class discussion: 40%. Assigned presentation: 40%. Attendance: 20%.
七、講義位址 http://	