10520LS 340200 分子與細胞生物學三(Molecular and Cellular Biology III) **2017 Spring T5F5F6**

Textbook: 5th edition, Molecular Biology, by Robert F. Weaver

| **Date** | **Chapters and Topics** | **Lecturer** |
|---|---|---|
| 2/14 T | 17 (& 3, 19) ribosome, transfer RNA and messenger | 周裕珽 |
| 2/17 F | 17 (& 3, 19) the mechanism of translation I: initiation | 周裕珽 |
| 2/21 T | 17 (& 3, 19) the mechanism of translation I: initiation | 周裕珽 |
| **2/24 F** | **梅竹賽(下午停課，由教師自行擇期補課)(若停賽則正常上課)** | |
| **2/28 T** | **和平紀念日** | |
| 3/03 F | 17 the mechanism of translation I: control of initiation | 周裕珽 |
| 3/07 T | 17 the mechanism of translation I: control of initiation | 周裕珽 |
| 3/10 F | 18 (& 19) the genetic code | 周裕珽 |
| 3/14 T | 18 (& 19) the mechanism of translation II: elongation | 周裕珽 |
| 3/17 F | 18 (& 19) the mechanism of translation II: elongation | 周裕珽 |
| 3/21 T | 18 the mechanism of translation II: termination/posttranslation | 周裕珽 |
| 3/24 F | 18 the mechanism of translation II: termination/posttranslation | 周裕珽 |
| **3/28 T** | **Examination I (lectures 2/14 to 3/24)** | **周裕珽** |
| 3/31 F | 13 chromatin structure and its effect on transcription | 王翊青 |
| **4/04 T** | **民族掃墓節、兒童節** | |
| 4/07 F | 13 chromatin structure and its effect on transcription | 王翊青 |
| 4/11 T | 14 RNA processing I: splicing | 王翊青 |
| 4/14 F | 14 RNA processing I: splicing | 王翊青 |
| 4/17 T | 15 RNA processing II: capping and polyadenylation | 王翊青 |
| 4/21 F | 15 RNA processing II: capping and polyadenylation | 王翊青 |
| 4/25 T | 16 Other post-transcriptional events | 王翊青 |
| 4/28 F | 16 Other post-transcriptional events | 王翊青 |
| 5/02 T | 16 Other post-transcriptional events | 王翊青 |
| **5/05 F** | **Examination II (lectures 3/31 to 5/02)** | **王翊青** |
| 5/09 T | 20 DNA replication I: mechanism and enzymology | 張壯榮 |
| 5/12 F | 21 DNA replication II: detailed mechanism | 張壯榮 |
| 5/16 T | 21 DNA replication II: detailed mechanism | 張壯榮 |
| 5/19 F | 21 DNA replication II: detailed mechanism | 張壯榮 |
| 5/23 T | 22 homologous recombination | 張壯榮 |
| 5/26 F | 22 homologous recombination | 張壯榮 |
| **5/30 T** | **端午節** | |
| 6/02 F | 23 transposition | 張壯榮 |
| 6/06 T | 23 transposition | 張壯榮 |
| 6/09 F | 23 transposition | 張壯榮 |
| **6/13 T** | **Examination III (lectures 5/09 to 6/09)** | **張壯榮** |
| 6/16 F | 期末週 | |
| **6/19 M** | 教師送繳應屆畢業生本學期成績截止 | |

**Molecular and Cellular Biology III**

一、課程說明 (Course Description)

本課程為分子與細胞生物學之延續課程，本課程共分三部份，第一部份涵蓋基因轉譯為蛋白質之機制。第二部份涵蓋基因轉錄後之修飾機制。第三部份涵蓋DNA replication, recombination and transposition.

二、指定用書 (Text Books)

Molecular Biology by R. F. Weaver 2011. 5th edition. Publisher: WCB/McGraw Hill

三、參考書籍 (References)

1. Molecular Cell Biology, by Lodish et al. 2003. Publisher: W. H. Freeman and Company.
2. Molecular biology of the gene by Watson et al. 2004, Fifth edition. Publisher: Benjamin cummings
3. Recent papers related to the chapters in course.

四、教學方式 (Teaching Method)

以指定教科書為主，討論各topic 之研究方法、結論及其在分子生物學上之重要性。預期學生除結論外，也能瞭解現今之研究方向及實驗之方法。

五、教學進度 (Syllabus)

See the attached pdf files in iLMS

六、成績考核(Evaluation)

The grade is the average of three examinations.

助教：

TBA

助教課業諮詢時間: 另行公布

七、可連結之網頁位址

參考書籍置於生科系圖書館，學生可向圖書館小姐借閱。

http://www.life.nthu.edu.tw/~labcwy/teaching.html