

TIMETABLE FOR SEMESTER I, 2017/2018

LSM1102 – Molecular Genetics

Module Coordinator: A/P Chew Fook Tim

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| LECTURES: | MONDAYS | LECTURES: | WEDNESDAYS |
| TIME: | 1600 – 1800 hrs | TIME: | 1600 – 1800 hrs |
| VENUE: | LT26 | VENUE: | LT26 |

| WK | MONTH | LECTURES | LECTURES |
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| | | MONDAYS | WEDNESDAYS |
| 1. | Aug | 14 Introduction; Overview of Genetics and Chromosome in Eukaryotes (WJL) | 16 Cellular Division: Mitosis and Meiosis; Non-Disjunction and Polyploidy (WJL) |
| 2. | | 21 Chromosome in Prokaryotes, Genetic Transfer and Mapping Analysis in Microorganisms (WJL) | 23 Genetic Transfer and Mapping Analysis in Microorganisms (continued) (WJL) |
| 3. | | 28 Chromosome Compaction, Structure, Organization (WJL) | 30 Chromatin Remodeling and Gene Expression (WJL) |
| 4. | Sep | 4 Chromosome Recombination (WJL) | 6 Continual Assessment 1 (fixed date, no replacement test) (WJL) |
| 5. | | 11 Molecular structure of DNA and RNA; DNA Replication (CH) | 13 Gene Transcription and RNA Processing (CH) |
| 6. | | 18 Translation of mRNA (CH) | 20 Molecular genetic methods (genetic screening, recombinant and transgenic technologies, RNAi, reporter tagging etc.) (CH) |
| <i>Recess Week: Sat, 23 Sep 2017 – Sun, 1 Oct 2017 (1 week)</i> | | | |
| 7. | Oct | 2 New genetic technology (genome editing, next generation sequencing, omics) (CH) | 4 Model organisms in genetic studies (CH) |
| 8. | | 9 Molecular genetics tutorial (CH) | 11 Mendelian Genetics – Terminologies, Mendelian Laws (CFT) |
| 9. | | 16 Continual Assessment 2 (fixed date, no replacement test) (CH) | 18 Public Holiday |
| 10. | | 23 Mendelian Genetics – Sex Linkage, Modes of Inheritance, Pedigree Analysis, Penetrance, Expressivity, Pleiotropy (CFT) | 25 Variations to Mendelian Genetics – Multiple Alleles, Epistasis (CFT) |
| 11. | Oct/Nov | 30 Variations to Mendelian Genetics – Epistasis (continue), Lethal Genes, Linkage Analysis (CFT) | 1 Population Genetics – Hardy Weinberg Equilibrium, Allele Frequencies, Non-random Mating (CFT) |
| 12. | | 6 Population Genetics – Mutation and Selection Forces, Maintenance of Genetic Polymorphism (CFT) | 8 Quantitative Genetics – Statistical Description of Quantitative Traits (CFT) |
| 13. | | 13 Quantitative Genetics – Polygenic Inheritance, Heritability, Breeding, Heterosis (CFT) | 15 Continual Assessment 3 (fixed date, no replacement test) (CFT) |
| <i>READING PERIOD: Sat, 18 Nov to Fri, 24 Nov 2017 (1 week)</i> | | | |
| <i>EXAMINATION : Wed, 6 Dec 2017, 1 p.m.</i> | | | |
| <i>VACATION : Sun, 10 Dec 2017 to Sun, 14 Jan 2018 (5 weeks)</i> | | | |

Lecturers: Associate Professor Dr CHEW Fook Tim (dbscft@nus.edu.sg) (CFT); Associate Professor Dr Cynthia HE (dbshyc@nus.edu.sg) (CH); Dr WU Jinlu (dbswjl@nus.edu.sg) (WJL)
Teaching Assistant: Miss Sylvia Law (dbslsjs@nus.edu.sg)