

MOLECULAR BIOLOGY 4RR3 Human Genetics

Lecture schedule - Jan-Apr 2015

Instructor: Dr. S. Igdoura. LSB 335 ; igdoura@mcmaster.ca

Place: ABB 136

Text book: Human Molecular Genetics by Strachan &Read (5th edition)

Other suggested text books:

Basic Human Genetics by Mange and Mange (Sinauer Inc.);

Genetics in Medicine by Thompson et al. (Saunders Co.)

Format: Two lectures per week (Mon & Thu 12:30-1:20), one tutorial

Course evaluation: 30% Tutorials; 20% Midterm exam, 50% Final exam

COURSE OUTLINE

Week 1 Jan 5 Historical prospective of Medical genetic
Monogenic diseases

Week 2 Jan 12 Chromosomal disorders
Multi-factorial diseases and Mitochondrial disorders

Week 3 Jan 19 Advances in recombinant DNA technologies

Week 4 Jan 26 Advances in recombinant DNA technologies
Organization of the human genome

Week 5 Feb 2 Human Gene expression

Week 6 Feb 9 Studying gene function in the post genome era

Week 7 Feb 16 **Mid-term Recess**

Feb 26 Mid-term Exam

Week 8 Feb 23 Human Genetic Variability

Week 9 Mar 2 Genetic Mapping of Mendelian Characters

Week 10 Mar 9 Identifying human disease genes

Week 11 Mar 16 Genetic Testing of Individuals

Week 12 Mar 23 Genetic Manipulation of Animals and modeling human diseases

Week 13 Mar 30 Genetic Approaches to treating disease