

PLPA4380 Fungal Genetics and Genomics
B. Gillian Turgeon
Spring 2016

Date	Topic
Wed Jan 27	Organizational meeting
Fri Jan 29	Placing the fungi, phylogenetic vs morphological/physiological evidence
Mon Feb 1	Placing the fungi, phylogenetic vs morphological/physiological evidence
Wed Feb 3	Classical (Mendelian) genetics
Fri Feb 5	Genetics problems
Mon Feb 8	Molecular genetic tools: Transformation and analysis
Wed Feb 10	Molecular genetic tools: Transformation and analysis
Fri Feb 12	Group activities, using the gene manipulation tools
Mon Feb 15	February break
Wed Feb 17	Molecular genetic tools: gene structure, introns, codon bias, etc
Fri Feb 19	Molecular genetic tools: gene structure, introns, codon bias, etc
Mon Feb 22	Quiz
Wed Feb 24	Sequenced fungal genomes: JGI Mycocosm tools Characteristics/ typical features/ comparative genomics/annotation
Fri Feb 26	Sequenced fungal genomes: JGI Mycocosm tools Characteristics/ typical features/ comparative genomics/annotation
Mon Feb 29	Sequenced fungal genomes: JGI Mycocosm tools Characteristics/ typical features/ comparative genomics/annotation
Wed Mar 2	Group activities, using the genomic tools
Fri Mar 4	Case studies: <i>Saccharomyces cerevisiae</i> genome
Mon Mar 7	Case studies: <i>Schizosaccharomyces pombe</i> genome
Wed Mar 9	Pathogenic lifestyle, necrotrophs and biotrophs
Fri Mar 11	Case studies: hemibiotrophs; <i>Magnaporthe oryzae</i> genomics and infection biology
Mon Mar 14	Case studies: hemibiotrophs; <i>Magnaporthe oryzae</i> genomics and infection biology
Wed Mar 16	Dothideomycete comparative genomics
Fri Mar 18	Case studies: necrotrophs; Genomics and biology of secondary metabolism
Mon Mar 21	Case studies: necrotrophs; Genomics and biology of secondary metabolism
Wed Mar 23	Quiz
Fri Mar 25	Student selected topic
Mon Mar 28	Spring break
Mon April 6	Mycorrhizal genomics
Wed April 8	Mycorrhizal genomics
Fri April 10	Endophytes
Mon April 13	Endophytes
Wed April 15	Comparative genomics

Fri April 17	Comparative genomics
Mon April 20	Molecular analysis of mating in ascomycetes
Wed April 22	Molecular analysis of mating in ascomycetes
Fri April 24	Molecular analysis of mating in basidiomycetes
Mon April 27	Student selected topic
Wed April 29	Student selected topic
Fri May 1	Discussion and Review
Mon May 4	Review
Wed May 6	Exam