

Human Cytogenetics GENE 292
Dr. Fern Tsien
Rooms CSRB 752, 752A, and 659

Topic	Location (all in CSRB)
Introduction to cytogenetics	752A
Heterochromatin, euchromatin, and the nucleosome	752A
Chromosome replication, segregation, and the centrosome	752
Numerical Abnormalities	752A
Structural Chromosome Abnormalities	752
Mechanisms of structural Abnormalities	752A
Sex chromosomes, X chromosome inactivation-	752
Homework due	
Sex chromosome abnormalities	752A
Sample collection, culture, and harvest (Lecture)	752
Banding Techniques (Lecture)	752A
Harvesting of cells for chromosome analysis (Lab)	659
Slide preparation and solid staining (Lab)	659
Midterm	752
G-banding (Lab)	659
Microscope analysis and diagnosis (Lab)	659
Karyotype Analysis and nomenclature	752A
Microdeletion syndromes	752
Molecular cytogenetics methods-FISH, CGH, SKY, etc.	752A
Cytogenetics of Cancer (Leukemias)	752
Cytogenetics of Cancer (Solid Tumors)	752A
No class- Report due	752
Chromosome Breakage and Instability Syndromes	752A
Epigenetic mechanisms and Genomic Imprinting disorders	752
Model organisms- fruitfly, mouse, primates	752A
Final exam	752A

Midterm exam 30%
 Final exam 30%
 Report 30%
 Class participation/attendance/homework: 10%