

PATHOLOGY 530 – HUMAN CYTOGENETICS - SPRING 2008

A course on molecular structure and identification of chromosomes, chromosomal aberrations and their role in diseases, includes a lab to learn chromosome preparation and FISH

Chairs: **Christine Disteche** (Tel: 543-0716; e-mail: cdistech@u.washington.edu) and
Kathy Leppig (Tel: 326 2272; e-mail: leppig.k@ghc.org)

Date	Topic	Lecturer
Apr 1	General introduction; chromosome structure and segregation	Disteche
Apr 3	Nomenclature of chromosome abnormalities	Leppig
Apr 8	FISH: metaphase and interphase, CGH, SKY	Opheim
Apr 10	Genome copy number variation	Mefford
Apr 15	Array CGH applications to constitutional chromosome disorders	Tsuchiya
Apr 17	X chromosome: regulation	Disteche
Apr 22	Y chromosome: maleness, male fertility	Disteche
Apr 24	Clinical cytogenetics I: autosomal abnormalities	Leppig
Apr 29	Clinical cytogenetics II: sex chromosome abnormalities	Leppig
May 1	Meiosis: impact on chromosome disorders	Cheng
May 6	Imprinting; Uniparental disomy	Leppig
May 8	Trisomy and triploidy: mechanisms and models	Disteche
May 13	Chromosome breakage syndromes; Fragile sites	Monnat
May 15	Genome duplications/deletions; mechanisms and impact on disease	Mefford
May 20	Evolution of chromosomes: comparative cytogenetics	Disteche
May 22	Cancer cytogenetics I: leukemia, lymphoma	Bryant
May 27	Cancer cytogenetics II: solid tumors	Tsuchiya
May 29	Array analyses in cancer genomes	Greisman
June 3	Risks/acquisition and inheritance of aberrations	Disteche
June 5	Prenatal and preimplantation diagnosis	Cheng

- **Classes** will meet
Tuesday: 12:30 – 1:20 p.m. lecture, room K069 (Health Sciences)
1:30 – 2:20 p.m. case review, room K069 (Health Sciences)
Thursday: 12:30 – 1:20 p.m. lecture, room T733 (Health Sciences)
- **LAB:** The schedule of the lab sessions for students to perform chromosome preparation, chromosome identification and FISH will be arranged individually. Lab contact is Doug Chapman: Tel. 598 4488; e-mail: chapma@u.washington.edu.

