Fall 9-1-2005

# BMED 647.01: Topics in Toxicology-Cancer

Mark A. Pershouse

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**Pharmacy 647-Topics in Toxicology-Cancer**
**FALL 2005**
**GENERAL INFORMATION**

**Class meets Wednesday 1:30-3 pm; and Monday 10:10-11:30 am in SB 337**

| | | Room | Phone |
|---|---|---|---|
| **Coordinators:** | Mark Pershouse | SB 052A | 4769 |
| | Howard Beall | SB159 | 5112 |
| **Additional Instructors:** | David Shepherd | SB 058 | 2224 |
| | Curtis Noonan | SB 055 | 4957 |
| | Lillian Calderón-Garcidueñas | SB 306 | 4785 |
| | Fernando Cardozo-Pelaez | SB 160 | 4025 |
| | Elizabeth Putnam | SB 152B | 4794 |

**References:** Handouts and current research articles

**Recommended Texts:** Molecular Biology of the Cell Alberts et al. Fourth Edition;
The Genetic Basis of Human Cancer Vogelstein and Kinzler Second edition

**Description:**
This course will provide an overview of carcinogenesis for graduate students in toxicology and other biomedical sciences. Lecture topics will be in the general areas of cancer biology, cancer genetics, and chemical carcinogenesis. Lectures will be supplemented with readings from the current literature.

**Assessment:** Grades will be determined from class participation in discussions(70%) and student presentations (30%).

| | DATE | INSTRUCTOR | TOPIC |
|---|---|---|---|
| **WEEK 1** | 8/31 W<br>9/2 M | Pershouse | Introduction and History of Cancer Research |
| **WEEK 2** | 9/7 W<br>9/9 M | Noonan | Cancer Epidemiology |
| **WEEK 3** | 9/14<br>9/19 | Shepherd | Diet and Cancer /Prevention |
| **WEEK 4** | 9/21<br>9/26 | Cardozo-Pelaez | DNA damage and repair /Chemical carcinogens |
| **WEEK 5** | 9/28<br>10/3 | Pershouse | Cellular and molecular mechanisms of carcinogenesis |
| **WEEK 6** | 10/5<br>10/10 | Pershouse | Cell Cycle/Tumor Kinetics |
| **WEEK 7** | 10/12<br>10/17 | Calderón-<br>Garcidueñas | Pathology of Cancer |

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| **WEEK 8** | 10/19<br>10/24 | Pershouse | Tumor suppressors/ Oncogenes |
| **WEEK 9** | 10/26<br>10/31 | Pershouse | Senescence Genes/Differentiation Genes /Apoptosis Genes affected in neoplasia |
| **WEEK 10** | 11/2<br>11/7 | Putnam | predisposition I /Familial cancer syndromes |
| **WEEK 11** | 11/9<br>11/14 | Putnam | Predisposition II /Non-familial syndromes |
| **WEEK 12** | 11/16<br>11/21 | Beall | Cancer therapeutics 1 |
| **WEEK 13** | 11/23<br>11/28 | Beall | Cancer Therapeutics 2 |
| **WEEK 14** | 11/30<br>12/5 | Students | Student presentations |
| **WEEK 15** | 12/7<br>12/12 | Students | Student presentations |

The Monday class is sometimes moved to a different location and day, depending on the instructor. Class will start on Wednesday, August 31.