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|  | SCHEDULE | SPRING 2011 |  |
| Speaker | Affiliation | Topics | Date |
| Jim Rusling | Uconn | INTRO; & Disc. of student projects | Jan 18 |
| Jim Rusling | UCONN | Electrochemical Biosensors & glucose sensors | Jan 20 |
| Jim Rusling | UCONN | Biosensor arrays; toxicity screening | Jan 25 |
| Jim Rusling | UCONN | Arrays for cancer biomaker protein detection  | Jan 27 |
| Jim Rusling | UCONN | Schedule Student projects | Feb 1 |
| Daniel Pentek | Perkin-Elmer | The Role of Multiple MS Technologies in Bioanalytical Analysis | Feb 3 |
| Jim Rusling | Uconn | Arrays for cancer biomaker protein detection | Feb 8 |
| Ken Santone | Bristol Myers Squib | The Role of Drug Metabolism Studies in Optimizing Drug Candidates  | Feb 10 |
|  |  |  | Feb 15 |
| Anthony Provatas | Uconn, CESE | Ultra-high Pressure LC and MS, at CESESeparation labs, Horsebarn Hill | Feb 17 |
| 2 students | Dhanuka/Ashley | **Ashley:** Bioluminescence,Chemiluminescence, and the Luciferin-Luciferase ATP Detection Assay".Dhanuka: An expedition to optical bio-diagnostic tools | Feb 22 |
| 2 students | Chi Tang/Boya Song | **Chi:** Fabrication of gold arrays for electrochemical detection of cancer biomarkers; **Boya:** ECL Detection in Paper-Based Microfluidic Sensors | Feb 24  |
| 2 students | XIXIAN.YE/Christopher | **Xixian:** development ofSPR biosensorsChris: NMR of proteins: solid Microcrystalline ubiquitin | Mar 1 |
| 2 students | Nicole/Clive | **Nicole:** Fluorescence Techniques to Detect Fluorescent ProteinsClive: Metabolomic Approach to the Identification of Cancer Biomarkers | Mar 3 |
|  |  | SPRING RECESS | Mar 7-11 |
| Xudong Yao | Uconn | LC-MS based Proteomics | Mar 15 |
| Xudong Yao | Uconn | LC-MS based Proteomics | Mar 17 |
| Umesh Hanumegowda  | Bristol-Myers Squibb | Metabolism and Toxicity | Mar 22 |
| Tim Olah | Bristol-Myers Squibb | LC-MS in drug discovery | Mar 24 |
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| Dale Sharp  | Boehringer-ingelheim | Radiolabeled  ADME studies | Mar 29 |
| David Heywood | Waters | Chemically Intelligent Workflows for Drug Metabolite Identification | Mar 31  |
| Chandra Prakash | Biogenidec | Metabolite identification and characterization: adverse drug rxn. | April 5  |
| Janet Hager  | Uconn Health Center | Modern Genomic Analyses | April 7 |
| Tukiet Lam | Yale | High Resolution Mass Spectrometers role in small molecule studies | April 12 |
| Michael Fisher | Boehringer-ingelheim | Phase II drug metabolism | April 14 |
| Susan Hurst  | Pfizer  | Biotherapeutics Drug Development  | April 19 |
| Dieter Drexler | Bristol-Myers Squibb | MALDI MS and Mass Spectrometric Imaging for Analysis of Biological Tissue Sections | April 21 |
| Amin Kamel | Novartis | *Improving the Decision-Making Process in Structural Modification of Drug Candidates*  | April 26 |
| Jeff Chin | Bristol-Myers Squibb | Small Molecule NMR  | April 28 |

**Chem 395 Bioanalytical Chemistry, Spring 2011. Schedule, Chemistry, Room 212**

**T Th 11-12:15 AM Chem Bldg. Room 212**

**Feb 17 is a demonstration/lecture** Please go to CESE 111.

<http://cese/directions.html>

**J. Rusling and A. Nassar, co-ordinators.**

**Class materials can be found at** <http://web2.uconn.edu/rusling/Teaching.html>

**OR Click on Chem 395 Bioanalytical Chemistry at the bottom of our home page.**

**Class assignment:**

**One 25 min lecture and a 5-8 page paper on the same bioanalytical topic**

**Grading**

**• 15% class participation (you must ask questions!)**

**• 30% your lecture**

**• 30% your paper**

**• 25% final exam**

**Possible Topics for Student presentations:**

(pick one from this list or choose your own topic; Have topic approved by me by before Feb. 1, bring a review article or other lead article on your topic as a basis for discussion. Topics should draw from current literature, e.g. 2004 or later.)

• Optical arrays to analyze DNA hybridization

• New approaches to DNA detection

• Fluorescent or SPR Protein Arrays

• Antigen-antibody assays using surface plasmon resonance

• Non-specific binding in antigen-antibody assays

• Approaches to proteomics (choose a specific approach)

• Bioluminescence or Chemiluminescence in Biology

• Fluorescent proteins

• NMR of proteins

• MS of proteins

• Detection of cancer biomarker proteins

• Point of care clinical analysis of blood or serum

• Bioanalytic methods for early disease detection

• Plasmonic optical methods for biomolcule detection

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