Title: Functional Genomics and Bioinformatics

Course Number: CB7300

Time: Wednesday and Friday, 12:30-2:00, month of February (8 sessions), Winter 2016

Location: Glancy Auditorium or Prentis Library

Short description: This course will provide instruction on appropriate applications for an array of methods of analyses and technologies related to the study of functional genomics. It is primarily geared to a molecular biologist audience and it is tailored to address real-world experimental objectives for cancer research.

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| Session | Date | Instructor/s | Topics |
| 1 | 2/3/2016 | Alan Dombkowski | Spectrum of data types, the biological features they capture, and platforms for data collection, part I |
| 2 | 2/5/2016 | Alan Dombkowski | Spectrum of data types, the biological features they capture, and platforms for data collection, part II |
| 3 | 2/10/2016 | Aliccia Bollig-Fischer | Maintaining hypothesis driven research and integration of multiple levels of data analysis |
| 4 | 2/12/2016 | Gregory Dyson | Basics of bioinformatics pipelines and data output file content |
| 5 | 2/17/2016 | Gregory Dyson | Approaches and considerations for statistical analysis of genomic data sets |
| 6 | 2/19/2016 | Gregory Dyson & Alan Dombkowski | Extracting knowledge from feature lists: applying functional annotation tools |
| 7 | 2/24/2016 | Aliccia Bollig-Fischer | Overview of approaches to validate hypotheses and verify accuracy of results |
| 8 | 2/26/2016 | Aliccia Bollig-Fischer | Current highlights from the literature and diagnostic applications |