



# 2009 Fall Semester HSLs Bioinformatics Training Workshops



The HSLs Molecular Biology Information Service offers the following workshops on  
**Wednesdays, 1-3:30 pm, Falk Library, Conference Room B.**

Workshop Name	Date
<u><a href="#">Locating Gene-centric Information</a></u> Retrieve genetic information using NCBI, other major databases, & HSLs licensed tools.	Sept. 2
<u><a href="#">Locating Protein Information</a></u> Search for protein information using NCBI resources, such as Entrez Protein, BLink, Conserved Domain Databases (CDD), Molecular Modeling DataBase (MMDB), and HSLs licensed tools.	Sept. 9
<u><a href="#">Genome Browsers</a></u> Visualize genomes using NCBI Map Viewer, Ensembl, UCSC Genome Browser, and GBrowse.	Sept. 16
<u><a href="#">SNPs &amp; Genetic Variation</a></u> Provides an overview of resources and search strategies on genetic variations with emphasis on SNPs.	Sept. 23
<u><a href="#">Peptide Mass Fingerprinting for Protein Identification</a></u> Provides an overview of open access tools for mass spectrometry and proteomics research; learn to use Matrix Science's Mascot to identify proteins from primary sequence databases.	Sept. 30
<u><a href="#">Introduction to Vector NTI</a></u> Learn about assembling new molecules, sequence manipulation, restriction digestion, PCR primer design, sequence assembly, multiple sequence alignment, and drawing vector maps.	Oct. 7
<u><a href="#">Pathway Analysis Tools 1</a></u> ***Oct. 1 class @ Shadyside Library*** Use software such as Ingenuity IPA, Protein Lounge Pathway Builder, and NIH DAVID to perform biological pathway analyses, functional analyses of microarray results, and to build biological interaction networks among genes of interest based on literature findings.	Oct. 1* Oct. 14
<u><a href="#">Pathway Analysis Tools 2</a></u> Use software such as GeneGo MetaCore, Biobase Explain, and Protein Lounge Pathway Builder to perform biological pathway analyses, functional analyses of microarray results, and to build biological interaction networks among genes of interest based on literature findings.	Oct. 21
<u><a href="#">Microarray Data Analysis</a></u> Learn about one-color platforms, data preprocessing, quality assessment, normalization and statistical tests, hierarchical clustering and classification, and strategies for biological annotation.	Oct. 28
<u><a href="#">Gene Regulation Resources</a></u> Provides an overview of resources and search strategies on transcriptional regulation with emphasis on DataBase of Transcription Start Sites (DBTSS), Transfac and Biobase Explain.	Nov. 4
<u><a href="#">Protein Sequence Analysis</a></u> ***Falk Library Classroom 2*** Explore open source online tools for protein secondary structure analysis, topology prediction, functional domain identification, and protein-protein interaction prediction.	Nov. 11
<u><a href="#">Sequence Similarity Searching</a></u> Perform sequence similarity searching using BLAST-based programs, EMBL-EBI, and USCS Blat.	Nov. 18
<u><a href="#">DNA Analysis Tools</a></u> Discover open source online tools for PCR primer construction and analysis, restriction digestion and mapping, and sequence formatting and manipulation.	Dec. 2