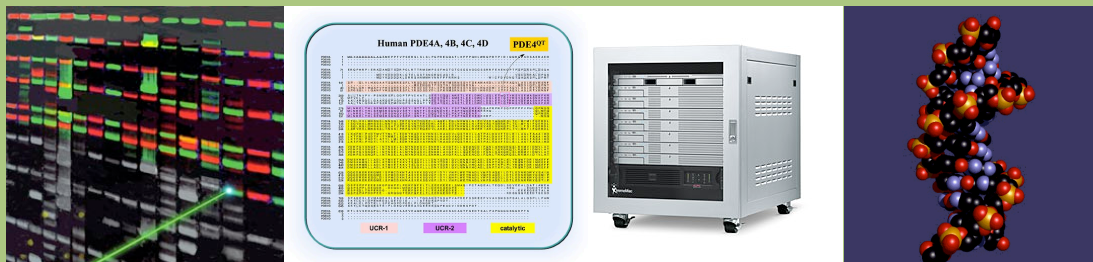


# Practical Bioinformatics Workshop

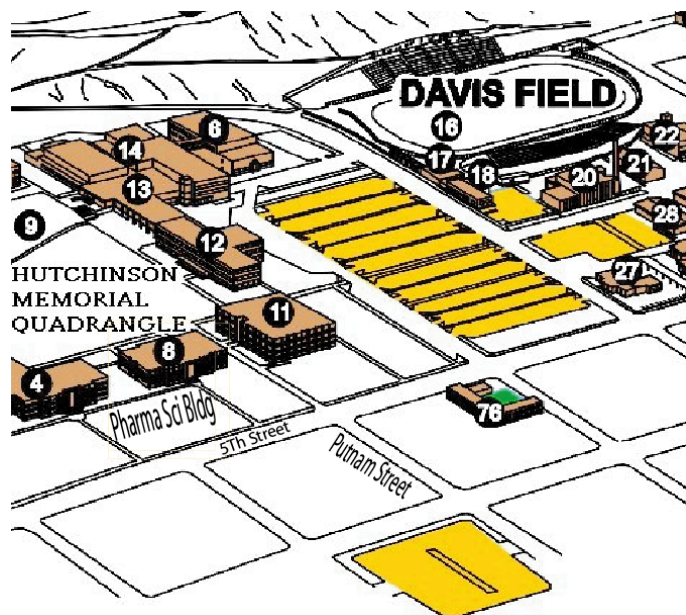


Idaho State University, June 21-22, 2005

## The 2005 Idaho State University Practical Bioinformatics Workshop

The Practical Bioinformatics Workshop brings together regional researchers to discuss practical applications of bioinformatics in a relaxed atmosphere that encourages interdisciplinary discussion and fosters collaborative activities.

The Workshop will be held June 21-22, 2005 in Pharmacy 123 (building #8) on the ISU campus near the corner of 5<sup>th</sup> & Putnam Streets in Pocatello, ID (see map: free parking with pass from Public Safety, building #27). The Workshop is free but space is limited. For information about the Workshop and housing & entertainment options and to reserve your seat, please contact Mike Thomas at (208) 282-2396, [mthomas@isu.edu](mailto:mthomas@isu.edu).



### Tues: NCBI Field Guide

The first day (June 21) will include a training session presented by NCBI: a morning lecture and afternoon practical session (held in Liberal Arts computer lab, building #4). The training session, hosted by NCBI's Chuong Huynh, will feature information about databases covering effective use of Entrez searches, the BLAST search engine, and related resources. The training will also cover emerging bioinformatics tools, including the NCBI genome assembly & annotation, map viewer genome displays, and genome-specific BLAST. For training session details, see: <http://www.ncbi.nlm.nih.gov/Class/FieldGuide/>.

### Wed: Bioinformatics Symposium

The second day (June 22) will consist of presentations (20 min) by computational biologists and scientists from several disciplines that use the tools of computational biology in their research. The emphasis of these talks will be uses of computational biology resources to solve specific research problems. Researchers will approach this topic from a number of perspectives: agriculture, phylogenetics, forensics, immunology and cell biology.

A mixer & luncheon will be held Wednesday, followed by a tour of the ISU MRCF sequencing center.

## Day 1 NCBI Schedule

9am – Noon: Field Guide to NCBI Resources – Lecture session with Chuong Huynh. Pharmaceutical Sciences room 123. Course material online: <http://www.egg.isu.edu/biocourses/workshop/>  
Choose one practical (hands-on) computer session:

1 PM – 3 PM: Field Guide to NCBI Resources – practical session #1. Liberal Arts 270 (bld. #4) computer lab.

3 PM – 5 PM: Field Guide to NCBI Resources – practical session #2. Liberal Arts 270 (bld. #4) computer lab.

## Day 2 Speaker Schedule

8:30 AM – 10:40 AM First Session

*Architecture and Applications of the INL Bioinformatics Pipeline.* Frank Roberto, Biological Sciences, Idaho National Laboratory.

*Forensic DNA databases: Opportunities and limits.* Greg Hampikian, Biology, Boise State University.

*Use of bioinformatics and genomics tools in studies of low phytic acid barleys.* David Bowen, Victor Raboy, Jianming Fu, Mary Guttieri & Ed Souza, University of Idaho Aberdeen, USDA-ARS.

*Building sequence based comparative maps.* Ramesh Kantety, Department of Plant & Soil Science, Alabama A&M University.

*Correlating Gene Expression with Physiological Changes in Rainbow Trout.* Ken Overturf, USDA-ARS, Hagerman.

*Genomic fingerprinting by hybridization.* Mitch Day & Michael A. Thomas, Biological Sciences, Idaho State University.

10:40 AM – 11:00 AM Coffee Break

11:00 AM – 12:40 PM Second Session

*Bioinformatics workflows using Taverna.* Luobin Yang & Mitch Day. Biological Sciences, Idaho State University.

*Gene family evolution in divergent land plant lineages: An HMM approach.* Deborah A. Johnson, Jeffrey P. Hill, & Michael A. Thomas, Biological Sciences, Idaho State University.

*Research computing for phylogenetics.* Scot A. Kelchner, Biological Sciences, Idaho State University.

*BRIN/INBRE bioinformatics core facilities.* Celeste Brown, UI.

*Apple HPC for academia.* Armin Briegle, Western Area HPC/Server/Storage Consulting Engineer for Apple Computer.

## Wednesday Luncheon Mixer

Please join your colleagues for an informal luncheon mixer at the home of Mike Thomas & Alissa Salmore, 119 Princeton Ave. The mixer will begin at 1 PM on Wednesday. Food & cocktails are provided courtesy of the ISU Molecular Research Core Facility. Maps to Mike's house will be distributed at the seminar session.

## Sequencing Center Tour

For a tour & demo of the ISU Molecular Research Core Facility (MRCF) sequencing center, please contact Erin Jepsen-O'Leary (*email*, 208-282-4890). The tour will be held Wednesday at 4 PM, meeting in LS 461.

## Apple iPod Drawing!

A lucky bioinformatician will take home an **Apple iPod**, courtesy of Apple Computer. The choice of loading the iPod with the complete genome sequence of the duck-billed platypus or the collected works of Bruce Springsteen, however, will be left to winner. The drawing will be held at the Wednesday luncheon mixer.

## Thanks To Our Sponsors

**Idaho INBRE:** NIH's IDEa Networks for Biomedical Research Excellence (Wednesday coffee break)

**MRCF:** Molecular Research Core Facility & Erin O'Leary-Jepsen (luncheon & computer accounts)

**Apple:** Marcea Mandsager (iPod & speaker's dinner)

**ISU Depts of Biological & Pharmaceutical Sciences**

**ISU College of Arts & Sciences:** computer accounts

**IBRI:** ISU Biomedical Research Institute

**EGG:** ISU Evolutionary Genomics Group



## The start of something special!

The organizers are hoping that a successful 2005 workshop will be parlayed into a future symposium of slightly greater scope. Granting efforts are underway to secure funding for the symposium. Care to participate? Please provide comments and suggestions to Mike Thomas.