

2008

# Innovative integration of Web 2.0 applications to enhance library-based bioinformatics support

Kristi L. Holmes

Ellen Dubinsky

Lili Wang

Follow this and additional works at: [http://digitalcommons.wustl.edu/becker\\_pubs](http://digitalcommons.wustl.edu/becker_pubs)

 Part of the [Medicine and Health Sciences Commons](#)

---

## Recommended Citation

Holmes, Kristi L.; Dubinsky, Ellen; and Wang, Lili, "Innovative integration of Web 2.0 applications to enhance library-based bioinformatics support." 2008 MLA Annual Meeting and Exhibition, Chicago, IL. 2008. Paper 7.  
[http://digitalcommons.wustl.edu/becker\\_pubs/7](http://digitalcommons.wustl.edu/becker_pubs/7)

This Presentation Poster is brought to you for free and open access by the Becker Medical Library at Digital Commons@Becker. It has been accepted for inclusion in Becker Library Publications and Presentations by an authorized administrator of Digital Commons@Becker. For more information, please contact [engeszer@wustl.edu](mailto:engeszer@wustl.edu).

# INNOVATIVE INTEGRATION OF WEB 2.0 APPLICATIONS TO ENHANCE LIBRARY- BASED BIOINFORMATICS SUPPORT

Kristi L. Holmes, PhD

Ellen Dubinsky, MLIS

Lili Wang, MD, MS

Bernard Becker Medical Library

Washington University School of Medicine

# Becker Library Mission

The mission of the Bernard Becker Medical Library is to provide information resources and technology in support of the educational, research, and patient care objectives of the School of Medicine.

In this spirit, the Bernard Medical Library's Division of Translational Research Support ultimately serves to foster collaboration and enhance translational endeavors of Washington University School of Medicine by providing broad support services to the University community.



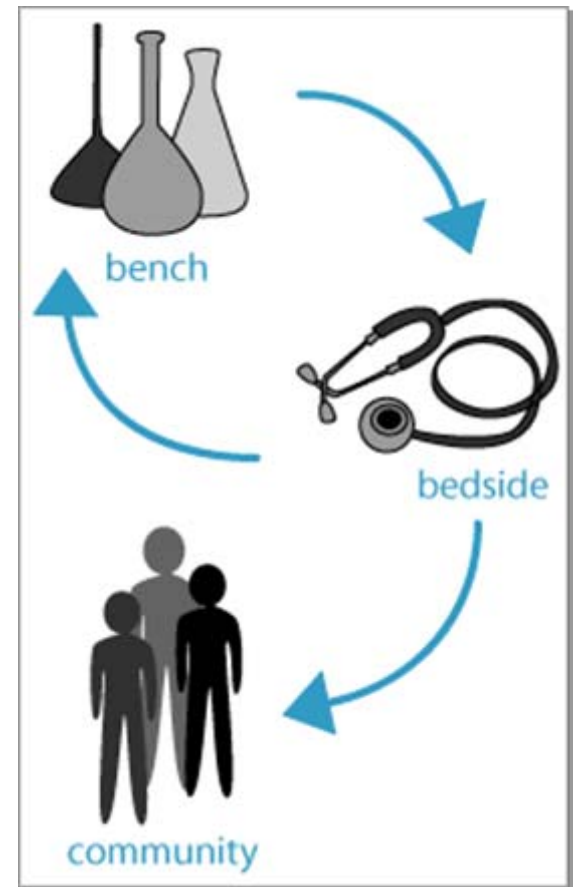
# Translational research

To improve human health, scientific discoveries must be translated into practical applications. Such discoveries typically begin at “the bench” with basic research — in which scientists study disease at a molecular or cellular level — then progress to the clinical level, or the patient's “bedside.”

Scientists are increasingly aware that this bench-to-bedside approach to translational research is really a two-way street. Basic scientists provide clinicians with new tools for use in patients and for assessment of their impact, and clinical researchers make novel observations about the nature and progression of disease that often stimulate basic investigations.

## NIH Roadmap

<http://nihroadmap.nih.gov/clinicalresearch/overview-translational.asp>



<http://medschool.ucsf.edu/news/features/>

# How?



By working to efficiently address critical information needs on campus.

# Learning 2.0

BERNARD BECKER  
Medical Library

## Learning 2.0@Becker

Washington University in St. Louis • School of Medicine

### Becker Medical Library's Learning 2.0 Project

[Home](#)

[The 23 Things](#)

[About Learning 2.0](#)

[FAQs](#)

#### Search

#### Archives

- [December 2007](#)

#### Subscribe



### Learning 2.0@Becker

*Posted December 6th, 2007 by Ellen · No Comments*

#### Welcome to Learning 2.0@Becker, or **23 Things** to explore and learn about Web 2.0 tools!

You've found the Bernard Becker Medical Library's Learning 2.0 blog. Chances are that if you've made your way here you're either:

- A member of the Becker staff who's interested in participating in the Learning 2.0 Project
- Interested in learning about some of the new Web 2.0 tools and applications (such as blogs, wikis, [Flickr](#), and [del.icio.us](#)) that you've heard so much about
- Are interested in actually playing around with some of those cool Web 2.0 tools and figuring out how to use them in your daily work and leisure activities.

No matter why, we're glad you're here.

Learning 2.0 is an online learning program that encourages staff and others to

#### Participants' Blogs

- [Betsy's Beckerblog](#)
- [Kristiology](#)
- [Joelene's world](#)
- [TLM](#)
- [Will 2.0](#)
- [Whosits Whatchamacallit](#)
- [Violet Views](#)
- [Annalog](#)
- [Improved Circulation](#)
- [Toby, A Night Staffer](#)
- [Par for the Course](#)
- [DrinkingtheKoolAid](#)
- [KlosterBlog](#)
- [Relatively Rational Reasonings](#)

# Learning 2.0

BERNARD BECKER  
Medical Library  
**Learning 2.0@Becker**  
Washington University in St. Louis • School of Medicine

Becker Medical Library's Learning 2.0 Project

Home The 23 Things About Learning 2.0 FAQs

## Search

## Archives

- December 2007

## Subscribe

- RSS Feed
- Bloglines
- Add to Google
- MY YAHOO!
- MY MSN

## Learning 2.0@Becker

Posted December 6th, 2007 by Ellen · No Comments

Welcome to Learning 2.0@Becker, or **23 Things** to explore and learn about Web 2.0 tools!

You've found the Bernard Becker Medical Library's Learning 2.0 blog. Chances are that if you've made your way here you're either:

- A member of the Becker staff who's interested in participating in the Learning 2.0 Project
- Interested in learning about some of the new Web 2.0 tools and applications (such as blogs, wikis, Flickr, and del.icio.us) that you've heard so much about
- Are interested in actually playing around with some of those cool Web 2.0 tools and figuring out how to use them in your daily work and leisure activities.

No matter why, we're glad you're here.

## Participants' Blogs

- Betsy's Beckerblog
- Kristiology**
- Joelene's World

**KRISTIOLOGY**

FRIDAY, APRIL 25, 2008

**...and speaking of Facebook**

This is a great way to keep in touch with my family, friends and classmates:

SHARE THIS  
ShareThis

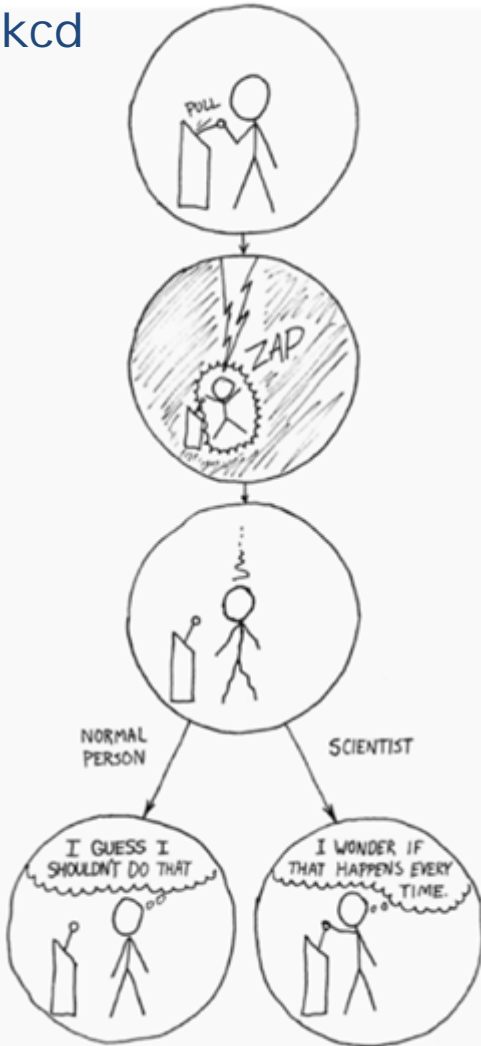
LIBRARYTHING  
Random books from my library

powered by LibraryThing

# BIOINFORMATICS@BECKE

# R

xkcd

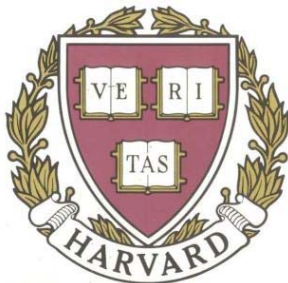


TRAINING & EDUCATION  
CONSULTATION SERVICES  
RESOURCE DEVELOPMENT  
PARTNERSHIPS & COLLABORATION



# Library-based bioinformatics support

Becker Library, along with a growing number of research institutions, realizes the importance of fostering the connection between research in the biological and biomedical sciences and information tools.



## Vignettes: diverse library staff offering diverse bioinformatics services\*

David L. Osterber, PhD, MSLS, Librarian, [doosterb@mcch.harvard.edu](mailto:doosterb@mcch.harvard.edu)  
Biological Labs, Harvard University, 16 Divinity Avenue, Cambridge, Massachusetts

Kristine Ajaji, MLS, MPH, AHIP, Associate Director, [kajaji@t.cornell.edu](mailto:kajaji@t.cornell.edu)  
Samuel J. Wood Library, Weill Medical College of Cornell University, 1300 York Avenue, New York, New York

Catharine Caserari, MLS, Head, Education and User Services, and Basic Sciences Library Liaison, [ccaserari@vcu.edu](mailto:ccaserari@vcu.edu)  
Tompkins-McCoo Library for the Health Sciences, VCU Libraries, Virginia Commonwealth University, Medical College of Virginia Campus, 509 North Tazewell Street, Richmond, Virginia

Patricia M. Corley, MLS, AHIP, Research Support Librarian, [pcorley@usc.edu](mailto:pcorley@usc.edu)  
Norris Medical Library, University of Southern California, 2003 Zonal Avenue, Los Angeles, California

Medina Dewar, PhD, Bioinformatics and Life Sciences Specialist, [mhd6@cornell.edu](mailto:mhd6@cornell.edu)  
Albert R. Mann Library, Cornell University, 166 Mann Library, Ithaca, New York

Nicole Gaddie, PhD, Bioinformatics Information Specialist, [ncgadd@gnx.de](mailto:ncgadd@gnx.de)  
Spencer S. Eccles Health Sciences Library, 10 North 1900 East, University of Utah, Salt Lake City, Utah

Debra K. Jacobs, MLS, Science Librarian, [djacob@wooster.edu](mailto:djakobs@wooster.edu)  
Science Library, College of Wooster, 1140 Beall Avenue, Wooster, Ohio

Peter Kirian, PhD, MLIS, Reference Librarian for the Sciences and Engineering, [pkirian@vcu.edu](mailto:pkirian@vcu.edu)  
James Branch Cabell Library, VCU Libraries, Virginia Commonwealth University, Monroe Park Campus, Richmond, Virginia

Janet A. Oides, MLS, Associate Director of Library Services, [oidej@wcscu.edu](mailto:oidej@wcscu.edu)  
Western Connecticut State University, 181 White Street, Danbury, Connecticut

K.T.L. Vaughan, MSLS, Librarian for Bioinformatics and Pharmacy, [k.t.vaughan@unc.edu](mailto:k.t.vaughan@unc.edu)  
Health Sciences Library, University of North Carolina at Chapel Hill, Campus Box 7585, Chapel Hill, North Carolina

Lili Wang, MD, Bioinformatics Specialist, [lwang@immonotes.usstl.edu](mailto:lwang@immonotes.usstl.edu)  
Bernard Becker Medical Library, Washington University in St. Louis School of Medicine, 660 South Euclid Avenue, St. Louis, Missouri

Yongqian Wu, PhD, Bioinformatics Specialist, [yqw@usc.edu](mailto:yqw@usc.edu)  
Norris Medical Library, University of Southern California, 2003 Zonal Avenue, Los Angeles, California

Renata C. Gee, MLS, Technical Information Specialist, [renata@ncbi.nlm.nih.gov](mailto:renata@ncbi.nlm.nih.gov)  
National Center for Biotechnology Information, National Library of Medicine, National Institutes of Health, Bethesda, Maryland

**Objectives:** The paper gives examples of the bioinformatics services provided in a variety of different libraries by librarians with a broad range of educational background and training.

**Methods:** Two investigators sent an email inquiry to attendees of the "National Center for Biotechnology Information's (NCBI) Introduction to Molecular Biology Information Resources" or "NCBI Advanced Workshop for Bioinformatics Information Specialists (IAWEBIS)" courses. The thirty-five-item questionnaire addressed areas such as educational background, library setting, types and numbers of users served, and bioinformatics training and support services provided. Answers were compiled into program vignettes.

**Discussion:** The bioinformatics support services addressed in the paper are based in libraries with academic and clinical settings. Services have been established through different means in collaboration with biology faculty as part of formal courses, through teaching workshops in the library, through one-on-one consultations, and by other methods. Librarians with backgrounds from art history to doctoral degrees in genetics have worked to establish these programs.

**Conclusion:** Successful bioinformatics support programs can be established in libraries in a variety of different settings and by staff with a variety of different backgrounds and approaches.

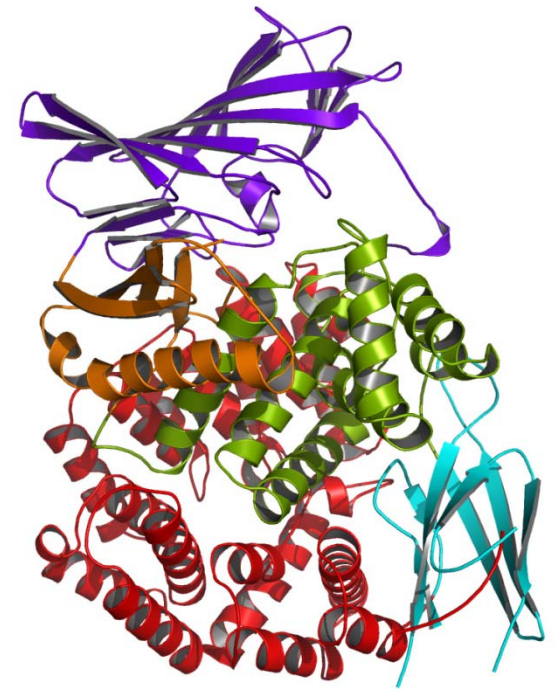
Complete paper available online only <<http://www.pubmedcentral.nih.gov/tocrender.fcgi?action=archivofjournal=93>>.

\*David Osterber is the senior author of this work; the other authors are listed alphabetically and all contributed equally; Renata Gee coordinated the paper.

# Bioinformatics@Becker

Our role:

1. Training and education
2. Consultation services
3. Resource development
4. Establish and cultivate partnerships and collaboration



<http://images.nigms.nih.gov>



**CTSA** Clinical & Translational  
Science Awards

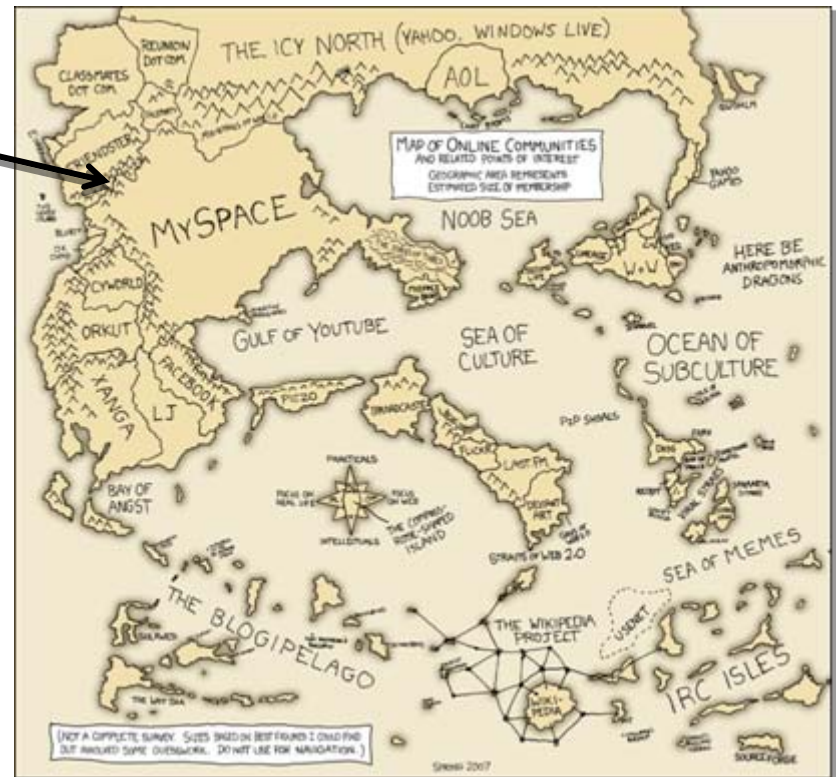
# Bioinformatics web portal

*Goal: Utilize Web 2.0 technologies to promote discussion, establish dialogue and connect the shared intelligence of the research community*

## What is Web 2.0?

### Applications

- Blog
- Bookmarking
- Communication
- RSS
- Wikis
- E-learning
- Networking
- Collaboration



xkcd

# Bioinformatics web portal

Washington University in St. Louis  
SCHOOL OF MEDICINE

BERNARD BECKER  
Medical Library

Journals Books & More Ask-A-Librarian

Quick Links ...

Home > Resources > Bioinformatics

## BIOINFORMATICS @ BECKER

The Bernard Becker Medical Library's Bioinformatics Initiative serves to foster collaboration and enhance the biomedical research endeavors of Washington University School of Medicine by providing support services to the community.

- » About Bioinformatics @ Becker
- » Bioinformatics Specialists
- » Bioinformatics Classes
- » Bioinformatics Resource Guides on del.icio.us
  - becker.microarray
  - becker.molecular\_medicine
  - becker.research
- » Bioinformatics@Becker Blog
- » Software Managed by Becker Library
- » Software Licensed through WUSTL Network Technology Services
- » BioCommunity
- » RSS Feeds
- » Need help? Ask-A-Bioinformaticist
- » Recommend a New Resource

### Supplemental Course Information

- » Ingenuity Pathways Analysis (IPA) - March 2008

Location: 1st Floor, Becker Medical Library  
Telephone: 314.362.7085  
Fax: 314.454.6606  
E-mail: BioInfo@wustl.wustl.edu  
Hours: Mon-Fri: 9:00 am - 5:00 pm



Updates and Musings from the Bioinformatics team at Becker Medical Library

Visit the [Bioinformatics@Becker Library Portal](#)

[Home](#)

[Archives](#)

## Archives

- [May 2008](#)
- [April 2008](#)
- [March 2008](#)
- [February 2008](#)
- [January 2008](#)

## OpenHelix Blog

- [More Friday Fun - OpenHelix Sudoku, Puzzle 1](#)
- [What's Your Problem? Open Thread](#)
- [Space-age training: mobile battery-powered workstations](#)

## All the Becker Blogs

- [Evidence@Becker](#)
- [Scholarly Communications](#)
- [SLCH Medical Library Blog](#)

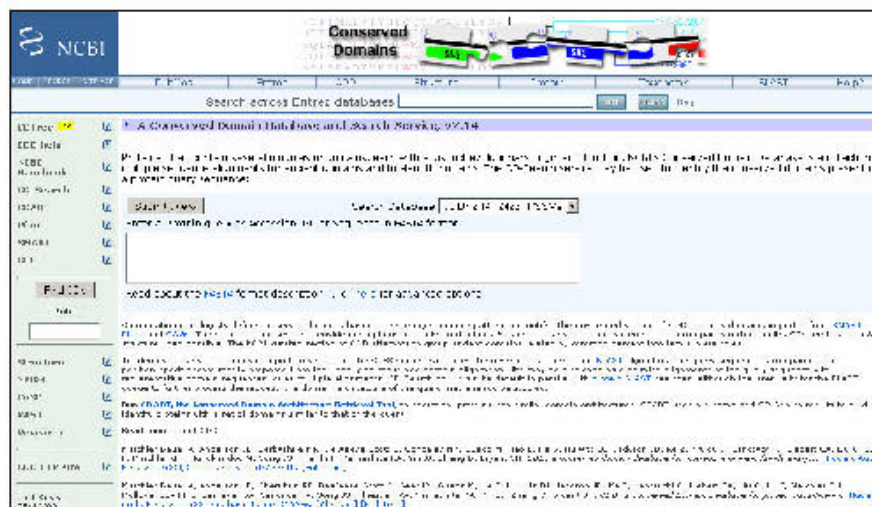
## Admin

- [Register](#)

## Conserved Domain Database (CDD) updates

Posted May 16th, 2008 by Kristi · No Comments

A new version of the [Conserved Domain Database \(CDD\)](#) and a new version of the [CD-Search](#) tool from NCBI were recently released.



From NCBI:

Proteins often contain several modules or domains, each with a distinct evolutionary origin and function. NCBI's Conserved Domain Database is a collection of multiple sequence alignments for ancient domains and full-length proteins. The CD-Search service may be used to identify the conserved domains present in a protein query sequence.

## Kristi's Google Reader

- [Chemistry classifies coffee](#)
- [Patent reform dead for 2008](#)
- [Indictment Expected in Megan Meier Cyberbullying Case](#)
- [A Billion-fold Range in Acidity for the Solvent-Exposed...](#)
- [Regulation of Protein Function: Crystal Packing Interfaces...](#)
- [How to Refold 653 Insoluble Proteins](#)
- [How to make your eye feel like it's closed, when it's...](#)
- [A Personality Test For Your Cat](#)
- [\[Biochemistry\] From the Cover: Cis- and trans-splicing...](#)
- [Free Lunch: How the Wealthiest Americans Enrich Themselves...](#)

[Read more...](#)

## Research Resources on del.icio.us

- [The S-News and S-News-Advisory Mailing Lists](#)

# Bookmarking our resource guides

del.icio.us / becker.research /

[your bookmarks](#) | [your network](#) | [subscriptions](#) | [links for you](#) | [post](#)

[popular](#) | [recent](#)

logged in as **becker.research** | [settings](#) | [logout](#) | [help](#)

All your items (360)

del.icio.us

search

« [earlier](#) | [later](#) » page 1 of 4

[Resources for First-Time NIH Grant Applicants](#) [edit](#) / [delete](#)

to [grants funding resources](#) ... 57 mins ago

[GenomeWeb](#) [edit](#) / [delete](#)

to [bioinformatics biotech information news](#) ... [saved by 34 other people](#) ... 3 hours ago

[About The EBI: News](#) [edit](#) / [delete](#)

to [EBI information](#) ... [saved by 2 other people](#) ... 3 days ago

[Artemis DNA sequence viewer and annotation tool](#) [edit](#) / [delete](#)

[DNA sequence viewer and annotation tool](#)

to [bioinformatics browser genome visualization sequence](#) ... [saved by 30 other people](#) ... 3 days ago

[Sockeye Main Page — Canada's Michael Smith Genome Sciences Centre](#) [edit](#) / [delete](#)

to [genome\\_browser visualization genome](#) ... [saved by 3 other people](#) ... 3 days ago

[Help Page :: NCBI Sequence Viewer v.2.0](#) [edit](#) / [delete](#)

to [sequence visualization DNA](#) ... [saved by 1 other person](#) ... 3 days ago

[Genome Workbench Home Page](#) [edit](#) / [delete](#)

to [bioinformatics genome NCBI software tools](#) ... [saved by 7 other people](#) ... 3 days ago

[PLoS ONE : Publishing science, accelerating research](#) [edit](#) / [delete](#)

to [journal openaccess](#) ... [saved by 374 other people](#) ... on jan 22

[NIH Chemical Genomics Center // Assay Guidance // Assay Guidance Manual - Version 4.1](#) [edit](#) / [delete](#)

to [Protocols assay](#) ... [saved by 6 other people](#) ... on jan 16

[GENEVAR - GENE Expression VARIation](#) [edit](#) / [delete](#)

to [expression variation microarray](#) ... [saved by 1 other person](#) ... on jan 11

[SDSC Biology Workbench](#) [edit](#) / [delete](#)

to [bioinformatics tool](#) ... [saved by 52 other people](#) ... on jan 11

[Home - ClinicalTrials.gov](#) [edit](#) / [delete](#)

to [Clinical\\_Trials database](#) ... [saved by 31 other people](#) ... on jan 09

[National Library of Medicine - National Institutes of Health](#) [edit](#) / [delete](#)

to [reference library](#) ... [saved by 22 other people](#) ... on jan 07

▼ **tags** [database](#) [tool](#) [Protocols](#) [protein](#) [NCBI](#) [structure](#) [RNA](#) [EBI](#) [gene\\_prediction](#) [sequence\\_analysis](#) [software](#) [expression](#) [genome](#) [single\\_nucleotide\\_polymorphism](#) [SNP](#) [nucleotide](#) [sequence\\_resource](#) [microarray](#) [motif](#) [pathway](#) [nucleic\\_acid](#) [ontology](#) [education](#) [enzyme](#) [opensource](#) [promoter](#) [OCW](#) [OpenCourseWare](#) [protein\\_analysis](#) [visualization](#) [cancer](#) [chemistry](#) [dictionary](#) [funding](#) [grants](#) [sequence](#) [tools](#) [transcription\\_factor](#) [variation](#) [alignment](#) [development](#) [eukaryote](#) [GHMM](#) [mouse](#) [organism](#) [WUSM\\_software](#) [annotations](#) [bioinformatics](#) [browser](#) [genome\\_analysis](#) [genome\\_browser](#) [DNA](#) [information](#) [reference](#) [research](#) [conserved\\_domain](#) [Google](#) [HMM](#) [interaction](#) [mass\\_spec](#) [NIH](#) [pdb](#) [calculator](#) [clinical\\_trials](#) [drugs](#) [homology](#) [openaccess](#) [prediction](#) [proteomics](#) [resources](#) [restriction\\_enzyme](#) [sequence\\_similarity](#) [statistics](#) [vector](#) [3-D](#) [algorithms](#) [aptamer](#) [assay](#) [biotech](#) [buffers](#) [C.elegans](#) [cabig](#) [catalytic](#) [comparative](#) [conferences](#) [conformation\\_angles](#) [disease](#) [drosophila](#) [folding](#) [functional\\_site](#) [genes](#) [genotyping](#) [GEO](#) [glossary](#) [GPHMM](#) [hapmap](#) [health](#) [homologs](#) [inheritance](#) [journal](#) [journals](#) [library](#) [ligands](#) [literature\\_search](#) [media](#) [mitochondria](#) [model](#) [mRNA](#) [news](#) [NLM](#) [ORF](#) [organelle](#) [patents](#) [pharmacogenetics](#) [plasmid](#) [productivity](#) [rat](#) [restriction](#) [SAGE](#) [secreted](#) [Siteman](#) [splice](#) [systems\\_biology](#) [taxonomy](#) [tutorial](#) [virus](#) [web\\_applications](#) [wikipedia](#) [worm](#) [yeast](#) [zebrafish](#)

▼ **tag options**

» [view as cloud](#) | [list](#)

» sort by [alpha](#) | [freq](#)

» use minimum: 1, 2, 5

» [show](#) | [hide bundles](#)

» [bundle tags](#)

» edit tags: [rename](#) | [delete](#)

# Communicate: Askbioinfo!



## Ask-A-Bioinformaticist

Please complete the form provided below, or email [BioInfo@wusm.wustl.edu](mailto:BioInfo@wusm.wustl.edu) for questions about research, electronic resources, library services and collections in Bioinformatics.

For immediate assistance, call the Reference Desk at 314-362-7085, Monday - Friday, 9 A.M. - 5 P.M.

**Note: This service is available to the Washington University community and affiliates only.**

### Requestor Information - \* indicates a required field

|                  |   |
|------------------|---|
| Name:*           | <input type="text" value="Martha Washington"/>                              |
| E-mail address:* | <input type="text" value="martha@wustl.edu"/>                               |
| Phone:           | <input type="text" value="362-5555"/>                                       |
| Status:          | <input type="text" value="Faculty"/><br>(Faculty   Staff   Student   Other) |
| Department:      | <input type="text" value="Biochemistry"/>                                   |

### Type in a brief description of your question or request:

Please provide as much background information as you can. If you would like this material faxed or mailed to you, please include your fax number or mailing address. (Please do not enter a carriage return or use your <Enter> key in the textbox below.)

article by their Swissprot ID's. I note that a company has transfectable cDNA clones covering many proteins that may include some of these but the company lists them by NM or BC numbers. Can you tell me how to translate from one nomenclature to another? The clones are quite cheap (\$95) so it might be worth a flyer of just ordering a couple if I can pick out the right ones.

Submit

# RSS

- Feed For All
- Bioinformatics at Becker Blog


The screenshot shows the Google Reader interface. At the top, there are navigation links for Gmail, Calendar, Documents, Photos, Reader, Web, and more. The user's email is kristiholmes@gmail.com. The main content area is titled 'Becker' and shows a list of RSS items. The first item is 'Bioinformatics@Becker' with the title 'Conserved Domain Database (CDD) updates - A new version of the Conserved Domain Database' and a timestamp of 9:03 AM. This first item is circled in red. The left sidebar shows a list of subscriptions, with 'Becker' also circled in red. Other subscriptions include ACS (17), Food (6), Fun (12), Google-related (8), Health and Medicine (79), Library Information (8), Nature (4), New York Times (42), News and Politics (59), NLM (2), Science (25), Science Journals (51), St. Louis (5), Wired (32), Technology (38), The OpenHelix Blog (4), and Blogs (22). The main list of items includes various articles from sources like Becker Medical Library, SLCH Medical Library, and Bioinformatics@Becker, covering topics such as NIH Public Access Policy, EBM Tutorials, and various news items.



# RSS

## RSS presence in the catalog with current contents

[GENETIC VACCINES AND THERAPY](#)  
ELECTRONIC SOURCE=BioMed Central Ltd. URL=<http://www.gvt-journal.com/home/>  
ELECTRONIC DATE RANGE=V.1, 2003-  
RSS Feed for current table of contents:   
Currently Receiving Only Electronic Edition  
NLM ABR= **GENET VACCINES THER**

[GENETICS](#)  
ELECTRONIC SOURCE=HighWire Press URL=<http://www.genetics.org>  
ELECTRONIC DATE RANGE=V.1, 1916-  
RSS Feed for current table of contents:   
Currently Receiving Only Electronic Edition ; Print Date Range  
NLM ABR= **GENETICS**

[GENETICS IN MEDICINE](#)  
ELECTRONIC SOURCE=Ovid URL=<http://gateway.ovid.com/ovidweb.c>  
ELECTRONIC DATE RANGE=V.2, 2000-  
RSS Feed for current table of contents:   
Currently Receiving Only Electronic Edition  
NLM ABR= **GENET MED**

Washington University in St. Louis  
SCHOOL OF MEDICINE


# BERNARD BECKER Medical Library Catalog


Ask-A-Librarian

JOURNALS | BOOKS & AUDIOVISUALS | SPECIAL & HISTORICAL COLLECTIONS | FULL CATALOG KEYWORD | DATABASES & SELECTED WEB SITES | SEARCH OTHER LIBRARIES | LIBRARY BORROWER'S ACCOUNT

AT BECKER | ELECTRONIC | THIS WEEK'S | SEARCH ARTICLES | TITLE ABBREVIATIONS | AT OLIN LIBRARY

All Journal Titles-- *Searches for all journal titles, print and electronic, available through Becker Medical Library.*

 GENETICS

ELECTRONIC SOURCE=HighWire Press  
URL <http://www.genetics.org>  
RSS Feed for current table of contents:   
DATE RANGE V.1, 1916-  
Full-text. Access restricted to WU faculty, staff, and students.

PRINT HOLDINGS 1918 2006/3N4/10-174  
ELECTRONIC HOLDINGS 1916 0000/1+  
PRINT VOLUMES SHELVED ON LEVEL 4.  
PRINT SUPPLEMENTS BOUND WITH JOURNAL.

PRINT SUBSCRIPTION CANCELLED AFTER V. 174, 2006.  
NLM ABR= **GENETICS**

Washington University School of Medicine

# Wiki

Washington University in St. Louis  
SCHOOL OF MEDICINE

BERNARD BECKER  
**Medical Library**

Journals Books & More Ask-A-Librarian

Quick Links ...

Home > Resources > Bioinformatics > BioKnowledgebase

## BioKnowledgebase Wiki

The BioKnowledgebase Wiki was developed as a collaborative resource to promote just-in-time access to information and utilize the collective knowledgebase of the Washington University School of Medicine research community. For more information, contact Kristi Holmes at [holmeskr@wustl.edu](mailto:holmeskr@wustl.edu).

- » Introduction
- » Databases and Database Searching
- » Nucleotide Sequence Analysis
- » Protein Sequence Analysis, Proteomics
- » Genome Resources
- » Phylogenetic Analysis
- » Biological Pathways/Systems Biology
- » Sequence Similarity Searching
- » Gene Expression Resources and Genomics
- » Statistics
- » Variation
- » Structure
- » WUSM Resources
- » Programming & Languages/Advanced

Home | Resources | Services

LOGON TO PROXY CONTACT US

Search Becker Site:

BERNARD BECKER MEDICAL LIBRARY

## BioKnowledgebase Wiki

Washington University in St. Louis • School of Medicine

Find  in

Logon

USER:

DATE:

Remember me

[\[ register \]](#) [\[ I forgot my password \]](#)

BioWiki Menu

- Home Page
- Topics
  - Introduction
  - Databases
  - Nucleotide
  - Protein Sequence Anal
  - Genome Resources
  - Phylogenetic Anal
  - Biological Pathways
  - Sequence Similarity
  - Gene Expression
  - Statistics
  - Variation
  - Structure
  - WUSM Resources
  - Programming Languages
  - Other Resources
- FAQs
  - Microarray
  - Sequencing
  - Proteomics

Welcome to the BioKnowledgebase Wiki

The BioKnowledgebase Wiki was developed as a collaborative resource to promote just-in-time access to information and utilize the collective knowledgebase of the Washington University School of Medicine research community. For more information, contact Kristi Holmes at [holmeskr@wustl.edu](mailto:holmeskr@wustl.edu).

Topics

FAQs

Visit the Bioinformatics@Becker Portal

Created by: system last modification: Wednesday 05 of March, 2008 [13:17:49] by admin

# E-learning

Focus on just-in time instruction

- Online training modules which include:
  - ▣ voice-annotated PowerPoint presentations
  - ▣ Supplemental course materials which will include web-based write-ups about the different topics, as well as a web-based FAQ
  - ▣ Web and podcasts of lectures and seminars
  - ▣ Web-based training sessions which utilize web conferencing tools
  - ▣ Integration of Web 2.0 applications
  
- Continue work on courses to be offered at Becker. Ongoing work to organize courses as well as to develop online meeting registration, information posters, handouts, online support communities, etc.

# E-learning support resources

**Washington University in St. Louis**  
SCHOOL OF MEDICINE

**BERNARD BECKER**  
**Medical Library**

Journals Books & More Ask-A-Librarian

Quick Links ...

Home > Resources > Bioinformatics > Resources and Education

## Resources and Education

Please contact Kristi Holmes or Lili Wang at [BioInfo@wusm.wustl.edu](mailto:BioInfo@wusm.wustl.edu) if you have questions about any of these resources or if you would like to suggest a course topic for a future class.

- » Software
  - Software Managed by Becker Library
  - Software Licensed through WUSTL Network Technology Services
  - DiscoveryGate
  - Ingenuity Pathways Analysis (IPA)
  - Partek GS
  - More ...
- » Databases
  - Cambridge Structural Database
  - **database of Genotype and Phenotype (dbGaP)**
  - Entrez from NCBI
  - UniGene: An Organized View of the Transcriptome
  - More ...
- » Campus Resources
  - DBBS Seminars and Events
  - Core Research Facilities
- » Bioinformatics Classes
- » Upcoming Classes
- » Tutorials
- » Guides/Documentation
- » Supplemental Course Information
  - Ingenuity Pathways Analysis (IPA) - February 2008
  - Ingenuity Pathways Analysis (IPA) - March 2007
  - Field Guide to Gen Bank and NCBI Molecular Biology Resour

**Database of Genotype and Phenotype (dbGaP)**

**What is dbGaP?**

The database of Genotype and Phenotype (dbGaP) was developed to archive and distribute the results of studies that have investigated the interaction of genotype and phenotype. Such studies include genome-wide association studies, medical sequencing, molecular diagnostic assays, as well as association between genotype and non-clinical traits. The advent of high-throughput, cost-effective methods for genotyping and sequencing has provided powerful tools that allow for the generation of the massive amount of genotypic data required to make these analyses possible.

dbGaP provides two levels of access - open and controlled - in order to allow broad release of non-sensitive data, while providing oversight and investigator accountability for sensitive data sets involving personal health information. Summaries of studies and the contents of measured variables as well as original study document text are generally available to the public, while access to individual-level data including phenotypic data tables and genotypes require varying levels of authorization.

The data in dbGaP will be pre-competitive, and will not be protected by intellectual property patents. Investigators who agree to the terms of dbGaP data use may not restrict other investigators' use of primary dbGaP data by filing intellectual property patents on it. However, the use of primary data from dbGaP to develop commercial products and tests to meet public health needs is encouraged.

**How can I get access to dbGaP?**

dbGaP is freely available and can be accessed by going to the dbGaP homepage at NCBI.

**How do I access the Open-Access Data?**

Open-access data can be browsed online or downloaded from dbGaP without prior permission or authorization. These data will include, but may not be limited to, the following:

| dbGaP Data Type      | Where to Find It  |
|----------------------|---|
| Studies              | "Study" column when browsing studies<br>Result of a search under the tab "Studies"<br>Part of the breadcrumb path of a variable or document |
| Study Documents      | Link from "Browse Studies"<br>Link under "Associated Documents" on study report<br>Result of a search under the tab "Study Documents"       |
| Phenotypic Variables | Link under "Browse Studies"<br>Link under "Associated Variables" on study report  |

# Other Initiatives



# Connecting and networking

The screenshot shows a Mozilla Firefox browser window with the address bar at <http://www.netvibes.com/dubinske#Bioinformatics>. The page title is "Becker Medical Library Initiatives @ Washington University School of Medicine". The dashboard is organized into several columns and rows of widgets:

- Navigation Bar:** Becker Library, Bioinformatics, Consumer Health, Evidence-Based Medicine, Scholarly Communications, General Staff.
- Left Column:**
  - Bioinformatics@Becker:** <http://becker.wustl.edu/resources/bioinfo/>
  - Bioinformatics@Becker Blog:** <http://beckerinfo.net/bioinformatics/>
  - BioKnowledgebase Wiki:** <http://beckerinfo.net/biowiki/wiki-index.php>
  - Search the Becker Bioinformatics Portal:** Includes a Google Custom Search box.
  - Search PubMed:** Includes a search box with a magnifying glass icon.
- Middle Column:**
  - Databases:** Lists NCBI, Cambridge Structural Database, dbGaP, Entrez, and UniGene.
  - Bioinformatics@Becker Blog Feed:** A list of recent blog posts with timestamps like "yesterday" and "3 days ago".
  - On Informatics (Oregon Health and Science University):** A list of video resources related to informatics.
- Right Column:** Two del.icio.us widget lists:
  - del.icio.us/becker.molecular\_medicine:** Lists resources like genome.gov, SKY/M-FISH/CGH Home, and SeattleSNPs.
  - del.icio.us/becker.microarray:** Lists resources like HOP - Information Hyperlinked over Proteins and Illumina, Inc.
  - del.icio.us/becker.research:** Lists resources like The S-News and S-News-Advisory Mailing Lists and SAS Documentation.

NetVibes

# Connecting and Networking

**Profile** Edit My Profile View My Profile Edit Public Profile Settings

Forward this profile Go back to Home Page

**Kristi Holmes** you

Bioinformaticist at Washington University School of Medicine  
Greater St. Louis Area

Send InMail  
Get introduced through a connection  
Add Kristi to your network

Profile Connections

**Current**

- Bioinformaticist at Washington University School of Medicine

**Past**

- Lecturer at Iowa State University
- Graduate Research Assistant at Iowa State University
- Research Assistant at University of Nebraska at Kearney

**Education**

- Iowa State University
- University of Nebraska at Kearney

**Connections** 52 connections

**Industry** Research

**Websites**

- Bioinformatics@Becker

**Public Profile** <http://www.linkedin.com/in/kristiholmes>

**Kristi Holmes**  
Bioinformaticist at Washington University School of Medicine  
What are you working on?

**Kristi Holmes** you

Bioinformaticist at Washington University School of Medicine  
Greater St. Louis Area

Send InMail  
Get introduced through a connection  
Add Kristi to your network

Profile Connections

**Kristi's Connections (52)**

Shared Connections

|   |   |  |
|---|---|--|
| <b>Anthony Achampong</b><br>Public Health Analyst at HRSA   | <b>Sonia Francis</b><br>Director of Project Management at Washington University School of Medicine      | <b>Dave Lloyd</b><br>Test Engineer   |
| <b>Dave Allchurch</b><br>Teacher at St Louis Public Schools   | <b>Stephanie Fulton</b><br>Assistant Director, Research Medical Library at Univ of Texas M. D. Anderson | <b>Mark Minie</b><br>Bioscience Consultant   |
| <b>Jaime Blanck</b><br>Liaison & Outreach Services Librarian at University of Maryland, Baltimore                 | <b>MaryLou Glazer</b><br>Chief, Medical Library at Department of Veteran's Affairs-Medical Library      | <b>Sharon Murphy</b><br>Associate Librarian, AHIP, RN at University at Buffalo           |
| <b>Susan Cavanaugh</b><br>Evidence Based Medicine Librarian at University of Medicine and Dentistry of New Jersey | <b>Martha Golubock</b><br>Southeast Territory Manager at Collexis                                       | <b>Phillip Olla</b><br>Professor at Madonna University and Telecommunications Consultant |
| <b>Siobhan Champ-Blackwell</b><br>Community Outreach Liaison at Creighton University HSL                          | <b>Tijana Grove</b><br>Postdoctoral Fellow at Yale University   | <b>Christine Pintz</b><br>Director, Doctor of Nursing Practice Program at George         |

Ads by Google

**4 & 6 yr Eur. Med Schools**  
4 and 6 yr european med schools Now accepting Applications  
[www.GoToMedSchool.Com](http://www.GoToMedSchool.Com)

**Become a Doctor**  
Enroll in UMKC's Medical School and become a doctor. Learn more now!  
[www.umkc.edu/getalife](http://www.umkc.edu/getalife)

**Scientific Research**  
Stem Cells Can Help Get Cures For Loved Ones. Protect Amendment 2!  
[MissouriCures.com/StemCellRese](http://MissouriCures.com/StemCellRese)

**Apply to the NUS MD**  
Singapore's World Class MD Program Find Out More, Register and Apply!  
[oms.Edu.Sg](http://oms.Edu.Sg)

**Park Forest Apartments**  
Luxury Living St. Louis, MO  
[www.parkforestapts.com](http://www.parkforestapts.com)

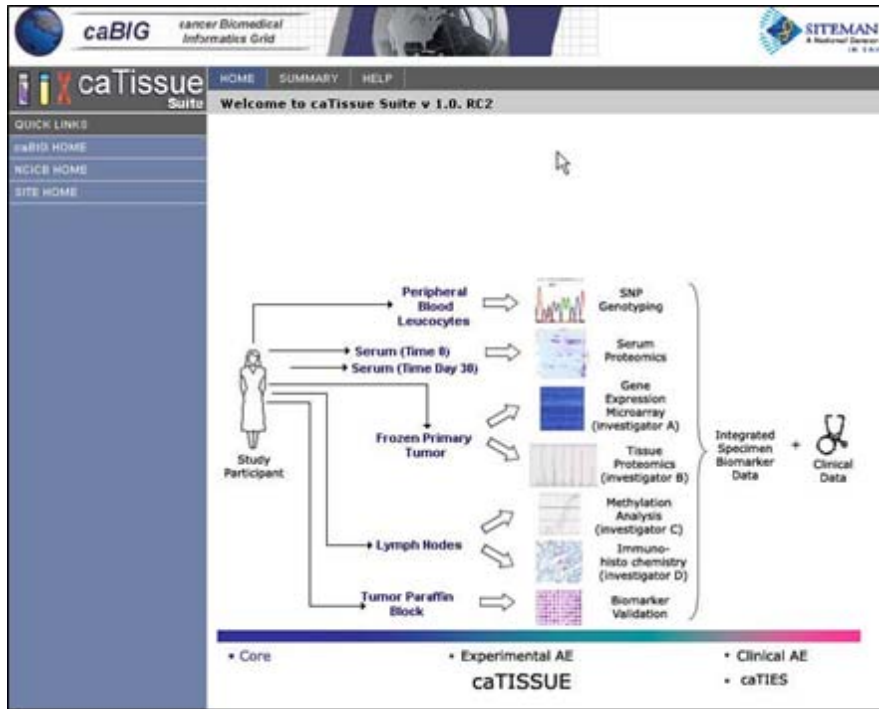
Facebook and LinkedIn

# Collaboration

1. Bioinformatics Advisory Group \*\*
2. Biomedical Informatics Core
3. Division of Biology and Biomedical Sciences
4. Genome Sequencing Center
5. Other collaborative and productive relationships
  - MSCITS
  - Research Office
  - Office of Medical Student Education



# Partnerships and Collaboration

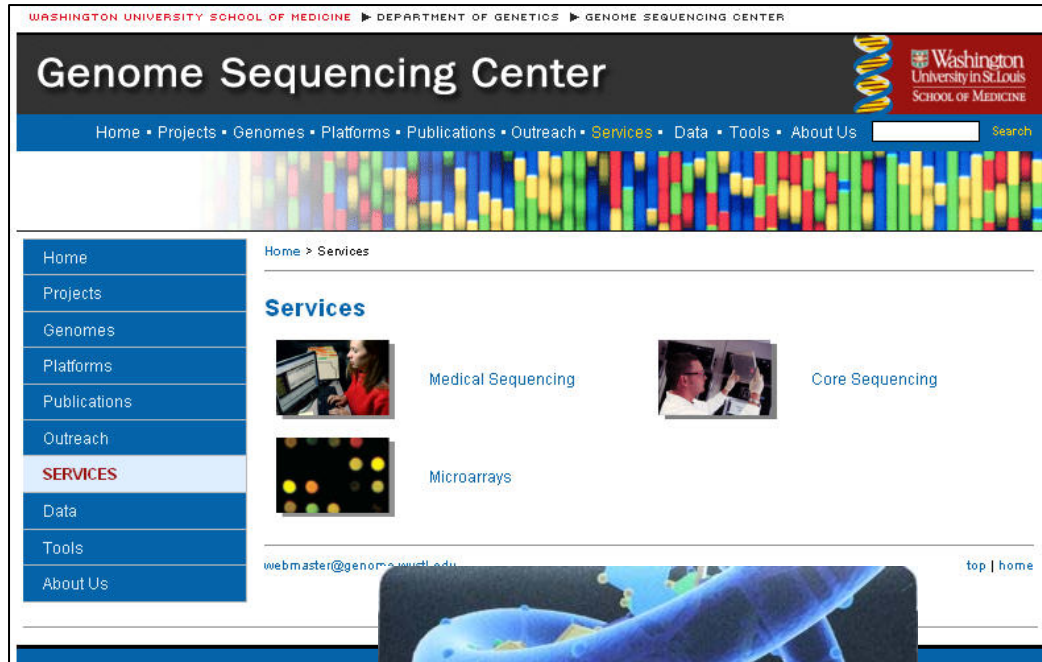


## Biomedical Informatics Core

- Function Express  
analysis and visualization of  
microarray data
- caTissue Suite  
unified biospecimen repository

*Training resources for other  
specialized software analysis  
tools and databases*

# Partnerships and Collaboration



WASHINGTON UNIVERSITY SCHOOL OF MEDICINE ► DEPARTMENT OF GENETICS ► GENOME SEQUENCING CENTER

## Genome Sequencing Center

Home • Projects • Genomes • Platforms • Publications • Outreach • **Services** • Data • Tools • About Us

Home > Services

### Services

- Medical Sequencing
- Core Sequencing
- Microarrays

webmaster@genomewustl.edu top | home

## Genome Sequencing Center

- Resource procurement  
Partek, IPA, GeneGo
- Outreach and  
Collaboration
- Community Building  
User Groups

*Consultation and support for  
research community*

**BERNARD BECKER MEDICAL LIBRARY**  
Washington University School of Medicine



# Research Pod

## Databases and Research Software

- ❑ DiscoveryGate
- ❑ Proteome BioKnowledge Library
- ❑ Protein Lounge
- ❑ Cambridge Structural Database
- ❑ Faculty of 1000 Biology
- ❑ Faculty of 1000 Medicine
- ❑ SCOPUS
- ❑ ISI Web of Knowledge
- ❑ SciFinder Scholar
- ❑ Cn3D

## Statistical Programs

- ❑ SAS
- ❑ SPSS
- ❑ Stata
- ❑ Maple-Waterloo

## Presentation and Multimedia Tools

- ❑ MS Visio
- ❑ Adobe Web Premium (CS3)
- ❑ MSOffice (including Publisher)

## Bibliographic Management

- ❑ EndNote



# SUMMARY

