Careers in Biology:
MCB Advising Program (MAP)
AND
Biotechnology Center Career Services
October 28th 2008
5 PM to 6:30 PM

What Can I Do
With a Degree in Biology?
Today’s Focus: careers in biotechnology, networking, and the job search

M.D. Not For Me, Now What?
Our curriculum also prepares students for many other opportunities including:
- Employment
- Graduate studies

MCB Majors at UIUC receive a solid foundation in numerous disciplines within the field of biology…
- Human Physiology
- Cell and Develop. Biology
- Microbiology
- Structural Biology
- Bioinformatics
- Computational Biology
- Molecular Genetics
- Biochemistry
- Immunology
- Biotechnology
- Genomics
- Proteomics

MCB Majors at UIUC Learn Important Life Skills
- Writing
- Oral Communication
- Problem Solving
- Working With Others
- Ethics
- Lab Reports, Papers
- Presentations
- Lab exercises, data analysis
- Group projects, Ment
- Plagiarism, Academic Integrity

Examples of Non-Health Careers for MCB Graduates:
- Forensics -- Crime scene investigation; DNA analysis; forensic genetics & serology.
- Biotechnology and Pharmaceuticals -- Design and development of new drugs; diagnostics and quality control; sales and customer support; regulatory compliance.
- Agricultural Biotechnology and Food Processing -- Product research and development; quality control
- Bioinformatics and Computational Biology -- Modeling of evolution; genome and proteome analysis and prediction; cancer biology.
- Law -- Intellectual property issues; patent law
- Academic Institutions -- Teaching, Advising, Research
- Government Agencies -- USDA, NIH, Environmental Regulation
Potential employers in our region and beyond:

- Abbot (North Chicago)
- Lilly (Indianapolis)
- Monsanto (St. Louis)
- ADM (Decatur)
- Conair (Rantoul)
- Universities
- Food and Drug Administration
- Environmental Protection Agency

Find More Info on Careers and Employers at:
http://www.mcb.uiuc.edu/undergrad/careers.html

What Option is Best for You?

Determine your interests and values
Talk with your advisor, friends and family
Take Assessments
Set Goals
Make the most of your academic experience
- Variety of Classes
- Extracurricular activities - Try different things
- Expand Your Comfort Zone

MCB Advising Program

- Call: 217-333-6774
- Email: advising@mcb.uiuc.edu
- Stop by: 127 Burrill Hall
  - Monday through Friday 8:30 AM to 5 PM
- Watch Road MAP for Workshops
  - http://mailman.life.uiuc.edu/mailman/listinfo/map
- Visit our Web site
  - http://www.mcb.uiuc.edu/advising

Graduate School Information Workshop

PREPARING FOR AND APPLYING TO GRADUATE SCHOOL

- Saturday, Nov. 8th 10:30 AM to 1:00 PM
  - Career Opportunities in Molecular and Cellular Biology
  - The Graduate School Application Process
  - What is Graduate School Like?
  - Information on Dual Degree Programs like MD/PhD
  - Registered Student Organization (RSO) Information Fair
- Registration Preferred by Nov. 5th at 5 PM
  - Email tmknox@illinois.edu
  - Name, Yr in School, Major, Email & Phone

Writer’s Workshop
On Going

Free Writing Assistance for
Resumes and Personal Statements
Call 333-8796 for an appointment
Tuesdays 9 AM to 1 PM
Wednesdays 9 AM to 1 PM
425 Natural History, MCB Learning Center
http://www.english.uiuc.edu/CWS/wworkshop/

The Career Center
715 S. Wright St., Champaign, IL, 61820
Hours: 8:30-5:00 M-F
Phone: (217) 333-0820

The Career Center serves all students of The University of Illinois at Urbana-Champaign regarding professional and career development.

Through collaborative and innovative programs, services, and resources, the staff seeks to educate and empower students to actively plan their futures as contributing members of a global community.
The Career Center Quick Links:

- Figuring Out Your Interests -- http://www.careercenter.uiuc.edu/findingpath/interests.asp
- Linking Majors to Careers -- http://www.careercenter.uiuc.edu/findingpath/majorstocareers.asp
- Career Information System (CIS) -- http://www.careercenter.uiuc.edu/rc/databases/cis.asp
- Vault Database -- http://www.careercenter.uiuc.edu/rc/databases/vault.asp
- I-Link -- http://www.careercenter.uiuc.edu/rc/databases/ilink.asp
- Internships -- http://www.careercenter.uiuc.edu/internship/default.asp
- Resumes -- http://www.careercenter.uiuc.edu/resumes/coverletters.asp
- Interviewing Tips -- http://www.careercenter.uiuc.edu/guides/interviewing.asp

Guest Speaker
Kathleen Brinkmann
Director
Roy J. Carver
Biotechnology Center
Career Services
brinkman@uiuc.edu

Careers in Biology

- Biotechnology Center Career Services, 103 Observatory, 333-1378
- URL: www.biotec.uiuc.edu/cgi-bin/placement.pl

Introduction
Kathleen Brinkmann
Director
Roy J. Carver
Biotechnology Center
Career Services
brinkman@uiuc.edu

Top Skills & Qualities of the Perfect Job Candidate

- Communication Skills (written and verbal)
- Computer/Technical
- Leadership
- Teamwork skills
- Interpersonal Skills
- Motivation/Initiative
- Strong Work Ethic
- Flexibility/adaptability
- Problem-solving/common sense

Source: Dr. Gardener, Recruiting Trends, 2006-2007
Gain Meaningful Experiences

- Internships
- Lab experience
- Student organizations

Ways to gain experience

- Internships
  - Short-term work experience.
  - Paid or unpaid.
  - Great opportunity to “test-drive” a job.
  - Generally structured with a plan and goals.
- Job Shadowing
  - Extended informational interview, ranging from a few hours to several days.
  - Learn what a “typical day” is like.

Other ways to gain experience

- **Part-time job** in a company or industry of interest.
- **Volunteer**, especially for nonprofits or government agencies.
- Paid or unpaid **consulting** or other projects.
- **Administrative work** for an organization of interest.

Internship Netsites

- [http://www.cofc.edu/~career/internshipwebsites.html](http://www.cofc.edu/~career/internshipwebsites.html)
- [http://usinterns.com/](http://usinterns.com/)

Tips for Obtaining an Internship

- Network—1/2 student get summer internships through family, friends, or people in community
- Job Fairs
- Good Resume
- Some research experience during school year

Expand your list to also include:

- Alumni from Illinois and from other universities: [https://www.uiaadirectory.org/Login.jsp](https://www.uiaadirectory.org/Login.jsp)
- Members of professional organizations that you join.
- *Always Illinois*
Informational interviews

• One of the most effective ways to use your network.
• Spend time talking to someone in your desired field or organization.
• Use your network to set up interviews or learn more about the field.

Advantages of informational interviewing

• Gather information about your desired field or organization.
• Build your network.
  • Try to get 2-3 new names.
• May lead to jobs.
• Practice your interviewing and communication skills.
• May find a potential mentor.

Science Jobs

• Lab tech
• Product scientist
• Bioinformatics
• Science Photographer
• Technical Support
• Health Counselor
• Formulation Scientist
• Training Specialist
• Compliance
• Regulatory Affairs
• Government Research
• Drug Testing Lab
• Technology Transfer
• Science writer
• Quality control
• Project manager
• Health care
• Clinical trials
• Public relations
• Scientific translator
• Patent law
• Sales
• Forensics
• Museum Display

Job Titles and descriptions

• In-life and Pathology Technicians
• Dose Formulation Technicians
• Genetic Toxicology Technicians

Titles (cont)

• Lab Analyst
• Research Assistant
• Study Coordinator
• Principal Investigator
• Staff scientist
• Study Director
Titles (cont)

- Quality Assurance
- Quality Assurance Auditors

Careers in Biotechnology

- Research and Development
  Research assistant, associate, scientist I, bioinformatics analyst, molecular modeler, facility manager (animal science), veterinarian, plant breeder, media prep technician

Careers in Biotech cont.

- Quality Control/Quality Assurance
  QC analyst, QC technician, QA manager, QA Documentation specialist, QA Documentation coordinator, Validation manager/specialist, environmental health and safety specialist

Career in Biotech cont.

- Clinical Research
  Clinical research manager/associate, biostatistician, medical writer, Regulatory Affairs manager/associate
  Clinical coordinator, clinical data specialist, animal handler

Career in Biotech cont.

- Manufacturing and Production
  Instrument calibration technician, assay analyst, manufacturing research associate
- Other
  Sales rep, technical services rep, buyer, patent agent, technical recruiter

Careers in Biology

- Healthcare
  Doctor, nurse, pharmacist, dentist, lab technician (hospital), health counselor, other
Careers in Biology cont.

- **Government:**
  NIH, FDA, NSF, Center for Disease Control, medical monitoring, policy analysts, advisors

Careers in Biology cont.

- **Other**
  Scientific writing, technology transfer (license/patent), patent and regulatory law, technical trainers, science photographers, medical illustration, scientific translators, museum displays,

Careers in Biology cont.

- **Other**
  Forensics, drug testing lab, DNA labs, high school teacher, zoo professionals (animal handlers/trainers), public relations

Websites

- [http://www.biologyjobs.com/](http://www.biologyjobs.com/)
- [http://www.sciencejobs.com](http://www.sciencejobs.com)
- [http://www.nas.edu](http://www.nas.edu) National Academy of Sciences
- [http://www.biofind.com](http://www.biofind.com)

Strategies

- Develop Competencies
  experiential learning, volunteer
- Networking
  cultivating contacts

Questions?

Biotechnology Center Career Services
Alumni Panel

Janie Frye, A.S. Life Science, B.S. CSB, M.S. Biology
iCyt Visionary Bioscience and
UIUC Veterinary Pathobiology

Bosola Oladeinde, B.S. MCB UIUC
PH.D. student in the department of crop science

Tina Knox, B.S. Biology UIUC, Ed. M. Higher Ed UIUC
Coordinator of Undergraduate Instruction and Advising

Janie Frye

iCyt Visionary Bioscience & UIUC Veterinary Pathobiology
A.S. in Life Science (1992, Parkland)
B.S. in Cell and Structural Biology (1995, UIUC)
M.S. in Biology (1998, UIUC)

Expertise in the design and generation of antibodies and their application in antibody-based technologies

Past positions:
- Immunological Resource Center (UIUC)
- Kim Laboratories (Research Park)
- iCyt Visionary Bioscience (Research Park)
- UIUC Veterinary Pathobiology www.i-Cyt.com

Bosola Oladeinde

First year PH.D. student in the department of crop science under the advisement of Dr. Steve Long.
Focusing on plant molecular biology and physiology and studying the genetic variability of Miscanthus, a potential biofuel feedstock.
B.S. in MCB University of Illinois, Urbana Champaign December 2006
Worked as a research assistant during undergraduate career.
After graduation worked full time at Falk Center of Molecular Therapeutics researching cancer genes.
Postbacchaulerate program at UIC for medicine.

Tina Knox

Coordinator of Undergraduate Instruction and Advising
- Graduated from UIUC with B.S. Biology, 1992
- Worked as Laboratory Specialist (Technician/Lab Manager) in Microbiology for 8.5 years
- Worked as lab prep and course coordinator/instructor for 6 years in Microbiology
- Currently advising students in Bio, MCB, Bioc and coordinating MCB courses