2012 On-Ramps into Academia Workshop

October 14 – 16, 2012

Seattle, WA

University of Washington ADVANCE
Center for Institutional Change

Acknowledgements

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Dr. Jennifer Rexford, Princeton University

Dr. Ayanna Howard, Georgia Institute of Technology

Dr. Geri Richmond, University of Oregon

Dr. Jean Jacoby, Seattle University

Dr. Pat Mooney, Simon Fraser University

WELCOME AND INTRODUCTIONS
BINDER WALK THROUGH

Why Academe Wants YOU

Maria Klawe, Harvey Mudd College
Amy Moll, Boise State University
Matthew O'Donnell, University of Washington

Why academia needs you…

- Industry provides better leadership and management training
- You can connect other faculty and students to industry
- You have more experience with IP and creating economic value from science and engineering research

Why Academe Wants You

- You know what engineers do in “the real world”
- Most engineering students will not go beyond a B.S.
- You have training not given to those in academia
  - Time management
  - How to run a meeting
  - Management by objective
  - Quality management
  - Team work
- You “get it”

Amy Moll – Dean, College of Engineering

Why Academe wants YOU

- Can connect theory and practice
- Understand how to complete projects
- Complementary network to academics
- Can relate to students who enter industry
- Can think big!

Matt O'Donnell
Dean, College of Engineering & Professor, Bioengineering
University of Washington

Preparing for Academia

Lisa Julian, University of Colorado, Denver
Pat Mooney, Simon Fraser University
Kiki Jenkins, University of Washington
Ayanna Howard, Georgia Institute of Technology

Preparing for Academia while Still in Industry

- **Write proposals and seek out grants that you will apply for once you have obtained your faculty position.**
- **Consider obtaining a post-doctoral research position as an entryway back into academia (fellowships)**
- **Continue to publish and present at meetings.**
- **READ! Keep up with the current literature in your field.**
- **Network with faculty - attend prominent meetings in your field.**
- **Gain experience managing and mentoring students/associates.**
- **Seek advice from your faculty mentors asap.**

Lisa Julian

Preparing for Academia While Still in Industry

Start doing the job you want before you apply for it!

Research

- Publications in peer-reviewed journals (high impact factor)
- Presentations at research conferences or workshops – NETWORK!
- Independent research program, project leader, manager
  - proposal writing
  - grant management (research project, reports, finances)

Teaching

- Adjunct Faculty Member at nearby university – teach a course
- Supervise technicians, host a student intern

Service

- Organize conferences/workshops; volunteer in professional societies
- Journals: reviewer, associate editor, editorial board member
- Outreach – K-12 students, university students, community groups

Pat Mooney, Professor of Physics

Banking the Currency of Academia

Kiki Jenkins

- Guest Lecture
  - contact colleagues in academia and ask
- Publish Peer-Reviewed Articles
  - “research” isn’t needed
  - commentaries, policy pieces, consulting reports
- Get Grants
  - program grants, internal funding, in-kind support, professional development

Preparing for Academia while in Industry

- Planning NOW is important
  - Take advantage of your position in industry. It is easier now to build relationships with colleagues, management, and even academics (because you don't need the resources right now).

- Be open to any, and all, opportunities
  - Approach universities to become Instructor/Adjunct Prof.
  - Offer a tutorial at conferences that are in your field
  - Hone the people and time-management skills necessary to function in industry
  - Find out about industry-academic partnership opportunities
  - Publish! Publish! Publish!

Work/Life Balance

Jean Jacoby, Seattle University
Leda Lunardi, North Carolina State University
Ayanna Howard, Georgia Institute of Technology

Tips for Work/Life Balance

- Prioritize tasks
- Sleep, eat, and exercise!
- Maintain family relationships and social time with friends
- Maintain at least one personal passion/ hobby
- You can say “NO”!

Donida Dressage Show, July 2012

Work-life Balance for Faculty

- Prioritize your life and try not overcommit.
- Assess your tasks periodically.
- Keep in perspective: short and long term goals.
- Find resources to support your choices.
- Be visible, active and positive.
- Academic life is flexible: teaching can be taught at distance.
- Learn to delegate and multitask.
- Relax and see professional trips as mini-vacations.

Work-Life Balance for Faculty

- Academia provides personal freedom to manage own time and work. Focus on what you **must** accomplish to succeed. Don't get side-tracked.
- Work until your TIME IS UP as well as until your TASK IS DONE. Master the art of multi-tasking.
- Document the 101 ways that allow you to say NO. Avoid feeling guilty when you do!!
- Schedule your ABSENCE as well as your PRESENCE. Put personal commitments on your work calendar.

CV Workshop

Open Discussion → Fixed Small Groups → Open Consultations

Small Group Directions

- CV or research statement or teaching statement
- ~15 minutes/participant
- Bell to indicate time to switch

CV Workshop: Small Groups by Field

Candis	Blake and Jan	Ayanna and Mary	Jean
• Michelle • Barbara	• Karen • Minnie	• Fei • Evelyne	• Jane • Leslie

Lisa and Pat	Leda and Mark	Amy	Matt
• Tina • Erin	• Jingrui • Viji	• Swati	• Sheila • Lili

The Interview Process

Maria Klawe, Harvey Mudd College
Lisa Julian, University of Colorado, Denver
Anna Karlin, University of Washington

Interviewing for academic positions

- Be interested in each interviewer
- Many places ask for a teaching talk as well as a research seminar; make both fabulous
- Make the place want you even if you're not sure you want it
- Leave negotiations until they tell you they are interested in offering you the position

The Interview Process

- **Ensure your presentations are polished**
  - Faculty often judge your ability to teach on your delivery of the research/proposal presentations.

- **Emphasize how you will contribute to the goals of the department**
  - Curriculum development, research program, strategic plan.

- **Due diligence - research faculty profiles and research interests**
  - Initiate discussions on the potential to collaborate internally and externally.

- **Spend sufficient time on all parts of your application**
  - CV, proposals, teaching philosophy, tailored cover letter – no mistakes!

Preparing for an interview

- Get to know people or about people at the institution ahead of time, either at conferences, or by visiting (even long-term).
- Practice your job talk – this is where you weave in your industry experience.
- Ask for your schedule ahead of time and prepare by finding out what the people you are meeting with work on and preparing some questions.
- At the interview: Listen carefully. Show interest in their work.
- Be sure you can give a concise 5 minute explanation of your work, that is exciting and makes it clear why it's important.
- Be prepared to explain your work to different kinds of audiences and to answer some tough questions.
- Show conviction and passion.
- Check out Jeanette Wing's slides on the interview process

  http://www.cs.cmu.edu/~emigration/interview.pdf

Anna Karlin – University of Washington

Keeping Ties with Industry

Jean Jacoby, Seattle University
Vikki Meadows, University of Washington
Amy Moll, Boise State University

Keep Ties with Industry

- Research collaborations
- Sponsorships for senior design projects in the SU Project Center
- Consulting contracts
- Student internship and employment

Bridge in Tibet designed and built by Seattle University project team

Keeping Ties With Industry

Leverage your industry network to give students an enriched experience

- Research projects with exciting “real world” data and applications.
- Student experience in both worlds through research rotations, participation on teams.
- Professional development opportunities and access to industry mentors.
- Exposure to and promotion of alternative career paths.

Vikki Meadows, University of Washington

Keeping Ties with Industry

- Your company can help you in many ways
  - Funding
  - Project ideas
  - Support letters
  - Equipment
- Connect students to your company: jobs, internships
- Stay active in professional societies
- Consult
- Senior Design Projects
- Student Club sponsorship
- Attend Career fairs and other college functions

Amy Moll – Dean, College of Engineering

Building Your Research Program

Vikki Meadows, University of Washington
Mary Lanzerotti, Air Force Institute of Technology
Leda Lunardi, North Carolina State University
Suzie Pun, University of Washington

Building Your Research Program

If you know how to manage a project, you are already half way there…

- Learn the system from the inside out.
  - Volunteer to serve on a review panel or advisory panel for your target funding program.
  - You'll gain priceless experience and insight into the current state of the field, and the program manager will love you forever.

- Proposal writing is just like project management
  - *Find out what the sponsor wants.*
  - Promise to deliver the desired product…on time, and under budget.

- Use your new resources
  - Students are AWESOME!!! They are academia's unfair advantage in research. Make sure you incorporate them into your research program as soon as possible.

Vikki Meadows, University of Washington

Building Your Research Program

Sponsored Research

Cutting Edge Cyber Research 2012

Sandia National Laboratories
Exceptional service in the national interest

AIR FORCE RESEARCH LABORATORY

AFRL SENSORS DIRECTORATE

BAE SYSTEMS

Proposals and Grants

AFIT
AIR FORCE INSTITUTE OF TECHNOLOGY

LEADER Consortium
Launching Equity in the Academy across the Dayton Entrepreneurial Region

Collaborations

IEEE
Advancing Technology for Humanity

SOCHE celebrates 45 years of advancing higher education!
1961
45TH ANNIVERSARY

SOCHE Southwestern Ohio Council for Higher Education

SIENAcollege

VLSI/CAD Lab

DELL

NCSU EDA

CentOS
The Community ENTerprise Operating System

cadence

TAPO
Trusted Access Program Office

Mary Y. Lanzerotti

Building your Research Program

- Serve in review panels for grants and fellowships.
- Visit funding agencies and Program managers or directors. Tell them your research ideas.
- Keep your industry contacts: equipment donation, partnership for grants, and students internships.
- Be active in technical societies, and local chapters meetings.
- Prepare an elevator speech about your research for general public and visitors.
- Time management: how to run a small business
- Pursue new projects with passion

Pun Lab

Department of Bioengineering, University of Washington

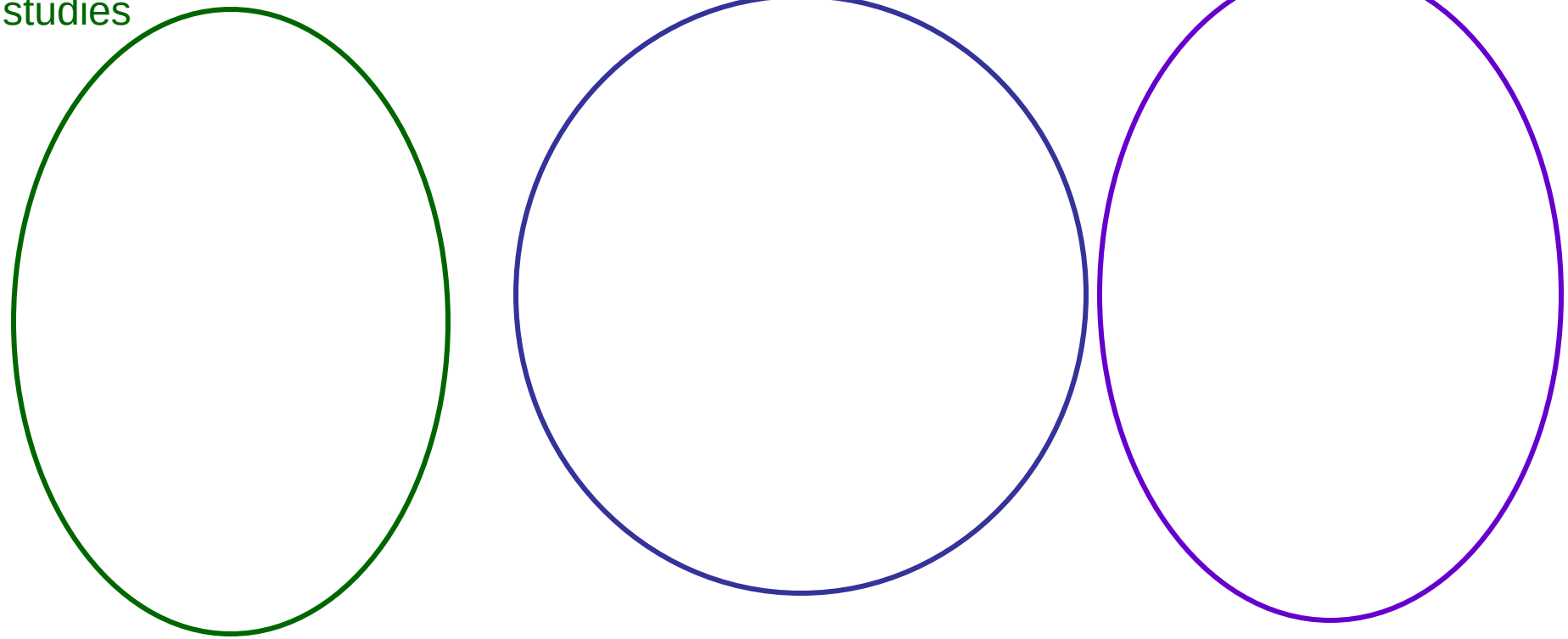
1. Unified Theme

Research mission: To develop methods for increasing the efficiency of intracellular macromolecule transport for drug delivery applications

3. Characterization/mechanistic studies

2. New area

4. Experienced area



Building Your Teaching Program

Eve Riskin, University of Washington
Amy Moll, Boise State University
Lisa Julian, University of Colorado, Denver

Building Your Teaching Program

- Teach what you're best at
- Teach the same courses until you're sick of them
- What's good for you is good for the department
- Students love real-world examples

Eve Riskin, Professor of Electrical Engineering, UW

Building Your Teaching

- Don't just teach like you were taught
- Understand the "teaching culture" of the university where you have applied
  - Center for teaching and learning?
  - Education grants?
  - Types of students?
- Real world examples give you credibility with the students
- Understand effective teaching pedagogies
- You are NEVER prepared for class – manage your time

Amy Moll – Dean, College of Engineering

Building your Teaching Program

- **Gain experience teaching at a community college or tutoring.**

- **Teach coursework material from a practical perspective.**
  - How will the information be useful and applicable in the real-world as you have experienced it.

- **Spend time discussing relevant world issues to stimulate interest.**
  - e.g. Organic chemistry ➔ Energy, pesticide use, etc.

- **Be available to your students outside of class**
  - Office hours, review sessions, timely responses to email

- **Be organized, enthusiastic, and patient with your students.**
  - Put yourself back in their shoes!

FINAL QUESTIONS?

TAKE-AWAYS?

After On-Ramps

- Complete evaluation form
- Tell others about On-Ramps
- Follow up surveys
- RSS feed
- Stay in touch