Faculty Development Boot Camp 2: Expectations & Success Strategies for Research and Funding

Dr. Irem Y. Tumer
Associate Dean for Research
College of Engineering
Oregon State University
Today’s Agenda

1:00pm-1:30pm: Welcome and Introduction
1:30pm-2:15pm: Faculty Panel—Best Practices & Strategies
2:15pm-3:45pm: Interactive session—Research Pitch
3:45pm-4:00pm: Break & Informal Discussion
4:00pm-4:30pm: Proposal support & Budget management
4:30pm-5:00pm: Mentoring network & time management
5:00pm-6:30pm: Social
What’s in an academic job?
How to get tenure?

Major aspects you must excel in:
- Funding
- Publishing and delivering results
- Marketing
- Networking
- Recruiting and hiring
- Mentoring and supervising
- Accounting
- Teaching
- Service
How to Succeed?

Think of it as running your own company!

Completely output driven:

- Take full responsibility for all aspects
- Be entrepreneurial
- Be very organized
- Be resilient
- Be collegial and collaborative
- Have fun with it!
Research Mechanics

Idea/Motivation
Research Mechanics

Idea/Motivation

- Budget preparation: COE Proposal Support
- Draft of proposal
- Ask mentors/peers for feedback
- Cayuse certification
- Submission

Waiting/reviews (work on another proposal)

Sponsored Programs Office approval

Revise/resubmit

Funded project

x3 (e.g., NSF)
Guidance: Applying for Funding

You can’t win if you don’t play...

• Proposal submissions
  – Submit multiple proposals throughout the year
  – Quality more important than quantity
  – Consider different applications for same general ideas
  – Work on small and large proposals to increase odds of funding
  – Plan your proposals, think in terms of phases and submission windows
  – Set aside time for writing!

• Cast a wide net
  – Federal/state agencies
  – Industry opportunities
  – Private foundations
CoE Funding Sources

FY 13 Awards - College of Engineering

- National Science Foundation: 28%
- Industry: 3%
- Agriculture: 6%
- DOD Agencies: 11%
- Energy: 30%
- NASA: 1%
- Commerce: 0%
- Labor: 0%
- Non-profits: 5%
- ONAMI: 1%
- BEST: 3%
- State Agencies: 1%
- Transportation: 6%
- Nuclear Regulatory Commission: 3%
- NIH: 2%

Total FY13 Awards: $31,009,614
FY17: $55.6M!!
Guidance: Monitoring Opportunities

• Get to know your individual programs and submission windows
• Regularly visit agency websites to find out about new/unique solicitations
• Sign up for:
  – ORD ListServ at the OSU Research Development Office
  – Grants.gov, FedBizOpps.gov, NIST, NSF, DOE, DOD, NASA weekly newsletters
  – Grant Forward
• Discuss your research with senior faculty and peers to look for collaboration opportunities on large grants
Guidance: Publishing

- Publish with your students
- Have multiple papers out for review at any time
- You need some results & data for proposals—publishing and proposals go together
- Review papers for the journals to which you submit ... editors do keep track of this
- Write constructive reviews...but manage time spent on reviews!
- Should review 2 papers for every one you submit
- On the flip side, it’s OK to say “No” when you feel overwhelmed; recommend a colleague
Guidance: Resilience

• You will have rejections, but learn from them, revise and resubmit (proposals AND papers)
• Ask your colleagues to review everything
  – Seek mentors and peers
  – But you’re not limited to one mentor – use anyone who has the necessary expertise
• Accept constructive feedback (from head, mentors, review committees) – we really want you to succeed!
Typical Workload

• 50% Research
• 40% Teaching
• 10% Service
Guidance: Path to Success

Research:

- Request mentors
- Know your programs, opportunities, solicitation windows
- Diversify funding sources
- Look for collaboration opportunities
- Balance collaborations with single PI proposals (CAREER & YIP)
- Seek feedback often (including for grad student mentoring)
- Get to know your program manager (serve on panels)
- Visit industry & national labs (summer fellowships)
- Develop a work plan to review every year with your School Head
- Write write write! (Form writing groups?)
Teaching & advising:

• Work with your area leads/school heads to pick the right courses
• Ask for your colleagues’ lecture notes/slides
• Only create a new course if you are required to
• Seek advice/help for teaching effectiveness, peer evaluations
• Complete the graduate faculty training for mentoring
• Take on graduate students/PhDs preferably, but also good to have MS (and Undergrad research assistants)
• Manage time spent on teaching (built-in accountability!)
Service:

- Balance internal vs. external service load
- Pick service assignments that
  - increases your visibility
  - builds your network
  - gets others to get to know your strengths
- Say no, without guilt and with clarity!
Guidance: Path to Success

- Plan and clarify your career goals (work plan)
- Cultivate relationships (coaches vs. sponsors!)
- Beware of perfectionism holding you back
- Understand P&T criteria & priorities
  - Create built-in accountability for all aspects
  - Don’t **overfunction** on service & teaching!
  - Align priorities with time
- Invest time in training your students and becoming a good mentor/advisor
- Don’t neglect your personal life and health

*Enjoy the best job in the world!*
Workload--revisited

Piled Higher and Deeper by Jorge Cham

HOW PROFESSORS SPEND THEIR TIME

How they actually spend their time:
- Teaching 59%
- Research 18%
- Service 23%

Source: Higher Education Research Institute Survey (1999)

How departments expect them to spend their time:
- Teaching 20%
- Research 175%
- "Service" 20%

How Professors would like to spend their time:
- Don’t tell me what to do

Jorge Cham © 2008

www.phdcomics.com

Title: "How Professors spend their time" - originally published 8/25/2008
Next up:

– Panel: Best Practices and Strategies
– Interactive Session: Research Pitch Critique
– Preaward and Postaward Processes
– National Center for Faculty Diversity & Development
– Interactive Session: Building a Mentoring Network
– Faculty Workshop Series
– Social Hour!
Pitching Your Research

– Overview:
  • What is your research idea, overall goal?
  • Why is it important, unique, different than others? What will it add/transform?
  • What is the methodology?
  • What objectives must be met in order to accomplish your goal?

– Intellectual Merit:
  • What will come out of the research? Why/how will it advance knowledge base of science or engineering?
  • Why are you uniquely qualified to conduct the research?
– Broader Impact:
  • What broader impact will your work have?
  • What is the potential to benefit society and contribute to the achievement of specific, desired societal outcomes? (e.g., economic, environment, education, underrepresented populations)

– Agencies:
  • What funding sources will you target?
NCFDD: National Center for Faculty Diversity & Development

- **Institutional membership**: SIGN UP using your OSU email!
- Core Faculty Success Curriculum webinars and slides:
  - Developing a work plan
  - **Aligning your time with your priorities**
  - Developing a regular writing practice
  - Mastering time management
  - Saying ‘NO’
  - Cultivating your network of mentors & sponsors
  - Overcoming academic perfectionism
  - Dealing with stress and rejection
  - How to win an NIH grant
  - Everything you need to know about grant writing
  - How to prepare for stress free teaching
  - How to seek and get foundation funding
Guidance: Forming Your Mentoring Network

Tom, mentoring is about more than encouraging people to be just like you.
Mentoring Network Model

Experts
(Successful researchers & teachers)

You
(Faculty)

Peer group

Administrators

Emotional support or
Work/Life balance
Mentoring Network: What’s the Point?

• Connect you with mentors and key personnel in across your unit and COE in order to set you up for success

• Start a handbook of resources to support you

• Use faculty development workshops to develop your network with peers and senior faculty!

• Look for overlap between your professional and personal networks to cultivate positive relationships and advocates!
Faculty Development Workshops

• Inaugural Boot Camp Series:
  – Day 1: Faculty Advancement & Building Momentum
  – Day 2: Research & Grantsmanship
  – Day 3: Teaching & Mentoring

• Regular Workshop Series:
  – Mentoring of GTAs and GRAs
  – Federal agencies success strategies
  – Proposal writing
  – Teaching effectiveness & active learning methods
  – NSF CAREER proposals: fundamentals & mock review panels
  – Budget & Project Management
  – Industry Partnerships & Commercialization
  – Beyond the classroom: teaching triads, classroom bias, etc.