

Starting New Research Projects

Richard Yuretich
and
Paul Markowski





I've finished my Ph.D.

- Now what?
- Continue developing your Ph.D. research
 - RY: 2 subsequent funded projects; publications spanned 26 years
 - PM: 2+ subsequent funded projects plus pubs



Explore your local environment

- **Adapt methods and topics to local issues and opportunities**
 - RY: African lakes → New York lakes
 - RY: Watersheds, groundwater issues, NJ → Mass.
- **Capitalize on student interest where practicable**
 - RY: Acid rain and Environmental concerns



Develop New Collaborations

- Identify helpful colleagues in department
 - Those with complementary interests
 - Senior-level
 - Connections to funding agencies and sources
- Current Graduate Students
 - Connections to research areas
 - Interdisciplinary connections



Develop New Collaborations

- **Talk to campus people outside department**
 - RY: Water Resources Research Center: State support for Boston water research
 - RY: Physics, Astronomy, Science Education: major funding for research on science teaching and learning
 - RY: Environmental Engineering, Microbiology: large grant for remediation of acid-mine drainage



Expand Your Reach

■ Make time for reading

- Keep tabs on people doing related research
- Develop ideas for possible collaboration
- Approach them with a proposal

■ Identify “researchable moments”

- From your teaching
- From your field experiences
- From Departmental “Archives”



Expand Your Reach

- **Build upon professional meetings**
 - RY: Baikal Drilling Project
- **Don't forget the "cold calls"**
 - RY: Rogers & Rosamond Lakes



Requests for Proposals (RFPs)

■ Pros

- An RFP indicates that money has been earmarked by a funding agency for research in this area
- Don't need to rely on enthusiasm of program officer

■ Cons

- They are often (usually?) over-competitive, attracting many proposals
- Odds of funding can therefore be smaller.
- May ask for things that you don't really want to do



Special Solicitations Geared Toward Early Career Scientists

- NSF Faculty Early Career Development Grants (“CAREER” Award)
 - Prestigious
 - Not competing against established senior scientists
 - 5-year duration (the “treadmill slows down”)
 - BUT odds of success may actually be much worse than unsolicited proposal route
 - funding per year actually tends to be a bit less, on average, than standard 3-yr NSF awards;
 - strong education/outreach component required
- NASA NIP (New Investigator Program)
 - must have strong NASA connections developed before you’ll be considered seriously