Starting New Research Projects and Building Collaborations

Early Career Faculty Workshop
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New Research Projects

You’ve finished your PhD and/or post-doc.

Now what?

Continue working along the line of your PhD/post-doctoral research?

Start in new directions?
New Research Projects

How do you develop new research directions?

Brainstorm new ideas yourself
- Address questions you have had in the past
- Read papers on topics related to your field
- Attend different sessions at conferences

Talk to other people
- PhD/post-doc advisor
- Colleagues in your department
- Make new connections
New Research Projects

Things to consider when choosing new directions:

• Make sure topic is of broad interest
• Build on your strengths and expertise
• “More of the same” is not easy to fund
• Don’t aim too big – the topic needs to be solvable given your experience/capabilities
• Find out what is being done already in your field (don’t want to do something that is already being done!)
• Collect preliminary data to demonstrate feasibility
New Research Projects

Things to consider when choosing new directions:

• Take advantage of your local environment
  • Local geology/environment
  • Local industry
  • Use existing departmental facilities
  • Capitalize on student interest
New Research Projects

Diversify - Try to build your research so you are working on more than one project at a time.

- Variety is the spice of life!
- Minimizes delays due to equipment failure or competitive NSF programs
- Will provide projects for a larger number of students
- You can be working on writing up one project while starting another
- Ideally will provide a steady stream of papers
New Research Projects

Take a moment to think about some possible new areas for new research projects.

#1 In what new areas might you develop a new research project?

Think about people who might be able to help you with these new directions.

#2 Who might be able to help you with these directions?
New Research Projects

Expertise – It is important for you to become recognized as an expert in some area(s)

• Develop a common theme or themes to your research
  • You will become known for that work and recognized as an expert in that field
  • You will be invited to give talks, submit papers, etc. in that area

#3 What is that area for you?
Building Collaborations

Why collaborate with others?

• The sum is greater than the parts.
• Learn from your collaborators.
• Collaborative research may help you break into getting funded.
• Fostering a community can lead to future opportunities!
Building Collaborations

Collaborations close to home

- Colleagues with complementary interests
- Senior-level colleagues
- Colleagues with instrumentation that may be of use to you
- Colleagues within your university but outside your department

#4 Make a list of possible “local” collaborations
Building Collaborations

Collaborations farther from home – how do you meet people?
• Professional meetings
• Try some new, smaller meetings (e.g. Gordon conferences) – good investment of start up
• Go to smaller functions at big meetings (e.g. Area of interest meetings at AGU)

#5 Make a list of potential “non-local” collaborations
Building Collaborations

How do you get yourself known?
• Convene sessions at professional meetings
• Invite big names to give talks in your session or at your home institution
• Serve on panels and committees
• Review NSF proposals (but not too many)
• Introduce yourself to people whose work you know

#6 List some activities you can engage in to get yourself known
Initiating Collaborations

How do you ask?

1) Introduce yourself first – ideally you have the opportunity to interact with them or meet them in person first
2) Do your homework. Know what your collaborator does and what they can contribute.
3) Send them an email, Call them on the phone, Talk to them at a conference
4) Sell the science
5) Make the contributions/expectations of each partner clear
Starting New Research Projects and Building Collaborations

#7 What are you going to do?