Tips and Strategies for Success in ASP

The following tips were generated during the 2017 and 2016 Postdoc Retreats. Experienced postdocs answered questions from first-year postdocs and added tips and strategies during the discussion.

What timelines do people use for setting up research? How do you structure your time while you're an ASP postdoc over the two years?

- In my first year, I published old work and started collaborating with colleagues at NCAR. Now in my second year, I am publishing work from ASP work.
- I spent my first year publishing work that grew out of my PhD. I wasn't quite ready to jump into new work.
- I also am publishing my work from ASP late in my postdoc. This is normal.

About establishing collaborations at NCAR and beyond

- Multitasking is really important. Don't wait a year to start collaborating with people here.
- Go ahead and start talking to people now about collaboration. Then during other parts of the day, work on previous projects. You can work on more than one project, including a more risky project and then more established ones.
- A good strategy is to give a seminar pretty early on so that people know what you are doing and people can approach you.
- People at NCAR are very responsive when you approach them about collaborating. If you are interested in talking to people, send them an email to meet up.
- Read the Staff Notes for seminars to learn about other projects and talk to the speaker after, if you liked it.
- Each ASP postdoc meets with the ASP Director after three months. This is your time to make these first connections, give a seminar early on, and to think about what you want to be doing.
- Think about resources outside. I am working with a scientist on a project in Chile and have 2 months salary from that project. I have been writing proposals that will fund me going beyond the ASP program.
- If you see a seminar that's interesting, follow up with them. As a postdoc, that's something you can do. At conference, talk to people.
- Find out what makes you unique at NCAR, and make sure that others know that about you. Let people know what you can bring to the table.
- Be careful of proposing too many projects because you may end up being the lead.
- Make sure not to become the worker bee for others; you don't have to do that. People might be hesitant to approach you because of ASP is known to let postdocs do independent projects, and not wanting to bother you because you have a big project to work on.

How should I manage time with respect for doing everything expected: like wrapping up PhD work, publishing, reviews, and job search?

- One of the challenges of ASP is that most days there is nothing on my calendar. I structure my calendar with certain activities in the morning and others in the afternoon. I make lists, and I have three months of calendars on the board, and I make goals for each day, each week, and each month. That forces you to break things up into smaller chunks, and to feel accomplishment when you get things done.
- Multitasking: I write things out for each day (four items). I usually only finish #1 and 2, and so the next day I may work on #3 and 4. It's nice to mix it up. I used to do numerical simulation and here I am doing observation. If things cause delays such as problems with the data, it's good to start on your research here early in your postdoc.
- Take the time to make a plan and revise it with someone can help not to waste time. I learned that I want to pursue science project management instead of scientific research.
- Meet with someone (your officemate, advisor, Rebecca, or Rich Rotunno) and talk about your different projects and which tasks to make a priority. Doing this frequently can help keep you on track.
- Consider mapping things out on a calendar or on a whiteboard. Make a plan for your 3-month meeting.

How should I deal with the constant stream of requests to work with people on papers/projects? Do you take on everything or should you be selective?

- At a certain point you have to be picky. It helps if you can say up front how much time and effort you can devote to it, e.g. advising on which method to use. If it's a larger responsibility like coding or writing, that is something to be pickier about. Taking on a lot initially has the advantage of seeing which works out.
- Make sure that your first author papers have preference in terms of your time. Be picky enough that you are still getting that work done.

How do you choose where to expand your research and take risks on?

- What surprised me when I started; I learned that you don't need to do what you proposed in your application. This was good, because others had already solved the problem that I had planned to work on. Feel free to expand and take risks on a subject that you feel is interesting to you.
- The exciting part of the ASP is the freedom and chance to broaden your horizons. I recommend having a project that is familiar to you and another that is more risky and something you want to explore.
- Check out the opportunities. We learned about a field campaign in the Midwest, and two of us scraped together a truck, instrument, two SOARS summer interns, and make a field project that was part of that bigger campaign. You can make these connections and bring them wherever you go. It's a bridge between your PhD and where you go in future.

- Talk to the ASP Director if you are interested in learning about pursuing other careers, such as science communication, project management, etc. There is a lot of freedom to pursue other things while you are in the ASP program.

If you want to go deeper into your PhD field and explore new areas, how do you balance this during the two-year postdoc period?

- "My main project is something completely new, so I hadn't read papers about it before, but I wanted to hold on to what I had done before, so I mentored a SOARS student in my original field."
- "I was collaborating with people at my PhD institution, and now a new grad student is continuing my work forward, so I am working with her."
- Continuing previous work could lead to more publications, and yet it's exciting to do something new.

Do the experienced postdocs prefer to several small projects or one big project?

- It depends what you want to do. To stay in academia, a few big projects might be better. If you want to get a few publications out and move into industry, then smaller projects could be better.
- "I like working on a few projects at the same time so that I can go back and forth. It can help to avoid burnout or a block on one project. I want to have some interconnections between the projects so that progress on one can help with another project. That kind of synergy can be advantageous at times".
- It can be helpful to have a side project to go to when you get stuck on a big project. Big projects also don't tend to have end dates and it's easier to put a box around a small project. It can be helpful if you are running code to have a second project that you can work on while it runs in the background.
- It helps to be strategic about when you focus on publishing and when to focus on applying for jobs.
- Take advantage of the workshops at NCAR, ask others for help in learning (e.g. how to run CESM), and ask your advisor if you can sit with them and watch them work through the code, etc.
- Drop by peoples' offices to ask questions and get help. Take advantage of this opportunity to learn, as it may be one of the last times when you will have the time to do it.

How soon do people usually start applying for jobs?

- It depends on the field, but it is good to work on it right away and develop those materials and interview skills.
- The job application process took much more time than I expected. Preparing the materials, doing interviews, etc. is very time-consuming.
- Think about it for you personally about the balance between dealing the stress of applying for jobs, which takes an emotional toll, and getting other work done. Think about this when you decide to apply.
- I started applying for jobs one year before I finished my PhD. Writing those application materials was not trivial for me. I got completely different advice from different faculty advisors, and I didn't know what was correct. I have developed a better idea, also with support from the group that was developed within ASP. I am still improving these materials and finding the balance, for instance, between using too much jargon and being too general.
- It depends on which jobs are available.

- If you apply and happen to get the job, but wanted to stay in ASP, you can negotiate for deferments for the job you are going to. One year is quite common for faculty positions.
- Sometimes people get so stressed with proposals and job applications, that they don't get any research or writing done, which is not ideal. Ultimately, your productivity is what will help you, going forward.

What do you recommend for preparing to apply for a faculty position?

- It depends on which type of school you are interested in working at. Small schools are much more interested in teaching and so you need teaching experience. They want to know how you plan to develop your teaching skills. CU has a workshop in the summer on the latest approaches in teaching run by Jean Herzberg.
- CU's Office of Postdoctoral Affairs events are open to NCAR postdocs.
- For preparing your teaching philosophy statement. Work on mentoring opportunities or teach a tutorial or lead an event that is aimed at teaching the public/scientists. The teaching statement also includes how to mentor your grad students, especially if you are going to a research institution.

Are there teaching opportunities available?

- If you want teaching experience, there are opportunities in the area, e.g. guest lecture in a class. There several universities around here with atmospheric science or meteorology departments (CU Boulder, CSU, Metro State). Try to give a seminar at those places.
- UCAR also has a program called **UVisit** to support you to go out to a non-local university, e.g. for a week teaching an intensive course. You can register as an expert at UVisit, and faculty can search and find you there.

Are there benchmarks that you aim for in your first year as a postdoc?

- In the first 6 months or so, people spend time wrapping up your PhD research, and slowly start on their postdoc research. It's hard to give a good benchmark. Talk with your advisor. If you don't have publications out already, it would be good to have them out by the end of your first year.
- At the one-year renewal meeting, you submit a document on what the original goals were, how many publications you have out for review and how many presentations you have given. We usually see two or three publications at the end of the first year - one or two from PhD work and one or two from NCAR work started. It depends a lot on the field that you are in - in some fields it's more common to have one big project/paper and in others it might be to have several.
- The Individual Development Plan will help with the benchmark.

What are some general tips for success?

- ASP has a supplementary fund that you can submit a small proposal to, e.g. for a small field campaign. Twice a year ASP puts out a call for proposals for additional travel needs, if you have an idea for a visitor to bring here, to do a field project and hire student assistants, or to work on instrumentation. You can also submit proposals outside of these times.
- Create/join a group in ASP for writing or for preparing job materials, and meet weekly.
- It depends on what you define as success. I tried for a long time to become research scientist/faculty, and realized that this wasn't for me.

- Look at the postdoc as a bridge and build new collaborations.
- Consider what you might want to be doing in the future, and whether there are skills that would be helpful in that position. If you are interested in project management of field campaigns, get trained in that while you are a postdoc, using the support from NCAR.
- NCAR also provides media training that can be very useful for talking to the media about your topic. Contact David Hosansky in NCAR Communications.
- If you are interested in public outreach and science communication, talk to us in NCAR Education and Outreach.