"The chief trouble in a long [self] experiment is that one tends to drop asleep and stop breathing..."

The Curies Exposed themselves to radiation in discovering polonium and radium
Nathaniel Kleitman Lived for 32 days in Mammoth Cave to study changes in circadian rhythm
The Haldanes Tested diving compression effects on their physiology and also drank HCl
Isaac Newton Stuck a needle in his eye to observe visual distortion

http://crosstalk.cell.com/blog/notable-examples-of-self-experimentation-in-science

Scientists learn a systematic process of observation, research, hypothesizing, experimentation, analysis, and sharing. However, when facing a problem unrelated to research scientists abandon the scientific method. Scientists need to apply this process to their research progress, career advancement, and professional development.
Are you puzzled?

How do I...
- build and maintain relationships?
- meet and talk to important people?
- network and clarify my career targets?
- showcase my diverse skills and interests?
- clearly convey a compelling career trajectory?
- identify next steps and transitional opportunities?

Scrutinize Your PhD

The PhD
- Creates opportunity and potential
- Hones critical thinking and problem solving skills

The Postdoc
- Refines research and professional skills
- Develops an independent investigator

The Training
- Select correct problem
- Critical examination
- Thorough analysis
- Eloquent communication
Study Your Situation

- Professional
  - (In)active network
  - (Un)known career target
  - (Un)polished career story
  - (Un)sure of marketable skills
- Personal
  - Analysis paralysis
  - (Un)realistic expectations
  - Exhausted, jaded, or burnt out
- Project
  - Near end date
  - (In)complete achievements
  - Mentor (dis)engagement

Imagine a Skills Continuum

- Which skills and attributes will set me apart for my desired career track?
- What skills give me the “most bang for my buck” for a variety of career paths?
- How can I strategically build vital skill sets within and outside the lab?

Explore Transferable Skills

- Publication = project management
- Planning and organizing events
- Networking with others / relationship-building
- Collaboration = working in teams with unified goals
- Budgets, inventory, and workflow
- Time management and task-prioritization
- Supervising, training, and managing people
- Leadership, service, and outreach
- Teaching and mentoring

Conceive Your Training Purpose

- Gain independence
  - Funding, research, & collaborators
  - Mentor & supervise
- Build professional identity
  - Relationships & network
  - Field / technical expert
- Identify a vision for the future
  - Research & career
Assess Yourself

**SKILLS:** what you are good at?
**INTERESTS:** what you enjoy doing?
**VALUES:** what matters most to you?

- Analysis of activities, ideas, and motivations
- Affirmation of strengths and competencies
- Awareness weaknesses and gaps

Try New Things

- **Teaching:** community college, national lab day, mentor a student
- **Research:** new technique, grant writing, data analysis, lab management course
- **Public Speaking:** Toastmasters, science museum, undergrad career panel, seminar series
- **Leadership:** Postdoc Association, NPA, professional society
- **Policy:** "Hill Day", campus committee, prof society committee
- **Writing/Editing:** guest blogger, freelance writing/editing, reviewer

Identify Your Contact Points

Everyone You Meet
Discover Common Ground

The interests/challenges I share with you are:

Of these, I have learned that because ____________________.

Through my research, I noticed because ____________________.

More specifically, I would like to know ________.

Test Your ‘Cold Call’ Skills

• Include something personal and verifiable
  – saw them speak at a conference
• Say something nice that is true
  – their team blew you away
• Clearly excited to work with that specific company
  – not just any organization
• Include just enough background info
  – to demonstrate fit and understanding of needs
• Mention the name of a mutual connection
  – could easily be vetted
• Do not make an outrageous ask
  – specific but open-ended

(Net)Work Strategically

Make everything you do multi-purpose

Unify diverse aspects of your training

Share your interests

• Department seminars and functions
• Career workshops & panels
• Seminars with external speakers
• Job fairs (even, if you’re not looking)
• Introduce yourself and exchange business cards
• Reach out to speakers, if you can’t attend
• Stealth network: Tap into mentors, colleagues, alumni, friends…AND church, daycare, salon, gym, bus
Find Opportunities
- Follow skills & interests
  - Remember transferrable skills
  - Visualize ideal job
- Activate network
  - Tell others you are looking
  - Ask for guidance
- Attend meetings
  - Be visible
  - Show your brilliance
- Search online
  - Build search engines
  - Learn what is out there

Understand the Job Ad
- Minimum qualifications
  - education, years of experience, skills...
- Preferred qualifications
  - advanced degree, experience in environment/field...
- Relevant keywords
  - Skills and techniques
  - Teamwork, cross-functional, collaboration, manage, and lead
- The company / institution
  - “HR-speak” and instructions

Purpose impacts style
- Academia/Faculty
- Promotion
- Industry research
- Non-profit/Entrepreneur
- Postdoc/Residency
- Science-adjacent
- Non-science/Business
- Grant BioSketch

The more you know
- CV ≠ Resume
- Gets you an interview NOT a job
- One size DOES NOT fit all
- Job ad will guide you
- Read application submission instructions
- Avoid unforced errors

Examine Your CV/Resume

Examine Your Cover Letter

Opening paragraph
- Explain why you are writing
- Identify yourself
- Identify the position
  - include job #
- Refer to how you learned about employer or the job
  - Previous conversation, meeting
  - correspondence, or job posting
Consider How You Fit

Paragraph 2
- Describe research and its significance
- Show breadth of expertise and experience

Paragraph 3
- Elaborate on distinctive qualifications, strengths, achievements, and skills
- Make obvious connection to job

Paragraph 4
- Align interests and mission
- State interest in employer and this specific position

Final paragraph
- Thank the recipient
- Restate your interest
- Reiterate a strength
- Items you have enclosed
- Indicate your next plan of action and/or offer a specific date of expected

Create P-A-R Stories

Describe your experiences systematically

**Problem:** Describe a problem/challenge YOU faced

**Actions:** Describe actions/approaches YOU undertook to address problem

**Result:** Explain measurable results/impact of YOUR actions

Tell Connected Stories

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Adapted from D. Haseltine 2017
Do Your Interview Homework

- Explore the website
- Research leadership (and admin) team
- Read the *Mission* and *Vision*
- Check *News and Media*

Have a Conversation

- Practice your career story
  - “Tell me about yourself…”
- Aim to engage, not impress
  - Let them talk and be interested
  - Speak confidently and be humble
- Turn the interview into a conversation
  - Ask how you can make their job easier
  - Inquire about what they are looking for in this position
- Prepare PAR statements for questions
  - “Describe a time when you faced…”
  - “Tell me about a time when you motivated others”
  - “Explain your recent paper or greatest accomplishment”

Share Your Gratitude

- Reflect on information you gained
- Clarify timeline and next steps in the process
- *Brief* and *specific* thank you notes
  - Appreciate hospitality and time
  - Resolve lingering question
  - Reinforce interest and fit
- Touch base with references and connections
- Consider successes/challenges of process

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Remember Your Options

- Academic Research
- Academic/Higher Ed Teaching
- Biotech/Pharma Research
- E-Ship/Business Dev.
- Consulting/VC
- Policy/Outreach/Non-Profit
- Science Writing/Journalism
- Editorial/Publishing
- Regulatory Science

*Not ALL careers represented!

Reframe Your Trajectory

Reiterate a Trajectory

Replicate Success

- Make a concrete, specific plan
- Build in benchmarks and milestones
- Share with mentors and colleagues
- Anticipate challenges
- Learn from hardships
- Celebrate your wins
- Review completed goals
- Repeat the process
Ask hard questions
Understand what you know
Know yourself & others
Apply for jobs
Interview
Repeat / Reproduce

Career Resources

Thank You!