THE CENTER FOR DOCTORAL AND POSTDOCTORAL CAREER DEVELOPMENT
IS PLEASED TO SPONSOR:

Translating your current academic skills to future careers

Presented by: Tracy Costello, PhD

MY SINCERE APPRECIATION...

Especially Dr. Darlene Zellers and Nicole Lehman in the Office of Academic Career Development!

CAREER EXPLORATION IS A 10-STEP PROCESS

1. Self-assessment
2. Networking = relationship building
3. Research potential career paths
4. Identify skill gaps
5. Learn new skill(s)
6. Informational Interviews
7. Identify potential positions
8. Prepare application materials; submit/complete interviews
9. Interviews
10. Negotiation

Career Options

| Skills + options but no interest |
| Interests + options but need skills |
| Skill + interest but no options |

Coach4Postdocs.com

Coach4Postdocs.com
### Translating Current Academic Skills to Future Careers

1. Identifying/understanding the non-technical skills you've gained in academic training
2. Understanding the skills needed in specific career sectors and/or specific jobs
3. How to communicate your skills
   - Networking and informational interviews
   - LinkedIn profiles, resumes, and cover letters
   - Job interviews

### Self Assessment

#### Identifying/Understanding the Non-Technical Skills You've Gained in Academic Training

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### Self Assessment

#### Research Skills
- Ability to critically evaluate and interpret research
- Technical skills necessary for specific research area
- Statistical Analysis & Interpretation of Data
- Critical, innovative, and/or creative thinking

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#### Communication
- Basic writing and editing; including different/diverse audiences
- Writing scientific articles
- Writing grants
- Presenting research, clearly and effectively
- Teaching (including mentoring and training individuals)

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#### Management and Leadership
- Planning and organizing projects
- Managing data and resources, including developing/managing budgets
- Time management
- Leading, training, or mentoring others
- Asking for and/or providing constructive feedback; navigating difficult conversations

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MORE QUESTIONS...

- What did you study in the past? Why did you choose this field(s)? What topics most exciting?
- What additional activities energize or inspire you?
- What current activities do you enjoy most? Enjoy least?
- How would you like to interact with science?
- On a 1-10 scale, 1=broad interaction and 10=deep and specific interaction, where are you?

MORE QUESTIONS...

- What type of people do you like to work with?
- Do you prefer to work: independently, collaboratively, occasional contact with others?
- Where do you want to live?
- What size organization do you want to work for?
- What type of environment do you want to work in?

QUESTIONS FOR HOMEWORK...

- Which of your past accomplishments will contribute to your future success? What skills are most important to your future success?
- Consider your training experience to date: What is the story your CV or resume will tell? What do you hope your letters of recommendation will say? Beyond your CV/Resume, what do you wish to be known for on the job market?
- Describe potential jobs that you may seek after your training.
- Save a PDF of three jobs that appeal to you and add a short description about why the position is appealing.
- Identify developmental, skill-based milestones necessary to be competitive.

RESOURCES TO UNDERSTAND SKILLS / STRATEGIZE FOR SKILL DEVELOPMENT

- AAAS MyIDP.sciencecareers.org
- American Chemical Society https://chemidp.acs.org/
- IDP for humanities and social sciences https://www.imaginephd.com/
- U Pitt - The Center for Doctoral and Postdoctoral Career Development
- Professional Societies

IMPOSTER SYNDROME / PHENOMENON

High Achievers
- Women >> Men
- Fear of Failure
- Crippling Perfectionism
- Your insight is a key piece to the big picture
- (Don’t downplay your accomplishments)

OVERCOMING IMPOSTOR SYNDROME

- Acknowledge your feelings
- Talk to others
- Develop a quick response plan
- Understand your strengths and weaknesses
- Overcome perfectionism
- Own your successes
Your self-worth is NOT – I repeat NOT – tied to your success

When you fail, realize that success, recognition, and approval are NOT the values that drive you

Being open to feedback = being vulnerable

Fear sharing our research – journal reviewers, scientific community, grant reviewers

Fear being wrong – being talked about, viewed as less than we are

Self-doubt or Self-criticism

Writer’s block – writing is challenging; going to get criticized; no one cares about the topic

Perfectionism – delay; one way to deal with fear of failure

**VOICES IN OUR HEADS**

**TOP 10 TRANSLATABLE SKILLS EMPLOYERS SEEK**

- Leadership & Team Management
- Problem Solving
- Collaboration
- Data Analysis
- Communication
- Time Management
- Strategy / Organization
- Work Ethic
- Commercial Awareness
- Active Listening & Providing Feedback

**SKILLS GAINED DURING ACADEMIC RESEARCH**

- Leadership / Mentorship
- Grant / Paper Writing
- Presentation / Public Speaking
- Problem Solving
- Data Analysis
- Time Management / Organization
- Goal Setting
- Interpersonal Skills
- Collaboration
- Networking
- Finance / Budgets
- Teaching
- Work / Life Integration
- Resilience
**TRANSLATING YOUR ACADEMIC SKILLS**

**Research**
- Identify, investigate, and creatively solve problems
- Critically engage with, distill, and synthesize large bodies of information
- Work independently
- Meet deadlines
- Master multiple research methodologies
- Implement feedback from various sources, including supervisors and peers

**Research (continued)**
- Review literature
- Analyze data
- Interpret results
- Identify limitations of current work
- Strategize and develop new lines of investigation

**Writing and Presenting**
- Write in multiple styles, across a variety of platforms, and for different audiences
- Deliver presentations at national conferences
- Engage with colleagues about topics important to the field
- PERSUASIVE Communication

**Project Management and Coordination**
- Collaborate with a team to achieve a common goal or problem
- Transition smoothly between leadership and support roles
- Manage multiple projects simultaneously
- Strategize/Plan project from inception to completion

**Supervision, Management, and Leadership**
- Managing staff
- Training staff
- Delegate tasks as needed
- Facilitate communication among multiple stakeholders
- Provide constructive feedback
- Track progress, evaluate performance
- Develop staff (promote skill development)
- Handle complex situations and conflict
TRANSLATING YOUR ACADEMIC SKILLS

Teaching
• Convey complex content to diverse audiences
• Create Lecture content – synthesize material
• Lead discussion
• Think on your feet
• Engage audience
• (and so much more)

Additionally...
• Communicate effectively across cultures
• Perform technical work, graphic design
• Secure grant funding
• Using social media savvy in professional context

SUMMARIZING...
• Ability to make decisions and solve problems
• Oral communications skills
• Ability to gather and interpret information
• Written communication skills
• Ability to learn quickly
• Ability to manage a project
• Ability to analyze data
• Creative thinking
• Disciple-specific knowledge

21st Century Skills
• Critical Thinking
• Communication
• Creativity
• Collaboration
• Resiliency

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UNDERSTANDING THE SKILLS NEEDED IN SPECIFIC CAREER SECTORS AND/OR SPECIFIC JOBS

WHAT TYPES OF CAREERS CAN PHD'S DO?

ACADEMICS!!!

Consulting  Teaching  Writing  Entrepreneur  Finance
Pharma/Biotech  Law  Government  Public Policy  Sales
Tech Transfer  Venture Capital  Non-Profit

ACADEMICS

Faculty  Graduate Administrator  Lab Manager  Research Scientist
Data Analyst  Clinical Trial Coordinator/Manager  Clinical, Scientific, Core Faculty  Curriculum Developer

PHARMA/BIOTECH

Scientist  Product Development  Scientist  Program Manager  Data Scientist
Regulatory Affairs  Clinical Trials  Data Analyst  Communications Writer
Marketing Operations  Technical Sales Representative  Research Assistant  Principal Investigator

WRITING (OFTEN PHARMA, ALSO NON-PROFITS)

Medical Communication
Improve communication of medical and health care topics by creating regulatory documents, patient brochures, physician articles, sales training material, etc.

Medical Communications Specialist – writing and editing materials that help healthcare organizations use with patients, client, medical professionals,
Skills: Organize, edit, communicate to target audience, broad knowledge of science

Science Communication
Science Journalist, Editor or scientific publisher, Academic Editors, Grant Writer
Facilitate publication of a Journal
Edit or Write journal articles for clients
Write for a Journal, newspaper, website, professional society, government entity
Skills: Organize, edit, communicate to target audience, broad knowledge of science, targeted knowledge in your field
**MEDICAL SCIENCE LIAISON**

Found in a variety of pharma, biotech, medical device sectors

It’s not a sales position!

MSLs are scientifically trained field personnel, part of company’s medical staff.

Primary role is to learn and teach; through communication with physicians gain deeper knowledge of therapeutic areas and medical and scientific issues; need extensive clinical or medical knowledge; work independently

Travel extensively

Skills: Relationship building; strong communication skills; relevant scientific knowledge is key

Experience as Clinical Research Associate may improve candidacy

**BUSINESS DEVELOPMENT MANAGER**

PhDs understand complex tech, crucial for tech-based sectors e.g. biotech, software, electronics, pharma

Responsible for developing new business opportunities, managing existing products, developing market strategies, building new business partnerships

Prioritize innovative products based on market needs and competitor positioning

Skills – scientific knowledge, analytical skills, understand market trends; presentation skills, teaching skills

**PRODUCT MANAGER**

Responsible for managing entire life-cycle of an innovative product or service: product development & management of product launch

Analyze product’s market performance and ways to improve commercial success

Role is multifunctional and demand collaboration across multiple divisions of an organization

Identify market needs, communicate needs to team, find innovative solutions to needs

**GOVERNMENT**

**NONPROFITS**

**CONSULTING**

Strong technical background and trained to troubleshoot problems

Design unique strategies to overcome identified problems

Myth that this requires industry experience

Skills

Collaboration, communication (team, presentations, written), leadership, problem solving
ENTREPRENEUR — FINANCE

Entrepreneur
Use your own original creative product or service idea and build a business around it

Finance
Applying your quantitative, statistical, or research skills at a global bank, investment banking firm, or private trading company.
Quantitative Analyst - Quantitative data analysis, financial research, statistical modeling, pattern recognition.
Science PhDs recruited for ability to conduct independent research, scientific understanding.

COMMUNICATE YOUR SKILLS

APPLICATION MATERIALS

CV OR RESUME
COVER LETTER
RESEARCH STATEMENT
TEACHING STATEMENT
REFERENCES
DIVERSITY STATEMENT
(LINKEDIN)

COMPONENTS OF A RESUME

Name + degree, email, phone number, LinkedIn.
Key Skills/Qualifications
5-7 bullets describing 3-5 major job requirements (targeted).
Professional Experiences
Additional Info
Education (list)

EXAMPLE JOB AD

Are you interested in being a part of a multidisciplinary team working to discover and develop novel cancer medicines? If so, the Cancer Epigenetics Research Unit within Oncology is seeking an accomplished, highly ambitious scientist to make important contributions to drug discovery and biomarker development and the Investigator role could be an ideal opportunity to explore.

As a Cancer Epigenetics Biology Investigator, you will identify and evaluate new drug targets, be a key biology contributor to drug discovery teams, and contribute to strategic planning for the Cancer Epigenetics Research Unit. Your industry-leading research will address important drug discovery questions, directly impact GSK Oncology’s pipeline, and lead to publication in top scientific journals.

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EXAMPLE JOB AD

This role will provide YOU the opportunity to lead key activities to progress YOUR career. These responsibilities include some of the following:

• Independently designing, conducting, and analyzing cellular and molecular biology experiments.
• Working directly with internal and external scientists as part of research collaborations.
• Directing contract research studies.

Basic Qualifications:

We are looking for professionals with these required skills to achieve our goals:

• Ph.D. in molecular biology, cell biology or a related field with 2-6 years postdoctoral experience or M.S. with 3+ years industry experience.
• A strong scientific background in cancer biology with multiple relevant publications.
• Attention to detail, proficient reasoning skills in experimental design, execution, data analysis, statistical methods, and interpretation.
• Excellent written and verbal communication skills.
• Ability and desire to work as part of a matrix team.
• Adept at managing multiple priorities in an efficient and organized manner.

Preferred Qualifications:

If you have the following characteristics, it would be a plus:

• Scientific and technical expertise in the fields of epigenetics, quantitative cellular pharmacology, and/or cancer genetics.
• Technical expertise in cell-based assay development, RNAi, ChIP, RT-qPCR, FACS, protein expression (e.g. ELISA, western blot), and cell migration/invasion assays.
• Demonstrated ability analyzing and interpreting genetic and genomic data (e.g. gene expression, copy number, mutation, DNA methylation and/or ChIP-seq).
• Cancer drug discovery experience.

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KEY SKILLS EMPHASIS

Drug Discovery &
associated technical expertise

Communication and publication

Collaboration

Design, direction, management of research projects

BULLETS FOR KEY SKILLS / PROFESSIONAL EXPERIENCES

Paid and Volunteer Roles – what skills do they highlight?

Describe skills involved in each role relevant to job

Metrics show impact, skill level

Chronological or by Relevance

185 Power Verbs (themuse.com)

HOW TO WRITE THE BULLETS (KEY SKILLS)

They want:

- Ph.D. in molecular biology, cell biology or a related field with 2-6 years postdoctoral experience or M.S. with 3+ years industry experience.
- A strong scientific background in cancer biology
- Scientific and technical expertise in the fields of epigenetics, quantitative cellular pharmacology, and/or cancer genetics.

First draft bullet:

• 10 years of academic and industrial experience in cancer biology

Instead!

• 10 years of experience as an academic and industrial scientist in cancer biology and genetics with focus in biomarker identification for application to drug discovery

HOW TO WRITE THE BULLETS (PROF EXPER)

- RNAi
- RT-qPCR
- Western Blot
- shRNA, siRNA, lentiviral

Instead

- Developed and optimized stable as well as inducible cell line models to validate target genes and pathways using proprietary state-of-the-art gene editing tools such as lentiviral, shRNA, siRNA

HOW TO WRITE THE BULLETS

First draft bullet

• Experienced researcher in evaluating small molecule inhibitors in cell lines, now in clinical trials

Instead

• Investigated and evaluated small molecule inhibitors in cell lines, now in clinical trials

HOW TO WRITE THE BULLETS

Use the language from the job description to guide you!

- Independently designing, conducting, and analyzing cellular and molecular biology experiments.
- Working directly with internal and external scientists as part of research collaborations.

Your impactful bullets

- Design, conduct, and analyze ... 
- Collaborate with internal and external scientists ...
- Communicated scientific research to diverse audiences at national and international conferences; received travel awards.
TAKE HOME MESSAGES

- Understand/identify your highly marketable skills
- Enthusiasm, positivity
- Clearly communicate the value of your skillset
- Be assertive about value you potentially bring to the role
- Have a growth mindset – identify skills to learn, apply, teach

HTTPS://WWW.LINKEDIN.COM/IN/TRACYCOSTELLO
TWITTER: @COACH4POSTDOCS
TRACYCOSTELLO@COACH4POSTDOCS.COM

Thank you for the gift of your time and attention today!

Leveraging LinkedIn
Feb. 24, 2021
3-5pm

SPRING 2021 DOCTORAL & POSTDOCTORAL PROFESSIONALISM SERIES:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leveraging LinkedIn</td>
<td>Feb. 24</td>
</tr>
<tr>
<td>Preparing a Resume for Employment Outside of Academia</td>
<td>March 16</td>
</tr>
<tr>
<td>Maximizing Mentoring Relationships</td>
<td>March 31</td>
</tr>
<tr>
<td>Interviewing Tips and Strategies for Success</td>
<td>April 14</td>
</tr>
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Learn more and register at: dpcd.pitt.edu/calendar-of-events