

# Postdoc Career Club

University of Pittsburgh Postdoc Association

Career Development Chair: Caitlin Czajka, PhD

June 2, 2016

# Why are we here?

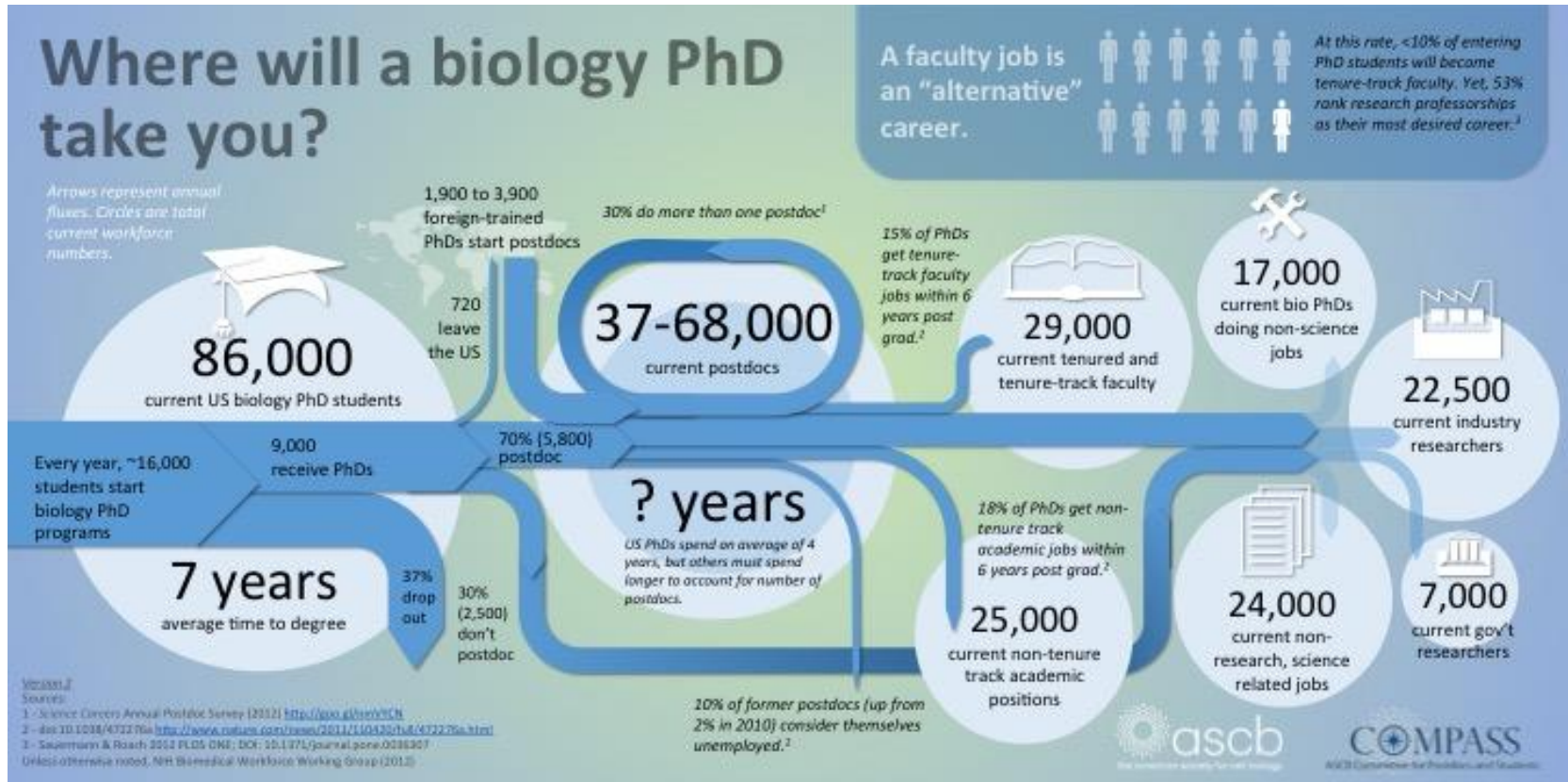
- UPPDA mission:

Facilitate constructive and positive experience for Postdoc Professionals that will benefit Postdoc Professionals and U. of Pitt

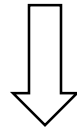
- Career Development focus:

Provide centralized resources for career development, postdoc training opportunities, job placement resources and alternative career path information

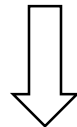
# Why are we here?



Skills inventory



Achievement / Results statements



Master resume

# Skills inventory

- What do you **know how** to do?
- What do you **enjoy** doing?
- What do you **want to be** doing?

(You have more skills than you know)

# Skills inventory

Skills Potentially Used During Your Research Experience				
Skill Category	Specific skill	Highly or moderately proficient in	Enjoy using	Required in job
Relationship	Work in teams on a project (with undergrads, grad students, postdocs, staff, professors)			
	Network with others in order to collaborate, share resources, brainstorm			
	Train undergraduates, graduate students, or postdocs			
	Serve as a liaison among professors, staff, and students to facilitate communication and build partnerships			
	Maintain long-term relationships with mentors and advisors			
Communication	Present research (invited talks at conferences, poster presentations, Powerpoint presentations)			
	Translate languages			
	Convert technical language into lay language			
	Write a grant			
	Persuade advisor about your idea			
	Write papers, book chapter, dissertation			
	Edit/copyedit colleagues' work, your own work			
	Write reviews for papers or books			
	Read, write, and / or speak foreign language(s)			
	Provide diplomatic answers to advisors/colleagues' ideas and provide constructive criticism			
Negotiate with your advisor your timeline for exams, finishing your thesis				
Attribute work properly (references, giving credit to colleagues)				
Creative	Brainstorm ideas for your thesis			
	Find alternative solutions or arguments			
	Identify new topic in field to be addressed in your thesis (potentially combining new fields of thought)			
	Create an original work (could be a molecule, musical composition, article, or building)			
	Develop new techniques or protocols			

# Skills inventory

Potential Personal Qualities			
Personal Quality	Highly or moderately proficient in	Enjoy using	Required in job
Ambitious			
Calm in a high-pressure environment			
Comfortable with ambiguity or situations where there isn't a clear solution			
Competitive			
Compassionate			
Creative			
Detail-oriented			
Energetic			
Entrepreneurial			
Ethical			
Flexible/adaptable			
Goal-oriented			
Hard-working			

# Skills inventory – example

- Conflict resolution
- Dependable
- Self-motivated
- Communication
- Project management
- Detail-oriented

***How do you convey the value of your skills?***



1. Give context (Project)
2. Quantify your skills (Accomplishments)
3. Identify the impact (Results)

# Achievement/results statements



## SKILLS TO RESULTS WORKSHEET

Where you are right now in the Career Development Cycle:

Project you did:

Skill	Accomplishment	Result

# Achievement statements – example

## Project: reorganizing mouse colony database

### **Skill**

- Organization
- Project management
- Detail oriented

### **Accomplishment**

- Revised existing list
- Added details (barcodes)
- Track breeding pairs

### **Result**

- Identify issues with breeders earlier
- Improve efficiency of mouse use (saves \$\$)
- More accurate and timely record of total # cages
- Decreased total # cages to XX

# Achievement statements – example

- Developed breeding strategy to generate cell-specific transgenic mouse
  - Managing 70-cage mouse colony of 7 strains and 6 active breeding sub-colonies.
  - Optimized mouse colony database and generated shared calendar to mitigate animal welfare issues, increase efficiency of shared resource use

## SKILLS:

- **Pharmacology:** Pharmacokinetic, Pharmacodynamic, PBPK,
- **In Silico Analysis:** Phoenix WinNonlin, GastroPlus, MATLAB
- **ADME-Tox Assays:** Intestinal Absorption, Drug Transporter
- **Analytical Chemistry:** HPLC, Mass Spectrometry, Spectroscopy
- **Cell Culture:** Bacterial Culture, 2I
- **Other:** Biomaterials, Microfluidics

## SKILLS

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## TECHNICAL SKILLS

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- Programming: Matlab, Python, Fortran, V
- Electromagnetic transient simulation: EM
- Algorithms: Evolutionary Algorithms, Mc...
- Application: Microsoft office (Word, Excel, Powerpoint, etc)
- **Experimental expertise:** Device fabrication, lithography, CVD (AFM, ALD, PVD, SEM, clean rooms and safety procedures, dry an aerogel.
- **Optics and Spectroscopy:** Raman, absorption.
- **Theory and computer:** Group theory, OriginLab, Microsoft Office,
- **Language:** English (fluent); Portuguese (native).

Texas A&M University College Station, TX

### Research Assistant

- Led project team that discovered new highly conductive semiconductors bas polymers of Cu(I) ions and organic radicals of tetracyanoquinodimethane (TC
- Discovered new types of magnetic materials based on lanthanide and divalent ions bridged by organic radicals of TCNQ derivatives.

### Postdoctoral Associate

- Led a multi-disciplinary team from Masdar Institute and fabricated high efficiency Si-substrate-based III spectrum splitting and concentrating photovoltaics designed high efficiency solar to electric energy conversion system efficiency by 24% compared to PV-only systems
- Member of a team that designed, fabricated and ch

### Department of Materials Science and Engineering, MIT, Research Assistant

- Invented textured photonic crystal (TPC) back reflector reflectivity photonic crystal for light trapping in thin film
- Verified the substantial efficiency enhancement capability insulator thin film solar cells integrated with TPC back

# Master resume

- List of all your skills and impact (project, achievement, results)
- Select specific items to tailor your resume to the job you are seeking

## Research Experience

Department of Medicine, University of Pittsburgh – Postdoctoral Associate

- Evaluating skeletal muscle regeneration and wound healing using ACell® MicroM decellularized porcine urinary bladder matrix-derived powder in a murine model of induced ischemic and non-ischemic hind limb volumetric muscle loss.
  - Verification of femoral artery ligation-induced ischemia model and surgical biceps femoris and quadriceps femoris volumetric muscle loss model.
  - Performed 80 successful survival surgeries within 6 months, assessing outcomes via Doppler, quantitative PCR, and immunohistochemical analysis.
  - Presented cumulative budget and progress reports to industry sponsor with report study outcomes in a scientific publication (in preparation, 2016).
- Analyzing the vasoactive profile of ovine, rodent, and human (fetal and adult) arteries and wire myography under normal, aged, and diseased states.
  - Collaborating with the Department of Bioengineering to characterize polymer-engineered carotid arteries and native carotid arteries in 5 and 16 month-old mice.
  - Isolating smooth muscle cells from rodent and ovine arterial sources to characterize vascular phenotype.
- Identifying the roles of actin cytoskeleton in mediating Thrombospondin-1 signaling receptor to inhibit cellular self-renewal in human proximal tubule renal epithelial cells.
  - Developed NRSA F32 Individual Fellowship application (submitted April, 2015).
- Developed breeding strategy to generate a cell-specific CD47 knockout mouse using Cre-LoxP expressing heterozygote obtained from the KOMP repository.
  - Managing mouse colony consisting of 7 strains and 6 active breeding sublines, total of approximately 70 cages.
  - Optimized mouse colony database and generated a shared calendar, which addressed animal welfare issues and increased efficiency of shared resource use.
- Investigating the effects of dimethyl fumarate intervention on matrix protein expression and regulation in primary human smooth muscle cells from Pulmonary Hypertensive r

# Questions?

## Postdoctoral Association

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### Career Development

Chair: [Caitlin Czajka](#)

Our long-standing Career Development activities can be found on our [Career Events](#) page, and be sure to check out the [Calendar](#) on the main page for upcoming events. The [OACD website](#) also holds a wealth of information on workshops and seminars (see sidebar content), and other [general information for postdocs](#).

The Career Development Committee is also kicking off the Postdoc Career Club, which will be hosting a series of career development events. The inaugural Career Club event will be a peer-to-peer CV/resume workshop this Thursday, June 2nd at 5:30. For more information about this event, [click here](#). Stay tuned for more Career Club resources to come!

#### LOCAL EVENTS

- **BioBreakfast:** BioBreakfast is a weekly gathering of individuals in the Pittsburgh life sciences sector from 8-10 am every Tuesday at the Pittsburgh Technology Council on Technology Drive. For more information about BioBreakfast, visit their website [here](#).
- **Starting Your First Lab Seminar:** The UPPDA recently co-hosted a seminar with the [WSMA](#) on "Starting Your First Lab". Dr. Schlomchick in the Department of Immunology graciously shared his very informative [presentation](#) with us.
- **Postdoc Career Club:** A peer-to-peer CV/resume event will be held on June 2nd at the Wyndham lounge on campus. Check out the [flyer](#) for details.

#### HIRING RESOURCES

Looking for a job in Pittsburgh? NEXT Pittsburgh lists job postings every Monday and Thursday. Check out [their website](#) for current listings. Career information can also be found at [Imagine Pittsburgh](#). Looking for a job in the health sciences outside of Pittsburgh? Sign up to become a member of [The Dropout Club](#), the networking website for doctors and scientists seeking innovative careers.

#### INTERNSHIP/FELLOWSHIP/SCHOLARSHIP OPPORTUNITIES

- **bioStratics Internship:** Part-time job opportunity with bioStratica for Project Managers and Innovation Associates for the Pittsburgh Health Data Alliance. bioStratica is a specialty strategic marketing firm focused on academic translational development intersecting biotechnology, healthcare information systems, and medicine. For more information, see the [flyer here](#).
- **Fullbright Scholar Program:** Think Fullbright Scholarships are just for students finishing their undergrad degree? Think again! Click [here](#) for more information about Fullbright Postdoctoral Scholar Awards. The 2016 application deadline is **August 1**.



#### Postdoc Spotlight - Dr. Cassandra Thiel

This month's speaker, Dr. Cassandra Thiel, is a postdoctoral scholar in the Civil and Environmental Engineering Department in the Swanson School of Engineering. She earned her Ph.D. in Civil Engineering here at Pitt. Her current research focuses on assessing the cost vs. environmental impact of surgical methods in order to develop sustainable healthcare networks. Dr. Thiel will be giving her talk titled "Improving Efficiency in Medicine: Quantifying Environmental Emissions and Resource-Use of Surgery" on **Wednesday, June 15th, 2016 in Room 123 BST**.

To learn more about Dr. Thiel, click [here](#).

To register for this month's

# Next up: peer-to-peer editing