SciPhD Training

Preparing Scientists for Successful Careers in Industry

Human Workflows, LLC

Preparing for Professional Careers

UNIVERSITY OF LOUISVILLE®

SCHOOL OF MEDICINE

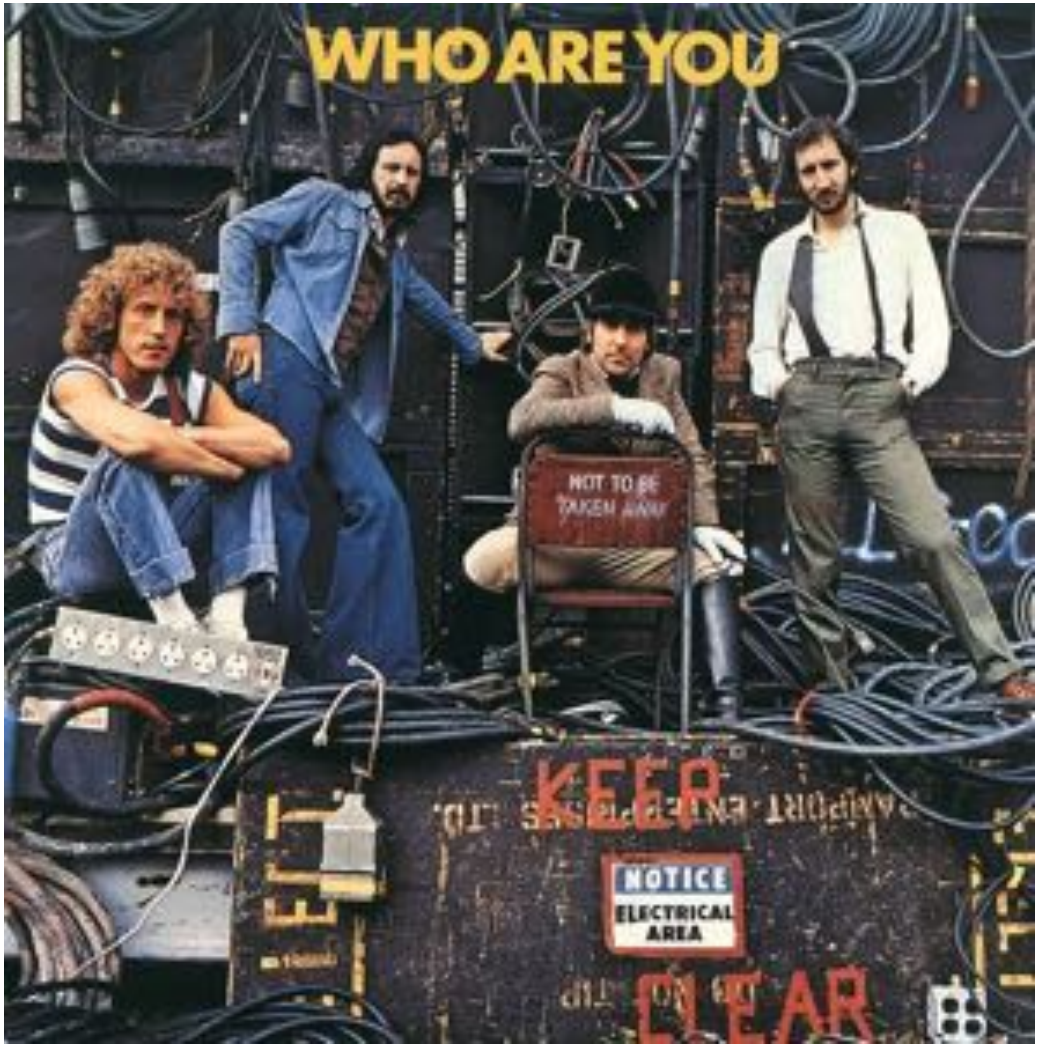
March 10, 2016

Randall Ribaudo, PhD

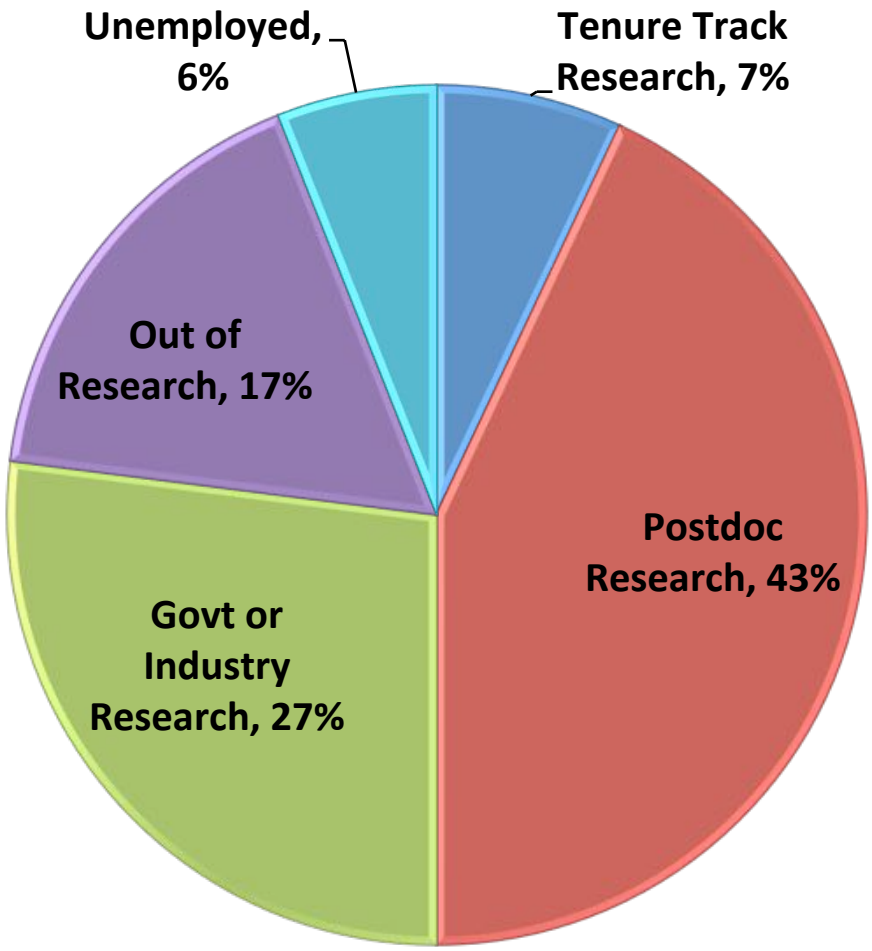
Human Workflows, LLC

Co-founder, SciPhD.com

Who Do We Have Here?



Employment of Young Biomedical PhD's



Source: USA Today March 29, 2013

What's Out There?

- Kinds of Companies
  - Large Pharma
  - Biotechs & Engineering Firms
  - Medical Devices and Diagnostics
  - Non-profits, NGOs
  - Venture Capital
  - Legal/Patent related
  - Consulting firms

SciPhD Job Ontology

Job Category

Research and Development
- Discovery Research
- Pre-clinical Research
- Clinical Research
- Clinical Development

Communications
- Product Support
- Technical Support
- Applications Specialist
- Sales
- Marketing
- Science Writing/Communications
- Corporate Communications

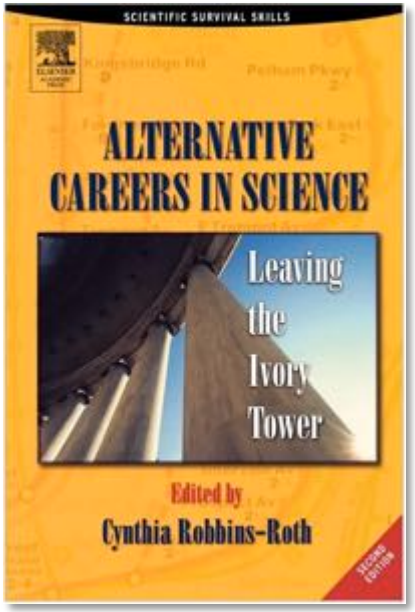
Operations
- Engineering & Manufacturing
- Business Research Analyst
- Project Management
- Quality Assurance & Quality Control
- Bio IT
- Recruiting

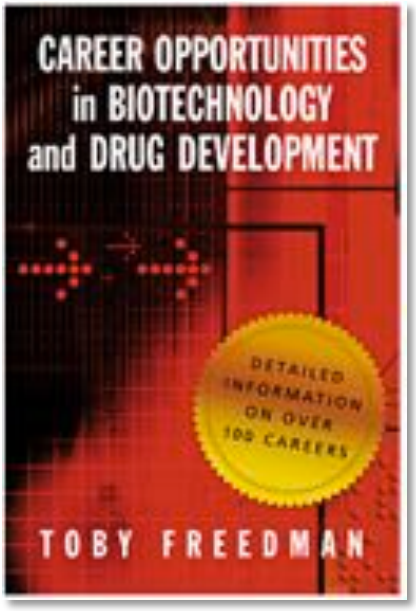
Job Category

Business Enterprise
- Business Development
- Venture Capital & Banking
- Technology Transfer & Patenting
- Equity Analyst
- Executive Leadership

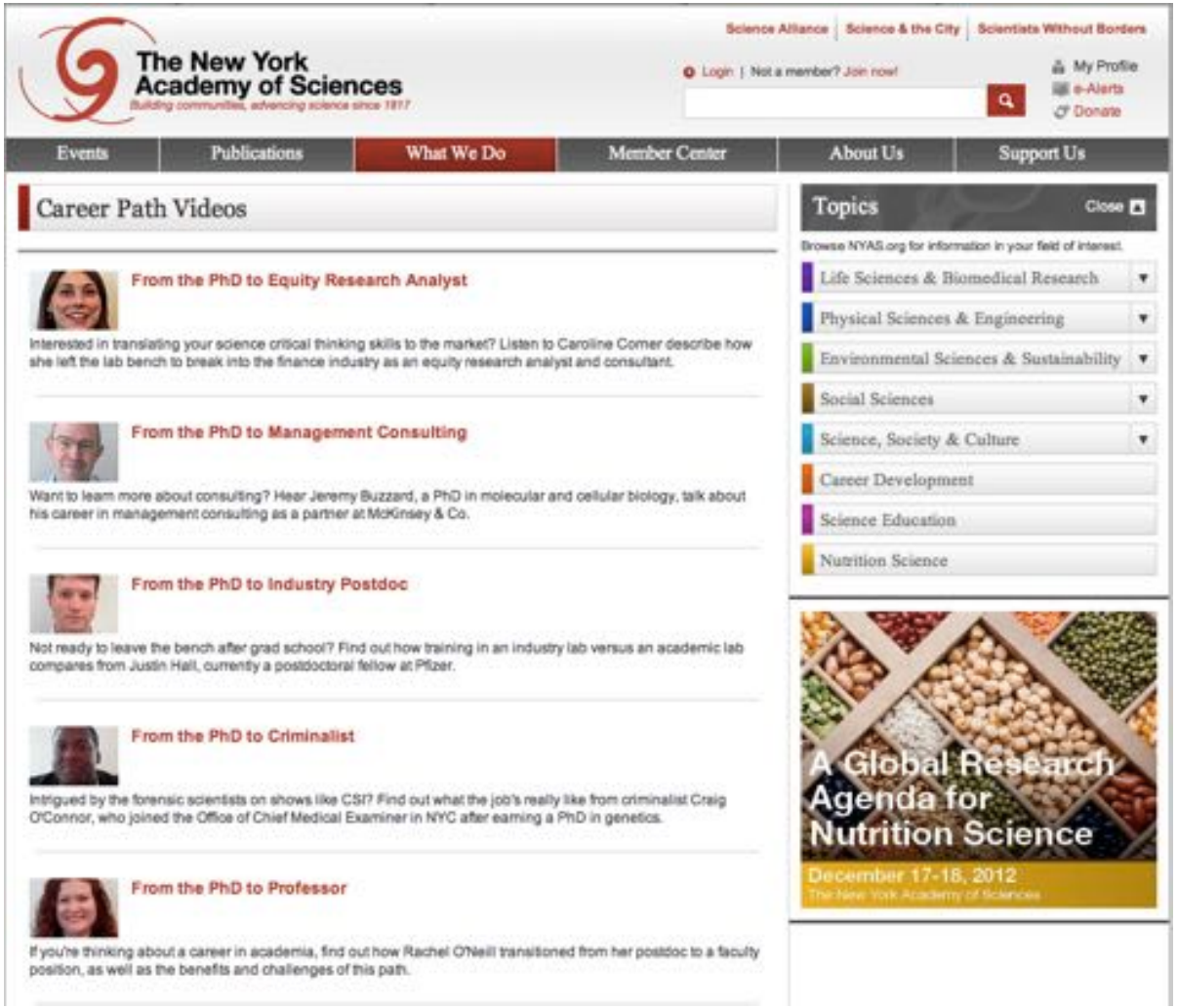
Legal
- Medical Affairs
- Regulatory Affairs
- Patent Agent
- Patent Examiner
- General Counsel
- IP Counsel
- Litigation
- Technology Transfer

References for Industry Jobs





Career Path Videos: New York Academy of Sciences



http://www.nyas.org/WhatWeDo/CareerVideos.aspx

Agenda

- The Business of Science
- What are the critical skills?
- How to market yourself for jobs
  - Deciphering job ads
  - Targeted resumes
  - Leveraging your network
  - Preparing for Interviews

Class Activity: Your Concerns

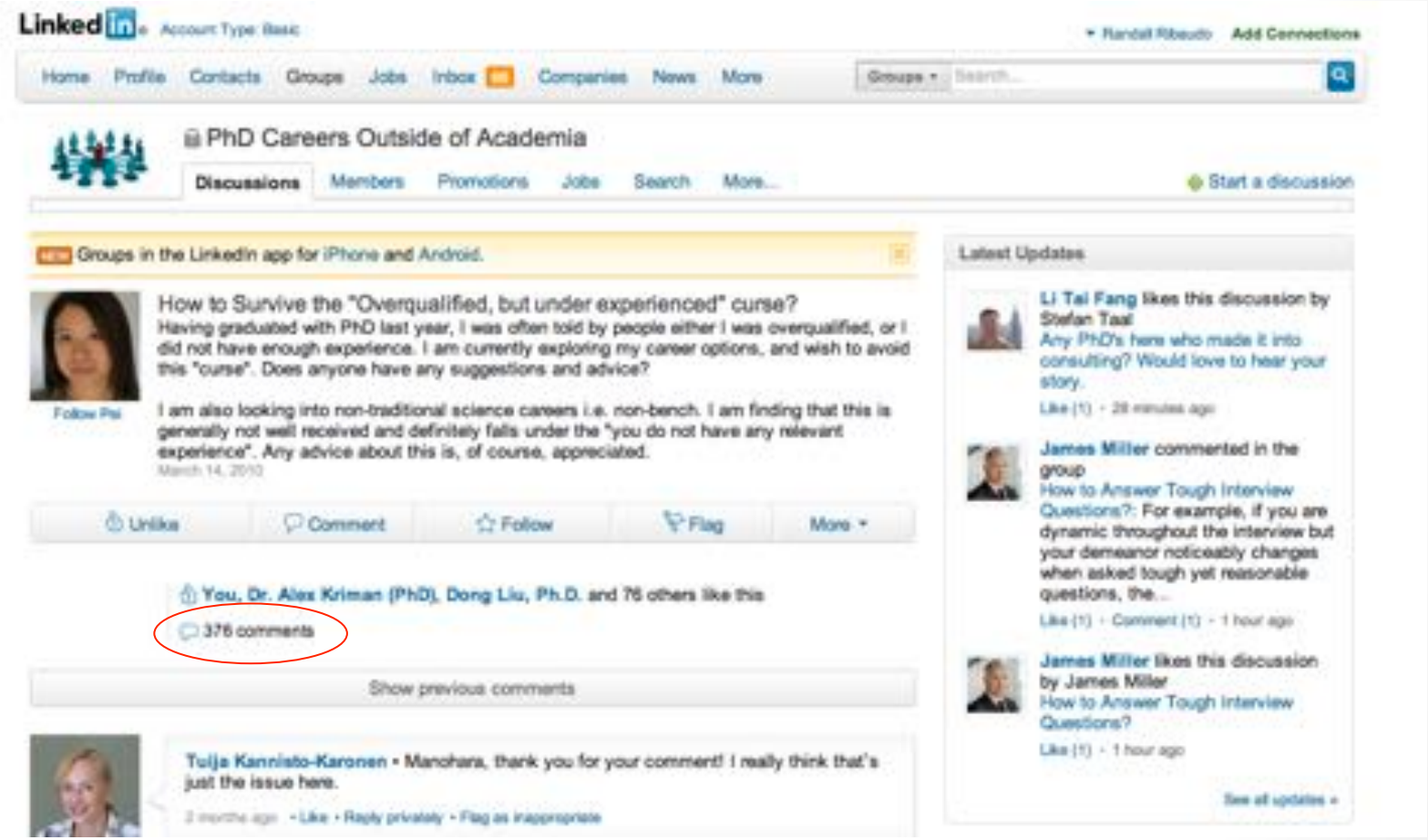
At your tables, list the top three concerns you have regarding leaving academia

1.

2.

3.

Myth: Postdocs are “Over-qualified and Under-experienced”

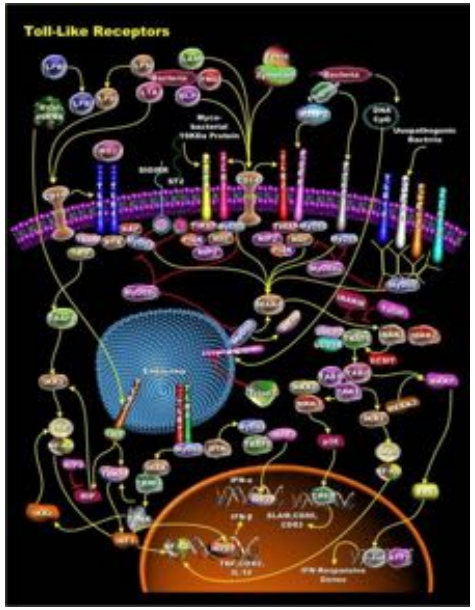


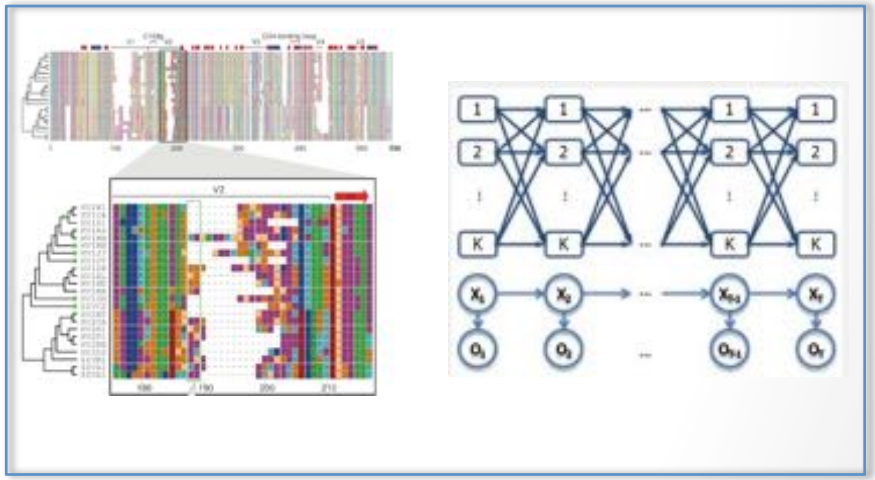
The “Science of Science”…

…and the “Business of Science”

What is the "Science of Science"?

- What drives your science?
  - Knowledge
  - Solving a problem
  - Understanding mechanisms





“Science of Science” Considerations

- Generally work independently
- Make your own decisions
- Plan your own program
- What is your Return on investment?
  - Knowledge
  - Publications
  - Speaking invitations
  - Complete your PhD
  - Get a Job (postdoc, “permanent” position)

What about the Business of Science?

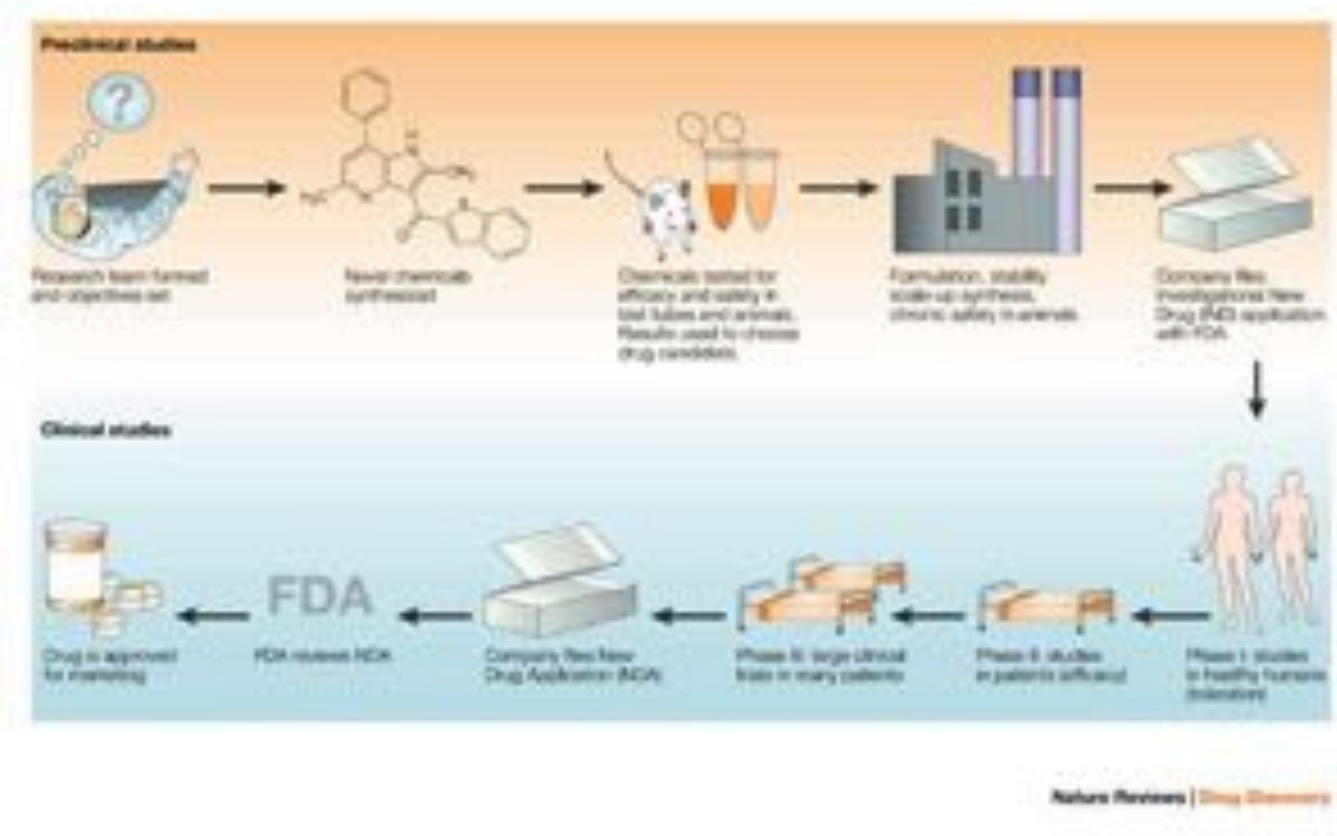
Two Rules of Business (USA)

- By definition, a Business must make a profit. The tax code requires a profit status. Investors require a profit status.
- A business must constantly compete globally and improve its products and services as well as productivity standards: revenue per employee, return on capital deployed, new drug success rate, …

Results in seeking employees with technical as well as business and social skills.

You are one part of a process

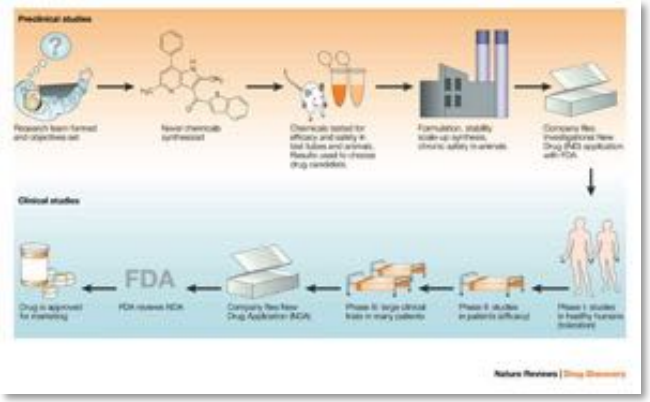
Drug Discovery & Development



$800 Million - $ 1 Billion

“Business” of Science Roles

- Research biologists
- Chemists
- Animal handlers
- Production-scaleup specialists
- Clinical Researchers
- Project managers
- Marketing
- Legal experts
- Regulatory experts
- Sales
- Physician
- Patient



Business Requires Cooperation in the design and execution of excellent science

- Many Roles
- Many Responsibilities
- Tight Coordination
- Tight Communication

Teamwork is essential to success!!

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Teamwork is essential to success!!

…and therefore requires additional skills

What are the Critical Skills?

Job Example: Senior Scientist, Antibody Engineering

Job Description

The candidate will lead a group focused on the establishment and development of innovative recombinant antibody engineering technologies. He/she will develop novel technologies in the areas of antibody discovery to support GSK therapeutic protein and antibody programs in autoimmune, oncology and infectious disease areas. In addition, the candidate will manage internal collaborations with other GSK research and development groups on relevant projects as well as external collaborations/contracts with current or future GSK partners.

Desired Skills & Experience

A PhD in Chemistry, Biochemistry, Molecular Biology or a related field is required in addition to a strong publication record in peer-reviewed journals, demonstrating significant postdoctoral and independent research. The candidate must also have at least five years of demonstrated successful leadership of an academic or industrial research lab group (research associate and Ph.D. scientist) with managerial skills and be able to independently plan, design and execute experiments as well as follow literature, interpret results and direct new approaches. He/she should be passionate about new engineering technologies and have hands-on experiences with all modern molecular biology techniques. The candidate should have broad knowledge of antibody structure and function and have extensive expertise in antibody/protein engineering. The candidate should also have good knowledge of the relevant literature and be able to develop creative solutions to scientific problems. Experience in the application and development of protein and antibody phage/yeast or attentive display methods and high throughput screening/selection are preferred. Strong interdisciplinary problem solving, communication, presentation and writing skills are essential.

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Performance Evaluations

Management Research Group®
There is no limit to where insight can take you

Leadership Skills for Successful Scientists (Source: Management Research Group ®)

- Authority
- Communication
- Consensual
- Conservative
- Control
- Cooperation
- Delegation
- Dominant
- Empathy
- Excitement
- Feedback
- Innovative
- Management Focus
- Outgoing
- Persuasive
- Production
- Restraint
- Self
- Strategic
- Structuring
- Tactical
- Technical

Select the top 3 skills required to succeed in industry

Critical Skills

Source: Management Research Group®

Perceived Value of Doctoral Graduates in Industry

Highly value doctoral graduates
(6%)

Strong interest in doctoral graduates
(25%)

Source: "Recruiting researchers: survey of employer practice 2009"

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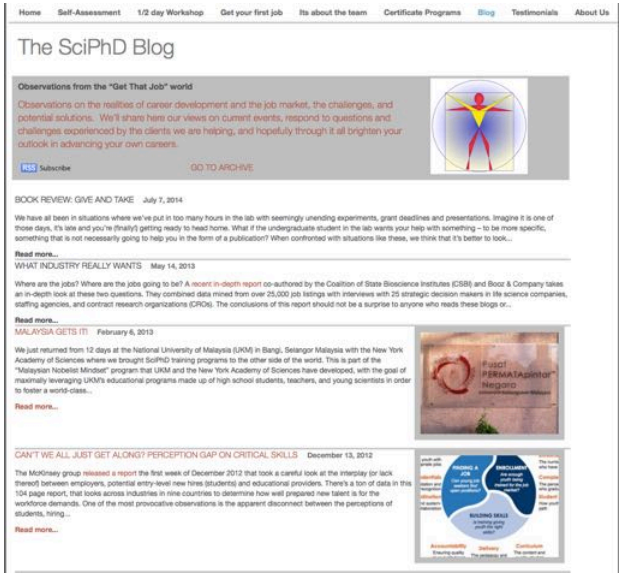
What is your Brand?

"Me Inc."

- Scientific/technical identity
- Business Identity
- Social Identity

My Scientific Identity

- Formal training
- Publications
- References
- Ability to discuss relevant scientific areas



LinkedIn

Bio Careers®
The leading online job board and career service for life science postgraduates.

My Business Identity

- Strategic thinker
- Productivity ("identify, implement and master")
- Highly motivated
- Knowledge of competitors
- Ability to get things done- work independently
- Manage tight timelines and multiple projects
- Financial Drivers
  - Return on Investment
  - Performance Metrics

My Social Identity

- Lead a group
- Work in cross-matrixed teams
- Oral and written presentation/communications skills
- Collaborate across organizations
- Establish and maintain contacts
- Mentor and overseeing others
- Strong interpersonal skills

Social Identity Matters!

Forbes

Hire For Attitude

36 comments, 2 called-out + Comment now

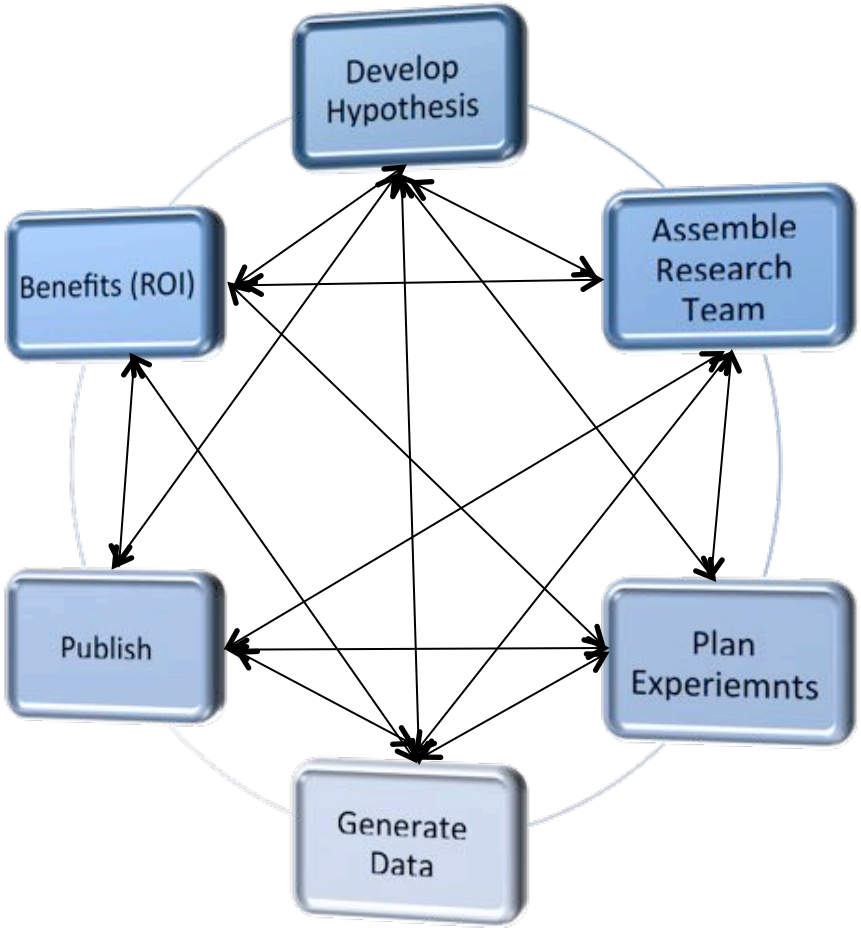
Subscribe to my updates at Facebook.com/DanSchawbel.

Mark Murphy

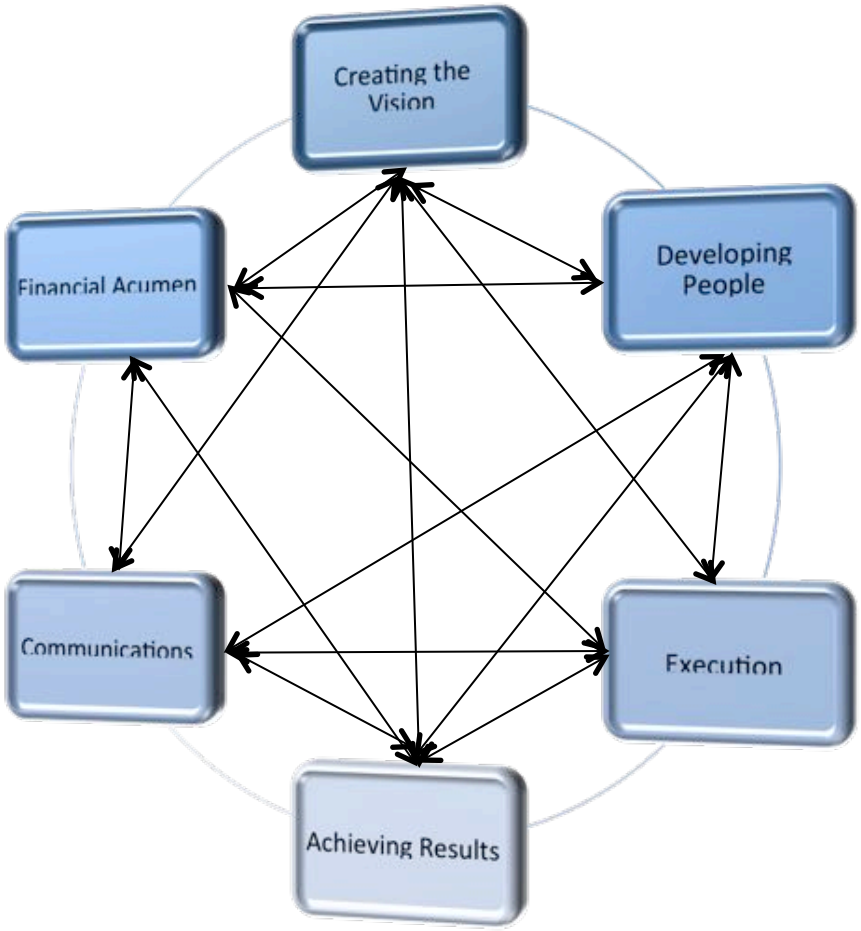
Mark Murphy is the author *Hiring for Attitude*, as well as the bestsellers *Hundred Percenters* and *HARD Goals*. The founder and CEO of Leadership IQ, a top-rated provider of cutting-edge research and leadership training, Mark has personally provided guidance to more than 100,000 leaders from virtually every industry and half the Fortune 500. His public leadership seminars, custom corporate training, and online training programs have yielded remarkable results for companies including Microsoft, IBM, GE, MasterCard, Merck, AstraZeneca, MD Anderson Cancer Center, and Johns Hopkins.

Why do so many fail within the first 18 months of taking a job? When our research tracked 20,000 new hires, 46% of them failed within 18 months. But even more surprising than the failure rate, was that when new hires failed, 89% of the time it was for attitudinal reasons and only 11% of the time for a lack of skill. The attitudinal deficits that doomed these failed hires included a lack of coachability, low levels of emotional intelligence, motivation and temperament.

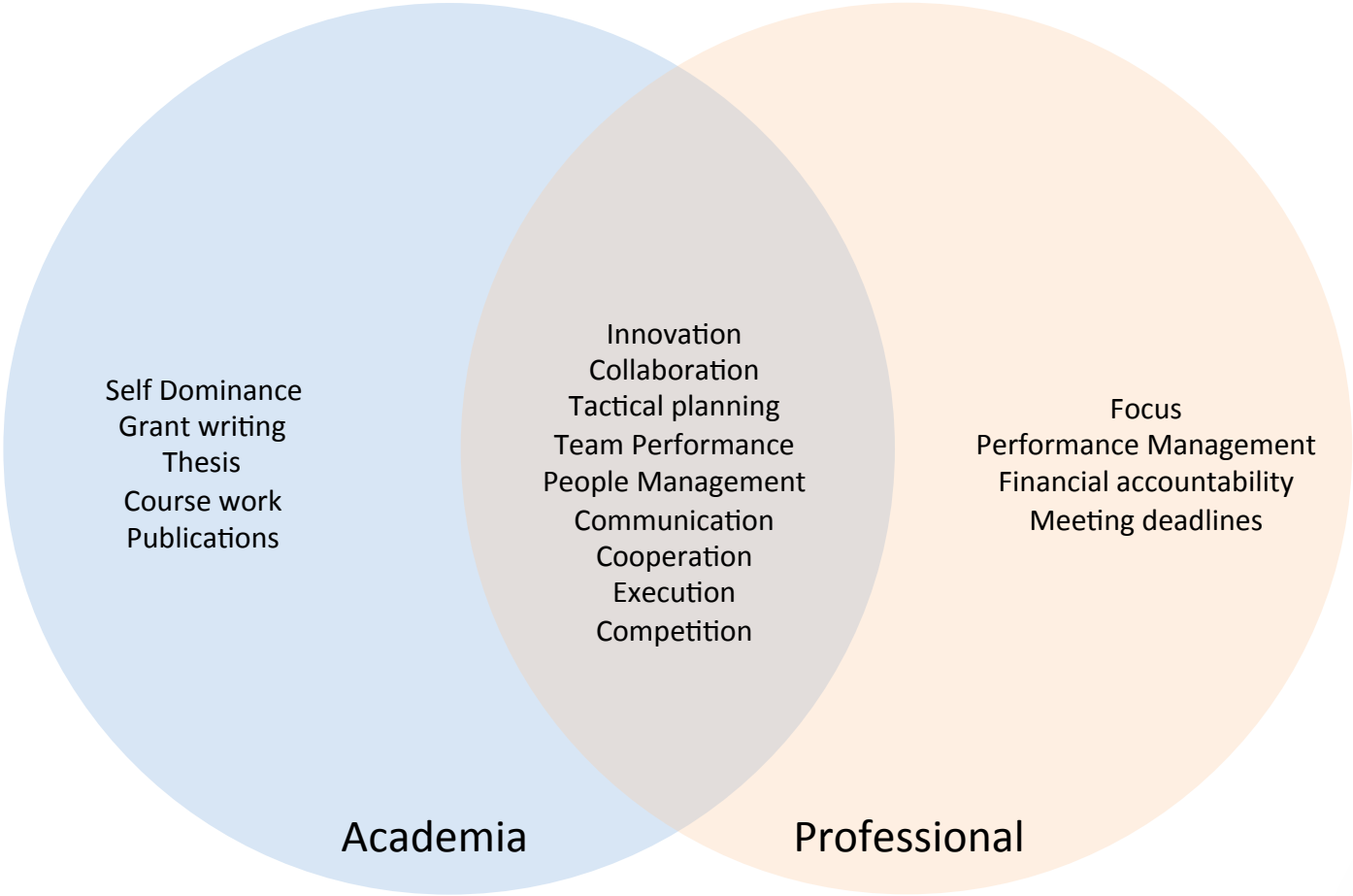
PhD Thesis LifeCycle



Business LifeCycle



Skills in and out of Academia



You DO have the skills!

THE TALENT WITHIN

Top transferable skills for business

If you have earned a science PhD, you were probably told by mentors, advisers and career-development specialists that you will need to develop a lot of new skills to succeed in any sector outside academia. But your PhD programme has already conferred many skills that are important, even crucial, in the business world, and that are comparable to — and in some cases superior to — the talents acquired in a graduate-level business programme. Here are some examples.

- **Data analysis** You were trained to gather, evaluate, synthesize and present data, and to uncover relationships, correlations and trends. The business world increasingly relies on the same methodologies to develop strategies and identify opportunities.
- **Resourcefulness** You probably had to create experiments, methodologies and analyses with limited resources and under tight time constraints. Successful business people are often challenged to develop a product or service while facing the same difficulties.
- **Technological awareness** You were trained to understand the fundamentals of a range of technologies. Many of these technologies are at the heart of products and services in the private sector.
- **Resilience** You may have encountered unexpected setbacks in your research or studies, yet powered through to reach your goals. This resilience in the face of challenge often separates the most successful entrepreneurs from the rest.
- **Project management** Completing a PhD typically requires the coordination and scheduling of disparate resources and individuals — as well as thinking through all aspects of a complex project or activity. The same course of action is a core component of the business world.
- **Problem-solving** You had to use novel thinking and innovative frames of reference to identify and solve technical problems. The ability to reframe problems to identify novel solutions is a key skill in business.
- **English proficiency** You are probably skilled in English, the most prevalent language of international business.
- **Written communication** PhD holders often have extensive experience in writing and describing complex ideas and methodologies. Effective written communication is crucial to business success. PF.

Creating the Vision

"Using Strategic thinking to define the present and future value of your work."

Creating the Vision

- Strategic
- Technical/Scientific
- Innovative
- Risk Management
- Champion/Energy

Innovation

- Using the best technologies and knowledge available to solve scientific problems and answer new questions that distinguishes you from your competitors

Group Exercise

- Q: Provide detailed example(s) of scientific innovation that you are currently using to solve a real problem

- Share examples at your table and select one for the group

Developing People

Establishing relationships and trust with people in your group with the goal of developing an efficient and productive team.

Developing People

- Collaboration
- Enabling
- Empathy
- Rapport

Collaboration

- Coordinated research efforts that rely on the subject matter expertise of multiple scientists in order to solve a complex problem

Collaboration: Business Definitions

- Accommodating the needs and interests of others by being willing to defer performance on your own objectives in order to assist colleagues with theirs.

- Taking the initiative to place individual goals in the service of group goals to help attain a common outcome in terms of people cooperation as well as task accomplishment.

Group Exercise

- Q: Provide example(s) of scientific collaborations that you have experienced in successfully performing your science

- Share examples at your table and select one for the group

Execution

The ability to organize, oversee and control projects with a focus on fulfilling pre-negotiated objectives, on time and on budget.

Execution

- Structuring
- Control
- Tactical
- Delegation

Achieving Results

The ability to deliver high quality results that are accurate, precise, and add to the strategic mission. This requires subject matter expertise as well as awareness of competition.

Achieving Results

- Production
- Focus
- Competition

Communications

Effectively getting your points across to any audience while considering the time you have available, who you are speaking with, and their role with respect to the subject at hand.

Communications/Learning

- Technical Literacy
- Style Flexibility
- Emotional Intelligence
- Social Intelligence

Financial Acumen

- *Understanding of the direct, indirect and hidden costs (both financial and other resources) necessary to perform work.*
- *Being able to determine where efficiencies can be gained based on the return on investment (ROI) in each step of your process.*

Financial Acumen

- Return on Investment
- Internal Rate of Return
- Determining performance metrics
- Managing the Balance Sheet

24 Core Business Competencies

- Creating the Vision
  - Strategic
  - Innovative
  - Risk Management
  - Champion/Energy
- Developing People
  - Collaboration
  - Enabling
  - Empathy
  - Rapport
- Execution
  - Structuring
  - Control
  - Tactical
  - Delegation
- Achieving Results
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  - Style Flexibility
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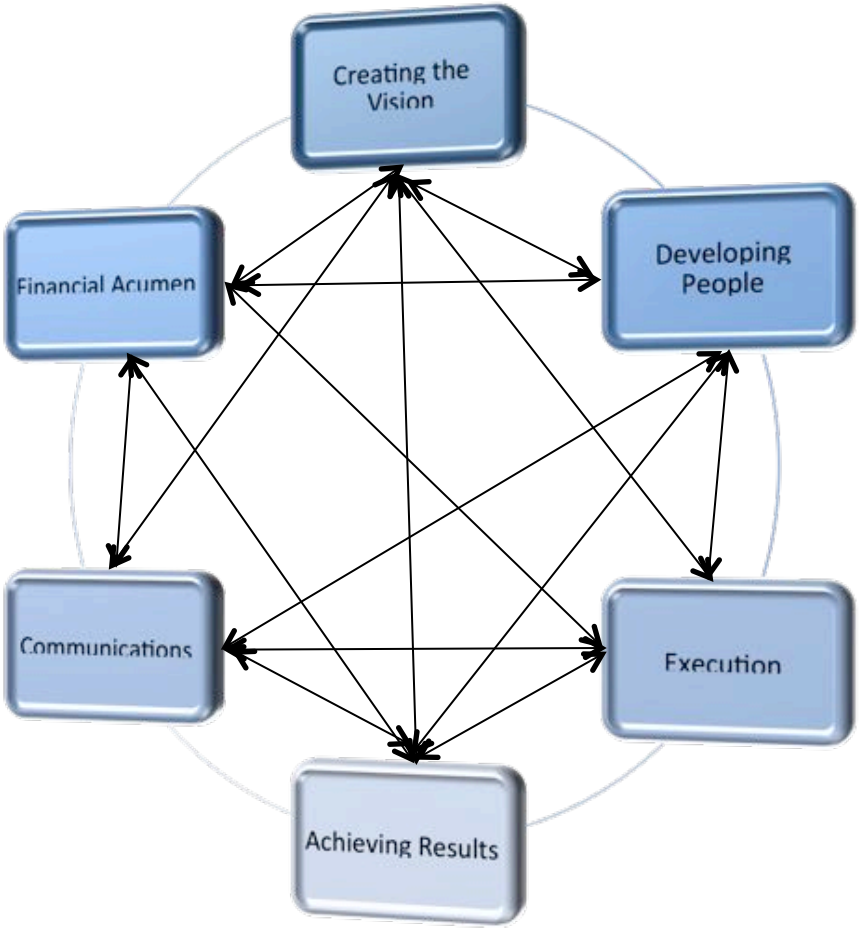
  - Return on Investment
  - Internal Rate of Return
  - Performance Metrics
  - Balance Sheet

Competencies Interact



Mapping Job Posting to Business Competencies

Job Description

The candidate will lead a group focused on the establishment and development of innovative recombinant antibody engineering technologies. He/she will develop novel technologies in the areas of antibody discovery to support HGS therapeutic protein and antibody programs in autoimmune, oncology and infectious disease areas. In addition, the candidate will manage internal collaborations with other HGS research and development groups on relevant projects as well as external collaborations/contracts with current or future HGS partners.

Desired Skills & Experience

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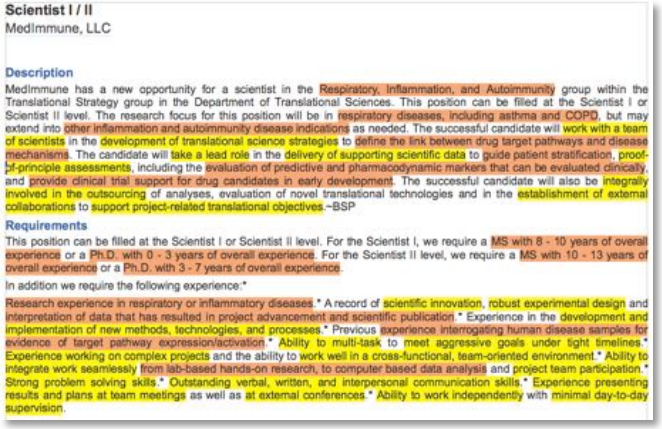
Business Competency Matrix

Company: MedImmune **Position**: Scientist I/II

Competency	Job	Score	Comments
Creating the Vision			
Strategic	XX	5	
Technical/Scientific		5	
Innovative	XXX	5	
Risk Management	XXX	4	
Champion/Energy		4	
Developing People			
Collaboration	XXXXX	4	
Enabling	X	4	
Empathy	X	5	
Rapport	XXXX	5	
Execution			
Structuring	XXXXXXXX	4	
Control	XXXXXXXX	5	
Tactical	XXXXXXX	4	
Delegation		3	
Achieving Results			
Production	XXXXXX	5	
Focus	XXXXXXXX	4	
Competition	X	4	
Communications			
Technical Literacy	XXXXXXX	5	
Style Flexibility	XXXXXX	4	
Emotional Intelligence	XXXXX	5	
Social Intelligence	XXXXX	3	
Financial Acumen			
Return on Investment	XX	3	
Internal Rate of Return	X	3	
Performance Metrics	XX	3	
Balance Sheet			

Homework

Review your job ad and identify all the business and social skills necessary for the job.



Scientist I / II
MedImmune, LLC

Description

MedImmune has a new opportunity for a scientist in the Respiratory, Inflammation, and Autoimmunity group within the Translational Strategy group in the Department of Translational Sciences. This position can be filled at the Scientist I or Scientist II level. The research focus for this position will be in respiratory diseases, including asthma and COPD, but may extend into other inflammation and autoimmunity disease indications as needed. The successful candidate will work with a team of scientists in the development of translational science strategies to define the link between drug target pathways and disease mechanisms. The candidate will take a lead role in the delivery of supporting scientific data to guide patient stratification, proof-of-principle assessments, including the evaluation of predictive and pharmacodynamic markers that can be evaluated clinically, and provide clinical trial support for drug candidates in early development. The successful candidate will also be integrally involved in the outsourcing of analyses, evaluation of novel translational technologies and in the establishment of external collaborations to support project-related translational objectives.~BSP

Requirements

This position can be filled at the Scientist I or Scientist II level. For the Scientist I, we require a MS with 8 - 10 years of overall experience or a Ph.D. with 0 - 3 years of overall experience. For the Scientist II level, we require a MS with 10 - 13 years of overall experience or a Ph.D. with 3 - 7 years of overall experience.

In addition we require the following experience:*

Research experience in respiratory or inflammatory diseases.* A record of scientific innovation, robust experimental design and interpretation of data that has resulted in project advancement and scientific publication.* Experience in the development and implementation of new methods, technologies, and processes.* Previous experience interrogating human disease samples for evidence of target pathway expression/activation.* Ability to multi-task to meet aggressive goals under tight timelines.* Experience working on complex projects and the ability to work well in a cross-functional, team-oriented environment.* Ability to integrate work seamlessly from lab-based hands-on research, to computer based data analysis and project team participation.* Strong problem solving skills.* Outstanding verbal, written, and interpersonal communication skills.* Experience presenting results and plans at team meetings as well as at external conferences.* Ability to work independently with minimal day-to-day supervision.

Job Qualifications Form

Name	
Class	
Date	
Job Title	
Technical Competency	
Industry (In what industry is this position?)	
List your top 3-5 skills for that job	1
	2
	3
	4
	5

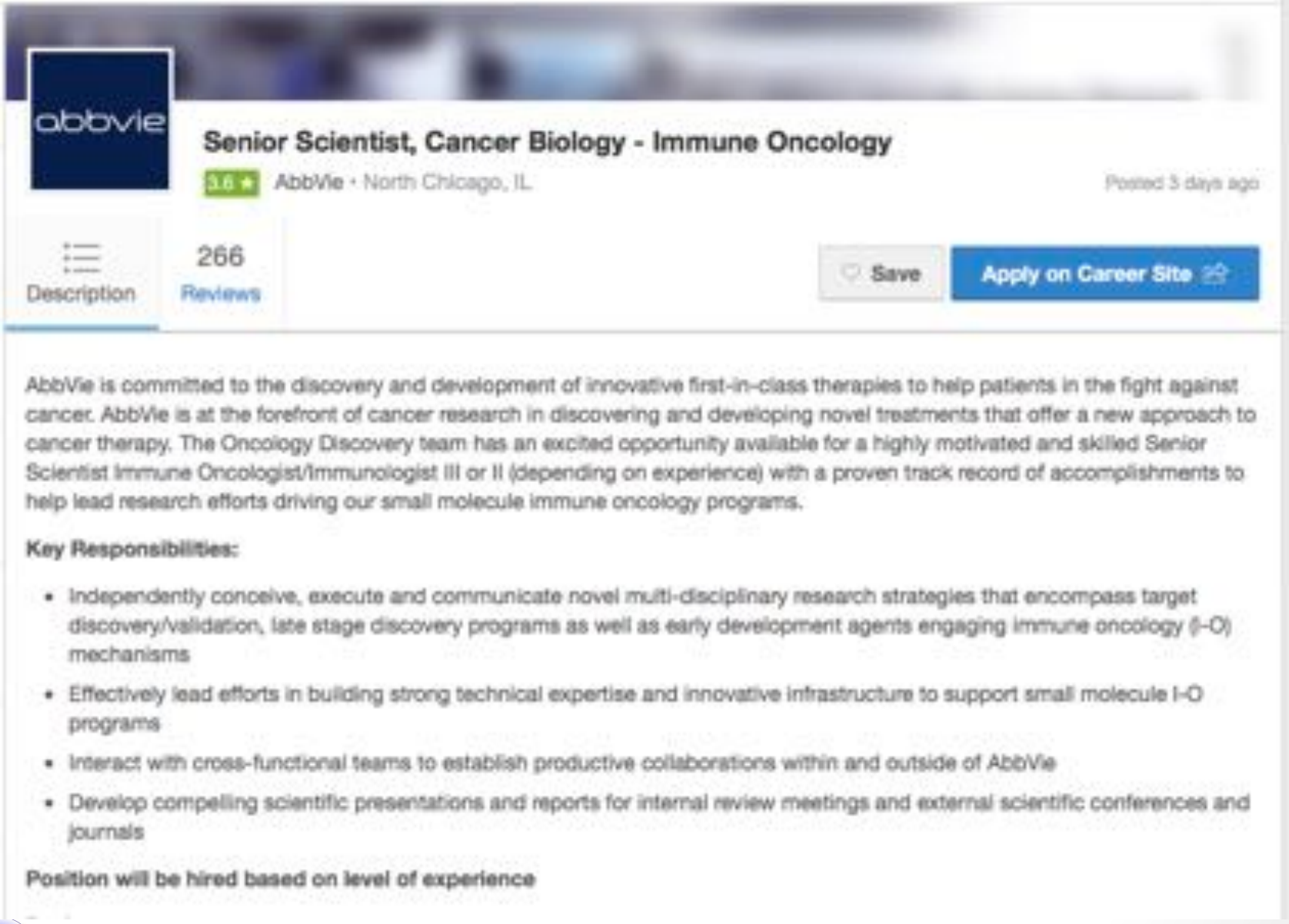
Lets take a break…

Grab lunch and peer coach each other on your Job Qualifications Form

When we come back…

- Deciphering and leverage Job Ads
- Preparing Resumes
- The Interview Process

IDENTIFYING, EXTRACTING AND TRANSLATING CRITICAL BUSINESS COMPETENCY INFORMATION FROM JOB ADS



AbbVie is committed to the discovery and development of innovative first-in-class therapies to help patients in the fight against cancer. AbbVie is at the forefront of cancer research in discovering and developing novel treatments that offer a new approach to cancer therapy. The Oncology Discovery team has an excited opportunity available for a highly motivated and skilled Senior Scientist Immune Oncologist/Immunologist III or II (depending on experience) with a proven track record of accomplishments to help lead research efforts driving our small molecule immune oncology programs.

Key Responsibilities:

- Independently conceive, execute and communicate novel multi-disciplinary research strategies that encompass target discovery/validation, late stage discovery programs as well as early development agents engaging immune oncology (I-O) mechanisms
- Effectively lead efforts in building strong technical expertise and innovative infrastructure to support small molecule I-O programs
- Interact with cross-functional teams to establish productive collaborations within and outside of AbbVie
- Develop compelling scientific presentations and reports for internal review meetings and external scientific conferences and journals

Position will be hired based on level of experience

Basic:

- Extensive laboratory research experience and a desire to continue in a laboratory-focused role
- Demonstrated record of creativity and scientific achievements, i.e., strong publication and/or patent record
- Broad training in immune oncology and a deep understanding of current trends in I-O therapeutics
- Comprehensive technical expertise and knowledge in innate and adaptive immune response
- Experience in small molecule drug discovery from target discovery/validation to candidate nomination
- Proficiency in standard biochemical, cellular and molecular techniques and in in vivo/ex vivo/in vitro immunology approaches
- Ability to operate in a fast-paced multi-disciplinary environment, interacting with diverse groups of experts within or outside of his/her scientific discipline
- Ability to prioritize and manage multiple research activities
- Experience in communicating technical information to a broad scientific audience through presentations and written reports

AbbVie is committed to the discovery and development of innovative first-in-class therapies to help patients in the fight against cancer. AbbVie is at the forefront of cancer research in discovering and developing novel treatments that offer a new approach to cancer therapy. The Oncology Discovery team has an excited opportunity available for a highly motivated and skilled Senior Scientist Immune Oncologist/Immunologist III or II (depending on experience) with a proven track record of accomplishments to help lead research efforts driving our small molecule immune oncology programs.

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Position will be hired based on level of experience

Basic:

- Extensive laboratory research experience and a desire to continue in a laboratory-focused role
- Demonstrated record of creativity and scientific achievements, i.e., strong publication and/or patent record
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- Ability to operate in a fast-paced multi-disciplinary environment, interacting with diverse groups of experts within or outside of his/her scientific discipline
- Ability to prioritize and manage multiple research activities
- Experience in communicating technical information to a broad scientific audience through presentations and written reports

For Senior Scientist III:

- PhD, MS, or BS in Immunology, Oncology or Immune Oncology or related field with 6 years (PhD); 12 years (MS); or 14 years (BS) of experience in the area of cancer

For Senior Scientist II:

- PhD, MS, or BS in Immunology, Oncology or Immune Oncology or related field with 3 years (PhD); 10 years (MS); or 12 years (BS) of experience in the area of cancer

Preferred:

- PhD in above disciplines with 8 years of post-graduate experience
- Experience managing research associates
- Solid understanding of immune suppressive tumor microenvironment and I-O translational research

Key Leadership Competencies:

- Builds strong relationships with peers and cross functionally with partners outside of team to enable higher performance
- Learns fast, grasps the 'essence' and can change the course quickly where indicated
- Raises the bar and is never satisfied with the status quo
- Creates a learning environment, open to suggestions and experimentation for improvement
- Embraces the ideas of others, nurtures innovation and manages innovation to reality

Mapping Operational Competencies

Creating the Vision				Developing People			
Strategic	Innovative	Risk Management	Champion Energy	Collaboration	Enabling	Empathy	Rapport
	discovering and developing novel treatments						
	new approach						
				proven track record of accomplishments to help lead research efforts			proven track record of accomplishments to help lead research efforts
Independently conceive, execute and communicate novel multi-disciplinary research strategies	Independently conceive, execute and communicate novel multi-disciplinary research strategies		Independently conceive, execute and communicate novel multi-disciplinary research strategies				
	innovative infrastructure						
				Interact with cross-functional teams to establish productive collaborations			Interact with cross-functional teams to establish productive collaborations
	record of creativity						
				Ability to operate in a fast-paced multi-disciplinary environment			Ability to operate in a fast-paced multi-disciplinary environment
				Interacting with diverse groups of experts within or outside of his/her scientific discipline			Interacting with diverse groups of experts within or outside of his/her scientific discipline
		Ability to prioritize and manage multiple research activities					
					managing research associates	managing research associates	managing research associates
				Builds strong relationships with peers and cross functionally with partners outside of team to enable higher performance		Builds strong relationships with peers and cross functionally with partners outside of team to enable higher performance	Builds strong relationships with peers and cross functionally with partners outside of team to enable higher performance
		can change the course quickly					
	Raises the bar and is never satisfied with the status quo		Raises the bar and is never satisfied with the status quo				
					Creates a learning environment		Creates a learning environment
				Embraces the ideas of others, nurtures innovation and manages innovation to reality	Embraces the ideas of others, nurtures innovation and manages innovation to reality		Embraces the ideas of others, nurtures innovation and manages innovation to reality

Mapping Operational Competencies

Execution				Achieving Results		
Structuring	Control	Tactical	Delegation	Production	Focus	Completion
						discovering and developing novel treatments
						new approach
				highly motivated	highly motivated	
proven track record of accomplishments to help lead research efforts	proven track record of accomplishments to help lead research efforts	proven track record of accomplishments to help lead research efforts	proven track record of accomplishments to help lead research efforts	proven track record of accomplishments to help lead research efforts	proven track record of accomplishments to help lead research efforts	
Independently conceive, execute and communicate novel multi-disciplinary research strategies	Independently conceive, execute and communicate novel multi-disciplinary research strategies	Independently conceive, execute and communicate novel multi-disciplinary research strategies		Independently conceive, execute and communicate novel multi-disciplinary research strategies	Independently conceive, execute and communicate novel multi-disciplinary research strategies	
Effectively lead efforts	Effectively lead efforts			Effectively lead efforts	Effectively lead efforts	
innovative infrastructure	innovative infrastructure					
				Develop compelling scientific presentations and reports	Develop compelling scientific presentations and reports	
				Ability to operate in a fast-paced multi-disciplinary environment	Ability to operate in a fast-paced multi-disciplinary environment	
Ability to prioritize and manage multiple research activities	Ability to prioritize and manage multiple research activities	Ability to prioritize and manage multiple research activities		Ability to prioritize and manage multiple research activities	Ability to prioritize and manage multiple research activities	
			managing research associates			
					Learns fast, grasps the 'essence'	
	can change the course quickly	can change the course quickly				
				Raises the bar and is never satisfied with the status quo	Raises the bar and is never satisfied with the status quo	Raises the bar and is never satisfied with the status quo
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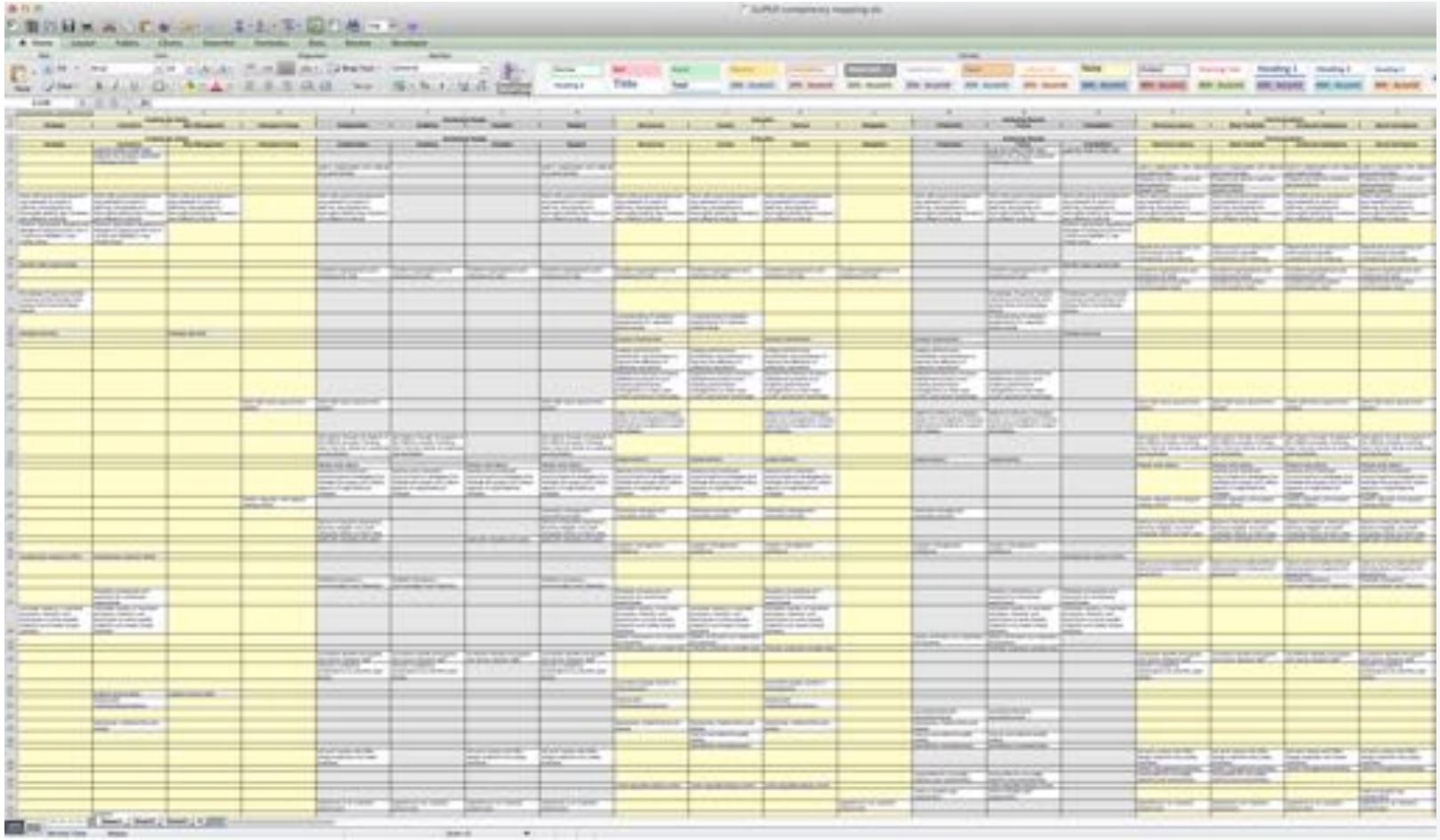
Mapping Operational Competencies

Communications				Financial Acumen			
Technical Literacy	Style Flexibility	Emotional Intelligence	Social Intelligence	Return on Investment	Internal Rate of Return	Performance Metrics	Balance Sheet
Independently conceive, execute and communicate novel multi-disciplinary research strategies			Independently conceive, execute and communicate novel multi-disciplinary research strategies				
Interact with cross-functional teams to establish productive collaborations	Interact with cross-functional teams to establish productive collaborations	Interact with cross-functional teams to establish productive collaborations	Interact with cross-functional teams to establish productive collaborations				
Develop compelling scientific presentations and reports			Develop compelling scientific presentations and reports				
Interacting with diverse groups of experts within or outside of his/her scientific discipline	Interacting with diverse groups of experts within or outside of his/her scientific discipline	Interacting with diverse groups of experts within or outside of his/her scientific discipline	Interacting with diverse groups of experts within or outside of his/her scientific discipline				
Experience in communicating technical information to a broad scientific audience		Experience in communicating technical information to a broad scientific audience	Experience in communicating technical information to a broad scientific audience				
managing research associates	managing research associates	managing research associates	managing research associates				
Builds strong relationships with peers and cross functionally with partners outside of team to enable higher performance	Builds strong relationships with peers and cross functionally with partners outside of team to enable higher performance	Builds strong relationships with peers and cross functionally with partners outside of team to enable higher performance	Builds strong relationships with peers and cross functionally with partners outside of team to enable higher performance				
		Learns fast, grasps the 'essence' can change the course quickly					
				Raises the bar and is never satisfied with the status quo		Raises the bar and is never satisfied with the status quo	
Creates a learning environment	Creates a learning environment	Creates a learning environment	Creates a learning environment				
		open to suggestions and experimentation for improvement					
	Embraces the ideas of others, nurtures innovation and manages innovation to reality	Embraces the ideas of others, nurtures innovation and manages innovation to reality	Embraces the ideas of others, nurtures innovation and manages innovation to reality			Embraces the ideas of others, nurtures innovation and manages innovation to reality	

Competency Mappings



Mapping Job Posting to Business Competencies

Senior Scientist, Cancer Biology - Immune Oncology

AbbVie is committed to the discovery and development of innovative first-in-class therapies to help patients in the fight against cancer. AbbVie is at the forefront of cancer research in discovering and developing novel treatments that offer a new approach to cancer therapy. The Oncology Discovery team has an excited opportunity available for a highly motivated and skilled Senior Scientist Immune Oncologist/Immunologist III or II (depending on experience) with a proven track record of accomplishments to help lead research efforts driving our small molecule immune oncology programs.

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Position will be hired based on level of experience

Basic:

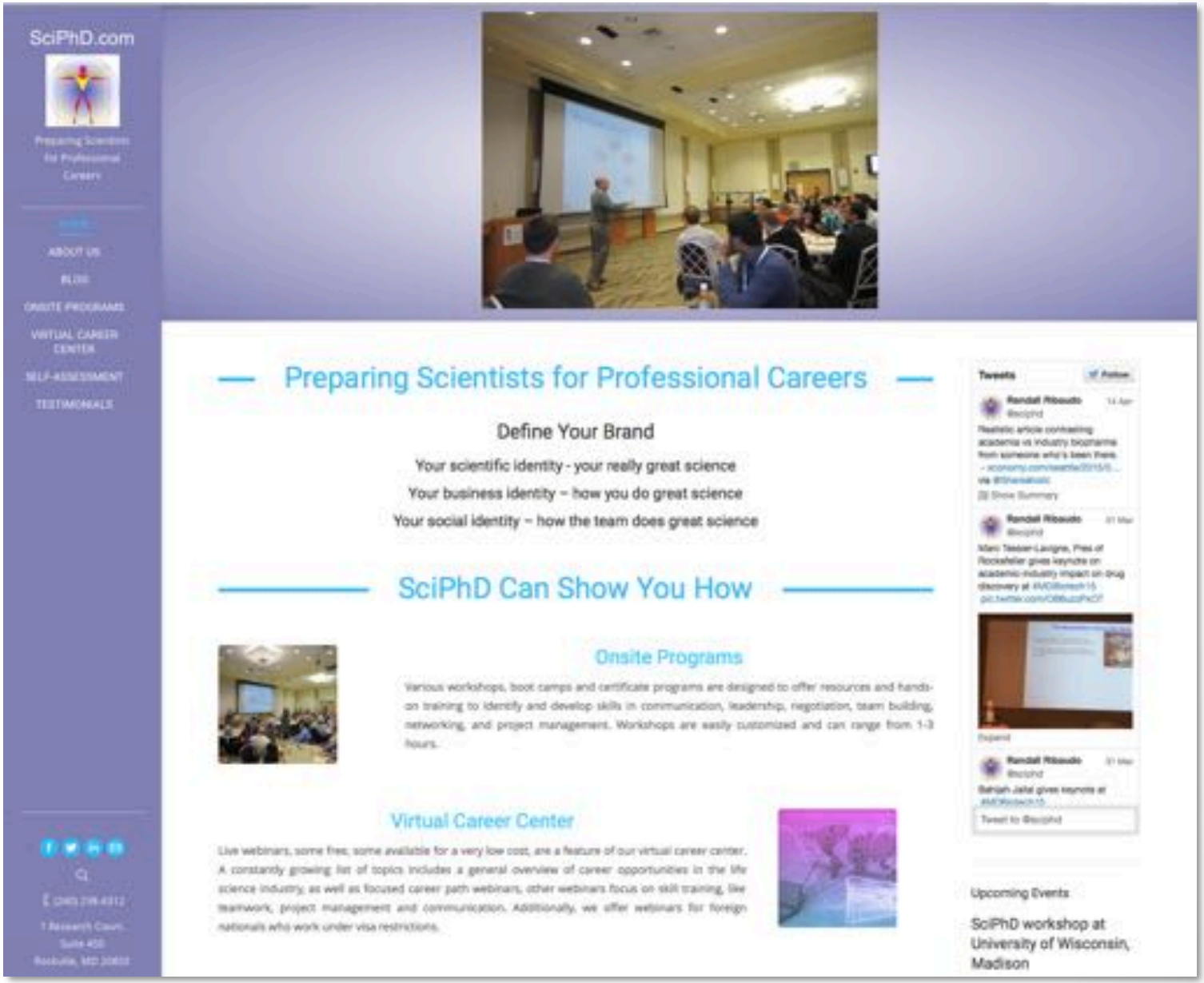
- Extensive laboratory research experience and a desire to continue in a laboratory-focused role
- Demonstrated record of creativity and scientific achievements, i.e., strong publication and/or patent record
- Broad training in immune oncology and a deep understanding of current trends in I-O therapeutics
- Comprehensive technical expertise and knowledge in innate and adaptive immune response

Business Competency Matrix

Company: Abbvie **Position:** Senior Scientist, Cancer Biology

Competency	Job	Score	Experience Statements
Creating the Vision			
Strategic	X		
Innovative	XXXXXX		
Risk Management	XX		
Champion/Energy	XX		
Developing People			
Collaboration	XXXXXX		
Enabling	XXX		
Empathy	XX		
Rapport	XXXXXXXX		
Execution			
Structuring	XXXXXX		
Control	XXXXXX		
Tactical	XXXXX		
Delegation	XX		
Achieving Results			
Production	XXXXXXXXX		
Focus	XXXXXXXXXX		
Competition	XXX		
Communications			
Technical Literacy	XXXXXXXX		
Style Flexibility	XXXXXX		
Emotional Intelligence	XXXXXXXXXX		
Social Intelligence	XXXXXXXXX		
Financial Acumen			
Return on Investment	X		
Internal Rate of Return			
Performance Metrics	XX		
Balance Sheet			

Self Assessment: www.sciphd.com



Targeted Resume

James Biglow, PhD

1429 Terrace View
Chester Springs, PA 19425
(215) 555-1212

NYU College of Dentistry
345 East 24th Street
New York, NY 10010
jbigs@nyu.edu

Summary of Qualifications

Innovative Cellular Immunologist with a focus on respiratory, inflammation and autoimmunity mechanisms and an established record of operating a highly efficient research laboratory. Experienced in developing and optimizing cell-based assays to elucidate T-cell pathways using innovative approaches. Successfully led highly productive collaborative teams that generate high quality data and patents by instilling self-awareness and accountability in individual tem members while recognizing team contributions. Foster agile approach to effectively monitor progress and adjust approaches strategically to ensure success of the plan.

Education

McGill University, Montreal, Quebec, *Ph.D., Immunology* **2010**
University of Connecticut, Storrs, CT, *B.S., Physiology* **2003**

Relevant Technical Skills

- pharmacodynamics
- Tissue preparation
- Tissue culture
- Animal model development
- Respiratory inflammation models
- In vitro imaging
- Computational bioinformatics
- Immunoassays

Relevant Business and Social Skills

- Led collaborative teams
- Rigorous statistical analytics
- Project management
- Mentoring students
- Oral communications
- Written communications

Educational and Professional Development

Postdoctoral Fellow, Mentor: Dr. James Keisenberg **2011 - Present**
National Institutes of Health, Laboratory of Immunology
Development of pulmonary inflammation models in mice evaluated clinically, histologically, and with identification of novel protein that correlates with disease resulting in 2 peer-reviewed publications.

Adjunct Faculty **2011**
Ramapo Community College, NJ
Developed and taught "Principles of Biology"

Graduate Assistant, Mentor, Dr. Janice Bellances **2005 - 2011**
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Development of animal models and molecular techniques, and pharmacodynamics profiling resulting in 3 peer-reviewed publications

Medical Education Consultant, Mentor, Dr. David Germally **2003 - 2005**
Developed project management skills resulting in successful coordination of multiple simultaneous projects

Clinical Biostatistician Intern **2001**
Dept. of Neonatology, UMDNJ & St. Peter's Univ. Hospital, New Brunswick, NJ
Organized and condensed large data samples and applied wide range of statistical analyses.

Business and Management Experience

SciPhD, The Business of Science for Scientists **2014**
New York University, New York, NY
- **Focus:** the core business competencies necessary for the transition from academia to industry.

From Idea to IPO: Technology Venture Course **2011**
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Focus: the development of intellectual property into a marketable product

Research Commercialization Introductory Course **2010**
National Council of Entrepreneurial Tech Transfer, Washington, DC
- **Focus:** the principals of entrepreneurship, including the management and investment strategies

Mentoring Experience

As a graduate student and postdoctoral fellow, I managed and mentored 3 undergraduates, a graduate student, two dental students, and a orthodontic resident resulting in:
- A thesis award for physical sciences
- Acceptance into highly competitive MD, MD/PhD, and orthodontic residency programs
- NYU College of Dentistry Research Day Awards
- Multiple publications in peer-reviewed journals

Selected Publications

- Deletion of Mdl leads to secondary immunosuppression with impaired shelf elevation. Bernice A*, **Biglow J***, Bandine Walt A, Chao M, Gearmal N, Cjan V, Jelong J. *BMC Developmental Biology*, 2014.
  ***Co-first authors**
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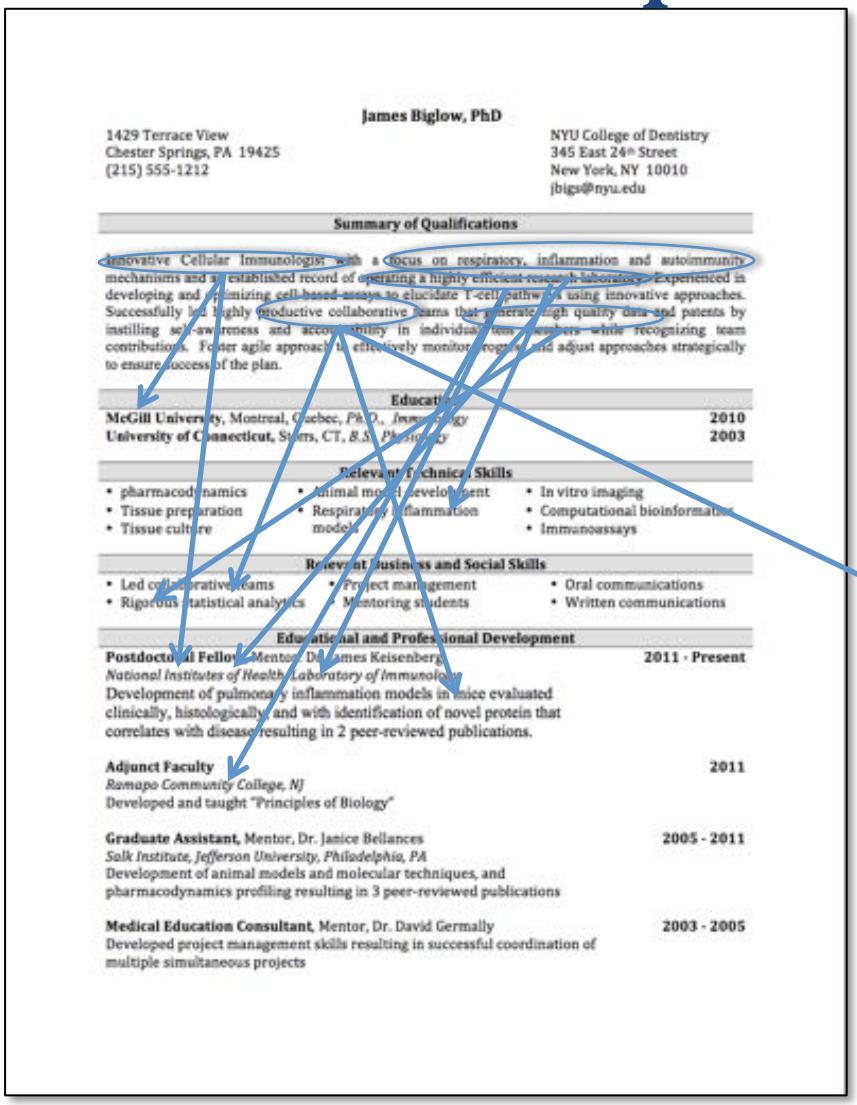
Validate Experiences



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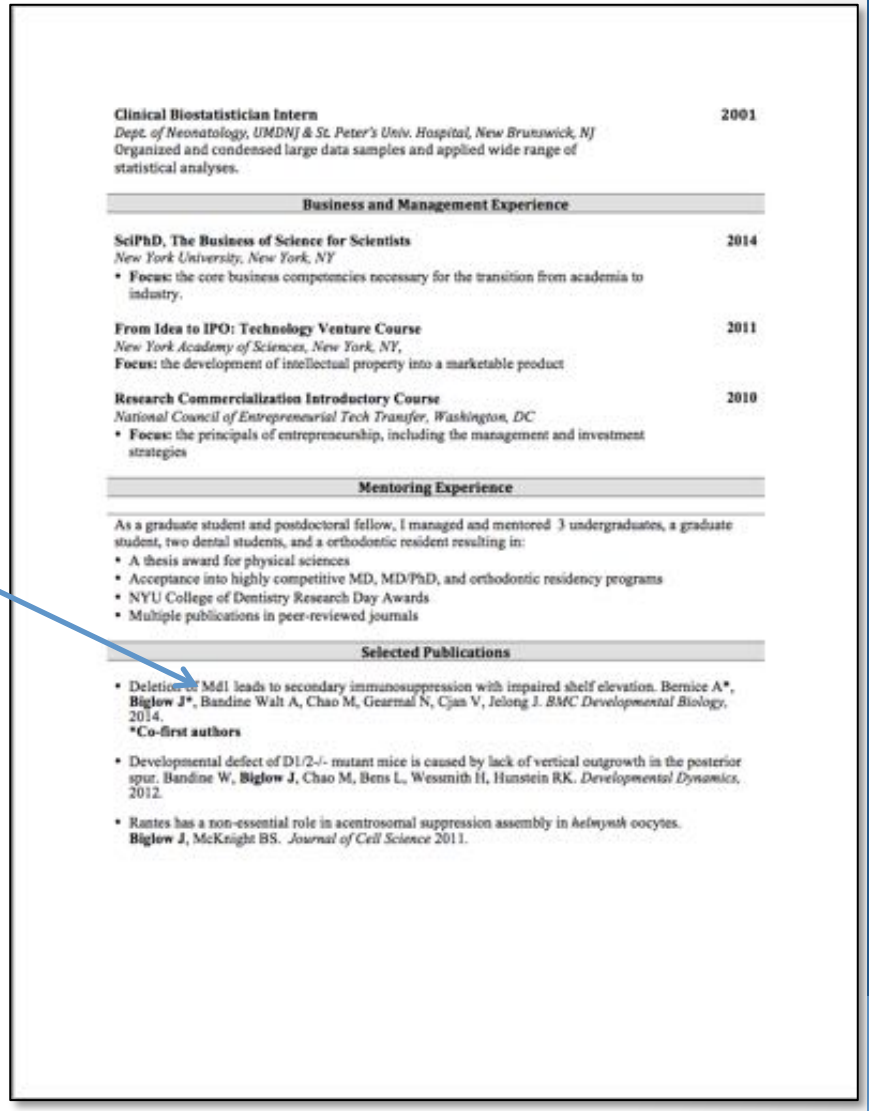

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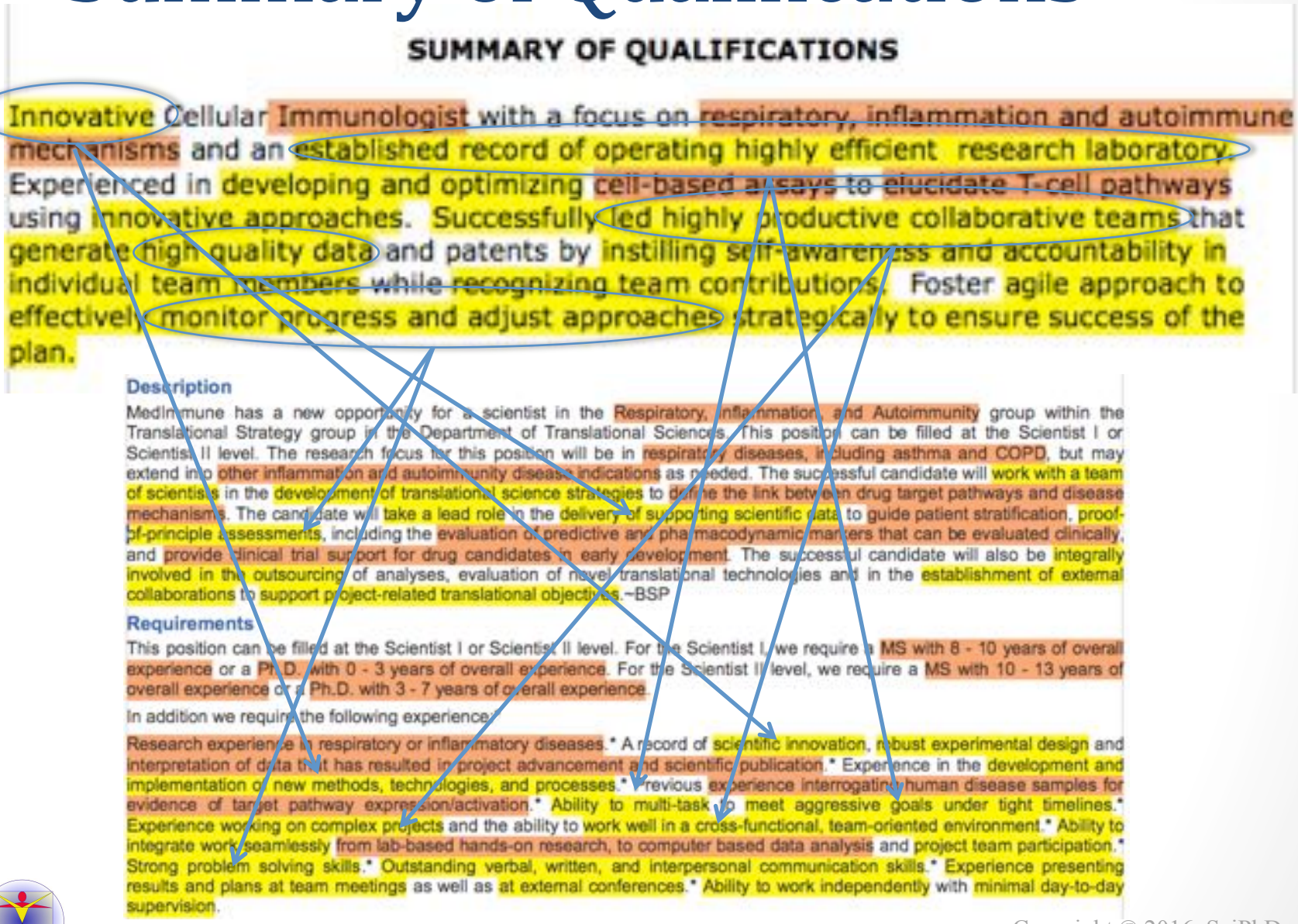

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Description

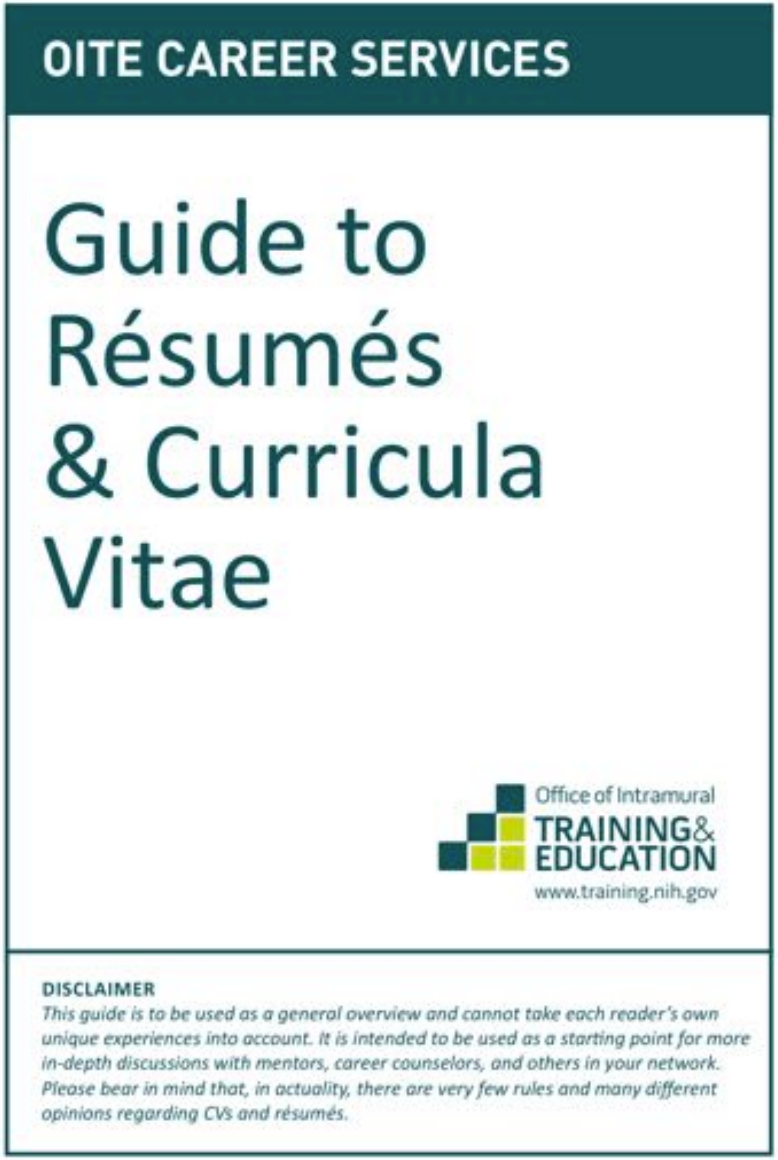
MedImmune has a new opportunity for a scientist in the Respiratory, Inflammation, and Autoimmunity group within the Translational Strategy group in the Department of Translational Sciences. This position can be filled at the Scientist I or Scientist II level. The research focus for this position will be in respiratory diseases, including asthma and COPD, but may extend into other inflammation and autoimmunity disease indications as needed. The successful candidate will work with a team of scientists in the development of translational science strategies to define the link between drug target pathways and disease mechanisms. The candidate will take a lead role in the delivery of supporting scientific data to guide patient stratification, proof-of-principle assessments, including the evaluation of predictive and pharmacodynamic markers that can be evaluated clinically, and provide clinical trial support for drug candidates in early development. The successful candidate will also be integrally involved in the outsourcing of analyses, evaluation of novel translational technologies and in the establishment of external collaborations to support project-related translational objectives.~BSP

Requirements

This position can be filled at the Scientist I or Scientist II level. For the Scientist I, we require a MS with 8 - 10 years of overall experience or a Ph.D. with 0 - 3 years of overall experience. For the Scientist II level, we require a MS with 10 - 13 years of overall experience or a Ph.D. with 3 - 7 years of overall experience.

In addition we require the following experience:

Research experience in respiratory or inflammatory diseases.* A record of scientific innovation, robust experimental design and interpretation of data that has resulted in project advancement and scientific publication.* Experience in the development and implementation of new methods, technologies, and processes.* Previous experience interrogating human disease samples for evidence of target pathway expression/activation.* Ability to multi-task to meet aggressive goals under tight timelines.* Experience working on complex projects and the ability to work well in a cross-functional, team-oriented environment.* Ability to integrate work seamlessly from lab-based hands-on research, to computer based data analysis and project team participation.* Strong problem solving skills.* Outstanding verbal, written, and interpersonal communication skills.* Experience presenting results and plans at team meetings as well as at external conferences.* Ability to work independently with minimal day-to-day supervision.



https://www.training.nih.gov/assets/Guide_to_Resumes_&_Curricula_Vitae.pdf

Organization matters!

Source: TheLadders

Original Resume

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(732) 763-4190

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New York, NY 10010
jbigs@nyu.edu

Summary

A post-doctorate fellow with over nine years experience managing multiple research projects while developing the following skills:

- project design and management
- strong team leadership

Business and Management Experience

SciPhD, New York, NY, The Business of Science for Scientists, **2014**
- **Focus:** the core business competencies necessary for the transition from academia to industry

New York Academy of Sciences, New York, NY, From Idea to IPO: Technology Venture Course, **2011**
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National Council of Entrepreneurial Tech Transfer, Washington, DC, Research Commercialization Introductory Course, **2010**
- **Focus:** the principals of entrepreneurship, including the proper management of a startup company

Work Experience

College of Dentistry, New York University, New York, NY
Postdoctoral Fellow
Mentor: Dr. James Ryor 2011 - Present
- **Experience:** I designed and implemented scientific research relevant to human craniofacial development. While implementing these experiments, I became fully proficient at mouse genetics and colony management. Also, I vastly improved my technical skill set to include μCT, electron scanning microscopy, in-situ hybridization, laser capture micro-dissection, chromatin immunoprecipitation, and cell culture. Finally, I have developed my communication skills and have become a team leader responsible for mentoring technicians and junior researchers.

Ramapo Community College, Branchburg, NJ
Adjunct Faculty, *Principles of Biology* 2011
- **Experience:** I developed and presented lessons that taught the basic principles of biology. I designed and graded assessments, including homework, quizzes, and examinations. I also integrated laboratory experiments as a method of reinforcing course material. All of these experiences provided invaluable experience in public speaking and organization.

Salk Institute, Jefferson University, Philadelphia, PA
Graduate Assistant
Mentor: Dr. Janice Bellucces 2005 – 2011
- **Experience:** I implemented research plans that utilized a wide range of scientific techniques, learning how to efficiently manage long-term projects. During this time, I developed my initial technical skill set to include basic genetics, cloning, immunofluorescence, and confocal microscopy. I also gained basic leadership skills while supervising undergraduate researchers.

Department of Medicine, Saint Peter's University Hospital, New Brunswick, NJ
Medical Education Consultant
Mentor: Dr. David Germally 2003 – 2005
- **Experience:** I gained essential professional skills while serving as a liaison between departments in the resolution of administrative issues. I also expanded my project management skills while coordinating Objective Structured Clinical Examinations. I obtained medical knowledge in a broad range of fields, including internal medicine, cardiology, gastroenterology, and oncology.

Department of Neonatology, UMDNJ &Saint Peter's University Hospital, New Brunswick, NJ
Clinical Biostatician 2001
- **Experience:** I was responsible for organizing and condensing large data samples into readable outputs using a wide range of statistical analysis.

Education

McGill University, Montreal, Quebec, Ph.D., Microbiology & Molecular Genetics, **2010**

University of Connecticut, Storrs, CT, B.S., Biochemistry, **2003**

Publications

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  Rantes has a non-essential role in acentrosomal suppression assembly in Aclewnth oocytes.
- **Biglow J**, McKnight BS. *Journal of Cell Science* 2011.
- Misregulation of the kinesin-like protein Subito induces meiotic spindle formation in the absence of chromosomes and centrosomes. Paian LB, Graham W, Strober WS, **Biglow J**, McKim KS. *Genetics*, 2007.
- Kinesin 6 family member Subito participates in mitotic spindle assembly and interacts with mitotic regulators. **Biglow J**, Pain JB, Feldin C, Stahl B, Graham W, McNight LS. *Journal of Cell Science*, 2006.

Awards & Memberships

- New York Academy of Sciences 2009 – 2014
- NYU Research Day Award 2013
- American Society of Human Genetics (ASHG) 2010 – 2011
- Busch Fellowship 2009 – 2010
- Kaft – Limbrit Fellowship 2008 – 2009

Targeted Resume

James Biglow, PhD

1429 Terrace View
Chester Springs, PA 19425
(215) 555-1212

NYU College of Dentistry
345 East 24th Street
New York, NY 10010
jbigs@nyu.edu

Summary of Qualifications

Innovative Cellular Immunologist with a focus on respiratory, inflammation and autoimmunity mechanisms and an established record of operating a highly efficient research laboratory. Experienced in developing and optimizing cell-based assays to elucidate T-cell pathways using innovative approaches. Successfully led highly productive collaborative teams that generate high quality data and patents by instilling self-awareness and accountability in individual tem members while recognizing team contributions. Foster agile approach to effectively monitor progress and adjust approaches strategically to ensure success of the plan.

Education

McGill University, Montreal, Quebec, *Ph.D., Immunology* **2010**
University of Connecticut, Storrs, CT, *B.S., Physiology* **2003**

Relevant Technical Skills

- pharmacodynamics
- Tissue preparation
- Tissue culture
- Animal model development
- Respiratory inflammation models
- In vitro imaging
- Computational bioinformatics
- Immunoassays

Relevant Business and Social Skills

- Led collaborative teams
- Rigorous statistical analytics
- Project management
- Mentoring students
- Oral communications
- Written communications

Educational and Professional Development

Postdoctoral Fellow, Mentor: Dr. James Keisenberg **2011 - Present**
National Institutes of Health, Laboratory of Immunology
Development of pulmonary inflammation models in mice evaluated clinically, histologically, and with identification of novel protein that correlates with disease resulting in 2 peer-reviewed publications.

Adjunct Faculty **2011**
Ramapo Community College, NJ
Developed and taught "Principles of Biology"

Graduate Assistant, Mentor, Dr. Janice Bellances **2005 - 2011**
Salk Institute, Jefferson University, Philadelphia, PA
Development of animal models and molecular techniques, and pharmacodynamics profiling resulting in 3 peer-reviewed publications

Medical Education Consultant, Mentor, Dr. David Germally **2003 - 2005**
Developed project management skills resulting in successful coordination of multiple simultaneous projects

Clinical Biostatistician Intern **2001**
Dept. of Neonatology, UMDNJ & St. Peter's Univ. Hospital, New Brunswick, NJ
Organized and condensed large data samples and applied wide range of statistical analyses.

Business and Management Experience

SciPhD, The Business of Science for Scientists **2014**
New York University, New York, NY
- **Focus:** the core business competencies necessary for the transition from academia to industry.

From Idea to IPO: Technology Venture Course **2011**
New York Academy of Sciences, New York, NY,
Focus: the development of intellectual property into a marketable product

Research Commercialization Introductory Course **2010**
National Council of Entrepreneurial Tech Transfer, Washington, DC
- **Focus:** the principals of entrepreneurship, including the management and investment strategies

Mentoring Experience

As a graduate student and postdoctoral fellow, I managed and mentored 3 undergraduates, a graduate student, two dental students, and a orthodontic resident resulting in:
- A thesis award for physical sciences
- Acceptance into highly competitive MD, MD/PhD, and orthodontic residency programs
- NYU College of Dentistry Research Day Awards
- Multiple publications in peer-reviewed journals

Selected Publications

- Deletion of Mdl leads to secondary immunosuppression with impaired shelf elevation. Bernice A*, **Biglow J***, Bandine Walt A, Chao M, Gearmal N, Cjan V, Jelong J. *BMC Developmental Biology*, 2014.
  ***Co-first authors**
- Developmental defect of D1/2-/- mutant mice is caused by lack of vertical outgrowth in the posterior spur. Bandine W, **Biglow J**, Chao M, Bens L, Wessmith H, Hunstein RK. *Developmental Dynamics*, 2012.
- Rantes has a non-essential role in acentrosomal suppression assembly in *helmynth* oocytes. **Biglow J**, McKnight BS. *Journal of Cell Science* 2011.

Cover Letters View 1: "Applying For…"

Dear Hiring Manager,

Attached is my targeted resume in response to your job posting for Scientist I (job ID 36794) that was listed on Biospace.com. My resume details not only the relevant technical skills I bring to this position as a molecular/cellular immunologist, but also the significant business and social skills that are highlighted in your job description. I feel that my combined experience in all three areas (scientific, business, social) make me extremely well suited for this position.

I would welcome the opportunity to further discuss my skills and this position. If you have questions or would like to schedule an interview, please contact me by phone at 867-555-1212 or by e- mail at jbigs@nyu.edu. I have enclosed my resume for your review. I look forward to hearing from you.

Sincerely,
James Biglow, PhD

Cover Letters View 2: "My Introduction"

Dear Hiring Manager: June 18, 2014

I am a cellular/molecular immunologist with a high level of expertise in pulmonary inflammation and respiratory disease. I have developed animal models for pulmonary inflammation as well as the in vivo and in vitro assays to evaluate progression and treatment of those conditions, both with respect to metabolic pathways as well as pharmacodynamics evaluations. As such, I believe that I am a strong candidate for the scientist job posting (Job ID: 36794), studying pulmonary disease. I have read two papers published by your group (ref) that reinforce my confidence that I am an excellent candidate for this position. I am highly proficient in numerous techniques employed within both papers. These techniques include:

- designing and manipulating animal models
- rodent handling and microinjections
- tissue dissection for use in histology and cell or tissue culture
- immunolabeling and histopathology
- genome wide transcriptional profiling
- elucidating pathways underlying the pathophysiology of pulmonary diseases

In addition to my scientific/technical skills I also bring well developed business and social experience that will ensure quick integration into your team environments. These include leading collaborative efforts, project management training, successful mentoring of students, and strong statistical analytical skills.

I would welcome the opportunity to further discuss my skills and this position. If you have questions or would like to schedule an interview, please contact me by phone at 867-555-1212 or by e- mail at jbigs@nyu.edu. I have enclosed my resume for your review. I look forward to hearing from you.

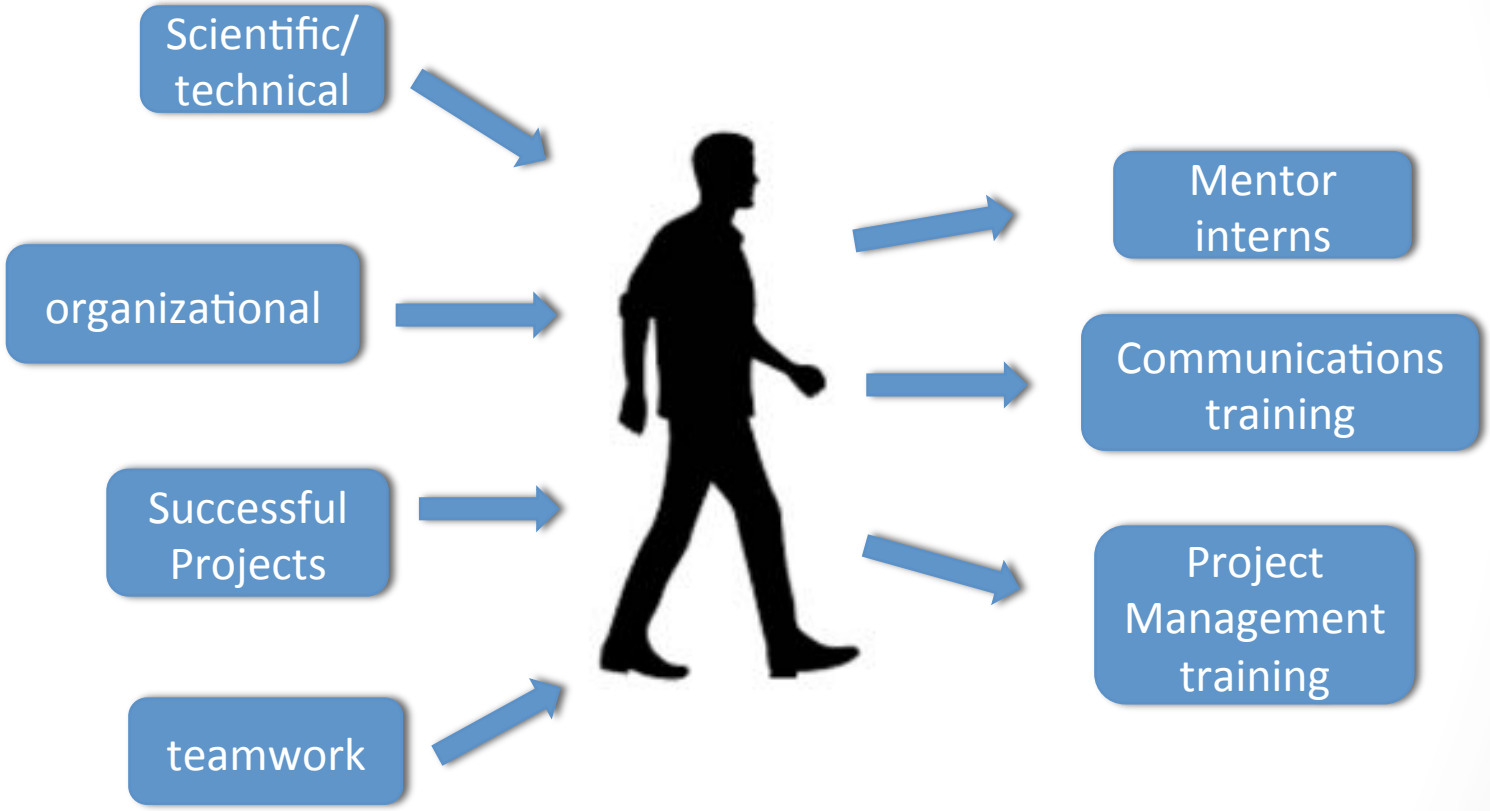
Sincerely,
James Biglow, PhD

Networking: Local Organizations

KLSC
KENTUCKY LIFE SCIENCES COUNCIL

Local Groups

What about your critical skills?



Strategic Action Plan form

Name: *Just Hatched PHD* [SAMPLE] **My Career Preparation Plan for 2015**

Career Objectives: Upon completion of my *PhD* in the field of *Immunology* at *Univ Mich*, I plan to compete for a career position in *Pharma* for positions to include:

1. *Scientist II*
2. *Application Scientist*
3.

Analysis of my skills to compete for these jobs have identified the following areas in which to pursue training/development;

Skill Objectives/Requirements	**Actions** – assignments, formal classes, etc…	**Resources** – Where to obtain etc…	**Time Frame** – expected time to complete action with dates
Communications	*Present in our weekly Lab meetings and to foundations who support our lab*	*See Lab Chief*	*Starting June 2015 until graduation*
Personal Flexibility in Communications	*Take MBTI*		
Developing People: enabling	*Train new tech in immunologic assays used n the lab*		
Financial Literacy	*Take course in "Finance for Non-finance Managers"*	*MOOC*	*By end of 2015*
Project management	Take Project Management for Scientists, and then apply to current research project.		

What do you do now???

SciPhD.com

Over-qualified / Under-experienced

When and why is a PhD not enough?
How much experience do I need and what kind?
Why and how is science in academia different from industry?
What particular skills is industry interested in and how do I get them?

Prior Industry Experience

Do companies really require prior industry experience?
How can you get a job without prior industry experience?
What are the parallels between academia and industry experience?
How do you analyze a job ad for required skills?

Job Security

Why do people lose their job?
How can you avoid losing your job?
How can you demonstrate your value to a company?

Culture Shock

What is culture shock?
What are similarities between academia and industry?
What are differences?
How to prepare for the different cultures?

Time Flexibility

What are the differences in time flexibility between academia and industry?
Why is academia so much more flexible?
Why is industry less flexible?
How is work-life balance in industry?

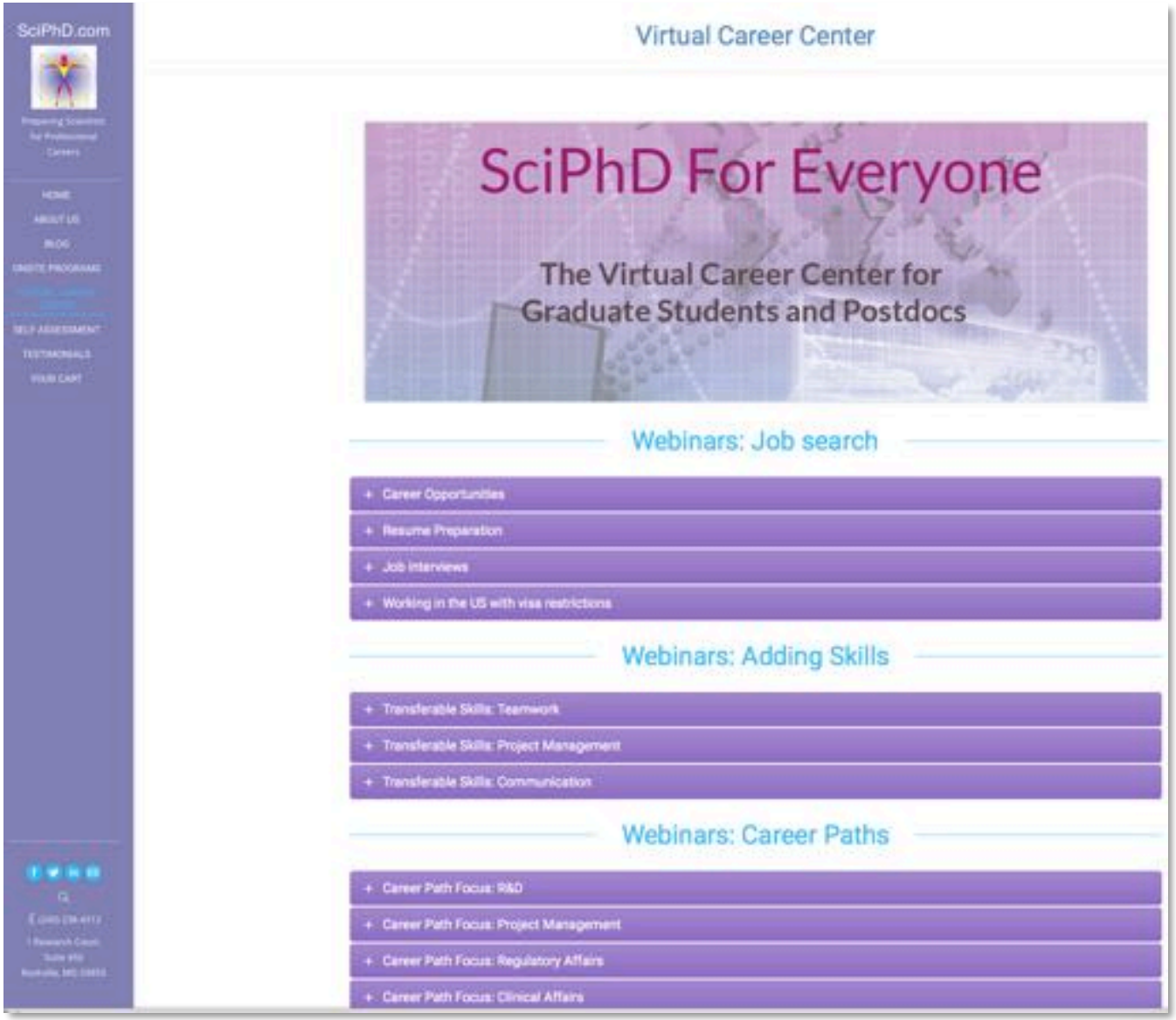
Can't Go Back

Is it true that once you leave academia, you can't go back?
What are the things that will stand in the way of a return?
What are the advantages of going to industry?
If people come back to academia, what positions do they get?

Visa Issues

What are the options to study or work in the US?
What does it take to get a visa?
What are the differences among visa categories?
Where do I get more information?
How do I improve my chances to get a work visa?

SciPhD Virtual Career Center



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SciPhD.com

Thank You

… keep on rowing!!!

Questions & Feedback

info@sciphd.com