#### **Young Mass Spectrometrists Workshop**

Monday, June 3, 2019

ASMS Annual Meeting, Atlanta, GA

Veronica Anania (Genentech) and Sharon Pitteri (Stanford) Presiding

- The room was approximately 80% full with ~200 attendees. Attendees mostly included graduate students and postdocs, and some non-student/post-docs with bachelors or masters levels degrees.
- Questions were answered by all five panelists and the moderators. Questions were from both the
  audience and the app. Many more questions were submitted through the app than we had time to
  answer.
- Panelists answered the questions frankly and differences in the different sectors (academia, industry, and government were highlighted.

## Topics discussed included:

- Visas
- Whether to do a postdoc
- How to initiate contact with a potential hiring manager
- Where to look for open positions
- How to get a foot in the door if you don't necessarily have all the qualifications
- Salaries
- CVs
- Cover letters
- How the panel found their current jobs
- Networking

## Other topics not discussed but raised by the audience through the app:

- When to start looking for a job in graduate school
- How to learn programming as a bench scientist
- How duration in graduate school is viewed by hiring managers
- What is the benefit of having a PhD in industry
- First author vs. non-first author publications
- Importance of impact factors
- Ways to highlight professional skills (beyond publications)
- Balancing effort in developing soft skills and hard skills
- Questions to ask during an interview to stand out
- How to be confident in areas outside of your expertise
- How to demonstrate soft skills and communication skills on a resume
- Balance between work and personal life in industry versus academia

- If you're interested in switching areas, how competitive is an application with extensive instrumentation and technical experience, but with little experience in a particular application
- How to know what you like and what you are good at
- Which fields will be most popular in the future (proteomics, metabolomics, lipidomics)
- Advice for new graduate students early on that will make them more marketable for future careers
- Hurdles in working in working for a national lab, or other government job as an international PhD
- How to search for a job when you don't know what you're interested in
- Importance of an MBA to rising through the ranks in industry
- Choosing a postdoc in similar or different fields from the PhD
- How panelists chose their current roles and thoughts about changes during their career paths
- How to set yourself apart from other job candidates
- When to move from academia to industry
- Value of postdoc in getting a job in industry
- How to contact labs about postdoc positions, whether unsolicited emails are acceptable, whether a research proposal is needed
- Recommendations for CV or cover letter to avoid replies from companies that the candidate is outside of the hiring area
- Important factors in getting a job (instrumentation knowledge, biologically significant publications, ability to work with different sample types)
- Differences in levels and positions in industry and government
- Important skills that can be developed and how to cultivate them
- Relationship between current position and graduate school / postdoc work
- Entering the workforce as a foreign citizen
- Importance of publications (quality and quantity) for different career paths, and other important metrics
- Internships for international students
- Roles of biochemistry and molecular biology graduate students in mass spectrometry

# MS Career Options: How to Kick Start Your Career

Co-chaired by Veronica Anania and Sharon Pitteri June 3<sup>rd</sup>, 2019 Atlanta, Georgia



## Veronica Anania

Representative of: Industry

Current Role: Scientist in Biomarker Development (Genentech)

Education: PhD in Molecular & Cell Biology (UC Berkeley), Postdoc in Protein Chemistry (Genentech)

Focus Area: discovery and development of pharmacodynamic biomarkers to support drug development and clinical assessment of disease

- · Biomarker strategy for clinical trials
- Protein and lipid based biomarkers
- Neurology, lupus nephritis, IBD, Influenza, & Asthma



# Sharon Pitteri

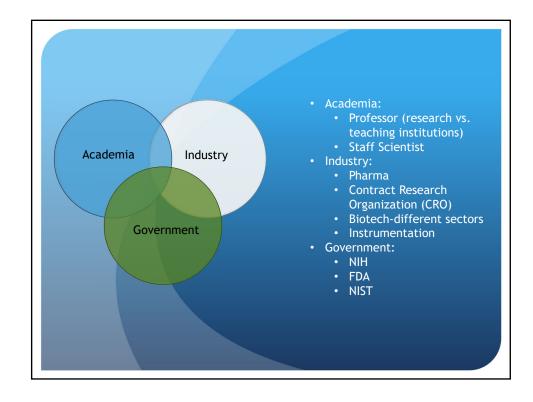
Representative of: Academia

Current Role: Associate Professor of Radiology (Stanford)

Education: PhD in Analytical Chemistry (Purdue University), Postdoc in Molecular Diagnostics (Fred Hutchinson Cancer Research Center)

Focus Area: cancer molecular diagnostics

- Analysis of clinical tissue samples to distinguish aggressive from indolent cancer
- Protein glycosylation analysis method development and applications



## Modern Job Search Tools

- General Job Search Sites
  - LinkedIn, Indeed, Monster, CareerBuilder, GlassDoor
- Scientific Journals and Websites
  - Nature Jobs, Science Careers, Inside Higher Ed Jobs
- Scientific Societies
  - ASMS Career Center, Conferences
- Recruiting agencies
- Internships
- Participation in local and national mass spectrometry discussion groups

# Job Search Strategy in 2019

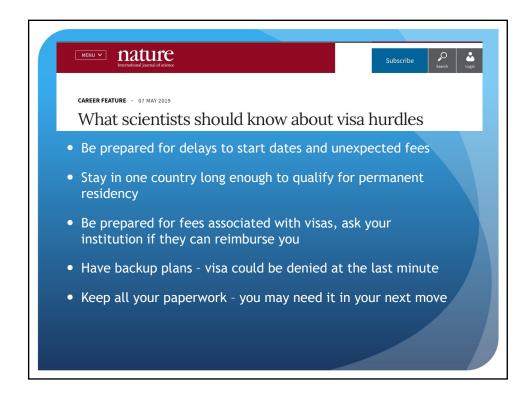
- Jobs posted 24/7
- Multiple online sources
- Need to apply for many jobs
- A lot to keep track of
  - Deadlines
  - Required Documents
  - Letters of recommendation













# **Christopher Rose**

Career Path: Biotech/Pharma

Current Role: Scientist, Genentech

Education: PhD in Analytical Chemistry (University of Wisconsin, Madison), Postdoc in Cell Biology (Harvard Medical School)

Focus Area: Quantitative proteomics to support Genentech Research and Early Development

- Quantitative analysis of biological pathways & drug MOA
- MHC peptidomics research related to individualized neoantigen specific therapies & biotherapeutic Immunogenicity
- · Computational proteomics support



# Thomas Blake

Career Path: Government

Current Role: Research Chemist, Team Lead (Centers for Disease Control & Prevention)

Education: PhD in Analytical Chemistry (Purdue University)

Focus Area: improving the detection, diagnosis, treatment, & prevention of disease from chemical emergencies

- Clinical assay development & application
- Animal model & countermeasure support
- Advanced laboratory automation & rapid prototyping of functional labware



Si Wu

Representative of: Academia

Career Path: Contract company/National

lab/Academia

Current Role: Assistant Professor (University of

Oklahoma)

Education: PhD in Analytical Chemistry (Washington State University), Postdoc in Proteomics (PNNL)

Focus Area: development of high throughput quantitative top-down proteomics and functional proteomics tools to study diseases

- Quantitative Top-Down Proteomics using Protein-Level Tandem Mass Tag (TMT) Labeling
- Functional proteomics tools for drug target discovery
- Autoimmune disease biomarkers



# Ethan Badman

**Career Path:** Academia→Pharma→Personal Care

Current Role: Director, Analytical Chemistry,

L'Oreal USA

Education: BS Delaware, PhD Purdue

Postdoc Indiana and Purdue

Focus Area:

mass spec or whatever it takes



# Vagisha Sharma

Career Path: Academia

Current Role: Software Engineer, MacCoss Lab, University of Washington

Education: MS in Computer Sciences, University of California San Diego

Focus Area: Software to facilitate massspectrometry based proteomics research

- Data management systems
- Data visualization, analysis tools and pipelines
- Public data repositories

# **Starter Questions**

- Where did you find your first/current job?
- What is the right path for me?
- What are my options?
- How did you transition to your current position?
- How to choose between academia, industry, and government?
- How do I go about starting my job search? Resources?
- How do I prepare for an interview?
  - Compare between different sectors