

## **Session III: Panel Discussion: Successful Careers – What Does It Take?**

### **Moderator: Dr. Judith Giordan**

#### **Panelists:**

- **Dr. Sharon Feng**
- **Dr. Thomas Lane**
- **Ms. Pamela Roach**
- **Mr. Joshua Goldman**
- **Dr. Wayne Martin**
- **Mr. Mitch Brown**
- **Dr. Gwo-Ching Wang**

#### **The three most important concepts to keep in mind for building a career:**

##### Industrial Perspective:

###### **Sharon Feng:**

1. Work on your communication skills! Keep it simple.
2. Develop a networking plan with industrial contacts
3. Think GLOBAL! Knowing languages other than English is to your advantage; be willing to move globally.

###### **Tom Lane:**

1. Competency alone is not longer a ticket to success, it's only an entrance card. Learn to communicate and have passion about your work.
2. Understand your audience. They are making a judgment about you, so be aware of differences between your self and the audience.
3. Everyone has something you need. That also means you have something everyone else needs. Develop relationships with others.

##### Government Perspective:

###### **Wayne Martin:**

1. Technical competence – know the science and minimize the politics
2. Interpersonal skills – both verbal and written – hone and develop them
3. Project Management! Focus on client; focus on deliverables; know how to work in teams; know how to run a project.

###### **Mitch Brown:**

1. Understand the role of the government lab and their mission. Know what is expected to be accomplished. Use the breadth of your interdisciplinary experience to advantage in this context.
2. Take advantage of internships and be excellent at what you do.
3. Network and harness the best capabilities to solve a problem; bring coalitions together and cultivate the capability to do this to solve problems.

##### Entrepreneurial Perspective:

###### **Pam Roach:**

1. Know yourself. Use your career guidance department/office to help you with assessment tools to get to know yourself and what you enjoy and not enjoy.

2. Learn how to pull together individuals with different strengths to get the job done.
3. Bring together your dispassionate analytical side and your emotional side to build passion about your work and results. This will help you to communicate with venture capitalists and others about your technology and help sustain you in tougher times.

Academic Perspective:

**Gwo-Ching Wang:**

1. Know your emotional intelligence; understand yourself and connect with society to help others.
2. Embrace self-discipline and get the job done.
3. Combine deep technical disciplinary capability with interdisciplinary breadth to solve complex problems.

**Main Messages:**

Entrepreneurial:

**Josh Goldman:** Innovation is a discipline. Build skills around the process of innovation.

**Pam Roach:** While your discovery may be your “child”, expose it to others to help to nurture it and let it grow.

Academic:

**Gwo-Ching Wang:** Communication/communication/communication

Government:

**Mitch Brown:** Have the courage to set the agenda. You have the ability to create change. Do it. Find coalitions and make it happen.

**Wayne Martin:** Budget/scope/schedule and DELIVER!

Industrial:

**Tom Lane:** Tailor your message – know your audience!

**Sharon Feng:** There is nothing as permanent as change. Embrace the future; embrace change. Be bold! Enjoy!

**Questions from the Audience:**

Question 1: Interdisciplinarity – a plus or a minus?

- Government – definitely a plus
- Industry – definitely a plus; as change is ever present the ability to flex is very important
- Academic – curiosity and interaction with others is very important; start from a strong disciplinary base and build on that
- Entrepreneur – definitely – but interdisciplinary means more than in the science; it also means other skill sets and capabilities

Question 2: I want to start a company. If we want funding what qualities do finders look for?

- Integrity/trust/ability to communicate/your personal attributes to deliver
- Understand and be fluent about what’s in it for the group you are approaching
- Know your offering; your customers; your business model; your market; your value proposition
- Starting a company is hard work – remember that and be prepared and show that you are prepared to do what it takes
- Demonstrate ability to innovate on the fly

Question 3: How does one build a career linking security issues with social and political conflict resolution?

- There’s more to national security than guns and terror. Understanding societal interactions is important and government agencies know this.

- Be sensitive when you apply for positions that what may seem “obvious” to you may not be true for others and your audience. Determine organizations where you would have an interest in working and see how to network to develop relationships and show you know how to educate others and find a common ground.

Question 4: What programs exist to help develop outreach to communities to improve scientific literacy? Where are there needs to be addressed?

- Industry is always trying to raise awareness of the public most commonly in the communities where they are located for K-12 but also on a national level through professional organizations
- Part of the challenge is that the US falls into the “rich country problem” – that is many citizens select easier careers – science is not viewed as an “easy” career.
- Education is local and companies spend ~ \$4.2 billion on outreach annually. Talking to teachers and being sure you are helping them with their objectives is more effective than sharing your particular view.
- Teachers are expert in delivery – industry and others can try to assist with content. Teachers can sometimes work in isolation; network and try to help where it is appropriate.

Question 5: Qualities like teamwork and communication are important. How can these be shown or demonstrated in a resume or an interview to prove your ability?

- Communicate well during the interview and in your resume. Be sure evidence and examples are given.
- Internships where possible so you can demonstrate competency.
- Be able to communicate well at all times. Be proactive – network and reach out.
- Be able to explain what you have done and accomplished as part of a team.
- Tailor your message to your audience and be able to capture the essence of what is important briefly.

Question 6: How do people determine the best career path for them?

- Try it out – intern somewhere.
- Know about yourself; investigate a company’s culture and be sure they match
- Take a risk – start out in one area (small company; academia; government) and move to another option to test it out.
- Think out of the box – technical sales for instance...

Question 7: How do people get the interpersonal skills talked about?

- Mentors – find people who can help you learn and grow.
- Link up with university business management courses
- See about your career office and linking up companies with universities to help get some training
- On a personal note – get comfortable with taking a chance and with risk.