Welcome to the CNSPY Newsletter. Here, we report the most recent networking and career development events sponsored by CNSPY. The past few months have been an exciting time of re-design and re-branding for our group. We have a new logo, a new website design, and a new weekly update email format. The new look is also represented in our event flyers, our social media sites, and in this issue of the quarterly Newsletter. Special thanks to Jenny Cheng, CNSPY webmaster, for her creative endeavors, as well as to Sandra Martinez-Morilla, Supriya Kulkarni, and Tianyi Yuan for contributing to the email design. In addition, we relaunched the SPYcast podcast in collaboration with the Yale Broadcast & Media Center. Thanks to Edward Doherty, Kristen Murfin, and Sampada Chande for conducting the podcast interviews.

-Lydia Hoffstaetter, Director of Communications, SPYglass Editor-In-Chief
NEW INITIATIVE: Re-Design of the CNSPY Brand

CNSPY Logo

CNSPY Website

Weekly Update Emails

The efforts to update the look of CNSPY began last summer, and we were able to roll out several new formats during the past year. The updates began with a new weekly email format, designed by Lydia Hoffstaetter, Supriya Kulkarni, Sandra Martinez-Morilla, and Tianyi Yuan. Our branding was further improved by Jenny Cheng’s creative re-design of the CNSPY logo and the CNSPY website. You will notice our new and improved look on our email announcements, our event advertisements, and on our social media sites!

NEW INITIATIVE: SPYcast Interviews

SPYcast is the name of the CNSPY podcast, which features interviews with career mentors from different professions to provide listeners with information on the nature of their jobs and how they progressed through their career path. Interviewees have valuable advice for how to prepare for a certain position and what to expect from the application process.

Three new podcasts were hosted by Edward Doherty and Kristen Murfin, and recorded with professional quality at the Yale Broadcast & Media Center. A bonus episode was recorded by Sampada Chande.

Listen to the SPYcast episodes on iTunes or SoundCloud, or visit our website for past episodes.

1. Dr. Maliha Ilias, Program Officer at National Institutes of Health
2. Jeffrey Mervis, Senior Correspondent at Science Magazine
3. Dr. Aurora McRae-Crerar, recent AAAS Mass Media Fellow
   Bonus: Dr. Makarand Jawadekar, pharmaceutical professional
The workshop opened with a presentation by Paul and Jonathan and ended with an informative question and answer session. The workshop focused on careers in consulting for advanced degree candidates (ADCs), individuals with a graduate degree other than an MBA.

In their presentation, Paul and Jonathan explained that a consultant uses a hypothesis driven, analytical approach to address a problem for a client. These problems can be extremely varied, such as increasing productivity, entering specific markets, or reaching people with healthcare initiatives. Additionally, the clients are diverse, including travel, healthcare, non-profit, and food production companies. In terms of day-to-day aspects, a consultant can expect to travel to the client throughout a case, manage client relationships, and work with a team for problem-solving. Typically, a consulting case involves meeting with a client to assess the problem, performing market research, constructing a hypothesis, testing the hypothesis with a model, and making a recommendation.

The presenters also addressed many common concerns for ADCs that want to transition into consulting. One common concern is that ADCs lack training in business and finance. The Boston Consulting Group has several programs to help address this knowledge gap for all ADC hires. Another common concern is work-life balance, as consultants often work 10-12 hour days and travel 4 days per week. At the Boston Consulting Group, consultants typically travel during the work week and don’t work weekends, and the company has also started an initiative to address employee happiness and work-related issues.

Finally, Paul and Jonathan described the application process for the Boston Consulting Group, which has two application periods. The first is in April for individuals planning to start work over the summer, and the second is in July for individuals planning to start the following May. The application process includes a formal application and resume as well as rounds of interviews.

In closing, we would like to thank Paul Shorkey, Jonathan Graeupner, and the Boston Consulting Group for sponsoring the workshop and Caroline Rufo, Leela Dodda, and Ira Kukic for organizing the event.
On Friday January 13th, 2017, CNSPY co-sponsored the SciPhD event with the Office of Career Strategy and the Office of Postdoctoral Affairs. This event featured Randall Ribaudo, PhD, who has experience working in academia, biotechnology, consulting, and government. He created the SciPhD workshop to help scientists transition to careers in industry. There were over 130 graduate and postdoctoral attendees.

This interactive 4 hour workshop covered many facets of transitioning from academic to non-academic work and pursuing non-academic positions. Dr. Ribaudo emphasized that when applying for a non-academic position, we need to understand the major differences between the academic and non-academic scientific environments and overcome stereotypes about PhDs. For example, when applying for biotechnology positions, you may consider emphasizing your understanding of making a profit for the company, patents, and improving existing products. This will demonstrate that you understand that the goals of a biotech company are fundamentally different from those in academia and that you have thought about your role within the company. Additionally, you should emphasize important non-technical skills that you have gained throughout your PhD, such as leadership, communication, and collaboration. Which skills are most important to emphasize can be found by carefully assessing the job announcement. Dr. Ribaudo went through the basic steps for this process and provided worksheets that can be used for collecting and organizing the information.

On Nov. 4th, CNSPY hosted a Networking Workshop with Dr. Ellie Schmelzer, who is the Director of the Office of Career Services & Strategy at Icahn School of Medicine at Mount Sinai. Prior to this position, Ellie did her postdoc at Yale and then worked at the Office of Career Services at Yale.

This interactive workshop covered both the basics of networking theory and also incorporated interactive hands-on exercises. Some of the items discussed where how to prepare for networking (research who’s attending, research the companies present, prepare interesting questions), how to initiate a conversation (just look for an open group and say hello), and how to end a conversation (offer a business card and/or excuse yourself). Additionally, Ellie covered common problems encountered at networking events, such as avoiding awkwardness. She recommended bringing a friend as long as you still talk to other people and remembering that people go to networking events to be open to conversation. The first hands on activity addressed how to identify good groups to enter for conversation, such as looking for a group with a gap, people with open body language, and people paying attention to those around them. Lastly, we wrote and practiced 30-second elevator pitches.

Overall, this workshop provided key tips for navigating a networking event and was a great lead-up to the CNSPY Annual Networking Event Scheduled for Nov. 7th. Thanks to Ira Kukic for organizing this event.

The information gleaned from the job announcement should be used to tailor your resumé to the position you are applying for and to prepare for your interview. During the workshop, interactive exercises helped the attendees practice the shift in focus and language that is required when applying for industry jobs. However, Dr. Ribaudo mentioned that the most effective way to get a job interview is through networking and having someone inside the organization recommend you.

In total, this workshop covered many of the important steps for preparing to transition into a non-academic career and practical tips for being successful outside of academia. CNSPY would like to thank SciPhD and the Office of Career Strategy for organizing an excellent workshop.
**SMALL GROUP DISCUSSION**

**PHARMA AND BIOTECH with Michael Bradley**  
October 14, 2016

**ENTREPRENEURSHIP with Susan Froshauer**  
March 8, 2017

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**PHARMA AND BIOTECH with Michael Bradley, PhD**

CNSPY held a seminar with Dr. Michael Bradley on Oct 14th. Currently, Dr. Bradley works as a Principle Scientist of Biochemistry & Biophysics at Syros Pharmaceuticals. Before this, he did post-doc research at Yale and was also a CNSPY board member. In this seminar, Michael talked about pursuing non-academic careers in pharma and biotech.

He first discussed job posting descriptions and the importance of tailoring a CV to fit the core topics. Michael suggested checking a job description, identifying specific skill sets that overlap with your expertise, and emphasizing them in your cover letter or CV. When listing publications, it is good to give a brief description about the work if it is highly related. A CV for a Scientist or Senior Scientist job should be two to four pages that give reasonable details. Second, Michael introduced the structure of an early-stage drug discovery team and the key phases of pre-clinical drug discovery. The drug discovery process usually consists of years of basic research, three years for lead discovery through target selection and one year of preclinical development. After getting the Investigational New Drug filing, there are usually more than six years of clinical trials and obtaining FDA approval. Lastly, he discussed the biotech and pharmaceuticals global ecosystem. He analyzed different biotech and pharma companies on their market forces, scales, and characteristics. An additional tip Michael gave is to reach out and talk with people working in your target companies to get insights into the job. This will also give you the chance to get a referral to your dream position.

Many thanks to Prabitha Natarajan for organizing this insightful event.

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**ENTREPRENEURSHIP with Susan Froshauer, PhD**

On March 8th, CNSPY hosted a small group discussion with Susan Froshauer, PhD, the president and CEO of CURE (Connecticut United for Research Excellence, Inc.). A wide range of attendees, from basic science to clinical research at all career stages, attended and were eager to discuss careers in entrepreneurship, biotechnology, and the pathways to biotechnology start-ups.

Dr. Froshauer completed her post-doc here at Yale and then applied for a position at Pfizer. Initially a research group leader, Froshauer ended up working to connect researchers outside of Pfizer with researchers at Pfizer and setting up deals to coordinate technology. She then started her own company (now Melinta), before becoming the Director of the Technology Exchange Portal at the University of Connecticut’s Office of Economic Development. Finally, she joined CURE, and also serves as an Entrepreneur in Residence at the Yale Entrepreneurial Institute.

We discussed the history and evolution of CURE. The founders of CURE wanted to be able to educate government officials and local CT citizens about what biotech/ science research/pharma means, and also to create a hub of biotechnology research that could recruit the best research talent to CT. CURE is largely funded by membership (including UCONN/YALE/Pfizer) and serves as a resource for connecting the different aspects of biotech research, and has also formed a research incubator where bench space/lab space can be rented. We learned that CURE is a great resource for information and network building for local biotech start-ups. The Connecticut Innovations program promotes the entrepreneurial work in the state, they have seed money and investment money as well as competitions, internship money and networking opportunities.

Dr. Froshauer offered a lot of insight into how to turn a good idea into a start-up company. We learned that there are generally two ways to build a start-up. The first (and most typical) is to bootstrap the company by starting small and building up in bits and pieces. A second, much harder method is to have an attractant, a good idea, and a strong business plan, and get a lot of money invested up front. This method is difficult unless you have a proven record of successful ventures that investors can consider as value added.
After you come up with an idea, it is essential to examine your plan/business idea with a critical eye. Examine the product, the market need, and the business model. Submit a patent application if possible. Then it is essential to pressure test the idea (Can it be patented? Is it really novel? Who is the competition? What is the value and value buildup?) The Yale Entrepreneurial Institute can help with this process.

One of the key recurrent points was learning to leverage your personal experience and expertise, the resources around you and your personal network. Your network is essential to find people with the knowledge, skill, and money you lack to evolve your idea. You have to be able to convince investors that you know how to move the idea from basic research, to regulatory, to toxicology studies, to clinical trials, to a product for FDA testing.

This small group discussion helped to break down some of the mystery of how to start your own business and to become an entrepreneur. It takes a great idea, a strong business plan, a smart use of the resources around you and perhaps most importantly: Network, network, network!

Many thanks to Sandra Martinez-Morilla for organizing this event.

FREDERIC BUONO, PHD, FROM BOEHRINGER-INGELHEIM PHARMACEUTICALS

With the autumn leaves turning colorful, CNSPY held a Networking-in-Nature event at East Rock Park on Saturday, Nov 12th with Dr. Frederic Buono, Senior Principal Scientist in the department of Chemical Development at Boehringer-Ingelheim Pharmaceutical. Dr. Buono has 12 years of experience in Pharmaceutical Industry and he has worked for the past 4 years in Boehringer Ingelheim, developing and implementing continuous flow technology for several projects from gram to multi-kilogram scale processes, by using in-situ monitoring techniques, kinetic studies, and modeling for process optimization.

Frederic gave a lot of useful insights while introducing his work. Our members asked about the interview process and landing the final job offer. They asked if it is better to present one’s expertise in one specific field or to talk about several research projects. That depends on the position, Frederic said. For the first job, sometimes it will be good to present several different projects, because recruiters may evaluate on diverse skill sets. Also, your audience may come from multiple teams and may be interested in your different research backgrounds. Overall, it is great to show that you are a person willing to learn and be trained in new techniques.

Then, Frederic discussed the interaction with recruiters during one-to-one conversations following the interview presentation. First, an active interaction shows your interests in the company and the position. Most companies like to recruit people who are enthusiastic about their on-going projects. Second, the recruiting team expects you to give opinions. Your interaction with others will reflect whether you are willing to share insights with them or not. These interactions are a balance between showcasing yourself and asking questions to learn more about the company. Frederic also emphasized the importance of networking. It is very common in industry that a referral from your previous PI or previous colleagues helps you get the next position.

Lastly, Frederic advised that after receiving positive feedback from the final interview, you need to give a reasonable answer about the time to start. Sometimes, companies consider it fine if you start working in 2 weeks to 3 months. Longer than this, you will take some risks, because the position may not be secured very long and may be cut. We appreciate Frederic’s time and kindly sharing his insights with us. Thank you to Tianyi Yuan for organizing this event.
CNSPY organized the 5th Annual Networking Event (ANE) on the evening of November 7th, 2016, and it was attended by over 100 graduate students and postdoctoral associates from Yale. ANE connects attendees with career mentors from scientific professions for networking and learning about companies and career paths. This year’s event featured 21 career mentors from diverse science professions, including biotech industry, technology transfer, consulting, medical writing, science policy, academic teaching, and academic administration.

The event opened with a brief introduction. Ira Kuckic, CNSPY President, spoke about the CNSPY mission and members, and the event was introduced by Supriya Kulkarni, CNSPY Director of Events. Following this were 3 rounds of small group discussions that lasted 30 minutes each. Each small group discussion was led by two career mentors in similar fields at different organizations. These short discussions covered a variety of topics, such as how the mentor got involved in their field, work-life balance, and ways to gain necessary experience. After small group discussions, there was an unstructured networking time that allowed attendees to connect to mentors and other attendees that they were unable to meet during small group discussions.

Also during the event, 4Catalyzer held a recruiting session for three open positions at their Guilford location. Attendees were able to meet the recruiters and ask questions about the open positions and the company.

ANE 2016 was generously co-sponsored by 4Catalyzer, Elsevier, Pfizer, and the Office of Career Services. The CNSPY team would like to thank all of the sponsors, career mentors, and volunteers that made this event possible!
Curious about how science, business, and law intersect? Here we feature Michael Dilworth, who combined his passion in science and expertise in law to start his intellectual property law firm, Dilworth IP, based in Trumbull, Connecticut. He has almost 25 years of experience in practice areas of intellectual property. In 2007, Michael Dilworth started Dilworth IP, providing services in the areas of patent and trademark prosecution, IP transactions and due diligence, litigation support, post grant proceedings, licensing of intellectual property, portfolio management and counseling. Michael went to Saint John’s University, where he majored in Chemistry. He then went to Albany Law School of Union University where he earned his Juris Doctor degree. Learn more about careers as intellectual property attorney below and how he made the transition to his unique position now.

FAQ

What is an Intellectual Property Attorney?
The term “Intellectual Property” is quite broad and covers a variety of legal protections that may be available to creators, inventors, performers, artists, and the like, such as patents, trademarks, copyrights and trade secrets. Attorneys may choose to specialize and concentrate their careers on one of these areas. Then there is the dichotomy between “procurement” and “enforcement”; namely, there are attorneys who choose to focus on helping clients apply for and obtain the legal rights being sought after, and then there are attorneys who choose to focus on helping clients assert claims of infringement (or defend against such claims) by third parties. Some attorneys do both.

Why consider a career in Intellectual Property?
One aspect of being a patent attorney that I enjoy so much is working with incredibly talented inventors and scientists; another aspect is having early access to the latest innovations happening in a given technology field, long before they even reach the public. I get the chance to work on a plurality of technologies – for example, one day I might work on a new medical device being developed by one client, and the next day, I might work on a new cancer therapy being developed by another client. I am not confined to working in just one area.

What kinds of skills are needed to be successful as an Intellectual Property attorney?
One needs to have a solid grasp of the science or technology involved and be able to write persuasively and effectively advocate for the client.

What kinds of activities can one do now to better prepare for a career as an Intellectual Property attorney?
Familiarize yourself with patents by searching free online patent databases. The USPTO provides many free resources online. Even before going to law school, provided one has the number of academic credits required, one can take the Patent Agent Exam administered by the US Patent and Trademark Office. By becoming registered as a Patent Agent, you can represent clients before the USPTO before even attending law school. Becoming an attorney allows you to represent clients in court and render legal advice.

Opportunities while you’re at Yale
1) Join the Yale Entrepreneurial Institute (YEI) to experience the development of new ideas and business ventures, and to network with entrepreneurs and innovators.
2) Seek out internships at IP law firms.
3) Practice your writing skills by starting a blog, writing a guest post for the CNSPY blog, writing event summaries for the CNSPY Newsletter (apply to join the CNSPY team here), and applying for grants and fellowships.
How did you get interested in Intellectual Property?
My father is an intellectual property attorney and he encouraged me to enter the profession. The field was starting to become hot in the late 80s and early 90s and I saw lots of opportunity there.

What was the most challenging part of your transition from academia to your current field?
Generally speaking, I’ve always enjoyed writing, but learning how to effectively write patent applications required me to develop and hone a unique set of writing skills. One must not only be conversant in the technical aspects of the invention, but must also be able to think creatively and broadly about the invention so that it is properly claimed.

Can you describe the interview/application process?
During the application process, one has to advocate on behalf of the client to get the broadest possible patent protection in light of the prior art and what the application originally disclosed. Many times, the Patent Examiner will reject claims on one or more grounds, most often on the grounds that the prior art already discloses (“anticipates”) the claimed invention or renders it obvious. The burden then shifts to the applicant, represented by her or his attorney, to overcome the rejection. This is often done through legal argument, by amending the claims, or some combination of both strategies. Oftentimes, we meet with the Examiner to explain the technical differences between the claimed invention and the prior art being relied on by the Examiner. The hoped-for end result is to convince the examiner to withdraw the rejection and allow the application to proceed to grant.

What did you highlight on your Resume/CV?
For those seeking to enter the field now, I would highlight those technical areas in which you possess a high level of expertise. If you have published articles or blogs, I would highlight those. If you have already become a registered Patent Agent, that is a huge plus too.

What is a typical day like for you?
As my firm has grown and my career has evolved, I now spend a lot of my time running the business side of the firm, doing client development and managing others. Years ago, my typical day would have been spent reviewing clients’ invention disclosures, speaking with inventors, drafting patent applications, working with internal staff to file patent applications at the USPTO, reviewing and responding to communications from the USPTO, and advising clients on patent matters.

What skills did you need to develop in order to move into your current position?
Persuasive writing skills are of paramount importance. Much of what we do is write, and as attorneys, we advocate for our clients. This is also a service business, so being super responsive to clients’ needs and putting the client first is really important!

What are your most and least favorite aspects of your position?
I believe in the power of technology to improve lives. Intellectual property laws exist to promote and encourage innovation. By helping inventors (and the companies they work for) obtain exclusive legal rights to their inventions, I feel I am in some way contributing to the betterment of humanity -- albeit in a less direct way than the inventors themselves! My least favorite aspect probably has to do with the ever-present deadlines. Patent practice is extremely deadline intensive. This can lead to stress and anxiety at times.

Is there room for career development and advancement for someone in your position?
Many IP attorneys like to start out working in law firms and then move in-house to work for companies. Some IP attorneys make the transition to becoming general practice attorneys. Some move from one specialty to another (patent to trademark, for example). Others move out of the law and into business or become entrepreneurs and investors.

Is there any last advice you would give to someone looking to make a similar transition from academia to Intellectual Property field?
Talk to IP practitioners and get multiple perspectives. The field is multifaceted and there are abundant ways to practice under the general umbrella of “intellectual property”. Find out what really turns you on and go after it!
ANNUAL SURVEY RESULTS

Every year, CNSPY conducts a membership survey to evaluate the participation and satisfaction of the students and post-docs that we serve. This year’s survey was designed, distributed, and analyzed by Leo Ma.

We had an extremely high response rate of 94 members. Over half of the respondents are graduate students, about a third are post-docs, and the rest are research scientists or other affiliations. Trainees tend to join at later stages, the majority of whom have 1-2 years left at Yale. Our members are at a wide range of career exploration stages. 64% have career goals in mind, half of whom are trying to prepare for that goal, while the other half is still learning how to achieve theirs. 26% are in very early exploratory stages, and the remaining 10% are actively in the job market. The mission of CNSPY is well suited to this range of demographics, because we provide events and resources that aid in career exploration, networking, and job applications, from the beginning of finding your career interests to the final acceptance of a job offer.

Our events were rated very highly across the board. The average overall satisfaction rating was 4.2 out of 5, with ratings between 2.9 to 4.6 out of 5 for aspects of knowledge about specific career paths, reflection on your own career goals, networking with peers, and networking with mentors. The survey indicates that our events are well attended with at least 5 of the respondents having participated in a small event, and 35 to 45 having attended a large event. Our various online resources also have an interested audience. We will use the survey results to identify gaps in our programming in order to increase membership participation by providing more events of interest and improving our marketing.

Special thanks to everyone who participated in the survey. We look forward to improving our programming to better serve you!