

The Career Network SPYglass

Welcome to The Career Network SPYglass, the quarterly newsletter of the Career Network for Science PhDs at Yale (CNSPY). In this issue, we highlight our successes to date in 2013, and upcoming projects and events. We focus on Biotechnology Patent Law, and our 'Career in Focus' section includes FAQs about the career and an interview with Dr. Naira Rezende, scientific advisor at Wilson Sonsini Goodrich and Rosati. We are happy to receive suggestions, requests for information, and feedback on the SPYglass at cnspyglass@gmail.com. Please put "SPYglass" in the subject line.

- Shalini Nag, Executive Board Member, CNSPY
(Chief Editor, Design & Content Developer, The Career Network Spyglass)

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CNSPY in focus

CNSPY was established to provide graduate students and postdocs with a platform to explore diverse career options and build an extensive professional network of peers, career mentors, and faculty advisors. Our events allow our members to meet and learn from career mentors while building a community of like-minded peers. We aim to establish new avenues for collaboration, business ventures, and job opportunities while supporting an entrepreneurial environment among science trainees at Yale.

We extend a special welcome to our newest career mentors from Bristol-Myers Squibb (BMS), Cold Spring Harbor Press, Yale Office of Cooperative Research (OCR), Biomedical Advanced Research and Development Authority (BARDA), Prize4Life, the Food and Drug Administration (FDA), American Society for Biochemistry and Molecular Biology (ASBMB), American Association for the Advancement of Science (AAAS) and Association of International Education Consultants (AIEC).

Career Development Peer Group (CDPG) Program

In May 2013, CNSPY and Women in Science at Yale (WISAY) launched the [Career Development Peer Group \(CDPG\) Program](#). This structured program, open to all Yale graduate students and postdocs, comprises two complementary segments that will allow participants to match their interests, values and skills to various career options. During the first phase (summer 2013), peer groups of 2-3 individuals will discuss results of personal self-assessment exercises, share ideas, and reflect with each other. In the second phase in the (fall 2013), participants will attend focused informational sessions with career mentors within the CNSPY network. Participants and career mentors will connect to discuss their professional experiences, career paths/options, and how trainees can become competitive candidates. Career mentors, if you are interested in leading these informational sessions and offering insights into the careers you've chosen, we'd love to hear from you! Email us at cnspyglass@gmail.com.

CNSPY quarterly mixers

CNSPY's quarterly mixers provide opportunities for

our members to connect with others sharing similar career interests and establish enduring professional relationships. At our inaugural mixer in March, over 25 CNSPY members spent an evening mingling, while enjoying delicious appetizers at Kelly's Gastropub in New Haven. Attendees reported that it was an enjoyable and useful experience. Watch out for our next mixer in June 2013. We hope to see you there! Thanks to Kelly's for hosting us and generously providing appetizers.

Jobs & Internships

CNSPY provides a forum for career mentors to develop and advertise internships and job opportunities within our community. This quarter, we publicized twelve positions communicated directly by career mentors closely involved in the hiring process at organizations including GlaxoSmithKline, BI, Ancera, Yale, etc. Career mentors, if you are interested in reaching out to our group to identify talent, and in particular to target applicants with specific skill sets, experience and interests, please contact us at administrator@careernetworkforsciencephds.org.

Small group discussions - Academic careers in Liberal Arts Colleges with Dr. John Goss

On April 24th, 2013, CNSPY organized a small group discussion on academic careers at Liberal Arts Colleges, led by Dr. John Goss of Yale University, who will be joining Wellesley College as an Assistant Professor this fall. John provided guidelines on how to apply for faculty positions at liberal arts colleges. He discussed the need to specifically address one's interest in these institutions/positions, application materials, and interview preparation. During a very productive session, John reflected on his own experiences and candidly answered the queries of the 10 participants. He suggested that candidates should develop teaching skills while at Yale, for example, by attending workshops offered by the Graduate Teaching Center and Science Education Journal Club. At the end, John graciously offered to provide ongoing advice to the attendees. The attendees concurred that this small group discussion fostered increased awareness about careers in Liberal Arts Colleges and how to prepare for them.

Small group discussions - Careers in Pharmaceuticals with Dr. Jim King

On March 25th, 2013, the group of 12 that met with Dr. Jim King, Principal Scientist at Boehringer Ingelheim (BI), was split evenly between current graduate students and postdocs/staff scientists. Our conversation covered various topics pertaining to Research & Development careers in pharma. Particularly helpful aspects of our discussion included the types of PhD-level positions available in R&D at BI and how to become a competitive candidate as either a freshly minted PhD or a postdoc/staff scientist with 3-6 postgraduate years of research experience. Jim went over the details of preparing your CV and cover letter for such positions, how typical interviews proceed, and which facets of your skills, experiences, and interests to emphasize. We also discussed broader issues about the R&D pharma workplace, work/life balance, the structure (and restructuring) of research divisions, the trajectory and lifetime of projects, and the team-based nature of industry R&D. CNSPY received a large amount of positive feedback from discussion group attendees, and Jim is excited to return next year!

Small group discussions - Careers in Defense

CNSPY will be organizing discussions on scientific careers in the Defense sector with representatives from the United Nations, Federal Bureau of Investigation and Department of Homeland Security. Look out for announcements with dates, venues and other details!

Publicity – MIT Sloan BioInnovations Conference

CNSPY presented a poster at the 2013 MIT Sloan

BioInnovations Conference, a large-scale event that brought academic and industry scientists together with business professionals in the bioscience industry. Our presentation yielded productive discussions about the CNSPY model to enhance academic-industry partnerships and optimize the flow of highly trained scientific personnel into appropriate careers in industry. The CNSPY team also motivated the involvement of additional career mentors and fostered new connections at universities in the Boston area.

Publicity – Biological and Biomedical Sciences (BBS) Recruiting

For the second year running, CNSPY attended each of the BBS recruiting weekends, where we spoke with many prospective graduate students and presented a poster highlighting CNSPY's mission, structure and initiatives. Each weekend, 20-30 prospective graduate students requested additional information on our program. Several attendees remarked that organizations like CNSPY are currently only found in a few of the schools where prospective students had interviewed and are highly valued by them. CNSPY will be pleased to assist at graduate student recruiting events of all science and engineering programs. Please email administrator@careernetworkforsciencephds.org to request our participation at Yale graduate student recruiting events.

Undergraduate seminars

In addition to providing career development opportunities for graduate students and postdocs, the CNSPY team is also interested in developing new paradigms in graduate education. Therefore, we reached out to current Yale undergraduates who plan to enter graduate school in the sciences. We will help develop awareness among college seniors about careers for science PhDs both in and outside of academia through short information sessions. This initiative was stimulated by our interactions with incoming Yale PhD students during recruitment, which highlighted the need for increased understanding and realistic career expectations among students entering graduate programs in the sciences. We are exploring possibilities to expand such outreach programs to other universities and colleges.

Getting involved

CNSPY has many exciting projects in the pipeline. You can get actively involved in projects that you are passionate about and gain exposure and experience while developing your skills and CV. Available positions include *executive board members*, *career liaisons* and *project managers*. Please email [us](#) to learn about current opportunities and apply.

There are always new developments, opportunities, events and programs at CNSPY. Stay tuned by signing-up on our [website](#), joining our [Linked-in group](#) or sending us an [e-mail](#).

Career in focus

Biotechnology Patent Law

In this issue, CNSPY executive board member Paul Cao presents answers to frequently asked questions about careers in Biotechnology Patent Law. Paul is a postdoctoral associate in the Department of Pathology and is currently studying the biological mechanisms of lung cancer metastasis. He is currently an intern at the Yale Office of Cooperative Research and is interested in a career path where science, business, and law intersect. Paul interviewed Dr. Naira Rezende, a PhD graduate from Weill Cornell who has successfully transitioned into a career where she is applying her science expertise in biotechnology patent law. She kindly shared her first-hand experience and prospects in this arena.

FAQs

What is Biotechnology Patent Law?

“A patent is a property right granted by the Government of the United States of America to an inventor “to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States” for a limited time in exchange for public disclosure of the invention when the patent is granted.” (United States Patent and Trademark Office, www.uspto.gov)

Biotechnology patent law focuses on obtaining and defending the property rights granted by patents on technologies developed by scientists working in the biosciences. There are opportunities in biotechnology patent law for both patent lawyers (who combine a law degree and a background in science or technology) and others that do not require a law degree, including becoming a patent examiner, serving as a scientific advisor for a law firm or legal department of a company, and working in technology transfer at a university.

Why switch?

Patent-related careers are a viable option for those looking to intersect both science and law, and in particular those who enjoy evaluating science innovation.

What positions can one hold in patent law?

Many PhD scientists in this field are employed as *technology specialists* or *scientific advisors*. Responsibilities include working with inventors, researchers and attorneys to evaluate invention disclosures, assess patentability, and draft patent applications. As one progresses in this career, most law firms will encourage you to take the Patent Bar Exam to qualify as Patent Agents. In addition, for some PhD scientist career paths in IP/patent law, in particular working as a patent attorney, it is required or highly beneficial to attend law school and obtain a JD (juris doctorate). Some of the key duties of patent attorneys include advising clients about contracts, prosecuting patent applications, and participating in courtroom trials.

Where will you work?

Besides law firms, jobs in biotechnology patent law include working for companies, state and federal governments (e.g. USPTO), private institutes, non-government organizations and technology transfer offices at universities.

How to make the transition?

Those interested in biotechnology patent law should seek internship opportunities that will expose them to the field. These might include internships in science & technology policy or technology transfer.

While you are at Yale

Apply to the Yale [Technology Ventures Program](#). Additionally, the [Science & Technology Policy Fellowships](#) of the American Academy of Arts and Sciences (AAAS) are likely to provide valuable credentials.

Interview with Dr. Naira Rezende

Scientific Advisor at the Wilson Sonsini Goodrich and Rosati law firm in New York, NY.

Please describe your career path to date.

I received my PhD in Molecular Biology and Biochemistry from the Weill Cornell Graduate School of Medical Sciences in 2012. As a graduate student, I was also a Howard Hughes Medical Institute Gilliam Fellow (2005-2010). Currently, I am a scientific advisor for a law firm in New York City that works with life science companies.

How did you become interested in patent law?

In 2011, I applied for a science policy internship opportunity at the National Academy of Sciences (NAS). I was selected to be a Technology Policy Fellow and took the following fall semester off from the lab to go to Washington D.C., where I had the opportunity to work with the Committee on Science Technology and Law (CSTL). At my time there, I interacted with staff members of the NAS, and with different people and organizations who influence or make science and technology policy. It was a valuable learning experience. One day, I received a circulating email to the PhD graduate student body for an open position as a scientific advisor for the law firm I am currently at. I think that patent law can influence and drive the direction of the medical landscape (i.e. drug discovery, business development, research, and education), and I pursued the opportunity to do so.

What is a typical day like? What are your responsibilities and how do you see yourself progressing in this career path?

I am pretty much busy as soon as I step in the front door. I usually work an average of 10 hours a day and I also work most weekends. My responsibilities include assisting in evaluating invention disclosures, drafting patent specifications and claims, preparing and prosecuting applications, performing freedom to operate analysis, and working on proceedings in the United States Patent and Trademark Office (USPTO). Most law firms highly encourage you to take the Patent Bar Exam. The USPTO requires that all those applying for registration (agents or attorneys) meet three requirements: (1) good moral character, (2) legal, scientific and technical qualifications necessary to render valuable service, and (3) competence to advise and assist patent applicants in

the presentation and prosecution of patent applications. A college graduate with a bachelor's degree in a recognized technical subject, for example, biology, chemistry, physics, computer science, and most engineering degrees can typically satisfy the requirement for technical qualifications. Approval in the Patent Bar allows a PhD scientist to practice patent-related careers as a Patent Agent or a Technology Specialist. Many people entering this field with PhDs might choose to become a patent attorney. In some instances, law firms will help you obtain your law degree part-time and classes are taken during the evenings. Getting a JD can open a number of additional career opportunities. Some people stay at the law firm as patent attorneys, participating in prosecution and litigation, and try to become partner. Some people might decide to leave and open their own patent law private practice. Some become counsel members of pharmaceutical, biotechnology, technology companies, and academic institutions. Others might decide to pursue something outside of law, such as pursuing positions in the private sector, biotech companies, or becoming chief scientific officers (CSO) that head scientific research operations at organizations and biotech companies. I find my work enjoyable, rewarding, and stimulating with plenty of opportunities available for career growth in the future. The most exciting part of my job is that I am in touch with cutting edge science projects.

What advice would you give to graduate students & postdocs in science, who wish to make the transition into patent law?

For those interested in making this transition, I would encourage them to seek opportunities such as doing an internship with the Technology Transfer Office at their institution, or an internship with biotech and/or technology companies. These types of internships will give you a glimpse of what patent law might entail. It wasn't until I immersed myself in the field that I began to think of intellectual property as a career path. More important is to seek, reach out, and network with other science PhDs already in patent law. These connections will help you get a better understanding of what it's like to work in patent law from a science PhD perspective.

Thank you for reading!

CNSPY Core Leadership Team

Co-founders - Thihan Paddukavidana (President), Rebecca Brown*

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