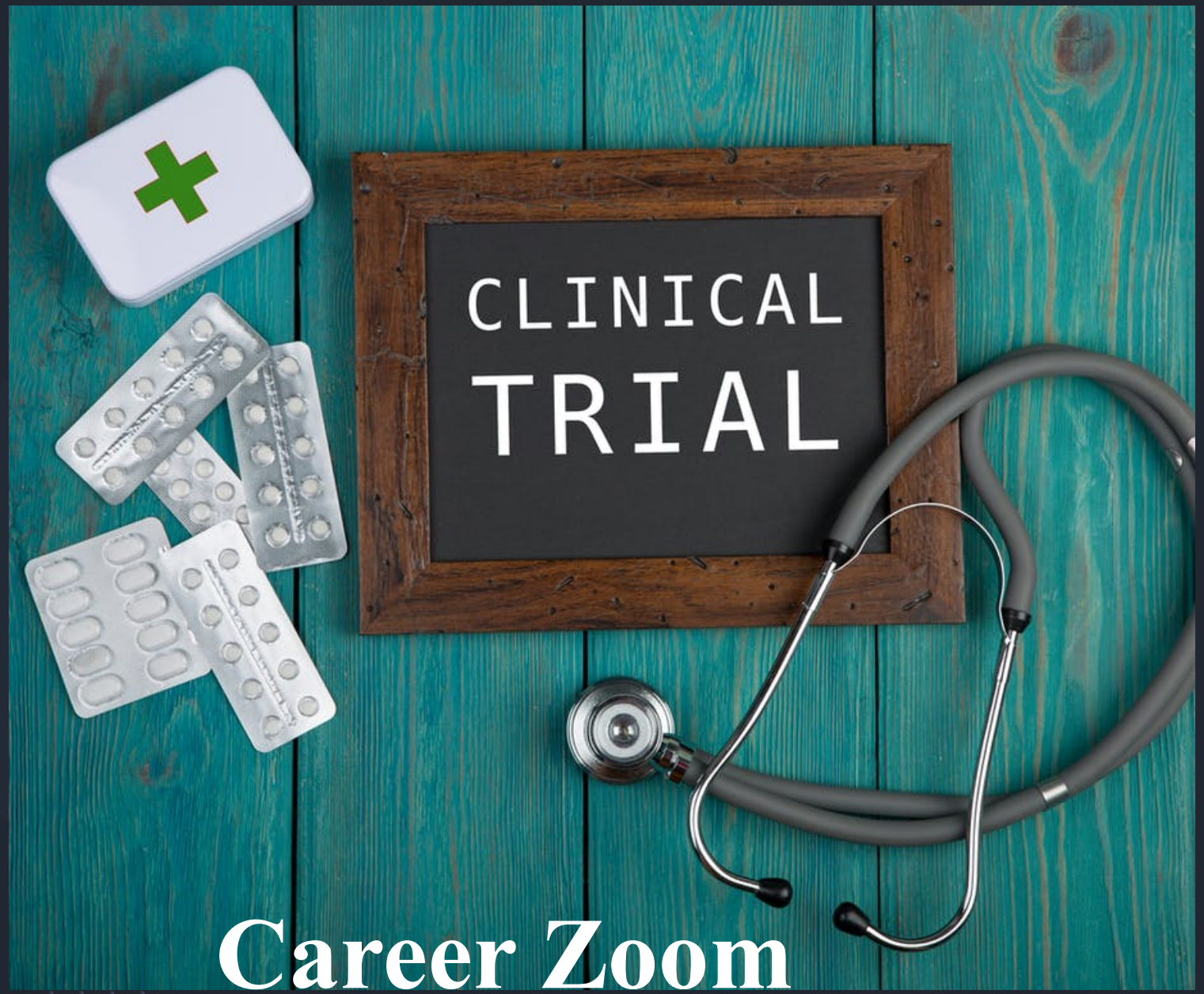


Career Zoom
Health Care Series

Session – 7

May 19, 2021

Dr. Alex Kolevzon

Angela Dao

Dr. Amy Watkins
Director of Student Services, Business Education & Community Education
Wappingers Central School District

Mary Jane Bertram
Regional Director - Hudson Valley Workforce Development Institute (WDI)

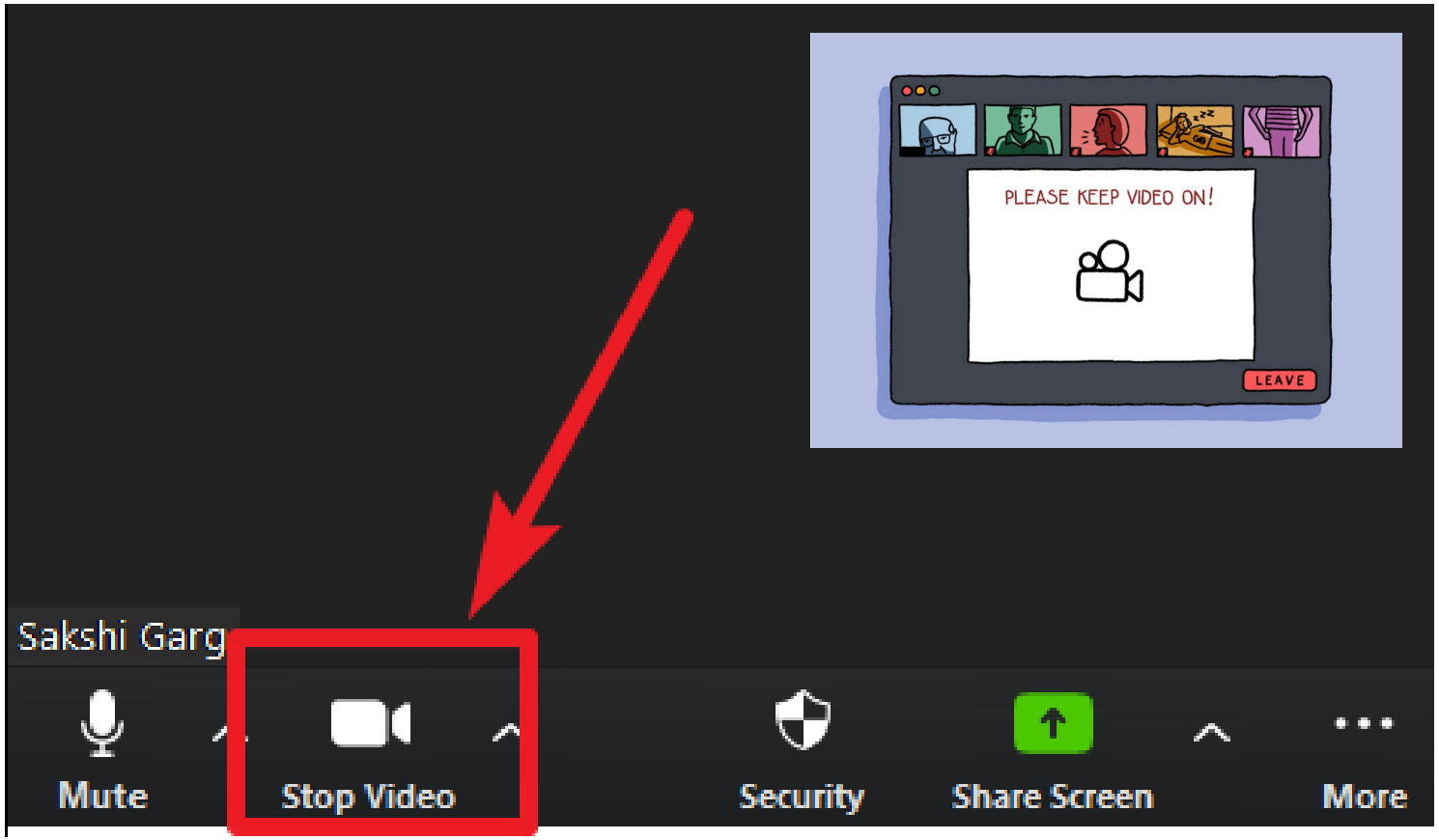
Laraine Kautz
Workforce Development Liaison
Dutchess Community College

Dr. Louise McLoughlin
Executive Director
Dutchess County Workforce Investment Board

Data Source: EMSI, 2021

Q: *What is a Career Zoom Health Care Series?*

- **A:** *An opportunity to ask questions and learn more about the Health Care profession to see if it might be a good fit for you.*



Housekeeping Items

- While the speaker is talking everyone will be on **mute**.
- Have your **camera on** and be visible to the speaker. This is your chance to connect with a professional face-to-face.
- Use the **chat** feature to ask questions.
- Email amy.watkins@wcsdny.org if you have any questions.

Today's Career Zoom Topic:

Scientific & Clinical Research

Scientists & Clinical Researchers

National Salary Average: **$91,523**

Hudson Valley Salary Average: **$98,967**

11% NYS JOB GROWTH PROJECTIONS

NOW-2025

HOW LONG DOES IT TAKE TO BECOME A SCIENTIST OR CLINICAL RESEARCHER?

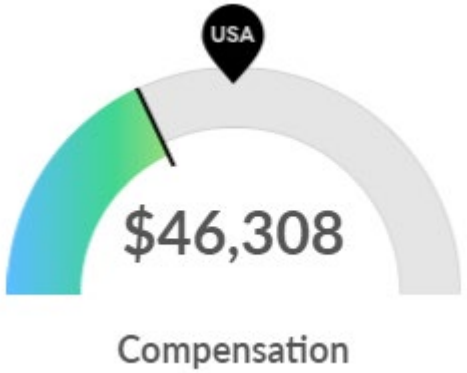
It is common for **scientists** to go through 4 **years** of undergrad, around 5 **years** of higher education, and 3 **years** of research, which means it'll **be a** solid 12 **years** of training.

After you complete your undergraduate education, you'll likely be given a stipend or paycheck as you work through the remainder of your training.

Research Assistants

National Salary Average: **$49,132**

Hudson Valley Salary Average: **$46,308**



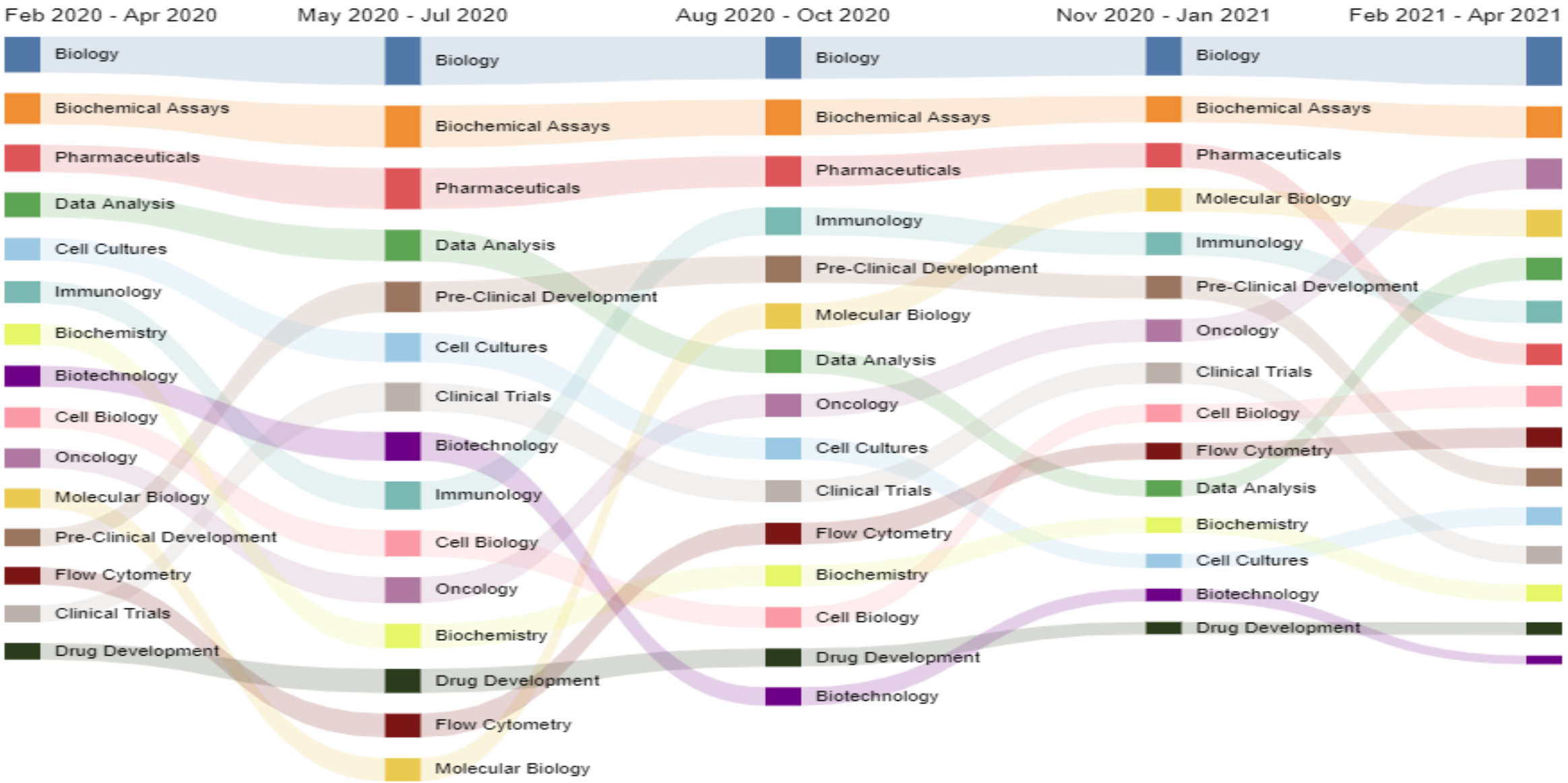
3% PROJECTED REGIONAL JOB GROWTH NOW – 2025

DO I NEED TO GO TO COLLEGE?

Most **research assistant** positions in academia and the private sector will require a four-year degree in the specific field of **study**. Graduate students may work as **research assistants** doing different work as they pursue a master's degree or PhD.

Top 15 Skills for Medical Scientists, Except Epidemiologists by Quarter

Skills help us understand the direction an occupation is headed.



TOP COMMON SKILLS

Research	Communication	Microsoft Excel	Presentations	Investigation	Innovation
Management	Leadership	Verbal Communication Skills	Microsoft Power Point	Mobile Devices	Self-motivation
	Organizational Skills	Planning	Quality Assurance	Spreadsheets	

WHERE ARE THE JOBS?

- ✓ **Scientific Research and Development Services**
- ✓ **Colleges, Universities and Professional Schools**
- ✓ **General Medical and Surgical Hospitals**
- ✓ **Education and Hospitals (State Government)**
- ✓ **Medical and Diagnostic Laboratories**

Dr. Alex Kolevzon is a child and adolescent psychiatrist and Professor of Psychiatry and Pediatrics at the Icahn School of Medicine at Mount Sinai. He serves as the Director of Child and Adolescent Psychiatry for the Mount Sinai Health System and the Clinical Director of the Seaver Autism Center for Research and Treatment at Mount Sinai. His research interests pertain to understanding the neurobiology of autism and related neurodevelopmental disorders, biomarker discovery, and developing novel therapeutics.

Most recently, his group has focused on studying specific genetic forms of autism, including Phelan-McDermid syndrome, FOXP1 syndrome, and ADNP syndrome, in order to explore targets for pharmacological intervention.

Dr. Kolevzon leads the Experimental Therapeutics Program at the Seaver Autism Center which conducts studies that range from small pilot trials to multi-centered pivotal FDA studies. He also leads a national rare disease clinical research network dedicated to clinical trial readiness and studying the natural history of Phelan-McDermid syndrome. He is a frequently invited speaker regionally, nationally, and internationally and is also extremely committed to medical student and residency education as an active teacher, mentor, and clinical supervisor.

Angela Dao graduated from RCK in 2013 and went on to Binghamton University where she majored in Integrative Neuroscience -- this degree included coursework from different areas including Psychology, Biology, and Chemistry. She really enjoyed her neuroscience classes and after taking a course called "Drugs and Behavior" she knew that she wanted to learn more about how drugs of abuse and addiction affect the brain.

During Angela's undergraduate career she spent 2 years as an undergraduate research assistant in a behavioral neuroscience lab where she received her first research experience studying rodent models of chronic and severe alcohol abuse. This experience included animal handling, minor rodent surgeries, conditioning and learning, brain staining and imaging, and general laboratory techniques. This inspired Angela to want to pursue a research career. She decided to pursue a graduate education and earn her PhD. She is now in her 4th year of the 5-year PhD program in the Behavioral & Systems Neuroscience area of the Psychology Department at Rutgers University and has earned her Masters degree in the process.

Q & A with Angela Dao

WHAT IS YOUR DAY LIKE?

Although my job title is technically "Graduate Student," I also teach undergraduate courses in the Psychology Department at Rutgers, I am in charge of project management and personnel management in my lab, and I am spearheading a research collaboration between two different labs in the department.

WHEN WILL YOU GRADUATE?

I will be finishing my dissertation in the next year and at that point I will likely go on to work as a postdoctoral research fellow for a year or two before starting my career.

WHAT IS YOUR RESEARCH FOCUS?

Currently, my research focus is drug addiction and neuroimmunology, and I study the effects of chronic opioid abuse on neuroimmune functioning. To do this I employ a rat model of fentanyl self-administration and after 30 days of fentanyl exposure, I collect blood, brain, and spleen samples which are used to analyze specific aspects of neuroimmune functioning. My day-to-day activities currently include running animal behavior, immunohistochemistry (staining brain slices) and other immune-based assays, and data analysis, but the daily activities frequently change based on the stages of my experiment.

WHAT WILL YOU DO WITH YOUR DEGREE?

Many research PhDs go on to academia where they teach college courses and maintain their own research lab, but there are so many other options. After my postdoctoral research experience, I hope to go on to start a career as a research scientist in the pharmaceutical industry, or maybe pursue a career in science and medical writing and communications. I've got lots of options, and lots of time to figure it out!

WHY DID YOU PICK THIS FIELD?

I love what I do because I'm constantly learning and exploring topics that I'm genuinely interested in. Even though I am still working on my PhD, I am a true neuroscientist working collaboratively with faculty in my department, and my research allows me to contribute to solving public health crises and contribute to an important cause. I can see my education paying off everyday because I apply what I learn in the lab and my research and the whole process has been very rewarding for me.

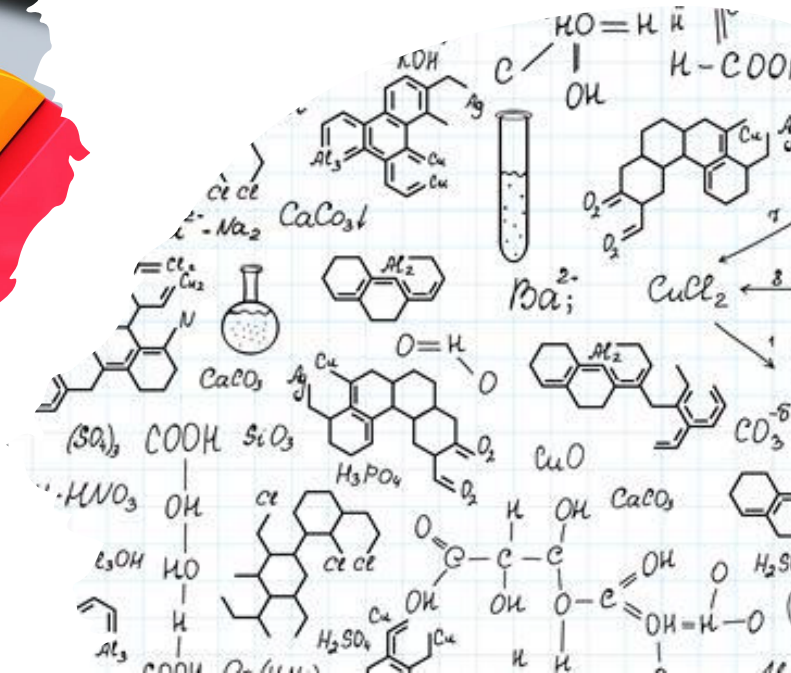
Q & A with Angela Dao

WHY DID YOU APPLY TO A PhD Program?

I decided I wanted to apply to a PhD program at the end of my junior year of college. It's definitely helpful to plan further ahead in your undergraduate career to make sure you have all the prerequisites complete, but luckily my degree required many of the courses graduate school required.

WHAT COURSES DO YOU NEED FOR A PhD Program?

For a PhD program in a Psychology department, you typically need all the courses required for an undergraduate psychology degree, including statistics and research methods, as well as intro biology and chemistry courses (at the minimum) because the PhD is a research degree, and a few math courses (but nothing advanced). Different programs require different course work, but this is pretty typical of Psychology graduate programs.



Q & A with Angela Dao

AFTER YOU EARNED YOUR BACHELORS' DEGREE, WHAT WAS YOUR PROCESS TO GET INTO A GRADUATE PROGRAM?

I applied to five schools, interviewed at three, and got accepted to all three programs that I interviewed for. If you are offered an interview, you're pretty much halfway accepted because that means they like you on paper, they now want to see if you'd be a good fit in the lab. It's very common to not live near the school you apply to, so most programs will offer a travel stipend of a certain amount to pay your travel expenses, including plane tickets and hotel stays for however many nights you will be in town for the interview. They also typically will provide transportation to and from the hotel/campus, as well as meals for the day of the interview. The interview day is very long, you typically meet one on one with 5-10 faculty members in the department and current graduate students, and this is where you sell yourself, but the program also wants to convince you to pick them so they're selling themselves as well. Like I said, if you're offered an interview that means you're great on paper and they're willing to cover all your travel expenses, and they wouldn't do that if they didn't really want you.

Q & A with Angela Dao

HOW DO YOU KNOW WHICH COLLEGE OR UNIVERSITY TO SELECT?

HOW DO YOU "GET IN"?

The contacting faculty part is pretty crucial to set up some kind of a relationship with your prospective mentors, make sure you'd be a good fit in the lab, and to make sure your research interests align, but it isn't 100% necessary because I didn't reach out to my faculty member before applying, but I would encourage all students to do so because it would only increase your chances of getting an interview. During the application process, I did a ton of research looking at different programs to find a faculty member who did research I was interested in that was also accepting students. For a lot of Psychology PhD programs, you get accepted into the program and directly accepted into a faculty member's lab, so if your research interests don't align with a faculty member who is accepting new students that year, you won't get accepted into the program (which is why it's a good idea to reach out to faculty members before applying). There are also programs that accept you into the program and then you spend the first year rotating in 3 or 4 different labs before choosing the lab you want to complete your PhD in. This is good for students who don't know exactly what kind of research they want to do, but it's less common in Psychology departments and more common in Neuroscience/Biology based programs. Both are great options, I personally knew exactly what kind of research I wanted to do and who I wanted to work with, so spending a year rotating in different labs felt a bit like a waste of time for me, but I know students in other programs who have really benefited from their rotations.

Q & A with Angela Dao

DO YOU NEED LETTERS OF RECOMMENDATION?

Letters of recommendation are really important too, because you want people who can speak not only to your aptitude as a student, but also to your ability to become a successful researcher, so it is important that you choose recommenders who can speak very highly of you in these areas. I had letters written from the faculty member who ran the lab I did undergraduate research in, a post-doctoral researcher from the lab, and the advisor of the Integrative Neuroscience department. An advisor isn't typically the best recommender because they don't know you well enough, but I worked as a peer advisor in the integrative neuroscience department for 2-years so we had a good working relationship.

Recommendation Letters

Q & A with Angela Dao

WHAT GRADES DO YOU NEED IN COLLEGE TO BE A CONTENDER FOR A SLOT IN A PhD PROGRAM?

The average GPA for admission to these programs is usually around a 3.5, but that's just an average. I graduated undergrad with a 3.4, but I also took much harder courses than your typical psychology student, so they took that into account. I earned As in most of my Psychology classes, and then the chemistry, biology, and physics courses were a little tougher -- I got a handful of Bs in those courses, and even a C or two. I also had really great undergraduate research experience -- I think that's what really sold me as an applicant and helped make me more appealing to admissions committees. My grades showed that I was a good student, but my research experience showed that I knew how to conduct research in a laboratory setting which is what the whole degree is about.

WHAT SCORES DID YOU NEED ON STANDARDIZED TESTS?

For the GRE, I found that most programs I applied to wanted a minimum combined score of ~305-310, I personally earned a GRE score of 313.

Q & A with Angela Dao

Q & A with Angela Dao

DO YOU PAY TUITION?

A lot of STEM PhD programs offer stipends and tuition remission for at least 5 years of your graduate training, which is a really nice perk that isn't offered for Masters programs. In my case, I receive a stipend of ~$28,000 in exchange for teaching or TAing a few undergraduate courses in the Psychology department. It only takes up a max of 15hrs per week, so there is still plenty of time to focus on my own coursework and research. The $28,000 is mine to keep and live off of, and the department takes care of my tuition so I never have to pay any bills for my education as long as I remain a full-time student (which is easy, because once I finish my required coursework I can register for "Research in Psychology" or "Non-thesis Research" credits, so I don't have to take courses my entire 5 years). TAing or teaching in exchange for your stipend is very common in Psychology PhD programs, but other programs pay you as a "graduate fellow" where you earn a fellowship of the same amount every year and there are no teaching expectations, unless you choose to seek them out. The stipend I received at Rutgers is the highest I saw while applying to programs -- most were in the $22,000-$25,000 range, and one was even as low as $15,000. This differs based on the cost of living and minimum wage in the area of the school, but it also seems like more competitive programs have slightly higher stipends.

DUTCHESS
COMMUNITY COLLEGE

Laraine Kautz

Workforce Development Liaison

Dutchess Community College

SCIENCE
LAX PROGRAM
(Liberal Arts Science)

Designed for the student who intends to transfer to a four-year institution to earn a baccalaureate degree in a natural or physical science. The program provides a broad background in the liberal arts and sciences. By appropriate selection of courses, a student may build a suitable background for further study in a senior college leading to the baccalaureate degree in biology, chemistry, environmental science and conservation, geology, health education or physics. The Associate in Science (A.S.) degree is awarded upon completion of the requirements for this program.

When to tune in?

- Each month will include guest speakers from Health Care fields. Professionals will share about their experiences and answer the most frequently asked questions collected from the survey.
- There will be time for a Question & Answer at the end of each session.
- Mark your calendar! **Every 3rd Wednesday of the month from 1:30-2:15 PM.**

PCWIB

WDI
Workforce Development Institute

DUTCHESS COMMUNITY COLLEGE

Thank you!

Rutgers, The State University of New Jersey

Icahn School of Medicine at Mount Sinai

EMPOWER • CHALLENGE • GROW • WAPPINGERS CENTRAL SCHOOL DISTRICT •