

Nisha Singh

Merck & Co., Inc.
Senior Scientist, Discovery Neuroscience
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Lehigh University
B.S. in Molecular Biology

Evolution of development of
nervous systems



Rutgers University
Ph.D. in Cell and
Developmental Biology

Spinal cord injury



Merck & Co., Inc.
Senior Scientist
(Contractor)
Discovery Neuroscience, Protein
Homeostasis Novel Modalities

Neurodegenerative disease



Merck & Co., Inc.
Senior Scientist
Discovery Neuroscience,
Translational Models

Senior Scientist, Discovery Neuroscience

Therapeutic target identification and validation

Preclinical model development and validation (*in vitro* and *in vivo*)

Assay development

Core pathology characterization

Pathway biology characterization

Pharmacological validation

Translational biomarker development



Laboratory work



Data analysis



Literature review



Collaboration



Departmental,
team, and
individual meetings



Conferences

Advice & Learnings

Network with professionals
in your field of interest

Consider **experiential
positions** (post-doctoral
fellowships, internships, co-
ops, contract roles)

Highlight the **translatability**
of your skills

Don't underestimate the
value of **leadership**,
mentorship, and
collaboration experience

Prepare both a **resume and
CV**

Always be prepared to
discuss your research and
think on your feet

Visibility is important

Consider your **cumulative
experience**

Kiran Vemuri

My journey

- 🎓 B.S. Biochemistry from Andhra University in India, Moved to the U.S. to earn an M.S. in Biotechnology from NYU.
 - 💊 3-month industry internship at Merck during my M.S. years
 - 🧪 FTE at Memorial Sloan Kettering Cancer Center as a Research Technician for 2.5 years
 - 🎓 PhD at Rutgers University (graduated June 2024); AHA fellow, 3 first author papers
 - 💊 Joined Bristol Myers Squibb as a Scientist in Translational Development. Advanced to Senior Scientist after 1.5 years.
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 - LinkedIn: [linkedin.com/in/Kiranmayi-Vemuri](https://www.linkedin.com/in/Kiranmayi-Vemuri)



Kiranmayi Vemuri, PhD ✓

She/Her

Senior Scientist at Bristol Myers Squibb

New York City Metropolitan Area · [Contact info](#)

What I do at Bristol Myers Squibb™

- Senior Scientist in Translational Development
 - Design and execute preclinical studies for drugs already in Phase 2/3 clinical trials, helping answer key questions needed for drug development and regulatory approval.
 - Generate data that support FDA submissions and contribute to the MoA information included on approved drug labels.
 - Identify and develop biomarkers that help determine whether a treatment is working in patients during clinical trials.
 - Evaluate novel drug combinations to identify future treatment strategies for cancer patients.

Key skills: Scientific problem-solving • Experimental design • Data analysis • Cross-functional collaboration • Communication • Strategic thinking

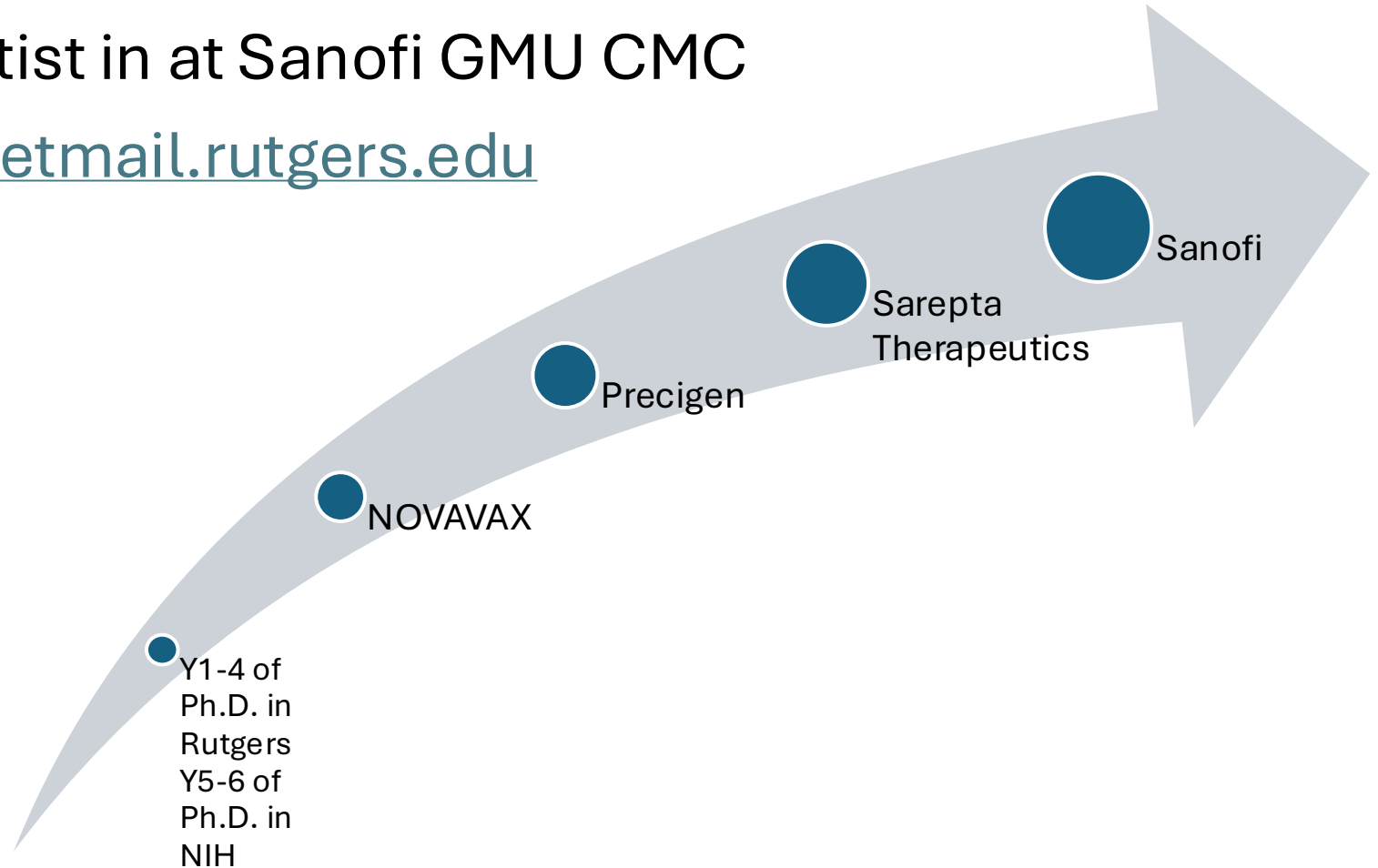
Advice for Trainees

What I wish I knew as a PhD student

- ❖ **Build skills, not just publications (*Publications help too!*)**
Scientific expertise + communication + teamwork + project management
- ❖ **Network before you need a job**
Many opportunities come through collaborations, mentors, and relationships
- ❖ **Tailor your resume to the job description (yes, they're read by AI!)**
Create separate resumes for every posting you apply to
- ❖ **Learn to tell your story**
Be able to explain your research and its impact in 2–3 minutes
- ❖ **Say yes to new opportunities**
Internships, cross-functional projects, mentoring, presentations, and leadership experiences
- ❖ **Don't wait until graduation to job hunt**
Start building your resume, LinkedIn profile, and network 6–12 months in advance

Who am I

- Name: Chen Wang
- Title: Principal Scientist in at Sanofi GMU CMC
- Email: cw506@scarletmail.rutgers.edu
- My career path:



What do I do

- CMC Development:
 - Bridging research and manufacturing of medicines
 - Develop downstream purification process to generate drug substance
- Gene therapy: AAV focused therapeutics
- Current role:
 - Leading purification process development of early and late stage programs
 - Collaborating cross-functionally
 - Mentoring junior scientists

My Suggestions

- Networking!!!
 - LinkedIn, iJob events
 - Talk to people who work in the area
- Learn technical basics about jobs online or by coffee chat
- Prepare for interviews
- Keep applying



Cemile Bektas, PhD
Senior Scientist I, AbbVie

Education History

2013-2018

PhD in Biotechnology,
Middle East Technical University
(METU), Ankara- Turkiye

2019-2024

Postdoc in Chemistry and
Chemical Biology, Rutgers
University, NJ

Work Experience

2011-2018

Research and Teaching Assistant,
Middle East Technical University
(METU), Ankara- Turkiye

2019-2024

Research Associate, Rutgers
University, NJ

2024- Current

Senior Scientist I, AbbVie

Contact

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Branchburg, NJ 08876

Email Add

cemile.bektas@abbvie.com

My Current Role: Tissue Materials Science Group | AbbVie

Journey of
TMS Team



abbvie



Pre-Concept Research



Characterization Studies

- Mechanical Testing
- Thermal Characterization
- Morphological Analysis (e.g. SEM)
- Small Molecule Analysis

In Vitro Studies

- Cell Culture
- In vitro Assay Development
 - ELISA, Luminex, Array etc.



In Vivo Studies



- Study Design & Protocol Development
- Animal Model Selection & Development
- Surgical Implantation & Optimization
- Tissue Harvest & Processing
- Histological & Mechanical Evaluation
- Correlation with In Vitro Data



Successful results advance
projects to the **concept phase**



Concept Phase and Product Launch

- Pre-Concept to Concept Transition
- Cross-Functional Collaboration
- Prototype Development & Iteration
- Regulatory Strategy & Submission Support
- Product Launch & Commercialization

Post-Launch Activities

- Product Performance Monitoring
- Competitive Comparative Studies
- Scientific Publication & Dissemination

My Advice for Aspiring Industry Scientists



The Long Game Is Worth It

- PhD & postdoc is long- but it pays off
- You enter industry at a higher level
- Academic rigor prepares you for discovery-driven research



Go Where Your Expertise Lives

- Pursue roles aligned with your training
- Deep domain knowledge is your advantage
- You can contribute meaningfully from day one



Your Publications Speak for You

- Papers reflect your expertise & work ethic
- Quality matters more than quantity
- Strong publications outshine a résumé alone



Postdoc Length Is Not a Barrier

- 5+ years of postdoc is valued, not penalized
- Discovery roles especially prize academic depth
- Don't rush out- depth matters



Build & Sustain Relationships

- Collaborative skills are as critical as in academia
- Build genuine, lasting connections
- Academic networks carry into industry



Additional Advice

- Communicate broadly- explain science to non-specialists
- Learn the business context- connect your work to product goals
- Stay adaptable- industry timelines differ from academia

Samantha Yost

- Currently a Senior Scientist in Research and Early Development at REGENXBIO in Rockville, MD
- Career Path
 - Graduated from Rutgers in 2016
 - Postdoc in grad lab 9 months while job hunting
 - Contract scientist at BMS for 1 year
 - Joined REGENXBIO as Scientist I in 2018
- Contact
 - syost@regenxbio.com
 - samyost@rutgers.edu
 - [LinkedIn](#)

Current Role

- Science:
 - Lead capsid engineering projects for optimization of gene therapy viral vectors
 - Head of Biodistribution Core group: Generate and quality check vector biodistribution and expression data from nearly all animal studies conducted in the department
- People:
 - Manage 2 FTEs
 - Share data within the department and externally
 - Attend cross functional meetings
 - Participate in day-to-day decision making of the department (small picture)

Advice

- Think about what you want your career path to look like as a scientist. Typically PhDs do not stay at the bench forever, what do you want post-wet lab life to look like?
- What makes you uniquely qualified to get the company from point A to point B? Understand the pipeline from drug discovery to commercial and what risk mitigation steps you can support.
- Get comfortable with prioritizing speed, efficiency, and making the best product with the resources you are given, not the best product you could make if you had unlimited time and money