

# Biomedical Sciences PhD and MS Orientation

Janet Alder, PhD

Assistant Dean Graduate Academic and Student Affairs, SGS Assistant Vice Chancellor for Postdoctoral Affairs, Rutgers Health Associate Professor Neuroscience and Cell Biology, RWJMS

## Agenda for today

- 9:00-10:20 Overview of resources and opportunities for biomedical graduate students (Janet Alder)
- 10:20-10:30 Graduate Student Life (Ghada Endick)
- 10:30-10:45 Graduate Student Organizations
- 10:45-11:00 Ice Breaker and Group Picture
- 11:00-12:30 Other resources
  - Wellness Services (Dana Simons)
  - Libraries (Victoria Wagner)
  - Scientific Integrity and Oath (Janet Alder)
  - Office of Disability Services (Brian Maher)
  - Office of Employment Equity (Joey DaSilva)
  - Violence Protection and Victims Assistance (Kerry Camerer)
  - Career Exploration and Success (Joe Scott)
  - Student Health (Nikita Cuvilje)
  - Recreation (Stacy Trukowski and Anne Finetto)
  - Transportation/Parking (Magen Davies)
- 12:30-1:15 Pizza lunch
- 1:15-2:30 Scavenger Hunt Tour of Busch Campus



# Staff of the School of Graduate Studies – Biomedical and Health Sciences in New Brunswick/Piscataway

**RWJMS** Research Tower R-102

James Millonig, PhD, Senior Associate Dean

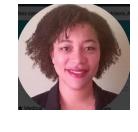
Janet Alder, PhD, Assistant Dean of Graduate Academic and Student Affairs

Smita Thakker-Varia, PhD, Assistant Dean of Graduate Academic and Student Affairs











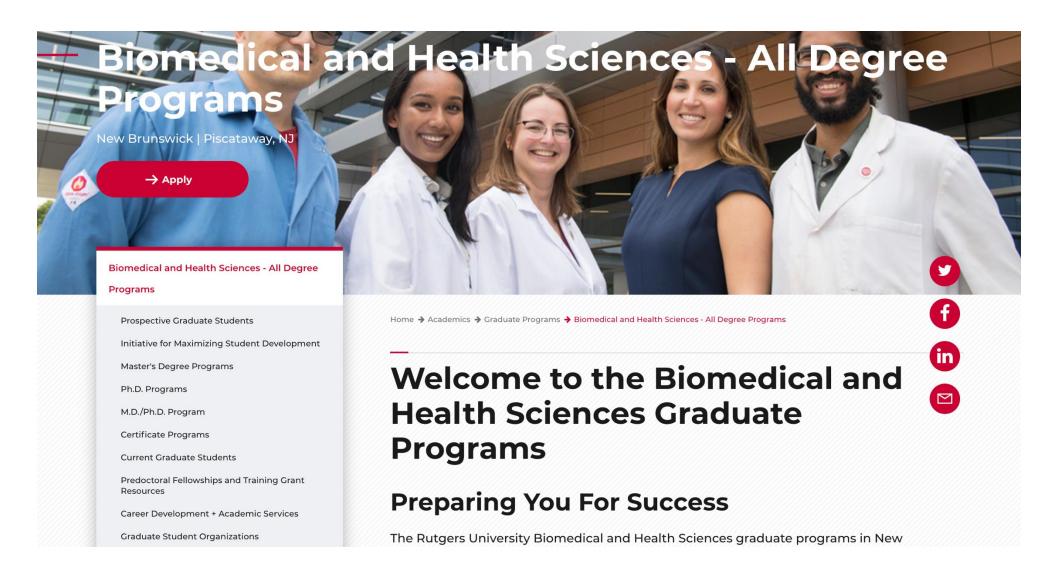
Johanna Sierra – Masters programs sierrajo@rutgers.edu





## **Website for Biomedical Sciences**

https://grad.rutgers.edu/academics/graduate-programs/biomedical-and-health-sciences-all-degree-programs



## Biomedical Science Programs in New Brunswick/Piscataway

Molecular Biosciences Umbrella Program



Cell and Developmental Biology



Biochemistry and Molecular Biology



Cellular and Molecular Pharmacology



Physiology and Integrative Biology



Molecular Genetics and Microbiology





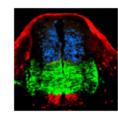
Biomedical Engineering



Exposure Science and Assessment



Toxicology



Neuroscience



Public Health



Nursing



Quantitative Biomedicine



Pharmaceutical Sciences



Medicinal Chemistry



Microbial Biology



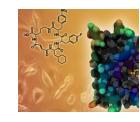
Endocrinology and Animal Biosciences



**Nutritional Sciences** 



Chemical Biochemical Engineering



Chemistry and Chemical Biology



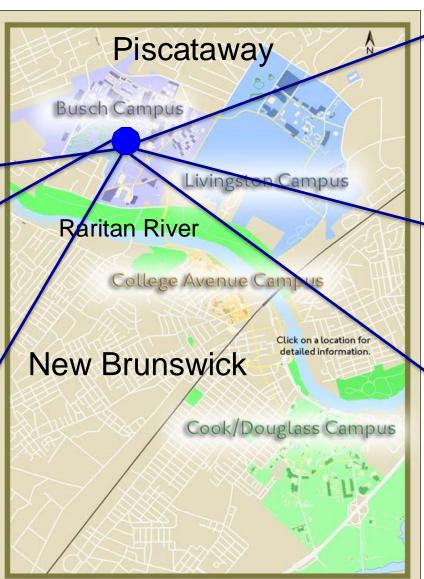
Chemistry and Chemical Biology



Life Sciences



Psychology





**Pharmacy School** 



Waksman Institute



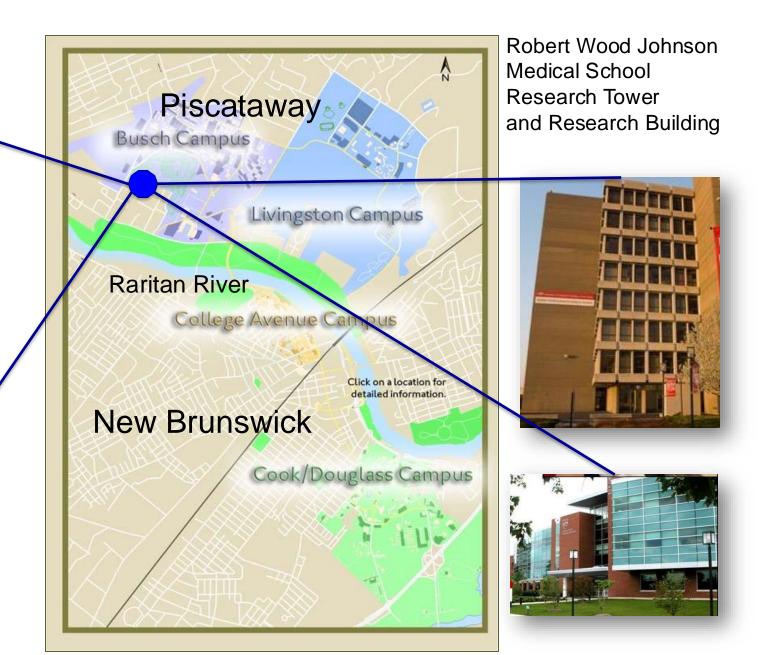
Biomedical Engineering



Environmental and Occupational Health Science Institute



Center for Advanced Biotechnology and Medicine

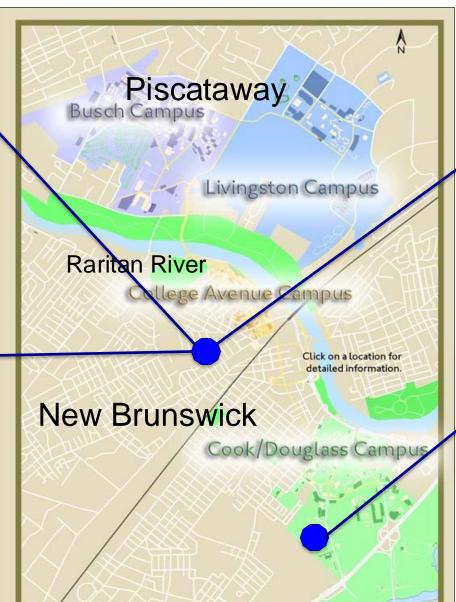




Cancer Institute of New Jersey



The Child Health
Institute for Basic and
Clinical Research





Clinical Academic Building

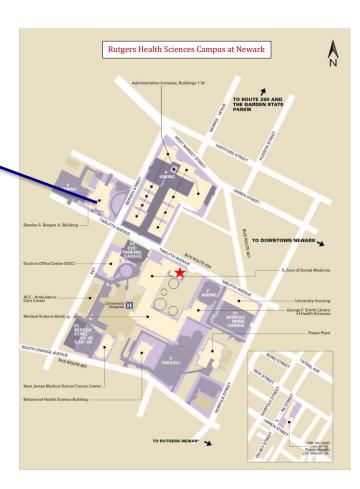


School for Environmental and Biological Sciences



## Newark Health Sciences Campus

Bergen Building



WARREN ST.

← To University Heights

RAYMOND BLVD

## **Newark Campus**



RAYMOND BLVD Newark Light Rail

ACADEMY ST. ←

## Rutgers Facts



- Member of Association of American Universities and Big10 Academic Alliance
- Ranked 61<sup>st</sup> of 2000 to world universities 2024 by the Center for World University Rankings
- Rutgers brings more federal research dollars to New Jersey than all other New Jersey colleges and universities combined
- Top 6% of American universities in science and engineering research and development expenditures
- \$929.3 million in research grants and sponsored programs received in 2023
- 470 clinical trials supported at any given time



University of Illinois Indiana University University of Iowa University of Maryland University of Michigan Michigan State University University of Minnesota University of Nebraska-Lincoln Northwestern University **Ohio State University** University of Oregon Pennsylvania State University **Purdue University Rutgers University-New Brunswick** University of California Los Angeles University of Southern California University of Washington University of Wisconsin-Madison





Our faculty hold prestigious positions
Rutgers has more faculty in the National Academy of Sciences and the American Academy of Arts and Sciences than any other public peer school in the Northeast.

Paul Copeland



Ken Irvine



Eileen White



Bonnie Firestein



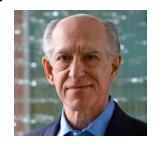
Richard Ebright



Tony Kong

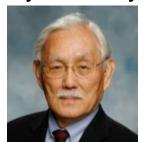


Manny DiCicco-Bloom Tara Matise



Monica Driscoll





Masayori Inouye Chris Molloy



Renping Zhou





Arnold Rabson



Andy Singson

Suzie Chen



Monica Roth



Martin Yarmush



## Rutgers houses world-renowned resources



• Largest DNA and cell repository in the world for the study of genetics and autism, mental health, drug abuse, alcoholism, diabetes, and digestive and kidney disease.



 Host to the Protein Data Bank, the single worldwide repository for 3D protein structures.



 A 550,000-square-foot, \$665 million project to bring scientists, doctors and patients together opening 2025



Your Education and Academic Resources

## Competencies learned in graduate school – transferrable skills

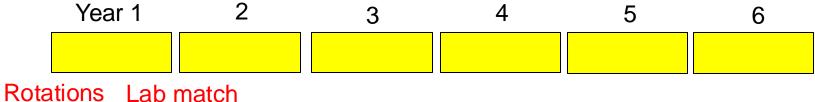
- Broad conceptual knowledge core courses
- Deep knowledge of a specific field upper level courses, thesis work, and journal clubs
- Critical thinking reading papers, planning experiments, reviewing grants and manuscripts. Manuscript and grant writing workshops and groups
- Experimental skills rotations and thesis lab, collaborations
- Responsible conduct of research Ethical Scientific Conduct initial and refresher
- Rigor and reproducibility Biostatistics classes
- Computational skills Computational courses and Certificate in Computational Biology
- Collaboration/Teamwork working with other labs and within lab, join student organizations
- Management and emotional intelligence skills manage your own project, Individual Development Plans, mentor undergraduates, interact with faculty and peers (AAMC documents)
- Leadership and professionalism volunteer for events and organizations, iJOBS
- Communication skills presentations in lab, university, and national meetings, writing manuscripts and fellowships, 3 Minute Thesis Competition, Communicating science class







# Typical timeline



Courses Qualifying exam A

Propositional Qualifying exam B

Annual thesis advisory committee meetings

Thesis defense

Annual Individual Development Plans

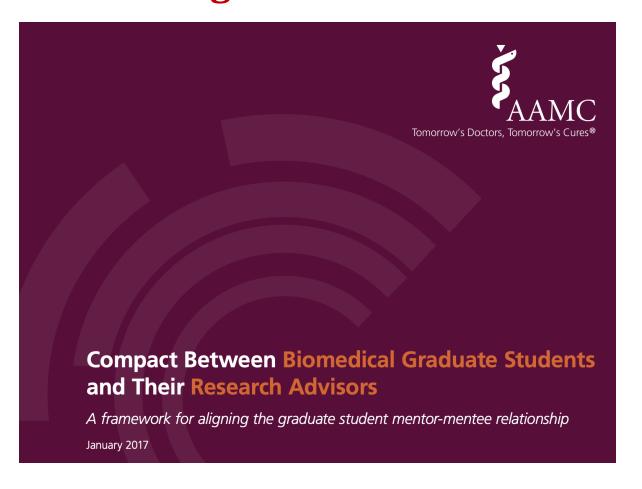
### Statistics:

Time to defense: ~5.7 years

# of publications: ~3 papers, ~1.4 first author



# Managing your relationship with your PI - Documents to review together





# Individual Development Plans (IDP)

- Educational research has shown that IDPs increase productivity
- NIH requires IDPs for all training grants and NIH Office of Management and Budget sent notice that grad students have dual roles and must engage in both training and career development.

- First and third year graduate students will do the AAAS online IDP (<a href="http://myidp.sciencecareers.org/">http://myidp.sciencecareers.org/</a>) and upload to Canvas by Aug 31, 2025.
- Second and fourth year graduate students will complete Rutgers IDP and meet with an professional in potential career area.
  - Milestones and expectations for each year of grad school
  - SMART goals (Specific, Measurable, Achievable, Relevant, Time-Bound)

## **Training Grants to Support Grad Students**

- NJ Alliance for Clinical and Translational Science (NJ ACTS)
   <a href="https://njacts.rbhs.rutgers.edu/education-training/workforce-development/tl1-predoctoral-postdoctoral-training-awards/">https://njacts.rbhs.rutgers.edu/education-training/workforce-development/tl1-predoctoral-postdoctoral-training-awards/</a>
- Biotech training program <a href="https://biotechnology.rutgers.edu/">https://biotechnology.rutgers.edu/</a>
- Environmental Toxicology <a href="https://jgpt.rutgers.edu/">https://jgpt.rutgers.edu/</a>
- Training in Translating Neuroscience to Therapies <a href="https://rwjms.rutgers.edu/institutes/institute-for-neurological-therapeutics/mission">https://rwjms.rutgers.edu/institutes/institute-for-neurological-therapeutics/mission</a>
- Training in Addiction Research <a href="https://www.addiction.rutgers.edu/announcing-a-new-nida-funded-t32-pre-postdoctoral-research-training-program-in-neuroscience/">https://www.addiction.rutgers.edu/announcing-a-new-nida-funded-t32-pre-postdoctoral-research-training-program-in-neuroscience/</a>



## Pre-doctoral external fellowship awardees this past year

**NJ Commission on Brain Injury Research** 

Shradaha Suresh

Brandon Vaglio

Seanna Kelly

Srinivasa Gandhu

**NJ Commission on Cancer Research** 

Chadni Patel

Komal Mandleywala

Kyle Nunn

NJ Governor's Council for Medical Research and

**Treatment of Autism** 

Hanna Caiola

**American Heart Association** 

Fang Luo

**NIH F31** 

Alexandra Logerfo

Emma Schweitzer

Francesca Lofaro

Tess Felicia Kowalski

**Emmanuel Alvarez** 

Branden Sanabria

Sean Stratton

Kade Power

Carolyn Kinkade

Nusrath Yusuf

Chelsea Cary

Zakiyah Henry

Howard Hughes Medical Institute (HHMI) Gilliam

**Fellowship** 

Irving Estavez



## Fellowship Applications Overview - Upcoming Workshop with Grad Fund





# Fellowship Application Workshop for Biomedical PhD Students



Thursday September 19, 2024 3:00 – 5:00pm

#### Register

https://rutgers.ca1.qualtrics.com/jfe/form/SV\_3Wpa1fN1HwqXgSa

#### Join Via Zoom

https://rutgers.zoom.us/my/alderja Passcode: Janet



This workshop will include presentations by:

- GradFund on how to use their resources at Rutgers for identifying fellowship opportunities and applying for them.
- A faculty member who serves on NIH study section and reviews fellowship applications with pointers on what reviewers are looking for.
- A panel of graduate students and their mentors who have successfully obtained funding in the past few years from various organizations.



- \$100 million in external fellowships and awards in the last 20 years
- Help identifying funding sources
- Virtual Office hours
- Help with application logistics
- Feedback, editing, and revising
   <a href="http://gradfund.rutgers.edu/">http://gradfund.rutgers.edu/</a>

## Individual Fellowship Applications - Resources and support

### Boiler plate paragraphs for various sections

https://grad.rutgers.edu/academics/graduate-programs/biomedical-and-health-sciences-all-degree-programs/predoctoral-fellowships-training-grant-resources

- RCR training
- Rigor and Reproducibility training
- iJOBS career development program
- Individual Development Plans
- Description of Institutional Environment and Commitment to Training and Additional Educational Information
- Sample successful NIH F applications, NSF, EPA, AHA, NJ state fellowships as well as diversity supplements upon request to Janet Alder





## Fellowship Applications Workshops, Courses and Fall Writing Group





- Questions? Email Lauren Aleksunes at aleksunes@eohsi.Rutgers.edu
- GSBS 9300 Independent Study Course for NIH Fellowship Writing Group in Fall
- 16:681:601 Grant Writing Basics spring course Guidance and practice in writing a biological research grant proposal focusing on Specific Aims.
- 16:830:504 Advanced Studies in Neuroscience or Psychology to write an NRSA F31 Grant Proposal. The purpose of the course is to facilitate each student's submission of an F31 application for the December deadline

## Some recent first author manuscripts by grad students

Sonal Gahlawat Annals of Biomedical Engineering, July 2024. "Tissue Engineered 3D Constructs for Volumetric Muscle Loss".

Jay N. Joshi **Cell Reports**, July 2024. "mTORC1 activity oscillates throughout the cell cycle, promoting mitotic entry and differentially influencing autophagy induction". Kyle P. Flannery **Neurogenetics**, July 2024. "A novel missense variant in the ATPase domain of ATP8A2 and review of phenotypic variability of ATP8A2 -related disorders caused by missense changes".

Mikayla M. Voglewede iScience, July 2024. "Loss of the polarity protein Par3 promotes dendritic spine neoteny and enhances learning and memory".

Samuel A. Adeleye **PLoS Genetics**, May 2024. "Queuosine biosynthetic enzyme, QueE moonlights as a cell division regulator."

Kiranmayi Vemuri Cell Reports, May 2024. "Dynamic RNA polymerase II occupancy drives differentiation of the intestine under the direction of HNF4."

Kaiden M. Power **The Journal of Cell Biology**, May 2024. "NEKL-4 regulates microtubule stability and mitochondrial health in ciliated neurons."

Alyssa Bellomo **Toxicology and Applied Pharmacology**, April 2024. "Identification of early events in nitrogen mustard pulmonary toxicity that are independent of infiltrating inflammatory cells using precision cut lung slices".

Jake N. Siebert **Pharmaceutics**, April 2024. "Early Detection of Myeloid-Derived Suppressor Cells in the Lung Pre-Metastatic Niche by Shortwave Infrared Nanoprobes". Anna Fateeva **Cancers**, April 2024. "Current State of Melanoma Therapy and Next Steps: Battling Therapeutic Resistance."

Reem Alatrash Viruses, March 2024. "The Adaptive Immune Response against Bunyavirales."

Smrithi Prem **eLif**e, March 2024. "Dysregulation of mTOR signaling mediates common neurite and migration defects in both idiopathic and 16p11.2 deletion autism neural precursor cells."

Chelsea M. Cary **Toxicological sciences**: an official journal of the Society of Toxicology, February 2024. "Single pulmonary nanopolystyrene exposure in late-stage pregnancy dysregulates maternal and fetal cardiovascular function".

Brittany F. Karas **Human Molecular Genetics**, January 2024. "Removal of pomt1 in zebrafish leads to loss of  $\alpha$ -dystroglycan glycosylation and dystroglycanopathy phenotypes".

Gabriel Villegas **FEBS letters**, December 2023. "DAYWAKE implicates novel roles for circulating lipid-binding proteins as extracerebral regulators of daytime wakesleep behavior".

Igor Ivanovski **Journal of Microbiology**, December 2023. "Genetic and Functional Characterization of a Salicylate 1-monooxygenase Located on an Integrative and Conjugative Element (ICE) in Pseudomonas stutzeri AJR13".

Jessica E. Fellmeth **PLoS Genetics**, November 2023. "A dynamic population of prophase CENP-C is required for meiotic chromosome segregation".

Bassel Ghaddar, Bioinformatics, November 2023. "Hierarchical and automated cell-type annotation and inference of cancer cell of origin with Census."

John S. Favate Elife, November 2023. "Linking genotypic and phenotypic changes in the E. coli long-term evolution experiment using metabolomics".

Robert S. Rosen **Scientific Rep**orts, October 2023. "An in vitro model of the macrophage-endothelial interface to characterize CAR T-cell induced cytokine storm".

Iva Salamon Nature Communications, September 2023. "Celf4 controls mRNA translation underlying synaptic development in the prenatal mammalian neocortex".



## Courses for writing

### Rutgers English Language Institute (RELI) - https://reli.rutgers.edu/

Supports multilingual English language learners including Intensive English program and Professional English workshops

### Graduate Writing Program - https://wp.rutgers.edu/gwp/gwp-home

16:355:506 Writing for Publication

Focuses on overall organization of published work as well as writing and editing at the level appropriate for a journal submission in the student's graduate field.

16:355:508 Writing the Dissertation

Focuses on writing at the level appropriate for a dissertation in the student's respective field.

16:355:502 Graduate Writing Class

Focuses on writing for abstracts, reviews, conferences

16:355:610 Graduate Communication Studio

Focuses on oral communication



## Writing Workshops and Ongoing Writing Accountability Groups

### Past year

- Mastering the Art of Scholarly Publishing
- The Do's and Don'ts of Effective Figure Design
- Top Design Tips for Better Graphical Abstracts
- Manuscript Writing Workshop
- Top Tips for Better Posters
- Best Practices for Depicting Biological Pathways

## Upcoming

 November 22 from 12-4pm Developing an Effective Writing Process in Science Mondays from 2:30-4:30pm in Center for Advanced Biotechnology and Medicine (CABM), 679 Hoes Lane West, Room 241, Busch Campus, Piscataway. Here is the attendance sheet if you want to add your name.

Wednesdays from 10am-12pm in Child Health Institute of New Jersey (CHI), 89 French St, Room 4278, New Brunswick Health Science Campus, New Brunswick. Here is the attendance sheet if you want to add your name.

**Fridays from 4-6pm** in Bartlett Hall, 84 Lipman Drive, Library Room, Cook Campus, New Brunswick. Sign up <u>here</u>

## **Communicating Science Course**

https://grad.rutgers.edu/academics/academic-enrichment-programs/communicating-science-course

- Spring Semester on Wednesdays from 4-7pm
- Important to be able to speak about your research to different audiences
- Grant from Burroughs Wellcome Fund (Ponzio PI)
- Techniques from Alan Alda Center. Faculty from Mason Gross and Sciences
- 3 Minute Thesis (3MT)
- Capstone project with mentor in field of interest



## **Responsible Conduct of Research Courses**

Ethical Scientific Conduct Course No. 16:115:556 and 15:115:558

https://grad.rutgers.edu/academics/academic-enrichment-programs/responsible-

conduct-research-training

- These courses complies with NIH guidelines for RCR training.
- Two courses:
  - o Initial training for those who have never had RCR previously: format is lecture by content expert for 30 min followed by small group case discussions for 30 min led by faculty. Weekly written assignments. Spring semester on Mondays from 4-5pm
  - Refresher training for those who have had RCR previously to be taken by 5<sup>th</sup> year PhD students. Four 2 hour sessions of case study discussion. Spring semester on Tuesdays in February from 3-5pm



## **Statistics Courses for Rigor and Reproducibility Training**

https://grad.rutgers.edu/academics/academic-enrichment-programs/rigor-reproducibility-training

"Statistics in Biomedical Science" CTSC 5103S. SGS Course number 16:115:557 (index#: 22748) Fall and Spring

"Interdisciplinary Biostatistics" 16:125:578 Spring

"Deeper Data Analysis for Neuroscience and Psychology 16:830:533:01 Spring every

other year



## **Computational Biology Courses and New Certificate**

https://grad.rutgers.edu/academics/graduate-programs/biomedical-and-health-sciences-all-degree-programs/computational

- Data Carpentry workshop through iJOBS every January (0 credit)
- Python course 16:137:552 (3 credits)
- Python for researchers mini course 16:695:621 (1 credit)
- New Computational Biology certificate to add on to PhD (12 credits)
   Applications announced each spring



## **Academic Support Services**

https://learningcenters.rutgers.edu/student-services/graduate-students

- Academic coaching
- Study practices
- Time management
- Test taking strategies
- Goal setting



## Teaching and Leadership Training



https://grad.rutgers.edu/professional-development/teaching-skills/ta-project

#### Rutgers Academy for the Scholarship of Teaching and Learning





PreDoctoral Leadership Development Academy

https://ol.rutgers.edu/programs/plda/

https://grad.rutgers.edu/professional-development/rutgers-academy-scholarship-teaching-and-learning

## Mentoring Skills: Effective Mentoring of Undergraduates Microbadge



#### **Effective Mentoring of Undergrads**

This active learning workshop for PhD students, Postdoctoral Fellows and Faculty will use techniques and case study discussions in breakout sessions to teach tools and skills to better mentor undergraduate students in a research setting. Attendees will also reflect upon approaches they would use to mentor trainees and employees when they are running a lab or research group in the future. An opportunity to earn a Microbadge in Mentoring Undergrads is available for those who wish to follow up with additional activities.



Wednesday, May 1, 2024 12-2pm



#### **Registration link**

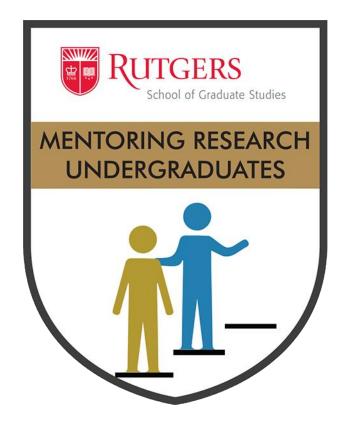
https://rutgers.ca1.qualtrics.com/jfe/form/SV Ouk9EgFqsXEhEFM

#### **Zoom link**

https://rutgers.zoom.us/my/alderja\_Passcode: Janet

Topics and interactive case studies led by Drs. Janet Alder, Evelyn Erenrich, Xenia Morin and Benton Purnell from the National Research Mentoring Network (NRMN) and Entering Mentoring:

- · Managing student projects
- Contract for undergrads
- Aligning expectations
- Dealing with anxiety
- Cultural sensitivity
- Assessing understanding
- · Promoting motivation



## Mentoring opportunities in the larger community

# STEM GRADS GIVING BACK Upward Bound Math-Science

Rutgers graduate students - you can be the person who inspires a high school student to pursue college and the study of science!

SGS is partnering with Rutgers Upward Bound Math-Science a pre-college program designed to assist and motivate first generation and low-income students to successfully graduate from high school, prepare for college admission, and complete their baccalaureate degree in STEM.



## **Financial Planning Workshops**





# Financial Planning Workshop for Grad Students and Postdocs

This free workshop will be presented by the Financial Planning Association of New Jersey to educate graduate students and Postdocs on cash flow management, debt, student loan paydown and building a safety net. We know that living on a grad student and postdoc income can be challenging and many of you also have families to support. The skills you gain in this workshop will help you navigate your financial situation.

Thursday Feb 29, 2024 4:00 – 5:30 pm

#### Register at this site:

https://rutgers.ca1.qualtrics.com/jfe/form/SV\_3fKbCabEjfbn3Lg



#### **700m Information:**

https://rutgers.zoom.us/my/alderja\_Passcode: Janet Phone only dial +1 646 558 8656 Meeting ID: 419 868 7830

For more information contact janet.alder@rutgers.edu



Tips for new graduate students. Ask current grad students for advice on these topics:

- Can defer undergraduate loans but need to complete paperwork
- Complete I-9 and W-4 forms
- Set up direct deposit
- Taxes are not taken out of "fellow" stipend checks and may need to pay estimated quarterly tax
- International students need to set up Social Security Number



## **Aaron Shatkin Award**

Awarded to 3 or 4 graduate students annually for distinguished research work and academic excellence over the applicant's tenure at Rutgers University

#### 2023 Winners

#### **Andrew Boreland**

Cell and Developmental Biology
From the lab of Dr. Zhiping Pang

#### Chelsea Cary

Toxicology

From the lab of Dr. Phoebe Stapleton

#### **Courtney McDermott**

Neuroscience

From the lab of Dr. Manny DiCicco-Bloom

#### Mikayla Volgewede

Neuroscience

From the lab of Dr. Huaye Zhang





## **Graduation Awards**

2024 Winner from Biomedical/Biochemical Programs

## **Outstanding Doctoral Student Award**

Danielle Kozlosky, Toxicology







# Rutgers - iJOBS

NIH Broadening Experiences in Scientific Training (**BEST**) Awards \$2 million for 5 years to create infrastructure (2014-2019)

Rutgers U

Boston U

**UC** Davis

**UC** Irvine

UC San Francisco

**U** Chicago

U Colorado Denver

Cornell

**U** Mass Worcester

Michigan State

New York U

**U North Carolina** 

**U** Rochester

Vanderbilt

Virginia Polytech

Wayne State

Emory/Georgia Tech



# iJOBS Participation

# **RUTGERS**

#### **Rutgers Graduate Students**

- SGS (New Brunswick/Piscataway/Newark)
- GSN (Newark)
- GSC (Camden)

#### **Rutgers Postdocs**

- RWJMS
- NJMS
- SAS New Brunswick
- SoE
- SoP
- SEBS
- SAS Newark
- SAS Camden











# **Representative Career Panels**

- Faculty position at R1 institution
- Faculty position at Primarily Undergraduate Institution
- Bench research in Pharma and Biotech
- Medical Devices
- Postdocs in Industry
- Contract Research Organizations
- NIH
- FDA
- Computational Biology
- Data Science
- Consulting
- Science and Health Policy
- Patent Law
- Tech Transfer and Business Development
- Clinical Research
- Regulatory Affairs
- Scientific Writing and Medical Communications

- Food and Fragrance Industry
- Journalism
- Teaching Education Outreach
- Entrepreneur
- Plant and Agriculture Industry
- Non-faculty Jobs in Academia
- Tech and Sales Support



# iJOBS Phased Programming







# SciPhD: Leadership and Business Skills for

#### Scientists

Provided by Human Workflows, LLC Every early January – 2.5 days

- The Business of Science
- Major Leadership Styles
- Successful Communications as a Scientist
- Developing Your People
- Networking and the Interview Process

- Team Performance Tools
- **Negotiations**
- Financial Literacy
- Strategic Project Management for Scientists

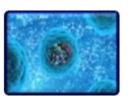
# **Representative Site Visits**

- Admera Health
- Genmab
- Amgen
- WuXi Biologics
- Pfizer
- Becton Dickinson
- Siemens Healthineers
- Stryker (3)
- IPG Health (3)
- Genewiz (4)
- Merck (6)
- Wiley Publishing (2)
- Bristol-Myers Squibb (9)
- Novartis (4)
- GlaxoSmithKline (3)
- Regeneron (4)
- Eli Lilly (3)
- Celgene (2)
- Janssen (3)
- Commercial Center for Innv Tech (2)

- Inst for Life Sci Entrepreneurship (2)
- Enterprise Development Center
- Sanofi Aventis
- Covance
- Kashiv
- Hovione
- NJ Dept. of Health (3)
- Ferring Pharmaceutical
- Colgate-Palmolive (2)
- Envigo
- Ethicon
- J&J Consumer
- Bayer (2)
- PTC Therapeutics
- Nanion Technologies



# Representative Job Simulations



- Health Economics and Outcomes Research analyze a drug
- Technology Transfer how to commercialize an invention
- Equity Research decide if you should invest



- Project management determine timeline and deliverables
- Entrepreneur what is involved in starting a biotech
- Science Policy write a policy memo



- Business Development decide whether to acquire a new company
- Pharma R&D design preclinical trial to optimize clinical success
- Publishing decide whether to accept a manuscript



- Pharma Market Research Analysis report on whether drug is worth pursuing
- Medical Affairs Medical Informaticist vs MSL role play
- Consulting recommend approach to launch new clinical trial

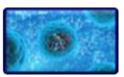


- Regulatory Writing prepare an Investigative Brochure
- Medical Communications create slide deck for physician
- Patent Law rewrite patent to demonstrate originality
- Mergers and Acquisitions decide how much to bid on a new company

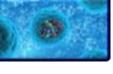
# Representative Workshops







Primer in Drug Discovery through Pre-Clinical Development



Agile Project Management and Microsoft Project



Python and Genomics Data Analysis by Data Carpentry



Self assessments (Clifton Strengths)



Targeted Resumes



Value Proposition and LinkedIn Profiles



Finding and applying for an internship

- Emotional Intelligence and influencing others
- Job search using staffing agencies



Concept to Market

Drug Development from Career Track Example Skill Classes

Perspectives in **Translational** Pharmacology

Principles of Communication and Leadership

One 40-Hour Class

**Public** 

Health

Health

Related

Professions

Business

**Rutgers** 

**Programs** 

**Business** 

and

Science

Engineering

Medicine

Clinical Trials Overview: Methods and Practices

Principles of Finance and Accounting

Fundamentals of Regulatory Affairs

Clinical Research

**Project Management** 

**Informatics** 

Pharma Product Management

Clinical Trials Overview: Methods and Practices

Organizational Behavior

Fundamentals of Regulatory Affairs

Innovation and Entrepreneurship



# Professional Shadowing and Mentoring



- Each trainee is matched to a professional for a shadowing opportunity relevant to their chosen track with industrial, institutional or governmental partners. 72 hours over a whole semester.
- Each trainee is assigned a professional mentor and uses the Individual Development Plan (IDP) as a framework for growth.

## Communication Platforms

#### **Email listserve: 1500 members**

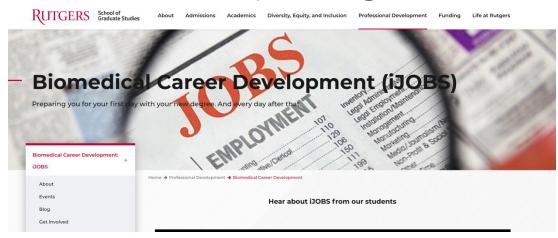


#### **Trainee run blog:**

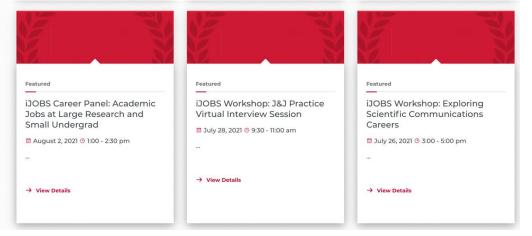
grad.rutgers.edu/ijobs/blog



#### Website: ijobs.rutgers.edu



#### **iJOBS Past Events with Recordings**





# iJOBS Program Registration

#### Phase 1

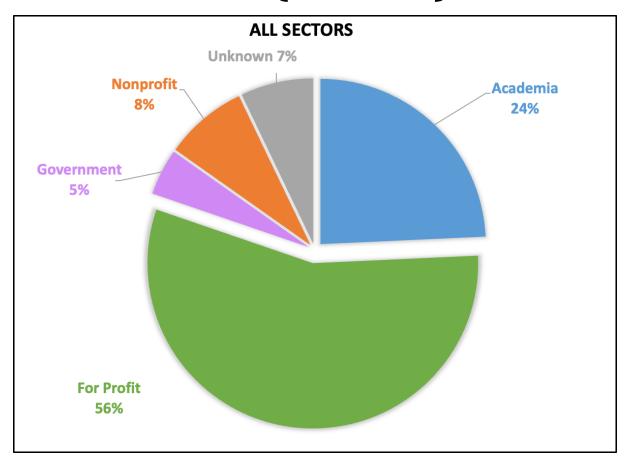
- iJOBS programming open to all pre and post-doctorates as well as recent alumni.
- Some events have limited capacity but put your name on the wait list

#### Phase 2

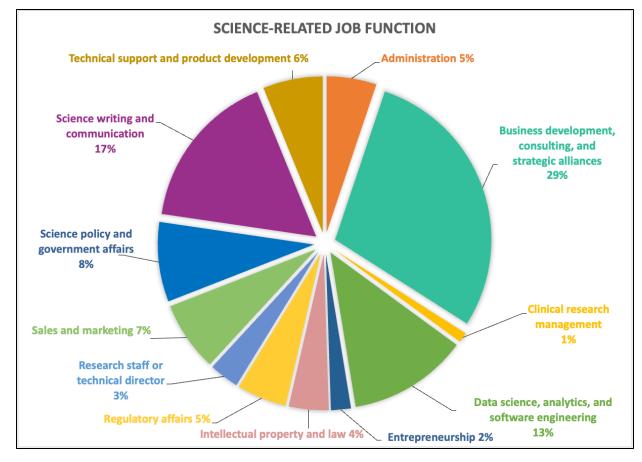
- Graduate students should have completed propositional qualifying exam.
   Postdocs are eligible at any time.
- Trainee application approval based upon Phase 1 participation (12 hours), letter of intent, letter of recommendation. Pl approval for participation is required with application.
- Applications open every April and program starts in September for 1 year



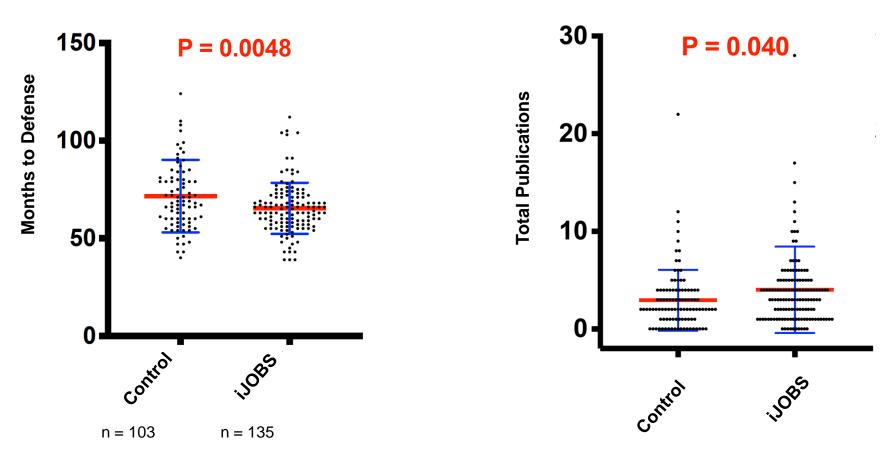
# First Position of SciPhD Participants (n = 310)



# First For-Profit Non-Research Positions (n = 310)



# iJOBS Participants Have Decreased Time to Defense and Increased Total Publications



Measuring Effects of Trainee Professional Development on Research Productivity: A Cross-institutional Meta-analysis, Brandt et al., PLOS Biology, 2021





Join our groups and also email us your news to post!



#### https://calendar.google.com/calendar/u/0?cid=Z3Nic3Bpc2NAZ21haWwuY29t

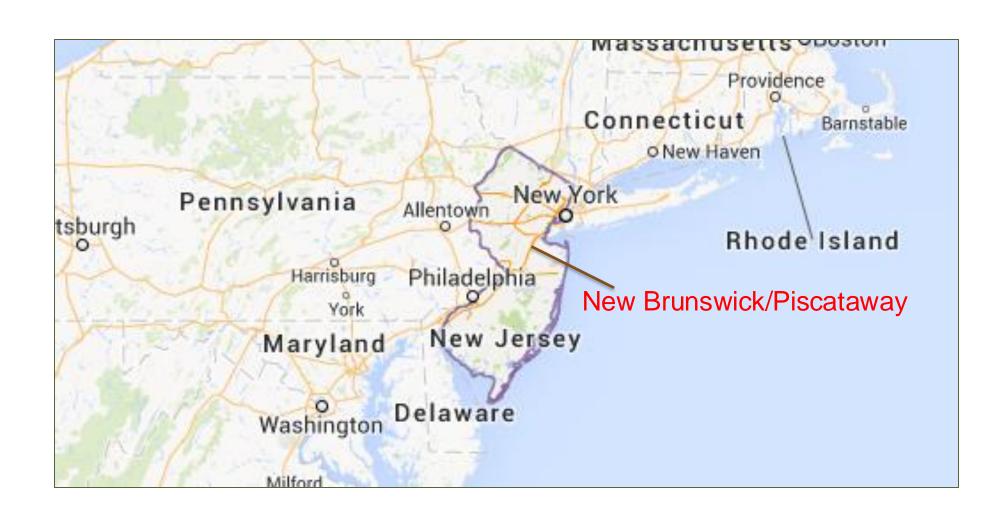
- Seminars
- Career development events
- Thesis defenses
- Workshops
- Can link to your calendar



#### https://www.linkedin.com/groups/3679494/

LinkedIn has alumni contacts – important for career development

# **Have Fun!**



#### Rutgers is less than an hour to NYC and Philadelphia by train





#### New Brunswick





Princeton







#### Delaware and Raritan Canal





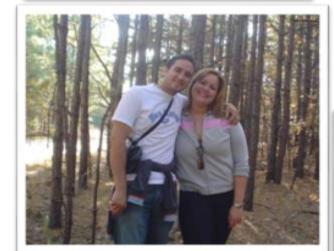




#### **Poconos Mountains**









## Reach Out if You Need Help - Rutgers CAPS and "Let's Talk"

Counseling and Psychiatric Services (CAPS) <a href="http://health.rutgers.edu/medical-counseling-services/counseling/">http://health.rutgers.edu/medical-counseling-services/counseling/</a>

Monday-Friday 9am-4pm: 848-932-7884 Evenings and weekends: 1-855-654-6735

"Let's Talk" drop in hours - Walk-ins welcome but you can make an appointment by calling 848-932-7884, option 2 and leave your name, RUID and phone number

Let's Talk

Counseling

**School of Graduate Studies** 

• Thursdays 10 am - 12 pm with Dana Simons, Busch Campus or Zoom

Location: In-person in CABM Room 240 at 679 Hoes Lane West, Piscataway, OR via Zoom.

https://rutgers.zoom.us/j/99204936276?pwd=ra7be7mH7i4xVU8pi3jEA0wn90b9QW.1#success

•Mondays 2 pm - 4 pm, Thursdays 2pm - 4pm and Fridays 11am-Noon with Shan Reeves

Mondays 2 PM - 4 PM at 5 Seminary Pl (Honors College), Room E125, Thursdays 2 PM to 4 PM at Chemistry and Chemical Biology Building, 123 Bevier Road, Room 2105 and Fridays 11AM - 12PM at 15 Seminary Place, Academic Building West, Room 5050.

#### Other resources

- -The Trevor Project (crisis hotline for LGBTQ Youth): 866-488-7386
- -Crisis Text Line (CTL): Text KNIGHTS to 741741 & include "STEVE" for People of Color on any smart phone (available 24/7)
- -Acute Psychiatric Services (APS: available 24/7) Dial 1-855-515-5700. If you are out of the New Brunswick/Piscataway area, call 911
- -NJ Hopeline, 24 hour crisis phone line: 855-654-6735 (Available within NJ 365/24/7)
- -RUPD: 848-932-7211
- -National Suicide Prevention Lifeline: 1-800-273-TALK (8255)

# **Uwill Mental Health Support Now**

#### Free immediate access to teletherapy through an easy-to-use online platform

- 1. Choose a therapist based on your preferences, including issue, gender, language, and ethnicity.
- 2. Select a time that fits your schedule with day, night, and weekend availability.
- 3. Access is quick and easy. Register and book your first session using your Rutgers email.
- 4. Uwill is **Private. Secure. Confidential.**





#### Virtual Workshops for Biomedical Graduate Students by Dana Simons and CAPS

**ALL BY ZOOM** 

Managing Imposter Syndrome and Cultivating Self-Compassion

Monday, September 16<sup>th</sup>, 4:00pm-5:00pm

**Emotion Regulation, Stress Management, and Cultivating Resilience** Wednesday, October 9<sup>th</sup>, 1:00pm-2:00pm

**Time Management and Life Balance Workshop** 

Tuesday, November 5<sup>th</sup>, 12:30pm-1:30pm

Working through Anger, Resentment, and Conflict

Wednesday, November 20<sup>th</sup>, 12:30pm-1:30pm

**Mindfulness Meditation Workshop** 

Monday, December 9<sup>th</sup>, 4:00pm-5:00pm



### **Rutgers Food Pantry**

https://ruoffcampus.rutgers.edu/food-pantry

- Who Qualifies
  - Any student at Rutgers University. You just need a Rutgers ID card and create an account on PantrySoft before you go.
- •Hours of Operation/Locations 126 College Ave, New Brunswick 84
  - Monday: Closed
  - Tuesday: 12 p.m. 4 p.m.
  - Wednesday: 12 p.m. 4 p.m.
  - Thursday: 12 p.m. 4 p.m.
  - Friday: 12 p.m. 4 p.m.



Mobile Food Pantry on Busch, Livingston & Douglass Wednesdays 1 pm -4:15 pm

\*\*If these hours do not work with your schedule, please contact us – we will make arrangements with you that suit your needs. Please contact Off-Campus Living and Community Partnerships at basicneeds@echo.rutgers.edu

#### DO SOMETHING TO HELP website for concerns about mental

#### health. discrimination and harassment Issues

http://health.rutgers.edu/do-something-to-help/



**Student Health** 



Medical and Counseling Services ▼

**Health Education and Promotion** -

**Academic Opportunities** •

Insurance & Costs

lesources -

About Us →

Home > Do Something To Help - Share A Concern!

#### Do Something To Help – Share A Concern!

If this is an emergency, call <u>9-1-1</u> immediately! From a University phone, obtain an outside line and <u>dial 9-1-1</u>.

Rutgers is a community that cares. We DO SOMETHING when we are concerned about one of our community members. When you click on one of the areas below you will find a form or additional contact information where you can share your concern.

- Click here to share a concern regarding any of the following:
- 1. A student who may be using dangerous drugs (heroin, prescription drugs)
- 2. A student representing a threat to themselves or others
- 3. A student's emotional state and well-being
- 4. Disruptive or aggressive behaviors in a classroom or on campus
- Click here to share a concern regarding a bias incident
- Click HERE to share a concern regarding SEXUAL ASSAULT, DATING VIOLENCE, STALKING OR SEXUAL HARASSMENT
- Click here to share a concern regarding a violation of the Code of Student Conduct

## **RU HERE Attendance Confirmation**

RUTGERS			Welcome Kelley Sokolowski
ACTION REQUIRED			
You are required to take action on the following item(s) before you can proceed to any services that require your Rutgers credentials  RU HERE: COURSE ATTENDANCE  You are registered for the Spring 2021 semester. Please confirm your enrollment below			
I confirm my attendance for the Spring 2021 seme I will be physically residing for the upcoming term Street:			
City: The type of address provided above is: On-campi	State:	Zip:	
** Please note, this will NOT be used to update yo and to your Emergency Contact information, follow Yes, I am attending and will reside at above address	ur permanent address, which is		orrespondence. To make changes to that address
I will not attend the Spring 2021 semester and un-	derstand that I must complete ti	he formal withdrawal process.	
No, I am not attending			

### We Are Here for You

Janet Alder: janet.alder@rutgers.edu



# Graduate Student Organizations

- Molecular Biosciences GSO (MBGSO)
- Rutgers Association of Toxicology Students (RATS)
- NeuroConnections
- Biomedical Engineering Student Society (BESS)
- Chemistry and Chemical Biology (CCB)
- Nutritional Sciences GSO
- Endocrinology and Animal Biosciences GSO
- Microbial Biology (ASM)
- NJ Seeding Labs
- Society for Advancing Chicanos/Hispanics and Native Americans in Science (SACNAS)
- Council of Black Graduates (CBG)
- iJOBS blog
- Rutgers GSA events for everyone
- Affinity Groups (Bisexual students, BIPOC LTBTQIA2S+ students, Chinese students, International students, African students, Neurodivergent students. Parent and Parenting students)



#### Ice Breaker

Share your name, program, degree (MS or PhD), where you grew up, where you went to college and one Fun Fact about yourself. This is something that you think is a little unique about yourself.

Once everyone has gone, then go around and share something that you think you might have in common with at least 2 other people in your group.

I will go first...

