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Biomedical Sciences PhD and MS Orientation

Janet Alder, PhD

Assistant Dean Graduate Academic and Student Affairs, SGS

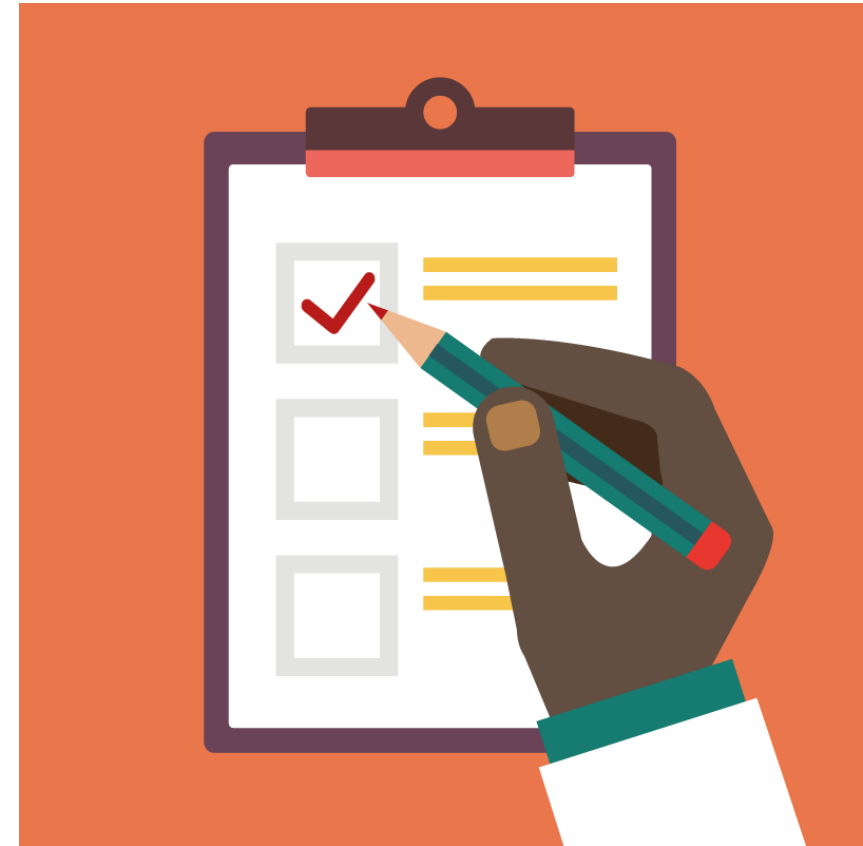
Assistant Vice Chancellor for Postdoctoral Affairs, RBHS

Associate Professor Neuroscience and Cell Biology, RWJMS

August 30, 2023

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
 - Libraries (Victoria Wagner)
 - Scientific Integrity and Oath (Janet Alder)
 - Office of Disability Services (Brian Maher)
 - Office of Employment Equity (Vincent Leo)
 - Violence Protection and Victims Assistance (Kerry Camerer)
 - Career Exploration and Success (Rudrani Gangopadhyay)
 - Wellness Services (Dana Simons)
 - Student Health (Marc Cruz)
 - Recreation (Stacy Trukowski and Anne Finetto)
 - Transportation/Parking (Magen Davies)
- 12:30-1:15 Pizza lunch and Q&A tables
- 1:15-2:30 Scavenger Hunt 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



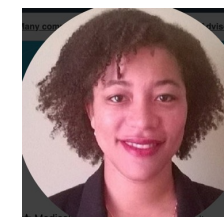
Janet Alder, PhD, Assistant Dean of Graduate Academic and Student Affairs



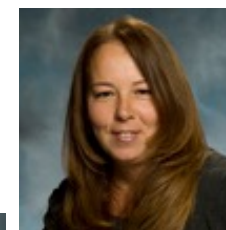
Smita Thakker-Varia, PhD, Assistant Dean of Graduate Academic and Student Affairs



Tracy Scott, PhD, Special Projects Coordinator
tracy.e.scott@rutgers.edu



Tina Marottoli – Registration, graduation
tina.marottoli@rutgers.edu



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 and Health Sciences - All Degree Programs

New Brunswick | Piscataway, NJ

→ Apply

Biomedical and Health Sciences - All Degree Programs

- Prospective Graduate Students
- Initiative for Maximizing Student Development
- Master's Degree Programs
- Ph.D. Programs
- M.D./Ph.D. Program
- Certificate Programs
- Current Graduate Students
- Predoctoral Fellowships and Training Grant Resources
- Career Development + Academic Services
- Graduate Student Organizations

Home → Academics → Graduate Programs → Biomedical and Health Sciences - All Degree Programs

Welcome to the Biomedical and Health Sciences Graduate Programs

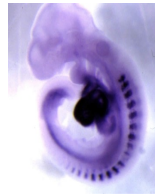
Preparing You For Success

The Rutgers University Biomedical and Health Sciences graduate programs in New

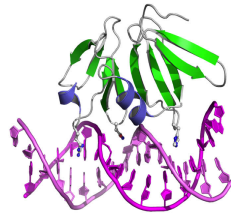


Biomedical Science Programs in New Brunswick/Piscataway

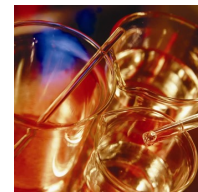
Molecular Biosciences Umbrella Program



Cell and Developmental Biology



Biochemistry and Molecular Biology



Cellular and Molecular Pharmacology



Physiology and Integrative Biology



Molecular Genetics and Microbiology

Individual Graduate Programs



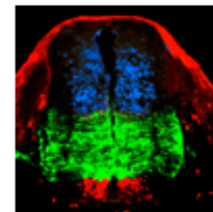
Biomedical Engineering



Exposure Science and Assessment



Toxicology



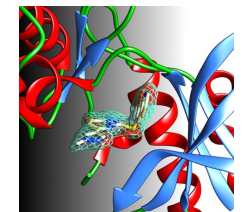
Neuroscience



Public Health



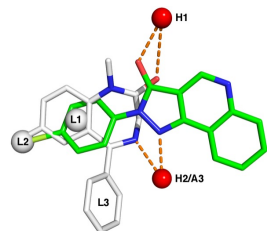
Nursing



Quantitative Biomedicine



Pharmaceutical Sciences



Medicinal Chemistry



Microbial Biology



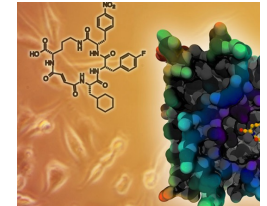
Endocrinology and Animal Biosciences



Nutritional Sciences



Chemical Biochemical Engineering



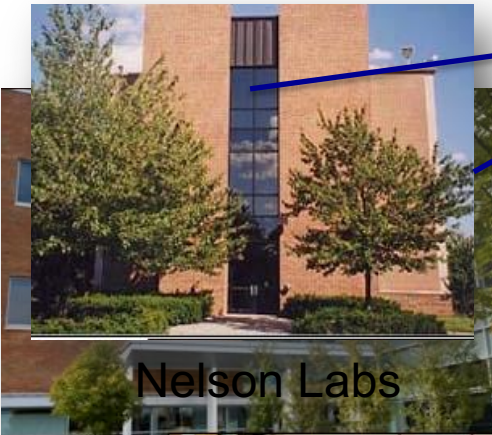
Chemistry and Chemical Biology



Chemistry and Chemical Biology



Pharmacy School



Nelson Labs

Life Sciences



Psychology



Waksman Institute



Biomedical Engineering



Environmental and Occupational Health Science Institute



Center for Advanced Biotechnology and Medicine



Robert Wood Johnson Medical School Research Tower and Research Building





Cancer Institute of New Jersey



The Child Health Institute for Basic and Clinical Research



Clinical Academic Building



School for Environmental and Biological Sciences

Rutgers Facts



- Member of Association of American Universities and Big10 Academic Alliance
- Ranked 57th of 2000 to world universities 2022-23 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
- \$907.9 million in research grants and sponsored programs
- 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

Pennsylvania State University

Purdue University

Rutgers University

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.

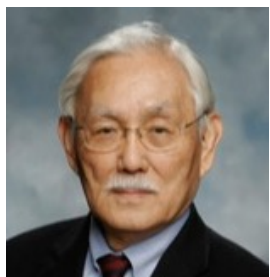
Paul Copeland



Ken Irvine



Masayori Inouye



Bonnie Firestein



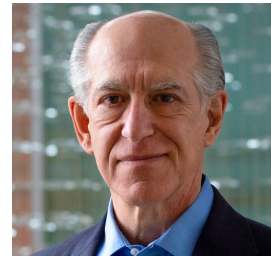
Richard Ebright



Tony Kong



Manny DiCicco-Bloom



Arnold Rabson



Pal Maliga



Tara Matisse



Suzie Chen



Chris Molloy



Renping Zhou



Charles Dismukes



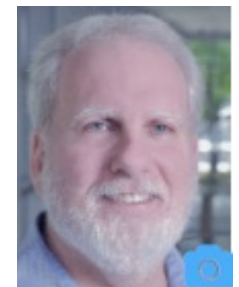
Monica Roth



Andy Singson



Martin Yarmush



Rutgers houses world-renowned resources

SAMPLED



- 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

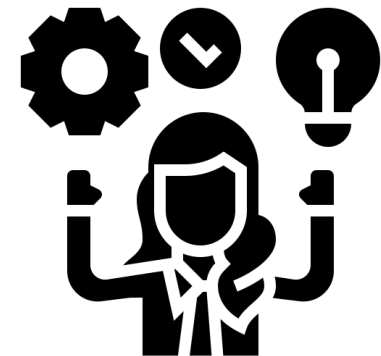


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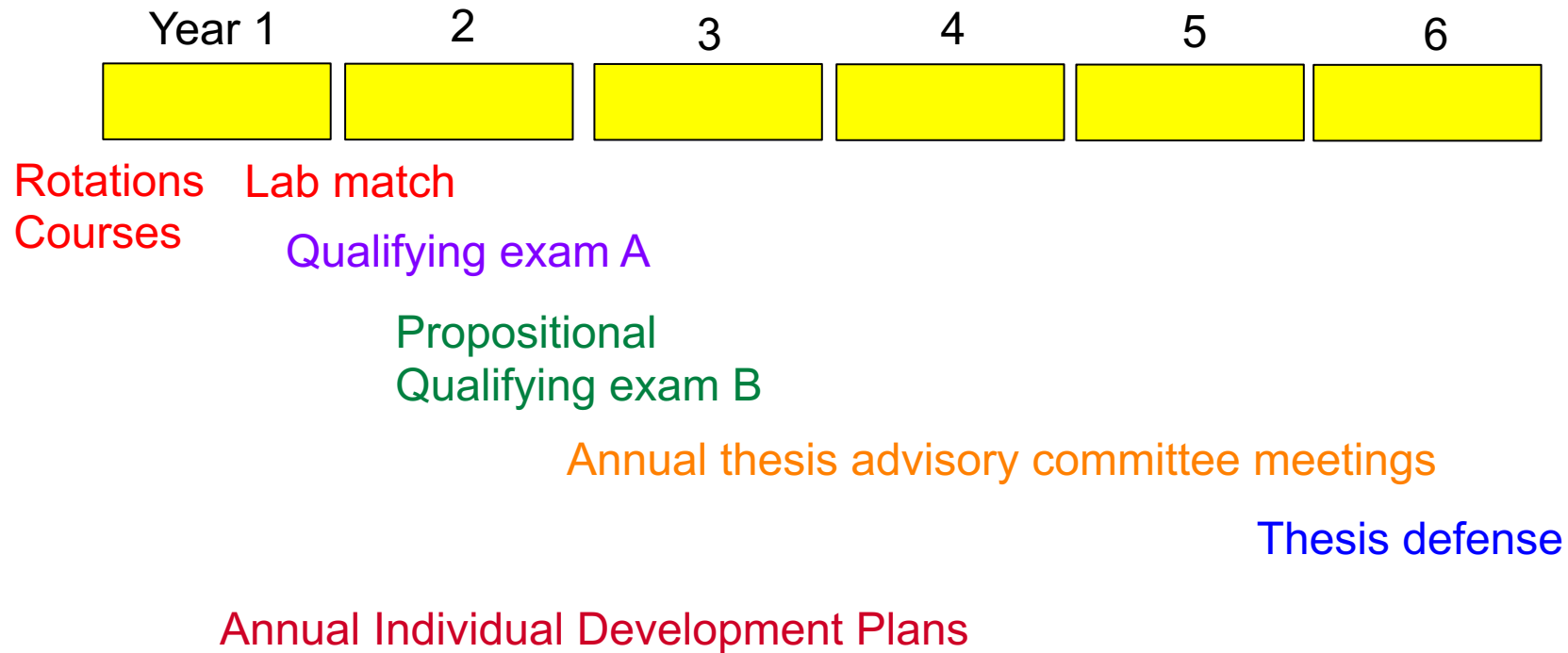
Your Education and Academic Resources

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



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 (<http://myidp.sciencecareers.org/>) and upload to Canvas by Aug 31, 2024.
- 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)
<https://njacts.rbhs.rutgers.edu/education-training/workforce-development/tl1-predoctoral-postdoctoral-training-awards/>
- Biotech training program <https://biotechnology.rutgers.edu/>
- Environmental Toxicology <https://jgpt.rutgers.edu/>
- Training in Translating Neuroscience to Therapies <https://rwjms.rutgers.edu/institutes/institute-for-neurological-therapeutics/mission>
- Training in Addiction Research – <https://www.addiction.rutgers.edu/announcing-a-new-nida-funded-t32-pre-postdoctoral-research-training-program-in-neuroscience/>



Recent pre-doctoral external fellowship awardees

Chelsea Cary was awarded a NIH F31 predoctoral fellowship, "Uteroplacental Vasculature and Fetal Growth after Plastic Particle Exposure", August 2023.

Zakiyah Henry was awarded a NIH F31 predoctoral fellowship, "The Tissue-Specific Functionality of the Farnesoid X Receptor in NASH Development", August 2023

Irving Estevez was awarded a Howard Hughes Medical Institute (HHMI) Gilliam Fellowship, July 2023

Chadni Patel was awarded a NJ Commission on Cancer Research, "Investigating genetic susceptibility for chemotherapy-induced cognitive impairment." July 2023

Luka Turkalj was awarded NJ Dept of Health Autism Predoctoral Fellowship, "Perturbation of Neuronal Proteostasis and Integrated Stress Response in Cc2d1a and Cc2d1a/Cc2d1b Loss of Function", June 2023

Mikayla Voglewede was awarded a NIH F31 predoctoral fellowship, "Mechanism of Par3-mediated regulation of dendritic spine plasticity", April 2023.

Kyle Nunn was awarded a NJ Commission on Cancer Research, "Detailing KRAS/LKB1 co-mutated NSCLC metastatic dependency on host autophagy", March 2023

Xiao Su was awarded Autism Science Foundation, "Uncovering the cell-type specific synaptic mechanism of ASD-associated gene SETD1A loss-of-function in human neurons." March 2023

Christopher O'Brien was awarded a NIH F31 predoctoral fellowship "Molecular and Neuroanatomical Processes of Opioid addiction".

Courtney McDermott was awarded a F99/K00 award "Examination of gut-microbiome-brain interactions in a novel gene x environment model of neurodevelopmental disorders." September 2022

Fellowship Applications Overview - Upcoming Workshop with Grad Fund



Fellowship Application Workshop for Biomedical PhD Students



Wednesday September 20, 2023
3:00 – 5:00pm

Register via EventBrite

<https://fellowshipapplication2023.eventbrite.com>

Join Via Zoom

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

This workshop will include presentations by:

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

For more information contact Dr. Janet Alder janet.alder@rutgers.edu



- \$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
<http://gradfund.rutgers.edu/>

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/predoc-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

Where Should I Start? Building a Research Fellowship Application

REGISTER HERE!


 Click [here!](#)
July 31st
12-1:30pm

Participants will learn the basics about constructing a NIH NRSA fellowship application with a focus on specific aims.



This session will be held in-person for graduate students and postdocs in Piscataway at the EOHSI building. Lunch will be served at 11:30 am. Others can participate via Zoom as 12 pm.



Participants in this workshop will have top priority to join the 10-week fellowship writing group in Fall 2023. Students/postdocs do not need to be affiliated with Rutgers to participate in this workshop.


NJacts


School of Graduate Studies



Office of Postdoctoral Advancement

Supported by NIH Grants UL1TR003017 and T32ES001748

- 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

NIH Fellowship Writing Group

Under the guidance of a Grant Writing Coach, construct your NIH fellowship application this Fall.



Who is this Writing Group for?

PhD and MD/PhD students and Postdocs preparing NIH NRSA fellowship applications for the December 2023 or April 2024 deadlines. We typically accept ~35 participants each year.



What is the weekly commitment?

This is an interactive group. You will need to submit application sections each week – and – peer review sections from other participants in addition to the 1-hr live meeting. ~6 to 8hr effort each week



Where and when do I sign up?

Sign up at the QR code. Limited spots!



Are participants successful in obtaining their NIH fellowship?

Yes! Successful examples are available to participants. Some recent awardees include:

F32GM140669 F31HL160196 F31ES034269
F31ES032319 F31NS122438

**Mark Your
Calendars Now!**



**All meetings are
Thursdays 1 pm EST
starting Sept 14th**

Note: Applicants for NIH fellowships must be a US citizen or permanent resident to apply. Questions? Email Lauren Aleksunes at aleksunes@ehsi.rutgers.edu

Some recent manuscripts by grad students

Gregory Marshall is first author on a paper in Cellular & Molecular Immunology, July 2023. “Mechanism-directed combinational immunotherapies in liver cancer hold promise.”

Matthew A. Lawlor is first author on a paper in Current Opinion in Genetics & Development, July 2023. “Evolutionary dynamics between transposable elements and their host genomes: mechanisms of suppression and escape.”

Danielle Kozlosky is first author on a paper in Toxicology & Applied Pharmacology, July 2023. “Cadmium reduces growth of male fetuses by impairing development of the placental vasculature and reducing expression of nutrient transporters.”

Emma M. Schweitzer is first author on a paper in Psychology of Addictive Behaviors: journal of the Society of Psychologist in Addictive Behaviors, June 2023. “The role of social connection in opioid use disorder treatment engagement”.

Christen A. Khella is first author on a paper in Molecular Cancer Research: MCR, June 2023. “HCK promotes high-grade serous ovarian cancer tumorigenesis through CD44 and NOTCH3 signaling”.

Kevinn Eddy is first author on a paper in The Journal of Investigative Dermatology, March 2023. “A Spontaneous Melanoma Mouse Model Applicable for a Longitudinal Chemotherapy and Immunotherapy Study”.

Emily T. DiMartini is first author on a paper in Journal of Functional Biomaterials, March 2023. “Alternative Chemistries for Free Radical-Initiated Targeting and Immobilization”.

Justin Koesterich is first author on a paper in International Journal of Molecular Sciences, February 2023. “Characterization of De Novo Promoter Variants in Autism Spectrum Disorder with Massively Parallel Reporter Assays”.

Vrushank Bhatt is first author on a paper in Cell Death & Disease, January 2023. “Inhibition of autophagy and MEK promotes ferroptosis in Lkb1-deficient Kras-driven lung tumors.”

Benjamin Bates is first author on a paper in Circulation, Cardiovascular Quality & Outcomes, January 2023. “Validity of International Classification of Diseases (ICD)-10 Diagnosis Codes for Identification of Acute Heart Failure Hospitalization and Heart Failure with Reduced Versus Preserved Ejection Fraction in a National Medicare Sample.”

Courses for writing

Rutgers English Language Institute (RELI) - <https://reli.rutgers.edu/>
Supports multilingual English language learners

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



Past workshops for writing and figure design



Mastering the Art of Scholarly Publishing

If you want to write a manuscript that reviewers will love, this workshop is for you! Learn best practices in experimental design, manuscript preparation, and submission to help you get your papers published.

Thursday April 13, 2023
3-4 pm

Registration link:

<https://iJOBSscholarlypublishing.eventbrite.com>

Zoom link:

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




[Sofia Garakyaraghi, Ph.D.](#)

Associate Publisher, Editorial Development

Rutgers iJOBS & Nutritional Sciences GSO present:

The Do's and Don'ts of Effective Scientific Figure Design





You will learn:

- How clear and compelling scientific figures can elevate the impact of their work
- Ways to make their figures better highlight the take-home message of their results
- How to avoid pitfalls that decrease readability and cause confusion among readers

TUE. JUNE 6, 2023
12-2 PM EDT

Click to register!
<https://effectivefiguredesign.eventbrite.com>

Sarah Treit, PhD
Figures First Consulting


Top Design Tips for Better Graphical Abstracts



Take your graphical abstracts to the next level! Join us on Thursday, June 15th from 2:00pm - 3:00 pm EST for a free workshop on creating better graphical abstracts.

During the workshop, we will discuss:

- What is a graphical abstract?
- Design tips to improve the look and quality of your abstract
- Go from idea sketch to publication-ready and simplify a 'cluttered' figure
- How to use BioRender to create impactful graphical abstracts, with activities to test your learnings

Top Design Tips for Graphical Abstracts
Date: Thursday, June 15th, 2023
2:00 pm - 3:00 pm EST

[Click Here to Register](#)

Can't make it? [Register](#) to receive the recording!

Note: All attendees will also automatically receive the recording

Frequently Asked Questions

What is BioRender?

BioRender is a web-based program that helps you create scientific figures up to 50x faster than traditional tools. The tool combines a library of over 50,000 scientifically accurate, expert-validated life science icons and templates with intuitive drag-and-drop functionality. Create publication-quality figures in minutes - no drawing skills required!

Upcoming Workshops and Ongoing Writing Accountability Group

- September 15 from 11-1:30pm
Manuscript Writing Workshop
- October 2nd 12pm- 12:30pm Top Tips for Better Posters
- November 3rd 10am-10:30am Top Tips for Depicting Biological Pathways



Writing Workshop
September 15, 2023
11.00am-1.30pm

Center for Advanced
Biotechnology & Medicine (CABM)
Room #010
Busch Campus, Rutgers University

Postdocs and graduate students
***Join us for a writing workshop to learn
how to go from blank paper to a
manuscript, while incorporating
sustainable and healthy writing practices***

Lunch provided

Register here for the workshop:
<https://rb.gy/76ln8>

 **RUTGERS**
THE STATE UNIVERSITY
OF NEW JERSEY

**NATIONAL
POSTDOCTORAL
ASSOCIATION**

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:
 - 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 5th 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 on Wednesdays 4-7 PM.

"Interdisciplinary Biostatistics" 16:125:578 Spring on T/TH 10:20-11:40am

"Deeper Data Analysis for Neuroscience and Psychology 16:830:533:01 Spring every other year on Thursdays from 10:00 AM- 12:30 PM.



Academic Support Services

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

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

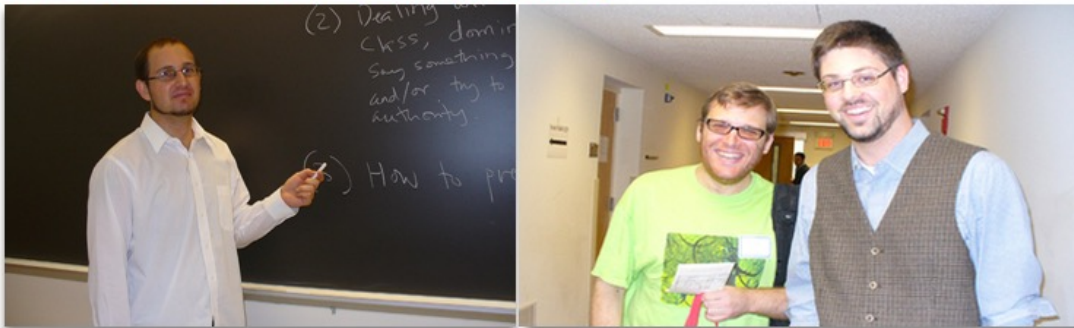


Teaching and Leadership Training



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

Rutgers Academy for the Scholarship of Teaching and Learning



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



PreDoctoral Leadership Development Academy

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

Mentoring Skills: Effective Mentoring of Undergraduates Microbadge



Rutgers Youth Enjoy
Science Program (RUYES)

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. The workshop is offered by Rutgers SGS in collaboration with RUYES.



Friday, May 5, 2023
10am-12pm

Registration link

<https://virtualmentoringundergrads.eventbrite.com>

Zoom link

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

Topics and interactive case studies led by Drs. Janet Alder, Evelyn Erenrich, and Xenia Morin 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



The RUYES program is funded by the National
Institutes of Health/National Cancer Institute grant
1R25CA247785.



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 Graduate Students

This free workshop will be presented by the Financial Planning Association of New Jersey to educate graduate students on **cash flow management, debt, student loan paydown and building safety net**. We know that living on a stipend while in graduate school 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.

**Tuesday May 9, 2023
4 - 5 pm**

Register at this site:

<https://financialplanningforgradstudents.eventbrite.com>

Zoom 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



❖ Explore interest in expanding
to multiple sessions

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

2022 Winners

Kade Power from the lab of Maureen Barr

Stephania Guzman from the lab of Moshmi Bhattacharya

Iva Salamon from the lab of Roko Rasin



Graduation Awards

2023 Winners from Biomedical/Biochemical Programs

Outstanding Doctoral Student Awards

Kevinn Eddy, *Pharmacology, Cellular & Molecular*

Excellence in Leadership and Teaching Awards

Jaclynn Meshanni, *Toxicology*





The picture can't be displayed.

Your career

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



Examples of Career Tracks

- Principal investigator and faculty at R1 university
- Faculty at Primarily Undergraduate Institutions
- Bench research Pharma or Biotech
- Government positions, (FDA, CDC, NIH)
- Entrepreneur
- Science and Health Policy
- Patent Law
- Tech Transfer and Business Development
- Clinical Research
- Regulatory Affairs
- Health and Science Data Analysis
- Business Consulting
- Scientific Writing and Medical Communications
- Medical Affairs
- Non-profit and Foundations
- Finance and Equity Research
- Publishing
- Food safety
- Journalism
- Teaching Education Outreach



iJOBS Phased Programming



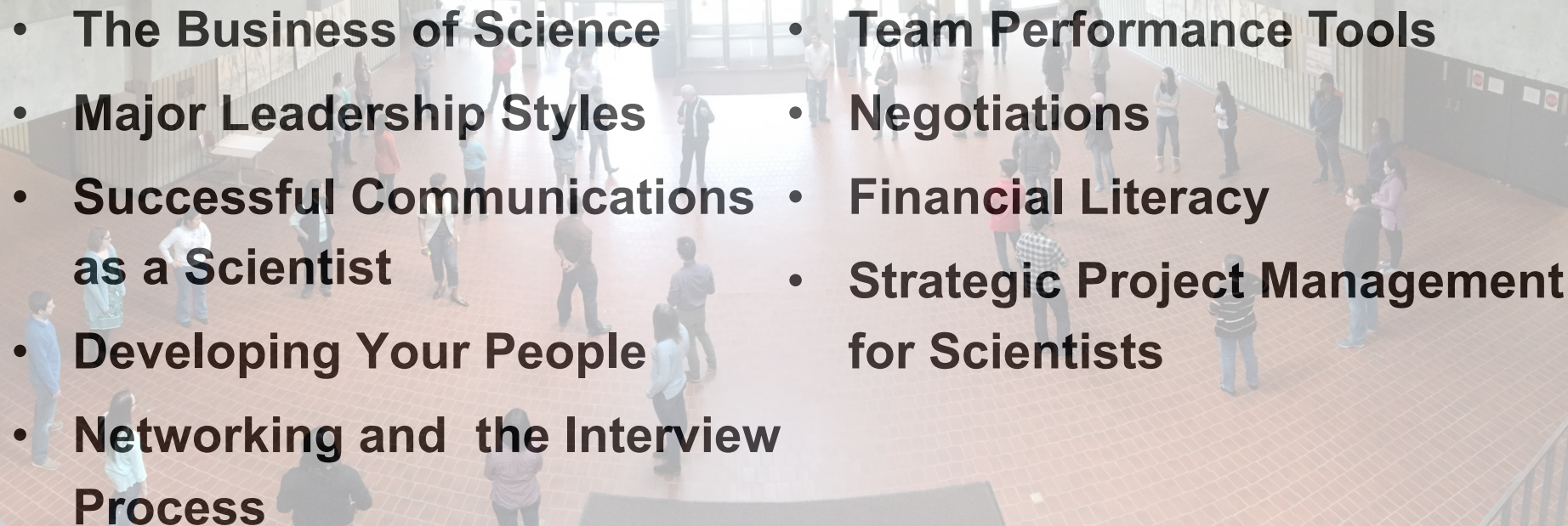


**Phase 1
iNQUIRE**

SciPhD: Leadership and Business Skills for Scientists

Provided by Human Workflows, LLC

Every Jan/Feb since 2015 - 35 hours

- 
- **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**

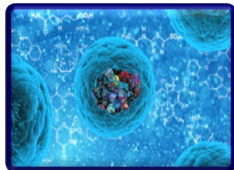
Representative Site Visits

- Stryker (2)
- McCann Health (2)
- Genewiz (4)
- Merck (5)
- Wiley Publishing
- Bristol-Myers Squibb (7)
- Novartis (4)
- GlaxoSmithKline (2)
- Regeneron (4)
- Eli Lilly (3)
- Celgene (2)
- Janssen (2)
- Commercial Center for Innv Tech (2)
- Inst for Life Sci Entrepreneurship (2)
- Enterprise Development Center
- Sanofi Aventis
- Covance
- Kashiv

- NJ Dept. of Health (3)
- Ferring Pharmaceutical
- Colgate-Palmolive (2)
- Envigo
- Ethicon
- J&J Consumer
- Bayer (2)
- PTC Therapeutics
- Nanion Technologies
- Hovione
- Amgen



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

- Targeted resumes
- LinkedIn profiles with photo shoot
- Networking skills
- Transferrable skills
- Interviewing skills
- Informational interviews
- Job search using staffing agencies
- Finding and applying for an internship
- Goal setting and time management
- How to prepare for job fairs
- International students seeking employment in USA
- Self assessments (StrengthsFinder, Birkman)
- Emotional Intelligence and influencing others



Phase 2
iNITIATE

Drug Development from
Concept to Market

Career Track Example Skill Classes

Perspectives in
Translational
Pharmacology

Principles of
Communication and
Leadership

One 40-Hour Class

Clinical Trials Overview:
Methods and Practices

Principles of Finance
and Accounting

Fundamentals of
Regulatory Affairs

Clinical Research
Informatics

Project Management

Python Methodologies

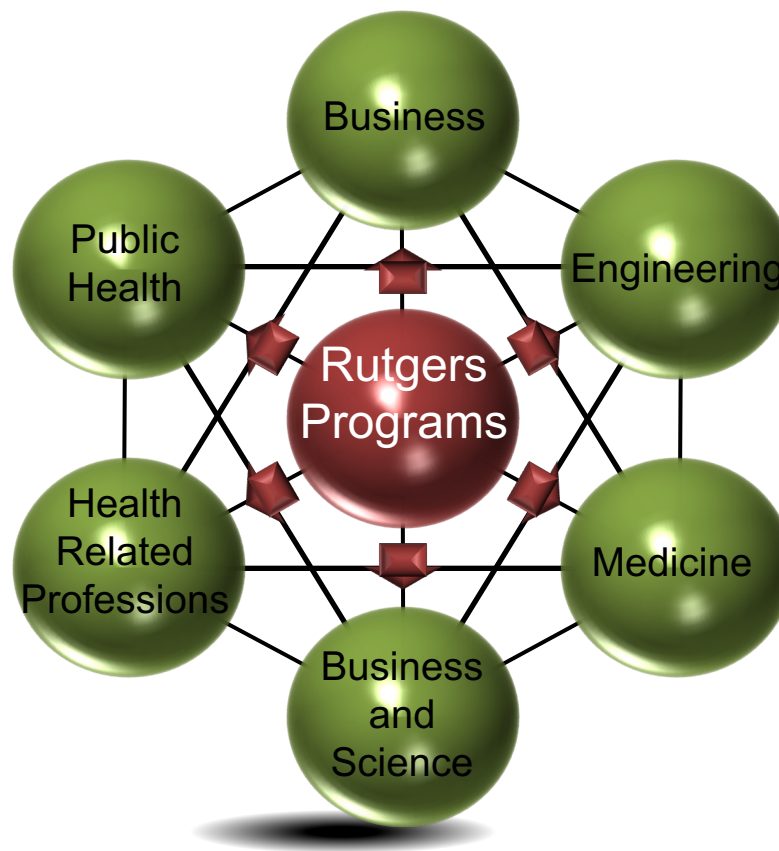
Pharma Product
Management

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.

iJOBS Program Registration

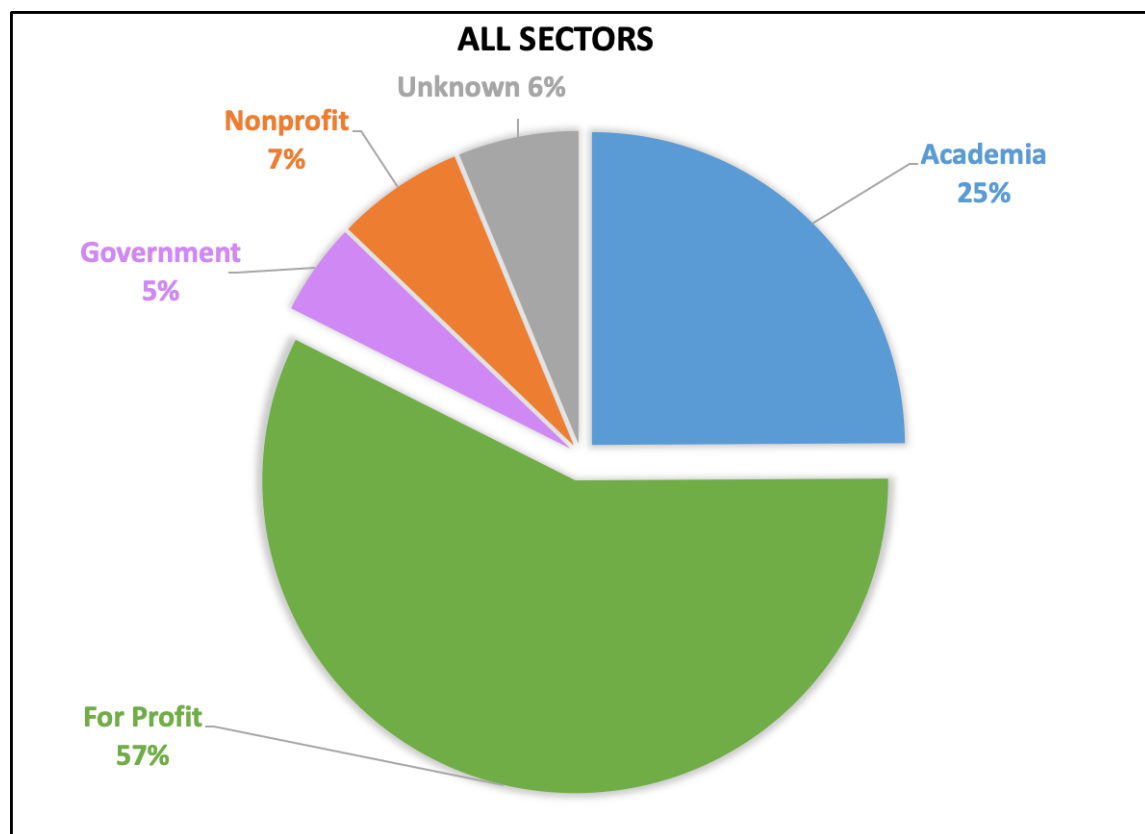
Phase 1

- 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

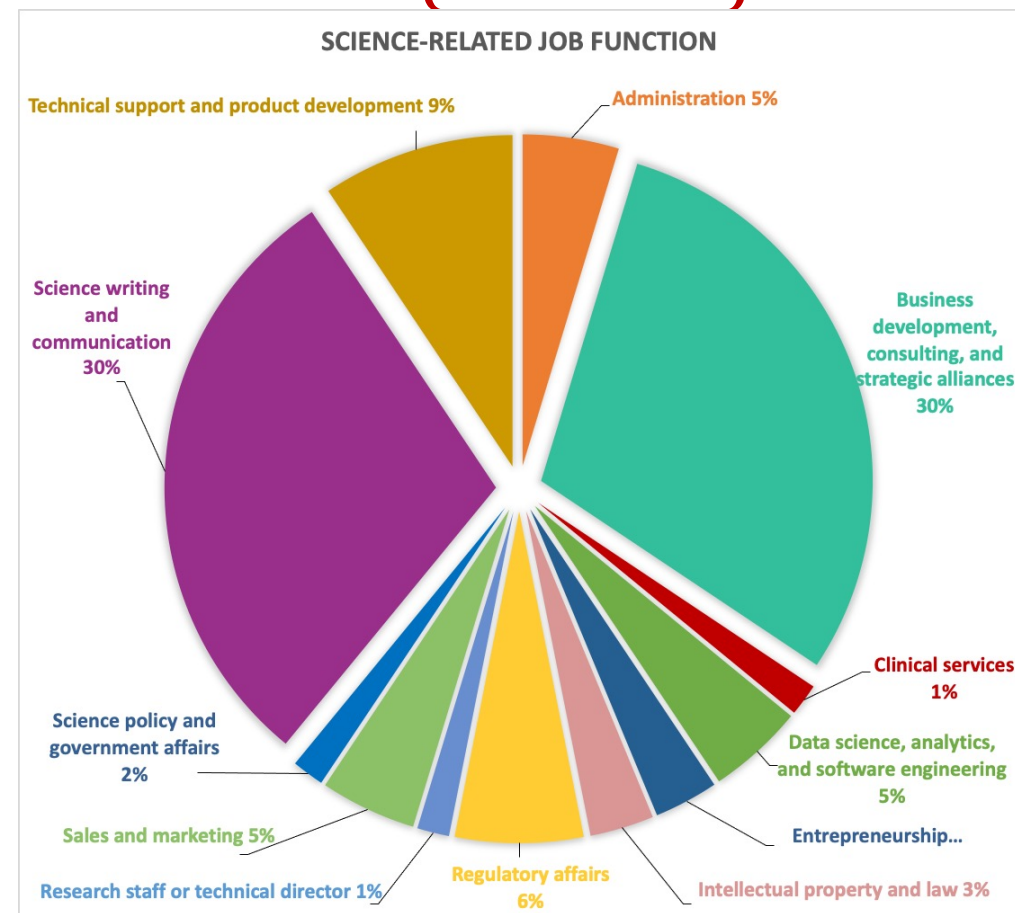
Phase 2

- 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. PI 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 = 273)

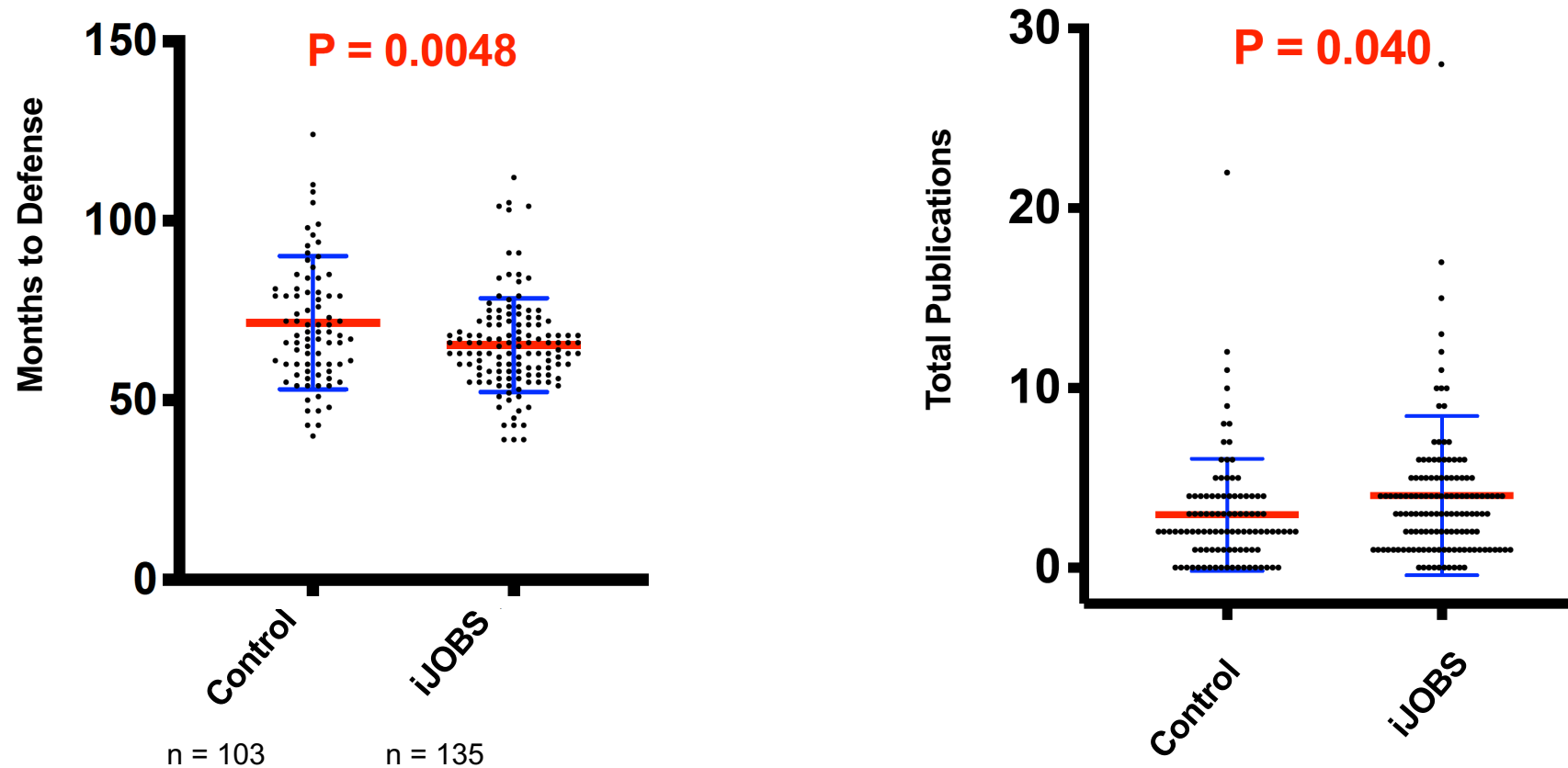


First For-Profit Non-Research Positions (n = 273)



Data analyzed by Tracy Scott

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



The picture can't be displayed.

Non-Academic Resources

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



Newark



Delaware and Raritan Canal



Jersey Shore



Poconos Mountains



Reach Out if You Need Help - CAPS

Counseling and Psychiatric Services (CAPS)

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

“Let’s Talk” drop every Thursday from 10am-12pm with Dana Simons

-CAPS Website - <http://health.rutgers.edu/medical-counseling-services/counseling/>

-<http://health.rutgers.edu/education/self-help/virtual-workshops-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)

-Rutgers Hopeline: 855-654-6735

-RUPD: 848-932-7211

-National Suicide Prevention Lifeline: 1-800-273-TALK (8255)



“Let’s Talk” Counseling

School of Graduate Studies

Drop-in hours for **individual** conversations with Dana Simons every **Thursday from 10am-12pm either in-person** in CABM Room 240, 679 Hoes Lane West, Piscataway **OR by Zoom**

<https://rutgers.zoom.us/j/93531873646?pwd=czkvK3pXWUp2K0NUaEU3aDUzcUIBZz09>

No appointment needed! If you want to talk to Dana Simons at another time then, call 848-932-7884 and press #2 to leave a message with your name, RUID, and phone number and she will call you back.



“Let’s Talk” is a **FREE CAPS counseling service**. Conversations with experienced CAPS counselors are **private and confidential**.



No problem or stress is too small to share at a “Let’s Talk” Session

Virtual Workshops for Biomedical Graduate Students by Dana Simons and CAPS

- Staying Connected in a Virtual World
- Stigma Reduction: Myths and Facts about Mental Health
- Building Resilience: Falling Forward and Learning to Manage Expectations
- Time Management and Life Balance Workshops
- Stress and Anxiety Reduction “Say Yes to No Stress” Workshops
- Working through Anger, Resentment and Conflict
- Self-Acceptance: Learning to Love Yourself
- Mindfulness Meditation Workshop



Rutgers Food Pantry

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



•Who Qualifies

- Any student at Rutgers University, New Brunswick. You just need a Rutgers ID card.

•Hours of Operation/Locations

- Monday: Closed
- Tuesday: 12 p.m. – 4 p.m.
- Wednesday: 12 p.m. – 4 p.m.
- Thursday: Mobile Food Pantry on Busch, Livingston & Douglass (appointments preferred, walk-ins welcome)
- Friday: 12 p.m. – 4 p.m.

**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 oclcp39@gmail.com.

DO SOMETHING TO HELP website for concerns about mental health, discrimination and harassment Issues

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

The screenshot shows the top portion of the Rutgers Student Health website. At the top, there is a dark grey navigation bar with links for 'Home', 'Contact Us', and 'Services & Costs', along with social media icons for Instagram, Twitter, and Facebook. Below this is a red header section featuring the Rutgers logo and the text 'RUTGERS Student Health Student Affairs'. A search bar with the text 'Search This Website' is located on the right side of the header. A horizontal menu below the header contains several categories: 'MEDICAL & COUNSELING SERVICES', 'HEALTH EDUCATION & PROMOTION', 'ACADEMIC OPPORTUNITIES', 'INSURANCE & COSTS', 'RESOURCES', 'ABOUT US', and 'DONATE'. The main content area has a light grey background and features the title 'Do Something To Help – Share A Concern!' and a breadcrumb trail: 'Home / Do Something To Help – Share A Concern!'.

If this is an emergency, call [9-1-1](tel:911) immediately! From a University phone, obtain an outside line and dial [9-1-1](tel:911).

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

RUTGERS

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 fall 2018 semester. Please confirm your enrollment below

I confirm my attendance for the fall 2018 semester.



I will not attend the fall 2018 semester and understand that I must complete the formal withdrawal process.

We Are Here for You

Janet Alder: janet.alder@rutgers.edu

Jim Millonig: millonig@cabm.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)
- Exposure Science Student Association (RESSA)
- 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)
- iJOBS blog
- Rutgers GSA – events for everyone

