Rush Research Mentoring Programs

EXPERIENCE • COMMITMENT • RESOURCES

2017 REPORT
RUSH MENTORING PROGRAMS: Investing in the Future

A commitment to developing junior faculty members and postdoctoral researchers is an essential investment for academic medical centers such as Rush University Medical Center. The Office of Mentoring Programs at Rush University facilitates the growth of our junior faculty and fellows, fostering independent research and career opportunities.

The success of the Mentoring Programs is measured by scholarly productivity, extramural funding, the retention and advancement of junior faculty, and the best possible placement of talented postdoctoral fellows who are ready for the next step in their careers. Our mission is to support the success of our junior faculty as they work under the guidance and supervision of knowledgeable and committed mentors. An effective faculty mentoring program also assists in recruiting future faculty and fellows to Rush.

DEMOGRAPHICS

Rush Mentoring Programs served 60 mentees from across the University, including one from John H. Stroger, Jr. Hospital.

MENTEES

- Rush Medical College: 6%
- College of Health Sciences: 23%
- College of Nursing: 7%
- Both: 70%

MENTEE RANKINGS

- Assistant Professors: 23%
- Associate Professors: 74%
- Instructors: 3%

RESEARCH TRACKS

- Clinical: 23%
- Laboratory-based: 70%
- Both: 7%

GENDER

- Women: 63%
- Men: 37%

"The guidance, support and training I received through the Mentoring Program set the foundation for a successful transition to an assistant professor position this last summer. Participation in the RAMP has provided me with hands-on mentoring and feedback related to my research program and my career trajectory. I am grateful that Rush provides early career investigators with the opportunity to learn from more senior investigators and other early career colleagues in a structured and constructive setting, and look forward to continuing my participation in this unique and invaluable program in the coming years." - Allison Wainer, PhD

Assistant Professor
Department of Psychiatry
Autism Assessment, Research, Treatment and Services (AARTS) Center
Rush Medical College
A variety of resources are made available to mentees and mentors of the Mentoring Programs, including the following:

**Professional grant-writing coaching**
A course is offered to help de-mystify the grant-writing process. Participants learn the components and rhetorical structure of an aims page, understand the logic flow of specific aims and learn best writing practices to enhance document readability. In addition, they are taught funding agency criteria for significance, innovation and approach, and how to connect those criteria directly to their research goals. Participants also learn best practices for using figures, graphs and tables.
Submitted proposals from those who have received writing coaching have achieved a 75 percent success rate and garnered more than $13 million in funding.

**Cohn fellowship grants**
The Cohn Family Foundation provides grant support that is distributed equally to five mentees who are selected through a competitive process. The funding allows mentees to gather preliminary data for research proposals and continue engagement in research activities.

**Science writing and editing**
Science writers and editors provide help with conference abstracts, manuscripts and grant applications.

**Statistical consulting**
Internal or external statistical assistance is provided as you clarify your research or scholarship project. Support includes clarifying analytic goals, consulting on the data analysis section of your applications, interpreting output results and contributing to manuscripts.

**Communication skills workshops and coaching**
Effective presentation skills workshops are offered to help develop effective, engaging presentations using PowerPoint or posters.

**Graphics consultation**
A graphics design expert will work with you to polish your graphs, figures and tables for presentations and publications.

**Annual research symposium**
The Mentoring Programs Research Symposium highlights the excellent research being conducted at Rush. With approximately 120 attendees, 10 presentations and 40 posters, the symposium offers a venue to stimulate interdisciplinary and interdepartmental collaboration.

**Travel awards**
Travel awards are granted to the symposium’s abstract winners and to the Mentee of the Year, who is selected through a competitive process.

“The RRMP has provided critical tools to help launch my career as a young physician-scientist. Expert mentorship, grant writing courses, peer review sessions and access to statistical support are some key features of the program that have allowed me to apply for, and successfully receive, highly competitive funding, including NIH funding. The program and staff are first-class.”

Gian Paz, MD, MS
Assistant Professor of Neurological Sciences
Section of Movement Disorders
Rush Medical College
Weekly mentee writing groups
These peer groups provide mutual support and accountability as mentees work toward increasing writing productivity while decreasing stress. Peers help each other set reasonable goals and share strategies for success.

Monthly research track meetings
Monthly research track meetings provide valuable feedback from mentors and peers on your specific aims and summary statements.

Seminars and workshops
A large variety of seminars and workshops are offered to enhance the professional development of members of each group. Most activities are open to all faculty, students and staff at Rush. In fiscal year 2017, 85 seminars and workshops were offered, with 1,365 people attending.

Lending Library
A series of books is available for mentees and mentors to borrow.

INTRAMURAL FUNDING and Scholarly Productivity
In fiscal year 2017, 33 mentees (57 total grants) received funding, either as principal or co-investigators. Fourteen of those grants were from the National Institutes of Health (NIH). The following table shows the distribution of grants received by mentees as principal investigators and as co-investigators, and breaks down the funds received from federal and non-federal sources.

Additionally, mentees published 140 journal articles and presented 160 podium talks and 106 posters. Two mentees were promoted from instructors to assistant professors, and three were promoted to associate professors.

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<th>TYPE OF FUNDING</th>
<th>AMOUNT</th>
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“The Mentoring Program truly welcomed me to Rush. It provides a platform for mentees to learn from more senior researchers. Beyond the invaluable technical content offered to mentees through seminars, workshops and symposia, the Mentoring Program fosters a collaborative community that is paramount for advancing research excellence at Rush. Participating in the mentorship program is my favorite part of being a faculty member at Rush.”

Antonia Zaferiou, PhD
Director of Motion Analysis
Division of Sports Medicine
Department of Orthopedic Surgery
Rush Medical College
The Cohn family foundation provided $100,000 in grant support that was distributed equally to five mentees who were selected through a competitive process. The funding allows mentees to gather preliminary data for research proposals and continue their engagement in research activities. In fiscal year 2017, the recipients were as follows.

Christopher Ferrigno, PhD, MPT, is an instructor in the Department of Anatomy and Cell Biology and Department of Orthopedic Surgery. During his doctoral studies at Rush, Ferrigno investigated biomechanical approaches to improve loading conditions at the knee during gait. He currently investigates the therapeutic application of a pressure-detecting shoe insole to conservatively treat the osteoarthritic knee. His Cohn Fellowship research will focus on “Biomechanical Approaches for Improving Function in Osteoarthritis.”

Allison Wainer, PhD, is a postdoctoral research fellow in the Autism Assessment Research Treatment and Services (AARTS) Center in the Department of Psychiatry. Wainer has two primary lines of research: examining innovative service delivery models, such as telehealth, to improve access to care for families of children with neurodevelopmental disorders (NDD); and developing novel behavioral-pharmacological treatments to target core areas of impairment in NDD. Wainer’s Cohn Fellowship research will integrate these two areas by examining “Integrated Treatments for Improving Social Learning, Motivation and Communication in Neurodevelopmental Disorders.”

Ryan Ross, PhD, is an instructor in the Anatomy and Cell Biology Department. His postdoctoral work at Rush has included research into the development of bone matrix, specifically concentrating on the role of Wnt signaling (a signaling pathway known to be important to bone mass maintenance) and the influence of osteoporosis treatments, and the use of circulating biomarkers as a means to diagnose orthopedic implant failure. His Cohn Fellowship research will study the use of an emerging bone drug to target X-linked hypophosphatemia.

Philip Held, PhD, is an instructor in the Department of Psychiatry and the Road Home Program. He conducts intervention research aimed at establishing the efficacy of psychosocial treatments for mental health problems associated with psychological trauma. His primary research interest involves examining the roles that trauma-related experiences, specifically guilt and shame, play in the development, maintenance and recovery from traumatic stress reactions in veterans. Held’s long-term research goals focus on the optimization of existing evidence-supported treatments for traumatic stress reactions. His Cohn Fellowship research will focus on examining veterans’ experiences of, and reactions to, potentially morally injurious events.

Gian Pal, MD, is an assistant professor in the Department of Neurological Sciences in the Section of Movement Disorders. His research interests include biomarkers in Parkinson’s disease (PD). In his masters’ thesis, he assessed the role of a novel substrate, lipopolysaccharide binding protein, as a potential biomarker of PD. Pal’s current work focuses on genotype-phenotype correlations, specifically relating to glucocerebrosidase (GBA) with PD. His Cohn fellowship research will focus on “Quantitative Motion Analysis to Characterize the Motor Phenotype of GBA Mutation Carriers With PD.”

As of July 31, 2017, 15 mentees have completed their fellowship. Five of them have already received NIH K awards, and five have received foundational grants to continue their research endeavors. Five additional mentees were selected to begin their fellowship in fiscal year 2018.
The Office of Mentoring Programs offers three additional programs that provide professional development and resources to our faculty.

### Rush Postdoctoral Mentoring Program

The Rush Postdoctoral Society (RPS) was founded in 2013 to facilitate community building for postdoctoral scholars at Rush University. At the local level, we provide education to assist new postdoctoral scholars transitioning to Rush and support those leaving Rush as they embark on new careers. We provide a community where postdoctoral scholars can share ideas and concerns, and socialize with their peers.

The RPS has a committee comprised of Rush postdocs that meets once a month to organize career development seminars, workshops and social events. Some examples of these scholarly seminars include the following: "Successful F31/F32 Grant Writing," "How to Build an Effective CV," "Academic Job Interviews," "Preparing an Academic Cover Letter" and "Effective Presentation Skills," to name a few.

The RPS also collaborates with other institutions, such as the University of Chicago, Northwestern University, the University of Illinois at Chicago and Argonne National Laboratory to help create a sense of community for Chicago-area postdocs.

The RPS is the Rush University representative for the National Postdoctoral Association (NPA). As such, the Office of Mentoring Programs supports the national goals of NPA. The RPS provides access to the NPA network and all of the associated resources available to members.

Since Rush is a sustaining member of the NPA, all postdoctoral scholars and research fellows are encouraged to join the NPA free of charge. Each year, the NPA celebrates to recognize the significant contributions that postdoctoral scholars make to U.S. research and discovery. The Office of Mentoring Programs helps to create awareness by hosting a campus-wide event in celebration. The NPA also hosts an annual meeting, which is the largest meeting and networking event in the postdoctoral community. Each meeting is highly engaging and productive for postdoctoral scholars, administrators and others working to enhance the postdoctoral experience.

Visit the National Postdoctoral Association’s website for full details: www.nationalpostdoc.org.

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**“The Rush Mentoring Program has had a transformational effect on numerous junior faculty, postdoctoral fellows and students at Rush. It has provided a much-needed career development resource to all. It is a wonderful, collegial and productive program that all participants, junior and senior, enjoy tremendously. It is a fabulous and unique resource to all of us at Rush that is soon going to be modeled by many across the country.”**

Vinay Gupta, PhD
Professor and Vice Chair for Research and Innovation, Department of Internal Medicine
Director, Drug Discovery Center
Rush Medical College

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The Rush Educational Mentoring Program (REMP) provides experienced and dedicated mentorship for educators and educational scholars who engage in scholarly activities in support of Rush University’s mission. The program offers a comprehensive range of resources designed to strengthen the educator’s teaching portfolio and supports educational scholarship.

Once a year, faculty at Rush have an opportunity to enhance and improve their teaching skills through a teaching excellence course sponsored by the Office of Mentoring Programs. The course consists of a core module and three elective tracks, and a fourth track on clinical teaching was added in the fiscal year 2017 session. The core includes interactive sessions on learning theories, adult learning, curriculum design, learner management and assessment, and course evaluations. Participants also choose one elective track (simulation in health professions education, online teaching, active learning strategies or clinical teaching) based on their particular field and areas of interest. Participants receive continuing education credits and a certificate of completion at the end of the course.

The outcomes of the course are directly related to Rush’s I CARE values:

I: Innovation — Participants are given the opportunity to bring new ideas and methods to their teaching.
C: Collaboration — Participants work in multidisciplinary teams throughout the program.
A: Accountability — Participants complete individual and group projects, demonstrating their learning and ability to implement it in practice.
R: Respect — Participants with diverse backgrounds and experiences learn about, and respect, differences of opinions.
E: Excellence — Excellence of the program is ensured through promoting and modeling best practices.

More than 120 faculty members have taken the course since its debut in 2013. The alumni meet every six months to discuss best practices, accomplishments and challenges related to their teaching endeavors, which aids in enhancing the program from year to year.

A second group of faculty, educational scholars, focuses on conducting educational research, publishing and acquiring funding. Their main objective is to use their experience as teachers in the classroom or at the bedside to create research programs that are patient-focused and will help students become better clinicians. Active members are committed to attending regular monthly meetings, participate in monthly reading assignments, conduct a research project proposal over a six month period and report their research progress during the monthly meetings. The education scholars are encouraged to utilize the resources provided by the Office of Mentoring Programs while pursuing their educational research.

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Rush Women Mentoring Program

The Office of Faculty Affairs, in collaboration with the Office of Mentoring Programs, established the Rush Women Mentoring Program (RWMP). The RWMP's objective is to create and sustain a comprehensive program that facilitates women faculty members' pursuit of career goals within a supportive and engaging environment at Rush University Medical Center.

The RWMP equips female faculty members with skills to help them manage a wide range of interpersonal and professional interactions through the following:

• Fostering a coherent system of professional development that accounts for individual needs and career pathways
• Adding to the scholarly knowledge base regarding learning styles in the medical sciences through reinforcement of infrastructure
• Using peer mentoring to nurture a sense of community among women faculty members
• Supporting a culture that is conducive to inter-professional collaboration and partnership
• Assisting women faculty in their promotion through academic ranks and into leadership positions
• Increasing visibility of women faculty and their successes within the Rush community
• Facilitating development of policies and concrete tools to promote work flexibility and work-life balance

The program has two facets. First, junior women faculty are matched with senior women faculty, based on their profile preferences survey. Guidelines are provided to help maximize their meeting productivity and create objectives based on the mentees' specific needs. The relationship is driven by the junior faculty. Currently, 52 junior-senior pairs participate in the program and this group meets every six months to celebrate successes, discuss challenges and how the program can improve.

The second facet of the program is to enhance the sense of belonging among women faculty. The program fosters that by bringing together the group once a month through a seminar series that targets professional and career development. More than 800 people have been in attendance at the seminar series. The RWMP is increasing diversity awareness at Rush and starting new initiatives to retain and advance more women at Rush.

“I began the Rush Research Mentoring Program when I began my postdoctoral fellowship. This program and its services have been incredibly valuable in my development and transition from student to fellow. I have attended informative workshops, formed collaborations with emerging scientists in other disciplines and have successfully received funding after completing the grantsmanship workshop.”

Shannon Halloway, PhD, RN
Postdoctoral Fellow
Community, Systems and Mental Health Nursing
College of Nursing

“The Rush Mentoring Program has been an indispensable resource for my professional development. I have been connected with mentors, and developed collaborations and received critical feedback on my research. I have greatly benefitted from workshops and seminars that have helped me improve my writing and presentation skills.”

Matthew Meagher, PhD
Instructor, Department of Cell and Molecular Medicine
Rush Medical College
Education/Research Training Curriculum for Junior Faculty

The Rush Center of Excellence on Disparities in HIV and Aging received the support of the Rush Scientific Leadership Council to convene research and education design experts from the offices of Academic Affairs, Mentoring Programs and the Library of Rush University Medical Center in order to create a curriculum that junior researchers use to develop a research career development plan. Four modules were created with specific objectives and learning outcomes: a) knowing yourself, b) developing an area of inquiry, c) building your research support team and d) putting together a research proposal. Additional modules were created to provide refreshers to library science resources and to orient mentors with their important role in supporting junior faculty.

A logic model describing inputs, outcomes and impact goals for the curriculum development was developed and shared with junior faculty who had successfully received career development awards from the NIH. A focus group of junior faculty validated the model. Their feedback was incorporated, and module templates were developed and added to Blackboard.

Quality Matters standards have been used for designing and evaluating online courses. Each module contains objectives, an introduction to the unit, learning activities tied to the objectives and a to-do list by the faculty completing the module. An assessment piece is incorporated within the learning activity, and the curriculum design has been fully documented following instructional design process.

To date, the curriculum has been piloted with several faculty who joined the Research Mentoring Program in 2016. Additionally, a mentor training module was made available to all Rush faculty and currently resides on the Mentoring Program website at www.rushu.rush.edu/mentoringprogram.

“Starting an independent career in research is among the toughest tasks there is, and without mentoring it would be nearly impossible to achieve success. Show me a successful scientist, clinician, student or entrepreneur, and I’ll show you an individual who did not shy away from seeking help through mentoring. I strongly recommend that students, postdoctoral fellows and junior faculty use the Rush Mentoring Program, which, in my opinion, is among the best in the country.”

Sasha Shafikhani, PhD
Associate Professor
Department of Medicine, Division of Hematology/Oncology
Department of Immunology and Emerging Pathogens
Rush Medical College
Rush University Cancer Center

“When I started at Rush, Dr. Kathryn Keim, department chair of Clinical Nutrition, made it a priority for me to apply to the program. As a junior clinical nutrition researcher, the opportunity for multidisciplinary mentoring and supportive services offered by the program are truly invaluable. I’m currently taking the grant-writing class, and it has transformed how I synthesize an aim’s page.”

Sandra L. Gomez-Perez, PhD, RD, LDN
Assistant Professor
Clinical Nutrition
College of Health Sciences
RUSH MENTORING PROGRAMS
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www.rushu.rush.edu/researchmentoringprogram

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Rush Leadership Board of Governors
Cohn Family Foundation

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