Rush Mentoring Programs: Investing in the Future

The Office of Mentoring Programs within the Office of Faculty Affairs helps facilitate career development and cultivates research independence. The program’s success is measured by scholarly productivity, extramural funding, retention of junior faculty and placement of postdoctoral research fellows who are prepared for their next career step.

Our program’s mission is to support the success of Rush University’s junior faculty who are working under the guidance of knowledgeable and committed mentors. An effective faculty mentoring program is a major asset in the recruitment of faculty and postdoctoral research fellows, and is an essential investment for academic medical centers.

Demographics
Rush Mentoring Programs served 56 mentees from across Rush University during fiscal year 2020. Their demographic information is presented in the following graphs.

The Rush Mentoring Programs provide valuable resources for Rush mentees. These resources range from access to experienced mentors and like-minded, early stage investigator colleagues to the availability of grant- and manuscript-writing workshops. All are designed to support mentees in their pursuit of careers as independent investigators.

Mary K. Hayden, MD, FIDSA, FSHEA
Chief, Division of Infectious Diseases
Professor, Department of Internal Medicine (Division of Infectious Diseases), Rush Medical College
Director, Division of Clinical Microbiology, Rush Medical Laboratories
The James Lowenstine Professor of Internal Medicine
The Society for Healthcare Epidemiology of America - 2021 President

The Rush Mentoring Programs: Investing in the Future

The Office of Mentoring Programs within the Office of Faculty Affairs helps facilitate career development and cultivates research independence. The program’s success is measured by scholarly productivity, extramural funding, retention of junior faculty and placement of postdoctoral research fellows who are prepared for their next career step.

Our program’s mission is to support the success of Rush University’s junior faculty who are working under the guidance of knowledgeable and committed mentors. An effective faculty mentoring program is a major asset in the recruitment of faculty and postdoctoral research fellows, and is an essential investment for academic medical centers.

Demographics
Rush Mentoring Programs served 56 mentees from across Rush University during fiscal year 2020. Their demographic information is presented in the following graphs.

The Rush Mentoring Programs provide valuable resources for Rush mentees. These resources range from access to experienced mentors and like-minded, early stage investigator colleagues to the availability of grant- and manuscript-writing workshops. All are designed to support mentees in their pursuit of careers as independent investigators.

Mary K. Hayden, MD, FIDSA, FSHEA
Chief, Division of Infectious Diseases
Professor, Department of Internal Medicine (Division of Infectious Diseases), Rush Medical College
Director, Division of Clinical Microbiology, Rush Medical Laboratories
The James Lowenstine Professor of Internal Medicine
The Society for Healthcare Epidemiology of America - 2021 President

The Rush Mentoring Programs provide valuable resources for Rush mentees. These resources range from access to experienced mentors and like-minded, early stage investigator colleagues to the availability of grant- and manuscript-writing workshops. All are designed to support mentees in their pursuit of careers as independent investigators.

Mary K. Hayden, MD, FIDSA, FSHEA
Chief, Division of Infectious Diseases
Professor, Department of Internal Medicine (Division of Infectious Diseases), Rush Medical College
Director, Division of Clinical Microbiology, Rush Medical Laboratories
The James Lowenstine Professor of Internal Medicine
The Society for Healthcare Epidemiology of America - 2021 President
Rush Research Mentoring Program: Resources

This program provides a variety of resources to the mentees and mentors in the program, including the following:

Cohn Fellowship Grant
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.

Editing Services
Science writers and editors provide editing services to our mentees and mentors for their abstracts, grant applications and manuscripts.

Grant Writing Workshops
Participants learn the different components of an aims page, understand the logic flow of specific aims, learn critical best writing practices to enhance document readability, understand funding agency criteria and how to connect those criteria directly to their research goals. Over the past 14 sessions, 135 mentees have attended the workshops. In self-reported surveys, attendees were awarded more than $20 million in funding from federal, industry and foundation sources.

Graphics Consultation
A graphic designer helps refine graphs, figures and tables for presentations and publications.

Monthly Research Track Meetings
Monthly research track meetings provide valuable feedback from mentors and peers on aims pages, study design issues, summary statements and grant application revision plans.

Rush Mentoring Programs Annual Research Symposium
Our annual symposium highlights the excellent research conducted at Rush University. It offers a venue to stimulate interdisciplinary and interdepartmental collaboration. Every year, the symposium features approximately 138 attendees, 27 poster presentations and eight podium presentations.

Seminars and Workshops
Several seminars and workshops are offered throughout the year to enhance the professional development of mentees and mentors. Seminars and workshops are open to all faculty, staff and students at Rush. In fiscal year 2020, 35 seminars and workshops were offered, with a combined 577 people attending.

Being a mentor means shaping the future of new talents and creating an environment of innovation and growth. One of the fundamental tasks in academia is to provide guidance to others and help them to unlock their full potential. The Rush Mentoring Programs allows me to participate in this essential process.”

Jochen Reiser, MD, PhD
The Ralph C. Brown, MD, Professor of Internal Medicine
Chair, Department of Internal Medicine, Rush Medical College
In fiscal year 2020, 28 mentees (68 total grants) reported funding, either as principal investigators or co-investigators. Forty-four of those grants were from the National Institutes of Health and other federal sources.

This table shows the distribution of grants received by mentees as principal investigators and co-investigators. It also shows funding from both federal and non-federal sources.

Additionally, mentees published 135 journal articles and presented 154 podium talks and 89 posters.

**Statistical Consultation**

Statistical support helps clarify research, scholarship projects and analytic goals. We also provide consulting on the data and analysis section of applications to help interpret results and contribute to manuscripts.

**Writing Accountability Group**

Writing groups meet weekly to provide support and accountability for group members as they work toward increasing writing productivity. Group members share strategies for success and help each other set reasonable goals.

**Extramural Funding**

In fiscal year 2020, 28 mentees (68 total grants) reported funding, either as principal investigators or co-investigators. Forty-four of those grants were from the National Institutes of Health and other federal sources.

This table shows the distribution of grants received by mentees as principal investigators and co-investigators. It also shows funding from both federal and non-federal sources.

Additionally, mentees published 135 journal articles and presented 154 podium talks and 89 posters.

<table>
<thead>
<tr>
<th>TYPE OF FUNDING</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mentee as Principal Investigator</strong></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$4,069,218</td>
</tr>
<tr>
<td>Non-Federal</td>
<td>$1,127,002</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$5,196,220</td>
</tr>
<tr>
<td><strong>Mentee as Co-Investigator</strong></td>
<td></td>
</tr>
<tr>
<td>Federal</td>
<td>$8,378,881</td>
</tr>
<tr>
<td>Non-Federal</td>
<td>$103,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$8,481,881</td>
</tr>
<tr>
<td><strong>Total Federal Funding</strong></td>
<td>$12,448,099</td>
</tr>
<tr>
<td><strong>Total Non-Federal Funding</strong></td>
<td>$1,230,002</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>$13,678,101</td>
</tr>
</tbody>
</table>

The Rush University Mentoring Programs has made a wonderful contribution to furthering the research careers of our junior investigators. The array of programs, consultations and interactions with faculty and mentees throughout the University foster lasting interdisciplinary research relationships.

JoEllen Wilbur, PhD, RN, FAHA, FAAN
Professor and Independence Foundation Chair in Nursing
Associate Dean for Research, Department of Women, Children and Family Nursing, College of Nursing
Faraz Bishehsari, MD, PhD, is an associate professor in the Division of Digestive Diseases within the Department of Internal Medicine. His research is on the pathogenesis of gastrointestinal malignancies, particularly colon and pancreatic cancers, and focuses on how factors in our environment predispose to cancer formation via promoting a chronic inflammatory condition. His Cohn research will examine the potential role of opioids in the formation and possibly progression of pancreatic cancer.

Lionel C. Clement, PhD, is an assistant professor in the Department of Internal Medicine. He is studying the role of Angiopoietin-like 4, or ANGPTL4, and proprotein convertase subtilisin/kexin type 9, or PCSK9, in animal models of human kidney diseases. He showed that ANGPTL4 plays opposite roles in kidney disease depending of which organ it is secreted from, and it is implicated in the development of high levels of plasma triglyceride during the development of the disease (2 publications in *Nature Medicine*). His research on ANGPTL4 was supported by a NIH K01 award. His Cohn research project studied the role of PCSK9 expressed in the kidney in the initiation of hypercholesterolemia in kidney disease. Generated data were published (*Kidney International*) and used in a NIH R01 application that was successfully scored. The funded R01 will start in December 2020.

Kristen Haut, PhD, is an assistant professor in the Department of Psychiatry and Behavioral Sciences. Her research aims to reduce the burden of chronic psychiatric disorders by identifying disrupted neural connections underlying symptoms and developing treatments designs to alter these neural functions. Her research uses functional and structural neuroimaging to evaluate cognitive training interventions in people with schizophrenia and bipolar disorder, and people at risk for psychosis. Her Cohn research focused on testing a newly developed computerized training paradigm addressing cognitive control of emotion in people with recent-onset bipolar disorder and measuring structural changes in the underlying neural networks.

Kevin C. Jones, PhD, is a medical physics assistant professor in the Department of Radiation Oncology. His research focuses on developing novel imaging techniques to guide radiation therapy delivery. His Cohn research will help him build and characterize an X-ray imaging system to track lung tumor positions during radiation treatment.

Lauren M. Littke, PhD, OTR/L, is an associate professor in the Department of Occupational Therapy. Her research focuses on innovative service delivery models for families of young children with developmental conditions, including autism spectrum disorders, or ASD. Her Cohn Fellowship leveraged funding from the American Occupational Therapy Foundation to expand a telehealth intervention aimed at increasing adaptive behavior (e.g., toilet training, mealtime behavior) among children with ASD. The Cohn Fellowship supported Dr. Littke’s telehealth research with children and families, ultimately contributing to her work in telehealth for early intervention providers across the state of Illinois during the pandemic. Additionally, she was recently awarded the College of Health Sciences’ Excellence in Research Award for her work in telehealth.

Dominika A. Winiarski, PhD, is an assistant professor in the Department of Psychiatry and Behavioral Sciences. Her research focuses on improving access to mental health care. In the past, she collaborated with a multisite research team to examine the feasibility of a fully automated cell phone-based mental health intervention for homeless youth in Chicago. She also explored clinical outcomes of homeless youth receiving mental health services at a shelter-based clinic. Her Cohn research project allowed her to expand her population of interest, and she has begun exploring ways of leveraging technology to improve access to mental health services for youth and families in both urban and rural areas.

Cohn Fellows

Every year the Cohn Family Foundation provides grant support to junior faculty at Rush University who are mentees in the Rush Research Mentoring Program. The Cohn Fellowship allows mentees to gather preliminary data for research proposals and for their continued engagement in research activities.

As of June 30, 2020, 30 mentees completed their fellowship. Learn more about the Class of 2020 Cohn Fellows:
Rush Educational Mentoring Program

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

In fiscal year 2020, the Offices of Faculty Affairs and Mentoring Programs offered a three-day teaching excellence bootcamp. Faculty members from all four of Rush’s colleges lead the lectures and discussions, which help faculty create effective instructional programs and reach teaching objectives.

This bootcamp is open to all faculty at Rush University and John H. Stroger Jr. Hospital of Cook County. All participants who complete the bootcamp will receive continuing education credits and a certificate. More than 150 faculty members has taken the bootcamp.

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 different opinions.
E: Excellence — Program excellence is ensured through the promotion and modeling of best practices.

Additional Mentoring Programs

The Office of Mentoring Programs offers three programs that complement the Rush Research Mentoring Program, providing additional professional development and resources to faculty.

Rush Educational Mentoring Program

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

In fiscal year 2020, the Offices of Faculty Affairs and Mentoring Programs offered a three-day teaching excellence bootcamp. Faculty members from all four of Rush’s colleges lead the lectures and discussions, which help faculty create effective instructional programs and reach teaching objectives.

This bootcamp is open to all faculty at Rush University and John H. Stroger Jr. Hospital of Cook County. All participants who complete the bootcamp will receive continuing education credits and a certificate. More than 150 faculty members has taken the bootcamp.

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 different opinions.
E: Excellence — Program excellence is ensured through the promotion and modeling of best practices.

“Mentorship is a key to success no matter where you are in your career. In my experience, the Rush Mentoring Programs has been a wonderful home base for our junior and senior faculty members to share experiences and learn from one another. I’m so excited to see the next generation of health care leaders develop through the program.”

Michael Lin, MD, MPH
Associate Professor, Department of Internal Medicine (Division of Infectious Diseases), Rush Medical College Hospital Epidemiologist

"Mentorship is a key to success no matter where you are in your career. In my experience, the Rush Mentoring Programs has been a wonderful home base for our junior and senior faculty members to share experiences and learn from one another. I’m so excited to see the next generation of health care leaders develop through the program.”

Michael Lin, MD, MPH
Associate Professor, Department of Internal Medicine (Division of Infectious Diseases), Rush Medical College Hospital Epidemiologist
As a new postdoctoral fellow, coming to Rush and starting a new phase in my career was challenging and exciting at the same time. Thankfully, the challenging part was lightened by the unique resources and research avenues provided by the Rush Mentoring Programs. I am so thankful to the postdoctoral fellows’ cohort for introducing me to it. Rush Mentoring Programs participants help mentees learn from mistakes that have already been made so they can successfully move forward. As a researcher, the writing groups, the grant writing and submission help, and the opportunities of collaborating with other researchers at Rush are a few advantageous resources I truly benefited from.”

Ankur Naqib, PhD
Bioinformatics Research Scientist
Postdoctoral Research Fellow and Instructor
Department of Cell and Molecular Medicine, Rush Medical College

Rush Postdoctoral Mentoring Program

The Rush Postdoctoral Mentoring Program facilitates community building for postdoctoral scholars at Rush University. At the local level, it provides education to assist new postdoctoral scholars transitioning to Rush, and supports those who are leaving Rush as they embark on new careers. It is a community where postdoctoral scholars can share ideas and socialize with their peers.

This program has a postdoctoral committee that comprises of Rush postdocs who meet once a month to organize career development seminars, workshops and social events. They collaborate with institutions such as the University of Illinois at Chicago, Northwestern University and the University of Chicago to create a Chicagoland postdoctoral community.

We are the Rush University representative for the National Postdoctoral Association (NPA). The Office of Mentoring Programs supports the national goals of NPA. Since Rush is a sustaining member of the NPA, all postdoctoral scholars and research fellows are encouraged to join the NPA free of charge.

What is the National Postdoctoral Association?

The National Postdoctoral Association is a member-driven, nonprofit organization that provides a unique, national voice for postdoctoral scholars. Since 2003, the organization has committed to enhance the quality of the postdoctoral experience in the United States. Visit the National Postdoctoral Association’s website for full details: www.nationalpostdoc.org

Some Postdoctoral Seminar Topics

- Navigating Grant Comments: How to Write an Intro and How to Revise Your Grant for Success After Rejection
- Philanthropy for Research in a Hospital Environment
- How to Navigate Authorship in a Team Science Environment
- Creating and Managing a Research Budget

We had a total of 33 postdocs and nine seminars (fiscal year 2020).
Mentoring is one of the most rewarding activities in our profession. It is wonderful to observe a mentee’s professional growth. The mentor also learns so much from the mentee, it is mutually beneficial and educational, leads to collaborations and teams, and keeps you open minded. I recall so many people who have been crucial to my development along the way, and it gives me great pleasure to try and do that for others.”

Anne-Marie Malfait, MD, PhD
The George W. Stuppy, MD, Chair of Arthritis Professor, Department of Internal Medicine (Division of Rheumatology), Rush Medical College

Rush Women Mentoring Program

The Offices of Faculty Affairs and Mentoring Programs established the Rush Women Mentoring Program to sustain a comprehensive program that helps Rush’s female faculty pursue career goals within a supportive and engaging environment. The program prepares female faculty members with the skills needed to help them manage a wide range of interpersonal and professional interactions. This program meets the following goals:

• Assists female faculty in their promotion through the academic ranks and into leadership positions
• Facilitates development of policies and concrete tools to promote work flexibility and work–life balance
• Fosters a coherent system of professional development that accounts for individual needs and career pathways
• Increases visibility of female faculty and their successes within the Rush community
• Uses peer mentoring to nurture a sense of community among female faculty members
• Uses reinforcement of infrastructure to add to the scholarly knowledge of learning styles in the medical sciences

The program has two facets:

• Junior female faculty are matched with senior female faculty based on their profile preferences survey. Guidelines are provided to help maximize their meeting productivity and create objectives based on mentee’s specific needs. The relationship is driven by the junior faculty. Currently, almost 60 junior-senior faculty pairs participate in the program. The group meets every six months to celebrate successes, and discuss challenges and how the program can improve.

• The program enhances a sense of belonging among female faculty by bringing together program members and the Rush community once a month for a seminar series focused on professional development. More than 1000 people have been in attendance at the seminar series since the program started. The RWMP is starting new initiatives to retain and advance more women at Rush.
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 Faculty Affairs and Mentoring Programs and the Library of Rush University Medical Center to create a curriculum that junior researchers use to develop a research career development plan.

Modules were created to provide refreshers on library science resources and to orient mentors as they engage in junior faculty support. These four modules were created with the following objectives and learning outcomes in mind:

Module one: Knowing yourself
Module two: Developing an area of inquiry
Module three: Building your research support team
Module four: Putting together a research proposal

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

Online courses are designed and evaluated using standards set by Quality Matters, an independent, national program that uses benchmarks grounded in research to measure the quality of web-based 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 28 faculty who joined the Research Mentoring Program. Additionally, a mentor training module has been made available to all Rush faculty and can be found on the Mentoring Programs’ webpage: www.rushu.rush.edu/mentoringprogram.

Faculty Development Bootcamps

To support the professional growth of our faculty, the Office of Faculty Affairs and the Office of Mentoring Programs offered programs designed for all stages of an academic career. The Faculty Development Bootcamps are facilitated for both early career (instructors and assistant professors) and mid-career (associate professors and professors) faculty members. The courses focused on gaining leadership skills and experience, creating a strong portfolio of academic achievement and finding balance between one’s professional and personal life. More than 50 faculty members participated in the first cohort. These bootcamps will continue to be offered on an annual basis.

The Mentoring Programs have been key to my success and career satisfaction at Rush. The programs facilitated networking with other early career researchers, and these relationships have grown into research collaborations across colleges. I used the program’s grant writing supports in the forms of grant writing sessions and professional editing prior to submitting my now-funded career development award. The Mentoring Programs are recognized by NIH grant reviewers as part of the exceptional environment Rush provides for early career development. I’m very grateful to be part of the program and highly recommend it to my colleagues.”

Melissa M. Crane, PhD
Assistant Professor, Department of Preventive Medicine, Rush Medical College

Education/Research Training Curriculum for Junior Faculty

Faculty Development Bootcamps

To support the professional growth of our faculty, the Office of Faculty Affairs and the Office of Mentoring Programs offered programs designed for all stages of an academic career. The Faculty Development Bootcamps are facilitated for both early career (instructors and assistant professors) and mid-career (associate professors and professors) faculty members. The courses focused on gaining leadership skills and experience, creating a strong portfolio of academic achievement and finding balance between one’s professional and personal life. More than 50 faculty members participated in the first cohort. These bootcamps will continue to be offered on an annual basis.

The Mentoring Programs have been key to my success and career satisfaction at Rush. The programs facilitated networking with other early career researchers, and these relationships have grown into research collaborations across colleges. I used the program’s grant writing supports in the forms of grant writing sessions and professional editing prior to submitting my now-funded career development award. The Mentoring Programs are recognized by NIH grant reviewers as part of the exceptional environment Rush provides for early career development. I’m very grateful to be part of the program and highly recommend it to my colleagues.”

Melissa M. Crane, PhD
Assistant Professor, Department of Preventive Medicine, Rush Medical College
The Rush Mentoring Programs have been central to my career development as a junior physician-scientist at Rush University. It has provided so many of the resources needed to jump-start my career, including help in biostatistics/bioinformatics, faculty career development and mentorship. It is a community of senior investigators who are committed to developing junior faculty at Rush. Someday, I hope I can do the same.

Rajeev K. Garg, MD, MS
Assistant Professor, Department of Neurological Sciences, Rush Medical College