2022 RUSH Mentoring Programs
Eighth Annual Symposium

Sept. 29, 2022
In-Person Podium Presentations
Noon to 3 p.m.
Searle Conference Center: Brainard (Professional Building, Room 542)

Virtual Poster Session
From Sept. 29 at 3 p.m. to Sept. 30 at 5 p.m.
VoiceThread (Asynchronous)

Office of Faculty Affairs
Office of Mentoring Programs
2022 RUSH Mentoring Programs

Eighth Annual Symposium | Sept. 29, 2022

Noon - 12:05 p.m.  Introductory Remarks
Susan Chubinskaya, PhD
Vice Provost, Office of Faculty Affairs
Larry J. Goodman, MD
Interim President, RUSH University
The James A. Campbell, MD, Distinguished Service Professor
Department of Internal Medicine
RUSH Medical College

Larry J. Goodman, MD
Interim President, RUSH University
The James A. Campbell, MD, Distinguished Service Professor
Department of Internal Medicine
RUSH Medical College

12:05 - 12:35 p.m.  Keynote Speaker
Christine M. Kennedy, RN, PhD, FAAN
John L. & Helen Kellogg Dean, College of Nursing
Professor, Department of Women, Children and Family Nursing, College of Nursing
Associate Chief Nursing Officer, RUSH University Medical Center
Professor, Department of Pediatrics, RUSH Medical College

12:35 - 12:50 p.m.  2022 Cohn Fellow Presentations
Diet, Cognition, and Neuroimaging in African American Older Adults
Puja Agarwal, PhD
Assistant Professor
RUSH Alzheimer’s Disease Center
Department of Internal Medicine
Department of Clinical Nutrition
RUSH Medical College

12:50 - 1:05 p.m.  Associations Between Eating Behavior and Internal States in Individuals Who Have Undergone Bariatric Surgery
Lauren E. Bradley, PhD
Assistant Professor
Department of Psychiatry and Behavioral Sciences
RUSH Medical College

1:05 - 1:20 p.m.  Drug-Tolerant Cancer Persister Cells Can Develop a Variety of Drug-Resistance Mechanisms in ER- Positive Breast Cancer Populations
Kajal Gupta, MS, PhD
Assistant Professor
Department of Surgery
RUSH Medical College

1:20 - 1:35 p.m.  Deep Brain Stimulation of the Subthalamic Nucleus Using Optogenetics
Alana E. Kirby, MD, PhD
Assistant Professor
Department of Neurological Sciences
RUSH Medical College

1:35 - 1:50 p.m.  Mechanistic Studies of Calcinosis in a Bleomycin Mouse Model of Scleroderma
Carrie Richardson, MD, MHS
Assistant Professor
Department of Medicine (Rheumatology)
Northwestern University

2:05 - 2:15 p.m.  Break

2:15 - 2:45 p.m.  2022 Abstract Winner Presentations
(2R,6R)-HNK Increases Activation of AMPA Receptors and Reduces BDNF Activity in a Murine Model of Low Back Pain
Vaskar Das, PhD
Assistant Professor
Department of Anesthesiology
RUSH Medical College

Macrophage Depletion Alleviates Pain-Like Behaviors in Osteoarthritic Mice of Both Sexes
Terese Geraghty, PhD
Postdoctoral Fellow
Department of Internal Medicine
Section of Rheumatology
RUSH Medical College

Tracking Fluorescently Labeled Anti-HIV IgG in the Brain to Enhance CNS-Specific Cure Strategy
Jeffrey Schneider, PhD
Assistant Professor
Department of Microbial Pathogens and Immunity
RUSH Medical College

2:45 - 3:00 p.m.  Virtual Poster Session – VoiceThread (Asynchronous)
From Sept. 29 at 3 p.m. to Sept. 30 at 5 p.m.

RUSH Mentoring Programs
Class of 2022 Cohn Fellows

Puja Agarwal, PhD
Assistant Professor
RUSH Alzheimer’s Disease Center
Department of Internal Medicine
Department of Clinical Nutrition
RUSH Medical College

Kajal Gupta, MS, PhD
Assistant Professor
Department of Surgery
RUSH Medical College

Carrie Richardson, MD, MHS
Assistant Professor
Department of Medicine (Rheumatology)
Northwestern University

Lauren E. Bradley, PhD
Assistant Professor
Department of Psychiatry and Behavioral Sciences
RUSH Medical College

Alana E. Kirby, MD, PhD
Assistant Professor
Department of Neurological Sciences
RUSH Medical College
2022 RUSH Mentoring Programs
Eighth Annual Symposium | Sept. 29, 2022

Noon - 12:05 p.m. Introductory Remarks
Susan Chubinskaya, PhD
Vice Provost, Office of Faculty Affairs
Larry J. Goodman, MD
Interim President, RUSH University
The James A. Campbell, MD, Distinguished Service Professor
Department of Internal Medicine
RUSH Medical College

12:05 - 12:35 p.m Keynote Speaker
Christine M. Kennedy, RN, PhD, FAAN
John L. & Helen Kellogg Dean, College of Nursing
Professor, Department of Women, Children and Family Nursing, College of Nursing
Associate Chief Nursing Officer, RUSH University Medical Center
Professor, Department of Pediatrics, RUSH Medical College

2022 Cohn Fellow Presentations
12:35 - 12:50 p.m. Diet, Cognition, and Neuroimaging in African American Older Adults
Puja Agarwal, PhD
Assistant Professor
RUSH Alzheimer’s Disease Center
Department of Internal Medicine
Department of Clinical Nutrition
RUSH Medical College

12:50 - 1:05 p.m. Associations Between Eating Behavior and Internal States in Individuals Who Have Undergone Bariatric Surgery
Lauren E. Bradley, PhD
Assistant Professor
Department of Psychiatry and Behavioral Sciences
RUSH Medical College

1:05 - 1:20 p.m. Drug-Tolerant Cancer Persister Cells Can Develop a Variety of Drug-Resistance Mechanisms in ER- Positive Breast Cancer Populations
Kajal Gupta, MS, PhD
Assistant Professor
Department of Surgery
RUSH Medical College

1:20 - 1:35 p.m. Deep Brain Stimulation of the Subthalamic Nucleus Using Optogenetics
Alana E. Kirby, MD, PhD
Assistant Professor
Department of Neurological Sciences
RUSH Medical College

1:35 - 1:50 p.m. Mechanistic Studies of Calcinosis in a Bleomycin Mouse Model of Scleroderma
Carrie Richardson, MD, MHS
Assistant Professor
Department of Medicine (Rheumatology)
Northwestern University

1:50 - 2:05 p.m. Award Announcements
2022 Mentee, Mentor and Postdoctoral Mentor of the Year

2:05 - 2:15 p.m. Break

2:15 - 2:30 p.m. 2022 Abstract Winner Presentations
(2R,6R)-HNK Increases Activation of AMPA Receptors and Reduces BDNF Activity in a Murine Model of Low Back Pain
Vaskar Das, PhD
Assistant Professor
Department of Anesthesiology
RUSH Medical College

2:30 - 2:45 p.m. Macrophage Depletion Alleviates Pain-Like Behaviors in Osteoarthritic Mice of Both Sexes
Terece Geraghty, PhD
Postdoctoral Fellow
Department of Internal Medicine
Section of Rheumatology
RUSH Medical College

2:45 - 3:00 p.m. Tracking Fluorescently Labeled Anti-HIV IgG in the Brain to Enhance CNS-Specific Cure Strategy
Jeffrey Schneider, PhD
Assistant Professor
Department of Microbial Pathogens and Immunity
RUSH Medical College

Starts at 3 p.m. Virtual Poster Session – VoiceThread (Asynchronous)
From Sept. 29 at 3 p.m. to Sept. 30 at 5 p.m.

RUSH Mentoring Programs
Class of 2022 Cohn Fellows
Puja Agarwal, PhD
Assistant Professor
RUSH Alzheimer’s Disease Center
Department of Internal Medicine
Department of Clinical Nutrition
RUSH Medical College

Kajal Gupta, MS, PhD
Assistant Professor
Department of Surgery
RUSH Medical College

Carrie Richardson, MD, MHS
Assistant Professor
Department of Medicine (Rheumatology)
Northwestern University

Lauren E. Bradley, PhD
Assistant Professor
Department of Psychiatry and Behavioral Sciences
RUSH Medical College

Alana E. Kirby, MD, PhD
Assistant Professor
Department of Neurological Sciences
RUSH Medical College
Jori Fleisher, MD, MSCE
Associate Professor
Department of Neurological Sciences
RUSH Medical College

Awarded by the RUSH Mentoring Programs in recognition of excellence in scholarly work, leadership and involvement in the Mentoring Program.

From nominator Deborah Hall, MD, PhD:
“I have been meeting with Jori weekly since her arrival at RUSH, and she has transitioned from a K awardee to R applicant for NIH grants. I am so impressed with her progress and proud of the increased recognition she has created for RUSH in association with the many foundations we work with (Parkinson’s Foundation, Lewy Body Association, etc.). In fact, RUSH is the No. 1 site in the country for Lewy body disease care because of her efforts. Jori has been diligently working in the research realm at RUSH and has accomplishments across research, clinical, education and advocacy spheres, with increasing national and international recognition. She has a growing cadre of successful mentees of her own who have been accepted to medical school or other programs. She also has shown increasing leadership positions within the institution and in national/international organizations.

Jori has had increasing responsibilities and leadership opportunities within the clinical realm; has been broadening collaborations within the institution (Center for Excellence in Aging, Supportive Oncology/Chaplaincy, ADRC) and beyond the institution (New York University, University of Rochester, University of Florida, and foundation collaborations); has a growing network of career and alumni that is now autism spectrum disorder experts in the community and across the country.

Jori has taken initiative, time and again, to provide opportunities for trainees and junior faculty to become involved in research; encouraged and supported others in applying for funding to support their research ideas; and created spaces that foster growth, innovation, and team science. Under her leadership, the AARTS Center has seen over 100 graduate and postgraduate trainees with backgrounds in counseling, social work, clinical psychology and child and adolescent psychiatry. Every one of these trainees has had the opportunity to personally learn about clinical research from Dr. Valluripalli Soorya. Thanks to Dr. Valluripalli Soorya, many of these alumni are now autism spectrum disorder experts in the community and across the country.

While Dr. Valluripalli Soorya has been a consistent source of mentorship and support for years, her leadership has never been more clear or impactful than over the last two years during the COVID-19 pandemic. Our trainees and early career investigators found themselves navigating unfamiliar and overwhelming clinical and research landscapes, and Dr. Soorya was there to provide hands-on guidance and mentorship every step of the way. She made time to meet with our team members individually and as a group, and she ensured that each person had the resources and guidance needed to continue their professional development. What is remarkable is that since the COVID-19 pandemic began, Dr. Soorya’s mentorship has led to over $4 million of external research funding on federally funded grants submitted by her mentees.”

Latha Soorya, PhD
Associate Professor, Department of Psychiatry and Behavioral Sciences, RUSH Medical College
Director, Autism Assessment, Research, Treatment and Services (AARTS) Center
Adjunct Assistant Professor, Seaver Autism Center, Icahn School of Medicine at Mount Sinai

Awarded by the RUSH Mentoring Programs in recognition of outstanding contributions to mentees success, commitment and involvement in the Mentoring Program.

From nominator Emily Dillon, PhD:
“Dr. Soorya should be recognized as Mentor of the Year, as she mentors all the staff within her autism center while maintaining a rigorous clinic, grant and research agenda. As the head of the AARTS (Autism Assessment, Research and Treatment and Services) Center, Dr. Soorya has grown the research and clinical program. She has done this despite the COVID-19 pandemic and while maintaining an open and fostering culture at the AARTS Center. She responds to the needs of the staff. For example, under her guidance, the AARTS Center developed an antiracism committee to lead discussions and training on topics related to diversity, antiracism, and our professional practice in response to the growing awareness of police brutality. The antiracism committee has since expanded to talk and discuss a wide range of inequalities and has hosted experts from RUSH to continue the conversation.

Dr. Soorya is quick to acknowledge others from the team who have contributed to advancing the work of the center. She helps others in the center to grow in their roles by including them in major discussions with collaborators other professional groups, or even the media. She will ask for their opinions and allow them to become more comfortable in these high-stakes conversations. In this way, her mentoring is very tangible. However, there are also the intangible benefits of being recognized and having your work acknowledged by Dr. Soorya—a respected and established giant in the field—which is an important aspect of the mentoring relationship.”

From nominator Allison Wainer, PhD:
“It is my absolute pleasure to nominate Dr. Latha Valluripalli Soorya for Mentor of the Year. I have had the opportunity to work closely with Dr. Valluripalli Soorya for the last seven years and consider her both a mentor and a role model as she so successfully navigates her roles as clinician scientist and director of the Autism Assessment, Research, Treatment and Services (AARTS) Center. I believe her leadership, scientific productivity, and dedication to the development of the next generation of clinician scientists at RUSH indicate just how deserving she is of this award. Dr. Valluripalli Soorya has played a critical role in the development of a robust clinical research team focused on delivering the highest quality care for individuals with autism spectrum disorder across the lifespan.

She has taken initiative, time and again, to provide opportunities for trainees and junior faculty to become involved in research; encouraged and supported others in applying for funding to support their research ideas; and created spaces that foster growth, innovation, and team science. Under her leadership, the AARTS Center has seen over 100 graduate and postgraduate trainees with backgrounds in counseling, social work, clinical psychology and child and adolescent psychiatry. Every one of these trainees has had the opportunity to personally learn about clinical research from Dr. Valluripalli Soorya. Thanks to Dr. Valluripalli Soorya, many of these alumni are now autism spectrum disorder experts in the community and across the country.

While Dr. Valluripalli Soorya has been a consistent source of mentorship and support for years, her leadership has never been more clear or impactful than over the last two years during the COVID-19 pandemic. Our trainees and early career investigators found themselves navigating unfamiliar and overwhelming clinical and research landscapes, and Dr. Soorya was there to provide hands-on guidance and mentorship every step of the way. She made time to meet with our team members individually and as a group, and she ensured that each person had the resources and guidance needed to continue their professional development. What is remarkable is that since the COVID-19 pandemic began, Dr. Soorya’s mentorship has led to over $4 million of external research funding on federally funded grants submitted by her mentees.”
RUSH Mentoring Programs

2022 Award Winners

2022 Mentee of the Year

Jori Fleisher, MD, MSCE
Associate Professor
Department of Neurological Sciences
RUSH Medical College

Awarded by the RUSH Mentoring Programs in recognition of excellence in scholarly work, leadership and involvement in the Mentoring Program.

From nominator Deborah Hall, MD, PhD:

“I have been meeting with Jori weekly since her arrival at RUSH, and she has transitioned from a K awardee to R applicant for NIH grants. I am so impressed with her progress and proud of the increased recognition she has created for RUSH in association with the many foundations we work with (Parkinson’s Foundation, Lewy Body Association, etc.). In fact, RUSH is the No. 1 site in the country for Lewy body disease care because of her efforts. Jori has been diligently working in the research realm at RUSH and has accomplishments across research, clinical, education and advocacy spheres, with increasing national and international recognition.

She has a growing cadre of successful mentees of her own who have been accepted to medical school or other programs. She also has shown increasing leadership positions within the institution and in national/international organizations.

Jori has had increasing responsibilities and leadership opportunities within the clinical realm, has been broadening collaborations within the institution (Center for Excellence in Aging, Supportive Oncology/Chaplaincy, ADRC) and beyond the institution (New York University, University of Rochester, University of Florida, and foundation collaborations); has a growing network of career and research mentees, including Rush medical students, residents, fellows and junior faculty; and has done self-directed learning on leadership and time management through Resilient Leadership training and outside reading. She is true to RUSH’s I CARE values and a great example of RUSH excellence.”

2022 Mentor of the Year

Latha Soorya, PhD
Associate Professor, Department of Psychiatry and Behavioral Sciences, RUSH Medical College
Director, Autism Assessment, Research, Treatment and Services (AARTS) Center
Adjunct Assistant Professor, Seaver Autism Center, Icahn School of Medicine at Mount Sinai

Awarded by the RUSH Mentoring Programs in recognition of outstanding contributions to mentees success, commitment and involvement in the Mentoring Program.

From nominator Allison Wainer, PhD:

“It is my absolute pleasure to nominate Dr. Latha Valluripalli Soorya for Mentor of the Year. I have had the opportunity to work closely with Dr. Valluripalli Soorya for the last seven years and consider her both a mentor and a role model as she so successfully navigates her roles as clinician scientist and director of the Autism Assessment, Research, Treatment and Services (AARTS) Center. I believe her leadership, scientific productivity, and dedication to the development of the next generation of clinician scientists at RUSH indicate just how deserving she is of this award. Dr. Valluripalli Soorya has played a critical role in the development of a robust clinical research team focused on delivering the highest quality care for individuals with autism spectrum disorder across the lifespan.

She has taken initiative, time and again, to provide opportunities for trainees and junior faculty to become involved in research; encouraged and supported others in applying for funding to support their research ideas; and created spaces that foster growth, innovation, and team science. Under her leadership, the AARTS Center has seen over 100 graduate and postgraduate trainees with backgrounds in counseling, social work, clinical psychology and child and adolescent psychiatry. Every one of these trainees has had the opportunity to personally learn about clinical research from Dr. Valluripalli Soorya. Thanks to Dr. Valluripalli Soorya, many of these alumni are now autism spectrum disorder experts in the community and across the country.

While Dr. Valluripalli Soorya has been a consistent source of mentorship and support for years, her leadership has never been more clear or impactful than over the last two years during the COVID-19 pandemic. Our trainees and early career investigators found themselves navigating unfamiliar and overwhelming clinical and research landscapes, and Dr. Soorya was there to provide hands-on guidance and mentorship every step of the way. She made time to meet with our team members individually and as a group, and she ensured that each person had the resources and guidance needed to continue their professional development. What is remarkable is that since the COVID-19 pandemic began, Dr. Soorya’s mentorship has led to over $4 million of external research funding on federally funded grants submitted by her mentees.”

2022 Mentee of the Year

Latha Valluripalli Soorya, PhD
Associate Professor, Department of Psychiatry and Behavioral Sciences, RUSH Medical College
Director, Autism Assessment, Research, Treatment and Services (AARTS) Center
Adjunct Assistant Professor, Seaver Autism Center, Icahn School of Medicine at Mount Sinai

Awarded by the RUSH Mentoring Programs in recognition of excellence in scholarly work, leadership and involvement in the Mentoring Program.

From nominator Emily Dillon, PhD:

“Dr. Soorya should be recognized as Mentor of the Year, as she mentors all the staff within her autism center while maintaining a rigorous clinic, grant and research agenda. As the head of the AARTS (Autism Assessment, Research and Treatment Services) Center, Dr. Soorya has grown the research and clinical program. She has done this despite the COVID-19 pandemic and while maintaining an open and fostering culture at the AARTS Center. She responds to the needs of the staff. For example, under her guidance, the AARTS Center developed an antiracism committee to lead discussions and training on topics related to diversity, antiracism, and our professional practice in response to the growing awareness of police brutality. The antiracism committee has since expanded to talk and discuss a wide range of inequalities and has hosted experts from RUSH to continue the conversation.

Dr. Soorya is quick to acknowledge others from the team who have contributed to advancing the work of the center. She helps others in the center to grow in their roles by including them in major discussions with collaborators other professional groups, or even the media. She will ask for their opinions and allow them to become more comfortable in these high-stakes conversations. In this way, her mentoring is very tangible. However, there are also the intangible benefits of being recognized and having your work acknowledged by Dr. Soorya—a respected and established giant in the field—which is an important aspect of the mentoring relationship.”

From nominator Allison Wainer, PhD:

“It is my absolute pleasure to nominate Dr. Latha Valluripalli Soorya for Mentor of the Year. I have had the opportunity to work closely with Dr. Valluripalli Soorya for the last seven years and consider her both a mentor and a role model as she so successfully navigates her roles as clinician scientist and director of the Autism Assessment, Research, Treatment and Services (AARTS) Center. I believe her leadership, scientific productivity, and dedication to the development of the next generation of clinician scientists at RUSH indicate just how deserving she is of this award. Dr. Valluripalli Soorya has played a critical role in the development of a robust clinical research team focused on delivering the highest quality care for individuals with autism spectrum disorder across the lifespan.

She has taken initiative, time and again, to provide opportunities for trainees and junior faculty to become involved in research; encouraged and supported others in applying for funding to support their research ideas; and created spaces that foster growth, innovation, and team science. Under her leadership, the AARTS Center has seen over 100 graduate and postgraduate trainees with backgrounds in counseling, social work, clinical psychology and child and adolescent psychiatry. Every one of these trainees has had the opportunity to personally learn about clinical research from Dr. Valluripalli Soorya. Thanks to Dr. Valluripalli Soorya, many of these alumni are now autism spectrum disorder experts in the community and across the country.

While Dr. Valluripalli Soorya has been a consistent source of mentorship and support for years, her leadership has never been more clear or impactful than over the last two years during the COVID-19 pandemic. Our trainees and early career investigators found themselves navigating unfamiliar and overwhelming clinical and research landscapes, and Dr. Soorya was there to provide hands-on guidance and mentorship every step of the way. She made time to meet with our team members individually and as a group, and she ensured that each person had the resources and guidance needed to continue their professional development. What is remarkable is that since the COVID-19 pandemic began, Dr. Soorya’s mentorship has led to over $4 million of external research funding on federally funded grants submitted by her mentees.”
Awardsed by the RUSH Postdoctoral Society in recognition of outstanding contributions to the postdoctoral fellow’s success, commitment and involvement in the Mentoring Program.

From nominator Pranav Mishra, MD:

“Throughout this year, I have been thinking about this award and how there is no professor I have worked with — from my undergraduate years through medical school and beyond — who is more deserving than Dr. Anna Spagnoli. As trainees, we observe a professor’s strength in four possible roles: educator, researcher, clinician and administrator. While all professors have clearly demonstrated excellence in one of these domains, it is uncommon to find a professor who excels in two. It often appears that abilities as an educator and researcher are diametrically opposed. Faculty who are strong in three domains are rare, and trainees naturally cherish moments spent with them. A professor who is strong in all four domains is exceptional in the truest sense of the word. It is a privilege to train under someone who has substantially contributed to their field and has created a foundation for a generation of new minds. Dr. Spagnoli is in this exceptionally small group of professors who excel in all four domains.

The most striking thing about Dr. Spagnoli is the amount of one-on-one time she will dedicate to you. I have worked on multiple projects over the last year. For each one, Dr. Spagnoli and I spend hours in her office every few weeks. These are not mere progress updates and planning sessions. Rather, she wishes to truly ensure that we are focused on producing good science and not merely a rapid publication. Professors have a multitude of challenging commitments beyond research output, including grant submission, peer review, NIH study sections, university roles, etc. that typically occupy the majority of their time. Knowing this, it is remarkable how Dr. Spagnoli will personally train you, at the bench, for even the simplest techniques you are unfamiliar with. It is here you can clearly see her strength as an educator and her passion for research.

Unlike many full professors, her lab coat and presence in the lab are not only for the occasional press photo or managerial check. In fact, as I write this, Dr. Spagnoli is working in the biosafety hood on a cell culture after every other lab member has left for the evening. My colleagues at RUSH and in other institutions have found it rare and remarkable to have this level of interaction with a professor of her seniority. Dr. Spagnoli empowers her team to be successful by clearing barriers inside and outside the lab. From a research standpoint, there is no technique or protocol that she has restricted due to past experience in the lab, financial constraints or novelty of a new approach. When I came to Dr. Spagnoli with little more than a shot-in-the-dark hunch on a few target genes of interest to examine on our post-traumatic osteoarthritis experiment, she encouraged me to proceed, running time consuming and expensive experiments to build my confidence as a researcher.

Beyond our in-house work, our lab is working with core facilities at RUSH and University of Illinois at Chicago, costing thousands of dollars per run. We do not hesitate to re-run or conduct further trials. For Dr. Spagnoli, improving our technique and producing good science is more critical than pushing a manuscript out because of the time and resources invested. To enable our best work in the lab, Dr. Spagnoli personally handles things impacting our lives. As COVID-19 cases surged again, she physically helped move things around the lab so that we had adequate social distancing and provided everything required to feel safe. At different points in the year when some fell ill with the omicron variant, Dr. Spagnoli checked in to see what she could do to help. She answers our team’s messages and emails while on vacation. She has helped our lab members with immigration correspondence and health insurance issues, and coordinated staff across departments to expedite necessary paperwork. We have happily welcomed the newest member of our extended laboratory family, Dr. Meka’s first child, Vishwat Srivachan. Dr. Spagnoli has been accommodating to not only our newest dad, but to all of us as we navigate our personal and professional lives.”

### 2022 Postdoctoral Mentor of the Year

Anna Spagnoli, MD

John W. and Helen H. Watzek Professor, Department of Orthopedic Surgery

(Director - Section of Molecular Medicine) and Department of Pediatrics

RUSH Medical College

Every year the Cohn Family Foundation provides grant funding to support 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 continue their research activities.

The following faculty members were selected as the Class of 2023 Cohn Fellows after a very competitive process.

#### Class of 2023 Cohn Fellows

**Xioran Liu, MSc, PhD, FAHA,** is an assistant professor in the Department of Internal Medicine. She is also a nutritional epidemiologist and clinical trialist at the RUSH Institute for Healthy Aging. Her research focuses on diet and lifestyle intervention to prevent cardiometabolic diseases, Alzheimer’s disease, dementia, and cognitive decline. She received this year’s Alzheimer’s Association Research Grant. Her current research investigates the link between dietary antioxidants and risk of cognitive decline among population with varying genetic risk profiles. Her Cohn Fellowship research will investigate the impact of nutrients in modifying the relation of blood biomarkers of neurodegeneration and risk of Alzheimer’s disease. The investigation will facilitate in informing when to introduce dietary intervention for the prevention of Alzheimer’s disease.

**Adrienn Markovics, MD, PhD,** is an assistant professor in the Department of Orthopedic Surgery, RUSH Medical College. Her research focuses on inflammatory joint disease and newly orthopedic implant-associated infection. She is particularly interested in investigating if activation of a protein tyrosine phosphatase can be exploited to the treatment of inflammatory arthritis and in the development of local drug delivery systems to fight peri-prosthetic infection. Her Cohn Research Fellowship will investigate the electrochemical deposition of pharmacological agents onto metal implants to treat and eradicate peri-prosthetic infection.

**Amanda L. Marzo, PhD,** is an assistant professor in the Department of Internal Medicine (Division of Hematology, Oncology and Cell Therapy) in RUSH Medical College. Her research focuses on immune oncology with an emphasis on metastatic breast cancer. Her most recent work uses a combination of agents including the seasonal influenza vaccine in combination with immunostimulatory agents to potentiate the effectiveness of immune check point inhibition therapy in metastatic triple negative breast cancers that are resistant to current therapies. Her overall goal is to overcome the resistance and promote the rapid restimulation and generation of tumor-killing immune cells capable of driving tumor clearance and durable antitumor immunity to improve the outcomes of patients with metastatic breast cancer. Her Cohn Fellowship research will determine the impact of tumor growth and breast cancer metastasis has on atrial fibrillation, the most common cardiac arrhythmia. She will also quantify the impact immunotherapies have on atrial pathophysiological remodeling.

---

continued
newest member of our extended laboratory family, Dr. Meka's first child, Vishwat Srivachan. Dr. Spagnoli has been accommodating insurance issues, and coordinated staff across departments to expedite necessary paperwork. We have happily welcomed the

In the year when some fell ill with the omicron variant, Dr. Spagnoli checked in to see what she could do to help. She answers our things around the lab so that we had adequate social distancing and provided everything required to feel safe. At different points science is more critical than pushing a manuscript out because of the time and resources invested. To enable our best work in the

dollars per run. We do not hesitate to re-run or conduct further trials. For Dr. Spagnoli, improving our technique and producing good

Beyond our in-house work, our lab is working with core facilities at RUSH and University of Illinois at Chicago, costing thousands of expensive experiments to build my confidence as a researcher.

interest to examine on our post-traumatic osteoarthritis experiment, she encouraged me to proceed, running time consuming and

or novelty of a new approach. When I came to Dr. Spagnoli with little more than a shot-in-the-dark hunch on a few target genes of

research standpoint, there is no technique or protocol that she has restricted due to past experience in the lab, financial constraints or novelty of a new approach. When I came to Dr. Spagnoli with little more than a shot-in-the-dark hunch on a few target genes of

activities as an educator and researcher are diametrically opposed. Faculty who are strong in three domains are rare, and trainees

clearly see her strength as an educator and her passion for research.

Unlike many full professors, her lab coat and presence in the lab are not only for the occasional press photo or managerial check. In fact, as I write this, Dr. Spagnoli is working in the biosafety hood on a cell culture after every other lab member has left for the evening. My colleagues at RUSH and in other institutions have found it rare and remarkable to have this level of interaction with a professor of her seniority. Dr. Spagnoli empowers her team to be successful by clearing barriers inside and outside the lab. From a research standpoint, there is no technique or protocol that she has restricted due to past experience in the lab, financial constraints or novelty of a new approach. When I came to Dr. Spagnoli with little more than a shot-in-the-dark hunch on a few target genes of

The most striking thing about Dr. Spagnoli is the amount of one-on-one time she will dedicate to you. I have worked on multiple projects over the last year. For each one, Dr. Spagnoli and I spend hours in her office every few weeks. These are not mere progress updates and planning sessions. Rather, she wishes to truly ensure that we are focused on producing good science and not merely a rapid publication. Professors have a multitude of challenging commitments beyond research output, including grant submission, peer review, NIH study sections, university roles, etc. that typically occupy the majority of their time. Knowing this, it is remarkable how Dr. Spagnoli will personally train you, at the bench, for even the simplest techniques you are unfamiliar with. It is here you can clearly see her strength as an educator and her passion for research.

Awards and recognition

Awarded by the RUSH Postdoctoral Society in recognition of outstanding contributions to the postdoctoral fellow’s success, commitment and involvement in the Mentoring Program.

From nominator Pranav Mishra, MD:

"Throughout this year, I have been thinking about this award and how there is no professor I have worked with — from my undergraduate years through medical school and beyond — who is more deserving than Dr. Anna Spagnoli. As trainees, we observe a professor’s strength in four possible roles: educator, researcher, clinician and administrator. While all professors have clearly demonstrated excellence in one of these domains, it is uncommon to find a professor who excels in two. It often appears that abilities as an educator and researcher are diametrically opposed. Faculty who are strong in three domains are rare, and trainees naturally cherish moments spent with them. A professor who is strong in all four domains is exceptional in the truest sense of the word. It is a privilege to train under someone who has substantially contributed to their field and has created a foundation for a generation of new minds. Dr. Spagnoli is in this exceptionally small group of professors who excel in all four domains.

The most striking thing about Dr. Spagnoli is the amount of one-on-one time she will dedicate to you. I have worked on multiple projects over the last year. For each one, Dr. Spagnoli and I spend hours in her office every few weeks. These are not mere progress updates and planning sessions. Rather, she wishes to truly ensure that we are focused on producing good science and not merely a rapid publication. Professors have a multitude of challenging commitments beyond research output, including grant submission, peer review, NIH study sections, university roles, etc. that typically occupy the majority of their time. Knowing this, it is remarkable how Dr. Spagnoli will personally train you, at the bench, for even the simplest techniques you are unfamiliar with. It is here you can clearly see her strength as an educator and her passion for research.

Unlike many full professors, her lab coat and presence in the lab are not only for the occasional press photo or managerial check. In fact, as I write this, Dr. Spagnoli is working in the biosafety hood on a cell culture after every other lab member has left for the evening. My colleagues at RUSH and in other institutions have found it rare and remarkable to have this level of interaction with a professor of her seniority. Dr. Spagnoli empowers her team to be successful by clearing barriers inside and outside the lab. From a research standpoint, there is no technique or protocol that she has restricted due to past experience in the lab, financial constraints or novelty of a new approach. When I came to Dr. Spagnoli with little more than a shot-in-the-dark hunch on a few target genes of

interest to examine on our post-traumatic osteoarthritis experiment, she encouraged me to proceed, running time consuming and

expensive experiments to build my confidence as a researcher.

Beyond our in-house work, our lab is working with core facilities at RUSH and University of Illinois at Chicago, costing thousands of dollars per run. We do not hesitate to re-run or conduct further trials. For Dr. Spagnoli, improving our technique and producing good science is more critical than pushing a manuscript out because of the time and resources invested. To enable our best work in the lab, Dr. Spagnoli personally interferes with things impacting our lives. As COVID-19 cases surged again, she physically helped move things around the lab so that we had adequate social distancing and provided everything required to feel safe. At different points in the year when some fell ill with the omicron variant, Dr. Spagnoli checked in to see what she could do to help. She answers our team’s messages and emails while on vacation. She has helped our lab members with immigration correspondence and health insurance issues, and coordinated staff across departments to expedite necessary paperwork. We have happily welcomed the newest member of our extended laboratory family, Dr. Meka’s first child, Vishwat Srivachan. Dr. Spagnoli has been accommodating to not only our newest dad, but to all of us as we navigate our personal and professional lives.”

---

2022 Postdoctoral Mentor of the Year

Anna Spagnoli, MD

John W. and Helen H. Watzek Professor, Department of Orthopedic Surgery (Director - Section of Molecular Medicine) and Department of Pediatrics

RUSH Medical College

---

RUSH Mentoring Programs

2022 Award Winners

---

RUSH Mentoring Programs

Class of 2023 Cohn Fellows

---

Every year the Cohn Family Foundation provides grant funding to support 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 continue their research activities.

The following faculty members were selected as the Class of 2023 Cohn Fellows after a very competitive process.

---

Xioaran Liu, MSc, PhD, FAHA, is an assistant professor in the Department of Internal Medicine. She is also a nutritional epidemiologist and clinical trialist at the RUSH Institute for Healthy Aging. Her research focuses on diet and lifestyle intervention to prevent cardiometabolic diseases, Alzheimer’s disease, dementia, and cognitive decline. She received this year’s Alzheimer’s Association Research Grant. Her current research investigates the link between dietary antioxidants and risk of cognitive decline among population with varying genetic risk profiles. Her Cohn Fellowship research will investigate the impact of nutrients in modifying the relation of blood biomarkers of neurodegeneration and risk of Alzheimer’s disease. The investigation will facilitate in informing when to introduce dietary intervention for the prevention of Alzheimer’s disease.

Adrienn Markovics, MD, PhD, is an assistant professor in the Department of Orthopedic Surgery, RUSH Medical College. Her research focuses on inflammatory joint disease and newly orthopedic implant-associated infection. She is particularly interested in investigating if activation of a protein tyrosine phosphatase can be exploited to the treatment of inflammatory arthritis and in the development of local drug delivery systems to fight periprosthetic infection. Her Cohn Research Fellowship will investigate the electrochemical deposition of pharmacological agents onto metal implants to treat and eradicate peri-prosthetic infection.

Amanda L. Marzo, PhD, is an assistant professor in the Department of Internal Medicine (Division of Hematology, Oncology and Cell Therapy) in RUSH Medical College. Her research focuses on immune oncology with an emphasis on metastatic breast cancer. Her most recent work uses a combination of agents including the seasonal influenza vaccine in combination with immunostimulatory agents to potentiate the effectiveness of immune checkpoint inhibition therapy in metastatic triple negative breast cancers that are resistant to current therapies. Her overall goal is to overcome the resistance and promote the rapid restimulation and generation of tumor-killing immune cells capable of driving tumor clearance and durable antitumor immunity to improve the outcomes of patients with metastatic breast cancer. Her Cohn Fellowship research will determine the impact of tumor growth and breast cancer metastasis has on atrial fibrillation, the most common cardiac arrhythmia. She will also quantify the impact immunotherapies have on atrial pathophysiological remodeling.

---

continued
Chundo Oh, PhD, is an assistant professor in the Department of Orthopedic Surgery, RUSH Medical College. She received a PhD in Life Science from GIST in Korea and completed her postdoctoral fellowship in the Department of Genetics at the University of Texas MD Anderson Cancer Center. Her postdoctoral training with Dr. Benoit de Crombrugghe, MD identified important genome-wide transcriptional regulation during bone development. Currently, she is a member of International Spine Research & Innovation Initiative, which is an interdisciplinary team of clinicians and scientist whose goal is to understand and treat spine related disorders and its associated pain. She is a member of the Orthopaedic Research Society and the American Society for Bone and Mineral Research. She received the 2022 Cohn Fellowship Award for her studies to help to determine the regulatory mechanisms of beta-catenin and CCL2 in disc degeneration and back pain to develop biological strategies in these animal models that can ultimately be translated to benefit patients with back pain.

RUSH Mentoring Programs

2022 Graduating Mentees

Mentees graduate from the Rush Research Mentoring Program and becomes junior mentors after they have been in the program for five years.

Mary Heitschmidt, PhD, APRN, CCRN-K
Associate Professor
Department of Women, Children and Family Nursing
Co-Director, Center for Clinical Research & Scholarship
RUSH University College of Nursing

Hoang Nguyen, MD
Assistant Professor
Department of Pediatrics
RUSH Medical College

Ben Inventor, PhD, APN/CNP
Director, Adult-Gerontology Primary Care Nurse Practitioner Program
Assistant Professor, Adult Health and Gerontological Nursing
RUSH University College of Nursing

Robin Pourzal, PhD
Associate Professor
Director of Implant Materials Analysis
Department of Orthopedic Surgery
RUSH Medical College

Chien-Ching Li, PhD, MPH
Associate Professor
Department of Health Systems Management
RUSH Medical College

Ryan Ross, PhD
Associate Professor
Department of Anatomy and Cell Biology
RUSH Medical College

Amanda Marzo, PhD
Assistant Professor
Department of Internal Medicine (Division of Rheumatology)
RUSH Medical College

Lai Wang, MD, PhD
Assistant Professor
Department of Internal Medicine
RUSH Medical College

Lynn Mohr, PhD, APRN, PCNS-BC, CPN, FCNS
Associate Professor and Chairperson
Director, Pediatric & Neonatal CNS Programs
Department of Women, Children, and Family Nursing
RUSH University College of Nursing
Chundo Oh, PhD, is an assistant professor in the Department of Orthopedic Surgery, RUSH Medical College. She received a PhD in Life Science from GIST in Korea and completed her postdoctoral fellowship in the Department of Genetics at the University of Texas MD Anderson Cancer Center. Her postdoctoral training with Dr. Benoit de Crombrugghe, MD identified important genome-wide transcriptional regulation during bone development. Currently, she is a member of International Spine Research & Innovation Initiative, which is an interdisciplinary team of clinicians and scientist whose goal is to understand and treat spine related disorders and its associated pain. She is a member of the Orthopaedic Research Society and the American Society for Bone and Mineral Research. She received the 2022 Cohn Fellowship Award for her studies to help to determine the regulatory mechanisms of beta-catenin and CCL2 in disc degeneration and back pain to develop biological strategies in these animal models that can ultimately be translated to benefit patients with back pain.

RUSH Mentoring Programs

2022 Graduating Mentees

Mentees graduate from the Rush Research Mentoring Program and becomes junior mentors after they have been in the program for five years.

Mary Heitschmidt, PhD, APRN, CCRN-K
Associate Professor
Department of Women, Children and Family Nursing
Co-Director, Center for Clinical Research & Scholarship
RUSH University College of Nursing

Hoang Nguyen, MD
Assistant Professor
Department of Pediatrics
RUSH Medical College

Ben Inventor, PhD, APN/CNP
Director, Adult-Gerontology Primary Care Nurse Practitioner Program
Associate Professor, Adult Health and Gerontological Nursing
RUSH University College of Nursing

Robin Pourzal, PhD
Associate Professor
Director of Implant Materials Analysis
Department of Orthopedic Surgery
RUSH Medical College

Chien-Ching Li, PhD, MPH
Associate Professor
Department of Health Systems Management
RUSH Medical College

Ryan Ross, PhD
Associate Professor
Department of Anatomy and Cell Biology
RUSH Medical College

Amanda Marzo, PhD
Assistant Professor
Department of Internal Medicine (Division of Rheumatology)
RUSH Medical College

Lai Wang, MD, PhD
Assistant Professor
Department of Women, Children, and Family Nursing
RUSH Medical College

Lynn Mohr, PhD, APRN, PCNS-BC, CPN, FCNS
Associate Professor and Chairperson
Director, Pediatric & Neonatal CNS Programs
Department of Women, Children, and Family Nursing
RUSH University College of Nursing
2. AbuAlia, M. et al. Articular Cartilage Shear Properties Change With Compression and are Dependent on an Intact Superficial Zone
3. Akhtar, U. et al. Biomarkers of Early Onset Age-Related Hearing Loss
5. Espinoza, A. et al. Hip Joint Contact Forces in Patients with FAI Syndrome Differ From Both Healthy Controls and the Uninvolved Limb During Single-Leg Squat
7. Das, V. et al. (2R,6R)-HNK Increases Activation of AMPA Receptors and Reduces BDNF Activity in a Murine Model of Low Back Pain
8. Geraghty, T. et al. Macrophage Depletion Alleviates Pain-Like Behaviors in Osteoarthritic Mice of Both Sexes
11. Jones, K. et al. Development of a Gamma Camera to Image High-Dose-Rate Brachytherapy Sources
12. Mahmud, K.A.F. et al. Reduced Bioavailable Microbial Products (PAMPs) Contribute to Impaired Healing in Infected Diabetic Wound
21. Yuh, C. et al. The Relationship Between Disease Severity and Tissue Expression in the Cam Lesion and Capsule Tissues Retrieved From Patients’ Hips With Cam-Type Femoroacetabular Impingement Syndrome

The Cohn Family
Susan Chubinskaya, PhD
(Vice Provost, Office of Faculty Affairs)

RUSH Mentoring Programs
Symposium Steering Committee
Mentors, Mentees and Postdoctoral Fellows
RUSH Creative Media
Marketing and Communications

Symposium Abstract Reviewers
Alejandro Espinoza, PhD
Christopher Forsyth, PhD
Masako Mayahara, PhD, RN
Robert McCarthy, PharmD
Joan O’Keefe, PhD
Tochi Okwuosa, DO
Sasha Shafikhani, PhD
Julius Turian, PhD
Markus Wimmer, PhD

Symposium Poster Reviewers
Sharon Foley, PhD
Christopher Forsyth, PhD
John Sayona, MD
Masako Mayahara, PhD, RN
John Turian, PhD
Markus Wimmer, PhD

Special Thanks
Symposium Poster Reviewers
Sharon Foley, PhD
Christopher Forsyth, PhD
John Sayona, MD
Masako Mayahara, PhD, RN
John Turian, PhD
Markus Wimmer, PhD

2. AbuAlia, M. et al. Articular Cartilage Shear Properties Change With Compression and are Dependent on an Intact Superficial Zone

3. Akhtar, U. et al. Biomarkers of Early Onset Age-Related Hearing Loss


5. Espinoza, A. et al. Hip Joint Contact Forces in Patients with FAI Syndrome Differ From Both Healthy Controls and the Uninvolved Limb During Single-Leg Squat


7. Das, V. et al. (2R,6R)-HNK Increases Activation of AMPA Receptors and Reduces BDNF Activity in a Murine Model of Low Back Pain

8. Geraghty, T. et al. Macrophage Depletion Alleviates Pain-Like Behaviors in Osteoarthritic Mice of Both Sexes


11. Jones, K. et al. Development of a Gamma Camera to Image High-Dose-Rate Brachytherapy Sources

12. Mahmud, K.A.F. et al. Reduced Bioavailable Microbial Products (PAMPs) Contribute to Impaired Healing in Infected Diabetic Wound


21. Yuh, C. et al. The Relationship Between Disease Severity and Tissue Expression in the Cam Lesion and Capsule Tissues Retrieved From Patients' Hips With Cam-Type Femoroacetabular Impingement Syndrome

RUSH Mentoring Programs
Poster Presentations

RUSH Mentoring Programs
Special Thanks

The Cohn Family
Susan Chubinskaya, PhD
(Vice Provost, Office of Faculty Affairs)

Symposium Abstract Reviewers
Alejandro Espinoza, PhD
Sharon Foley, PhD
Christopher Forsyth, PhD
Masako Mayahara, PhD, RN
Robert McCarthy, PharmD
Joan O’Keefe, PhD
Tochi Okwuosa, DO
Sasha Shafikhani, PhD
Julius Turian, PhD
Markus Wimmer, PhD

Symposium Poster Reviewers
Sharon Foley, PhD
Christopher Forsyth, PhD
John Sayona, MD
Masako Mayahara, PhD, RN
John Turian, PhD
Markus Wimmer, PhD

RUSH Mentoring Programs
Symposium Steering Committee
Mentors, Mentees and Postdoctoral Fellows

RUSH Creative Media
Marketing and Communications
Office of Faculty Affairs
Armour Academic Center
600 S. Paulina St., Suite 1044
Chicago, IL 60612

Susan Chubinskaya, PhD
Vice Provost
Office of Faculty Affairs
(312) 942-6306
susanna_chubinskaya@rush.edu

Amarjit S. Virdi, PhD
Director
Office of Mentoring Programs
(312) 563-3146
amarjit_virdi@rush.edu

Meghana Atre, MPH
Academic Program Coordinator
Office of Mentoring Programs
(312) 563-3130
meghana_s_atre@rush.edu

Office of Mentoring Programs
Armour Academic Center
600 S. Paulina St., Suite 1037
Chicago, IL 60612

mentoringprograms@rush.edu
www.rushu.rush.edu/mentoringprogram

Faculty Affairs Contact Information
faculty_affairs@rush.edu
www.rushu.rush.edu/about/faculty-affairs

Rush University