



Rutgers Addiction Research Center
Brain Health Institute

RARC 2023-2024

ANNUAL REPORT

BRINGING TOGETHER RESEARCHERS, CLINICIANS, AND COMMUNITY
MEMBERS WHO ARE DEDICATED TO TACKLING ADDICTION

A Letter from **THE DIRECTOR**

Dear RARC Community,

As we close out our second year since the launch of the Rutgers Addiction Research Center (RARC), I wanted to reflect on our progress over the past academic year. I continue to be in awe of the generosity and collegiality of the RARC community. Everything we do is possible only through you. It is truly an honor to serve as your director. This annual report is part of my commitment to lead the RARC in a transparent and collaborative manner, and to keep you informed about RARC activities and priorities.

While my first year was devoted primarily to identifying addiction researchers across Rutgers, understanding your needs, and creating systems to support you, my second year has been focused on nurturing relationships and collaborations with our Rutgers Health clinical partners. These partnerships are key to fulfilling our mission as a translational research center and a response to the desire you expressed during our initial townhall meetings to make it easier to connect with clinical partners. I am excited to announce the launch of the [RARC Research Community Partnership](#), a research database intended to create deeper connections between patients/community members, clinical partners, and researchers. We are also launching a new [collaboration process](#) with our colleagues at RWJBarnabas to support researchers who want to analyze patient data or study health system processes. You can learn more about these initiatives in this report.

We have also focused on growing our training programs over the past year. Under the leadership of Chris Pierce, we received a [NIDA T32](#) to support pre and postdoctoral trainees conducting addiction neuroscience research and launched associated programming open to all trainees. A second T32 grant submission is underway and will be submitted this month. It is being led by our new Associate Director, Kristie Jackson, and focuses on training in alcohol epidemiology. In partnership with Jesse Liss, a faculty member at Rutgers-Newark, we also submitted an R25 to create an undergraduate training program in addiction research. We are awaiting a final funding decision, but the grant was reviewed favorably.

I want to highlight our three new RARC faculty recruits from the past year (you can learn more about them in this report) and thank the many individuals who have supported these recruitments. New recruitments are critical to growing our research expertise and to supporting all of the RARC programming and initiatives. We continue to have open positions, so please reach out with suggestions of colleagues we may want to approach our joining our community!

Finally, a huge thank you to the RARC leadership team who generously give of their time to lead these initiatives, and to you – our broader RARC community of addiction researchers, clinical partners, and community collaborators who make the RARC such a vibrant community. I always want to hear your ideas for how the RARC can further support you, so please reach out any time.



DANIELLE DICK, PH.D.

Director, Rutgers Addiction Research Center, Brain Health Institute
Greg Brown Endowed Chair in Neuroscience
Professor of Psychiatry, Robert Wood Johnson Medical School



LEADERSHIP



Danielle Dick, Ph.D.
Director



Emily Balcke, M.Sc.
Program Manager



Associate Director,
Basic/Translational Science



Kristina Jackson, Ph.D.
Associate Director,
Epidemiology, Etiology &
Prevention



Ethan Cowan, M.D.
Associate Director,
Treatment & Recovery



Associate Director,
Public Policy

EXECUTIVE BOARD

Without whom nothing described in this report would be possible



Alexandria Bauer, Ph.D.
Chair, Diversity, Equity
& Inclusion



Tammy Chung, Ph.D.
Chair, Epidemiology, Etiology
& Prevention



Nina Cooperman, Psy.D.
Chair, Treatment & Recovery



Morgan James, Ph.D.
Chair, Junior Faculty &
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Paul Manowitz, Ph.D.
Chair, Special Programs



Lia Nower, J.D., Ph.D.
Chair, Public Policy and
Behavioral Addictions



Chris Pierce, Ph.D.
Chair, Basic/Translational
Science

WELCOME NEW LEADERSHIP



Kristina Jackson, Ph.D.

Associate Director of Epidemiology, Etiology, and Prevention

In October 2023, Dr. Jackson started as Associate Director of Epidemiology, Etiology, and Prevention in the RARC, and tenured Professor of Psychiatry in Rutgers Robert Wood Johnson Medical School.

Dr. Jackson's research focuses on the developmental course of alcohol and other substance use, social and contextual influences on substance use, messaging and beliefs about the effects of cannabis, and co-use of alcohol and cannabis. In her Associate Director role she leads initiatives to build community and interdisciplinary programs in epidemiology & etiology.

WELCOME NEW FACULTY



Jill Rabinowitz, Ph.D.

Beginning in September 2023, Dr. Rabinowitz started as a Tenure-Track Assistant Professor in the Department of Psychiatry in Rutgers Robert Wood Johnson Medical School.

Dr. Rabinowitz conducts scientific research on early environmental and behavioral factors influencing substance use and suicide outcomes across the lifespan. She focuses on prevention programs, improving treatment outcomes, and genomics research in underrepresented populations.



Marilyn Piccirillo, Ph.D.

Starting in May 2024, Dr. Piccirillo joined the RARC as a Tenure-Track Assistant Professor of Psychiatry in Rutgers Robert Wood Johnson Medical School.

Dr. Piccirillo conducts scientific research into expanding initiatives for measurement-based and person-centered care by using smartphone-based methods to improve the scope and precision of clinical assessments and treatments for those with co-occurring mental health and substance use disorders.

BUILDING OPPORTUNITIES, BRIDGING COMMUNITIES

Substance use and mental health challenges affect all of us.

One in four individuals will suffer from a substance use or mental health problem at some point in their lives. Together we can advance our ability to prevent, intervene, and treat substance use disorders and related mental health challenges, and reduce the suffering caused by these biomedical conditions.

RUTGERS RESEARCH COMMUNITY PARTNERSHIP

The RARC recently launched the Research Community Partnership (RCP), a central enrollment hub for community members to participate in Rutgers research projects, and for researchers to recruit for their studies.

- Rutgers Health clients, and anyone interested, will have the opportunity to enroll
- Individuals agree to be contacted by approved researchers to participate in their projects (no obligation, can accept/decline any given project)
- Option of sharing health records and completing brief surveys
- Opportunity to be part of the RCP will be introduced to clients through clinics/providers
- Participants will enroll in the RCP online at: addictionresearch.rutgers.edu. Scan QR code:

We are currently piloting the partnership with clients at **University Behavioral Health Care (UBHC)**, with plans to expand open enrollment in the RCP to other Rutgers clinical services and community treatment centers in the future.





IFPR-RUTGERS RESEARCH COLLABORATIVE

The RARC is partnering with the **Institute for Prevention and Recovery (IFPR)** to establish a streamlined process for enhanced collaboration among Rutgers researchers who want to partner with RWJBarnabas to analyze substance use disorder outcome data and/or implement new studies in the health system. IFPR is a leading provider of prevention programs for adults and youth, one of the largest providers of hospital and community-based recovery support services, and the largest provider of free tobacco and nicotine treatment services in New Jersey. IFPR is looking to partner with Rutgers researchers to advance the services offered and drive innovative solutions to addiction.

Researchers are encouraged to review IFPR's existing programs and complete the on-line form to suggest new project ideas. Researchers have the **opportunity to access existing data** from IFPR's programs including the Peer Recovery Program and Emergency Department Alternatives to Opioids Program, as well as the **opportunity to collect new data** within IFPR client populations.

Monthly meetings are starting for all researchers who are interested in partnering with IFPR on substance use disorder projects to discuss project ideas and opportunities. If you are interested in being added to the monthly meeting, please email rarc@bhi.rutgers.edu.

We invite you to scan the QR code to learn more about IFPR's ongoing substance use disorder related programming and the process to partner on research.



CULTIVATING TRAINING



In May 2023, a new T32 “**Rutgers Training in Addiction Research Program**” (TARP; PI Chris Pierce) was awarded by NIDA, funding **3 graduate** and **3 postdoctoral trainees**. TARP hosts hybrid monthly meetings open to all faculty and trainees.



Chris Pierce, PhD
Principal Investigator
Psychiatry, RWJMS

In the past year, TARP has hosted **5 external speakers**, as well as trainee presentations, drawing an audience of **>175 attendees** via Zoom or in person. The first annual TARP symposium was held this April featuring plenary speaker Dr. Rita Goldstein.

MEET THE TRAINEES



Kimberley Newman
Graduate Student
Advisor: **Gary Aston-Jones, PhD**
Psychiatry, RWJMS



Shayna O'Connor
Graduate Student
Advisors:
Morgan James, PhD, Psychiatry, RWJMS
David Barker, PhD, Psychology, Rutgers



Francesca LoFaro
Graduate Student
Advisor: **Anna Konova, PhD**
Psychiatry, RWJMS



Brigitte González Olmo, PhD
Postdoctoral Fellow
Advisor: **Miriam Bocarsly, PhD**
Pharm, Physiology and Neuroscience, NJMS



Elnaz Khezerlou, PhD
Postdoctoral Fellow
Advisor: **Ping-Yue Pan, MD, PhD**
Neuroscience & Cell Biology, RWJMS



Cherish Ardinger, PhD
Postdoctoral Fellow
Advisor: **Rafiq Huda, PhD**
Neuroscience & Cell Biology, RWJMS

BUILDING UNDERGRADUATE TRAINING

In collaboration with Jesse Liss, a teaching professor at **Rutgers-Newark**, we submitted a **R25** to develop an **undergraduate research program** that would engage teaching and research faculty across all three Rutgers campuses to upskill and diversify the next generation of addiction scientists.

The program would include the creation of an innovative three course sequence in Data Science & Addiction Research that would culminate in a **digital badge** representing measured competencies; **6-month mentored research experiences** in RARC faculty labs; **professional development** opportunities for career readiness and graduate school matriculation; and a **web repository** to disseminate core aspects of the program and expand its impact beyond Rutgers campuses.

The grant scored within fundable range, and we are currently preparing a resubmission.

RESOURCES FOR EARLY CAREER INVESTIGATORS

- **Grant Writing Resources for Early Career Investigators**: The RARC has curated a comprehensive list of grant tools and writing resources designed to support early career investigators through the process of writing a grant.
- Collating resources from external trusted sources
 - **Postdoctoral Funding Opportunities**: a comprehensive list of postdoctoral research funding opportunities. While this list is not specific to addiction research, many opportunities listed could be utilized to conduct addiction-related research.
 - **Postdoc Opportunities Board**: Are you looking to hire a postdoc? A coalition of postdoc offices from 17 institutions, its majority Big Ten institutions, have created the Postdoc Opportunities Board to promote postdoc recruitment. You may use this free resource to recruit exceptional candidates for your open positions.
 - **Outreach and Advocacy Resources for Early Career Investigators**: RSA NAPE members have provided a regularly updated repository about why and how researchers who want to become involved in outreach can find opportunities that interest them.

TRAINEE SUPPORT

We strive to provide opportunities for our trainees to connect with each other and with senior Rutgers faculty to build beneficial relationships and enhance career development. Morgan James, the Chair of Junior Faculty & Trainee Engagement at the RARC, leads our trainee activities. If you'd like to get involved or be on the trainee mailing list, please contact rarc@bhi.rutgers.edu.



Morgan James, Ph.D.
Chair, Junior Faculty &
Trainee Engagement
Psychiatry, RWJMS

SPEARHEADING INNOVATION

RARC workgroups are at the forefront of addressing hot topics in the field

SCIENCE COMMUNICATION

The RARC launched the Science Communication Workgroup to enhance the reach and impact of our research through improved science communication. In October, we hosted the **RU Communicating Science Workshop**, featuring interactive activities and an introduction to the foundations of science communication.



Jessica L. Hamilton, PhD

Psychology



Allison Bond, MA

PhD Candidate, Clinical Psychology

More recently, the workgroup collaborated with the RARC Diversity, Equity, and Inclusion workgroup to host **SciComm x Community Engagement: Exploring Principles and Practices** featuring presenters Alexandria Bauer and Devon Ziminski. Together, they led an exploration of interdisciplinary training and fundamental skills in community-engaged science communication and research, providing practical insights, tips, and additional resources to enhance involvement in community engagement.

INTEREST GROUP ON CANNABIS



Mary Bridgeman, PharmD

Ernest Mario School of Pharmacy

The Interest Group on Cannabis has spent the past year focusing on creating an inventory of ongoing cannabis research at Rutgers and actively **fostering collaboration** among Rutgers' cannabis researchers, through bi-monthly meetings that feature presentations from state officials, faculty members and postdocs.

In May, the workgroup hosted **Jeff Brown, executive director of the New Jersey Cannabis Regulatory Commission (NJCRC)**, who presented updates on NJCRC initiatives and exploring avenues for research and collaboration. A networking event followed the presentation to encourage questions and collaborations.

DIVERSITY, EQUITY, AND INCLUSION

The Diversity, Equity, and Inclusion (DEI) workgroup is focused on community engagement within the domains of: **(1) teaching/training, (2) research, and (3) practice**. We have collated DEI resources available at Rutgers that may be of interest to the addiction community on the RARC website. We are currently developing an inventory of community organizations/agencies who are open to partnering with Rutgers addiction researchers, as well as a mechanism to better share our research findings with our community.



Alexandria Bauer, PhD

Graduate School of Applied and Professional Psychology

IMPROVING TREATMENT FOR SUBSTANCE USE DISORDERS

Team-driven pilot grant paves the way in precision medicine

RARC researchers were awarded a **Brain Health Institute pilot award** to bring together expertise in neuroscience, genetics, neuroimaging, computational psychiatry, digital phenotyping, and clinical research to create an integrated approach to developing more **targeted treatments and interventions** for substance use disorders, which continue to be among the most costly health challenges our society faces.

We are currently recruiting participants from University Behavioral Health Care Specialized Addiction Treatment Services to participate in the center pilot, which consists of four projects:

PROJECT 1: GENETICS



PROJECT 2: NEUROIMAGING



PROJECT 3: DIGITAL PHENOTYPING



PROJECT 4: ANIMAL MODELS



The aims of this pilot grant are to collect the preliminary data necessary for the eventual **submission of a center grant to NIDA**.

RESOURCES FOR RESEARCHERS

The RARC has collated [addiction-related resources](#) on our website to support grant-writing and research. Some highlights:



- **Grant text:** Easily lift and revise text related to Facilities & Resources, adding translational components, information about the RARC, and adding administrative support to best fit the needs of your grant.
- **Scientific Writing and Communication Resources:** The RARC has curated a list of links designed to support researchers with both writing and communicating research with the public.
- Direct links to **support offices:** Training Grant Support Office, Office of Statistical Counseling, Rutgers Core Services, Research with Rutgers
- **Data dashboards:** Real-time data related to substance use in New Jersey and across the nation.

MOCK GRANT REVIEW PROGRAM



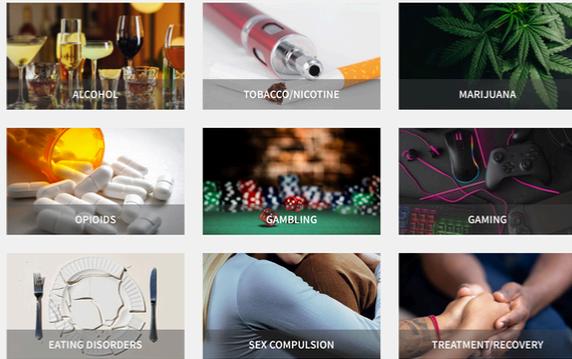
Now accepting submissions on a rolling basis, the primary objective of this program is to **increase the success of grant proposals** submitted to NIH by Rutgers investigators connected to the BHI and/or the RARC. We encourage trainees and faculty members to submit their aims and strategy for review by members of our NIH-funded, senior investigator panel. In addition to NIH-style reviews, reviewees will have the opportunity to attend a **live mock review**.



COMMUNITY RESOURCES

ADDICTION FACTS AND FIGURES

Browse by Topic



Evidence-based information for the community on a variety of drugs, behavioral addictions, and treatment and recovery.

ADDICTION IN THE NEWS

Updated daily with the latest addiction-related news and developments.

Addiction in the News



White House Indefinitely Delays Plan to Ban Menthol Cigarettes



What Is a 'Functioning Alcoholic'? Taylor Swift's Lyrics Create Buzz



Gambling Is Everywhere Now. When Does That Become a Problem?



Complications From Alcohol Use Are Rising Among Women



Young Adults Who Started Vaping As Teens Still Can't Shake the Habit



Ready To Cut Back on Drinking Alcohol? Experts Share 6 Small Changes To Make.

PARTICIPATE IN RESEARCH

Participate in Research

Long-acting buprenorphine vs naltrexone opioid treatments in Criminal Justice System-involved adults (EXIT-CJS)	+
Risk environment analysis to inform overdose education and naloxone distribution (OEND)	+
Cognitive Control Functioning in Opioid Use Disorder	+
The effects of a hangover on bodily sensations	+
Addiction & Decision Neuroscience Lab Opportunities	+

List of Rutgers research projects that are actively seeking participants and how to learn more about how you can be a part of the research. Many research opportunities offer compensation for participation.

AMPLIFYING REACH

STAYING SOCIAL

This year marked the launch of the **RARC YouTube Channel**, providing a platform to showcase our research experts, field clinicians, and community members. Check out this year's videos featuring new faculty members, introductions to our clinical partners, and spotlights of Rutgers centers with varying missions related to addiction.

BY THE NUMBERS



79

WEEKLY DIGESTS



486

MAILING LIST SUBSCRIBERS



42K

WEBSITE VIEWS

CONTRIBUTING TO RUTGERS EXCELLENCE

The RARC was spotlighted as part of the Rutgers Excellence Campaign. This campaign aims to increase awareness of Rutgers' excellence and support a presidential initiative to enhance Rutgers' reputation.



EVENTS

FALL SYMPOSIUM

A day of talks to showcase ongoing Rutgers addiction research across the translational spectrum, as well as addiction-related programming led by Rutgers clinical colleagues.

- Keynote speaker Dr. Rohan Palmer
- More than 100 attendees, 12 presentations, a poster session, and evening reception
- Opportunity to connect with other addiction researchers and clinical partners



RUTGERS DAY

We strengthened community connections at our Rutgers Day table by hosting a trivia game for community members to test their knowledge of current substance use and behavioral addiction trends. Additionally, we provided valuable educational resources and guide.



MARIJUANA AND YOUR BODY

According to the National Survey on Drug Use and Health, cannabis (marijuana) is one of the most frequently used drugs in the United States, and its use is widespread among young people. The most common use is smoking cannabis. This and other compounds. Here's how marijuana can affect your body:

BRAIN

THC binds to cannabinoid receptors and interferes with conventional neurotransmitter systems. Marijuana leads to impaired short-term memory, perception, judgment and motor skills. Heavy marijuana use can cause chronic, heavy addiction, and disrupt the brain's development of cortical cells needed for these functions.

MOUTH

Cannabis smoking is associated with periodontal inflammation, gingivitis, and leukoplakia as well as potentially increased risk of developing oral cancer.

HEART

As cannabis is absorbed into the body, THC travels through the bloodstream, reaching various parts of the body. Marijuana takes about 10 to 30 minutes to take effect. This effect may increase the chance of heart attack. Older people and those with heart problems may be at higher risk.

LUNGS

Smoking marijuana is associated with acute bronchitis and chronic bronchitis. Frequent use may lead to issues in the lungs and coughing, increased risk of frequent lung disease.

STOMACH

When consumed orally, absorption is slower and has a more delayed peak in THC levels. Frequent marijuana consumption can result in certain individuals developing Cannabinoid Hyperemesis Syndrome. This condition triggers recurring episodes of nausea, vomiting, and dehydration, occasionally necessitating urgent medical intervention.

REPRODUCTIVE SYSTEMS

Research shows that a heavy exposure to oral cannabis use can affect the reproductive system, including sperm count, motility, and fertilization, occasionally necessitating urgent medical intervention.

RUTGERS

BEHAVIORAL ADDICTIONS

Gambling

Gambling addiction, a pressing public health issue, involves pathological gambling, excessive bets, preoccupation with gambling, and loss of control despite severe adverse effects.

Gaming

Gaming addiction consists of difficulties in controlling gaming time, preoccupation with gaming, loss of interest in other activities, and gaming to escape negative emotions. Research shows that excessive gaming can lead to substance abuse, depression, and eating disorders among youth addicted to games.

Eating Disorders

Eating disorders entail extreme emotions, attitudes, and behaviors involving weight and food. Some eating disorders, such as binge eating and bulimia.

Sex Compulsion

Sex compulsion behavior might encompass a range of extreme experiences among compulsive individuals. However, when these sexual behaviors take on a significant and persistent role in the person's identity to the point of being about activities, it's indicative of compulsive sexual behavior.

LOOKING TO THE FUTURE

ONGOING FACULTY RECRUITMENTS

The RARC is always looking for faculty candidates to enhance our research community. We are especially interested in growing our leadership team!

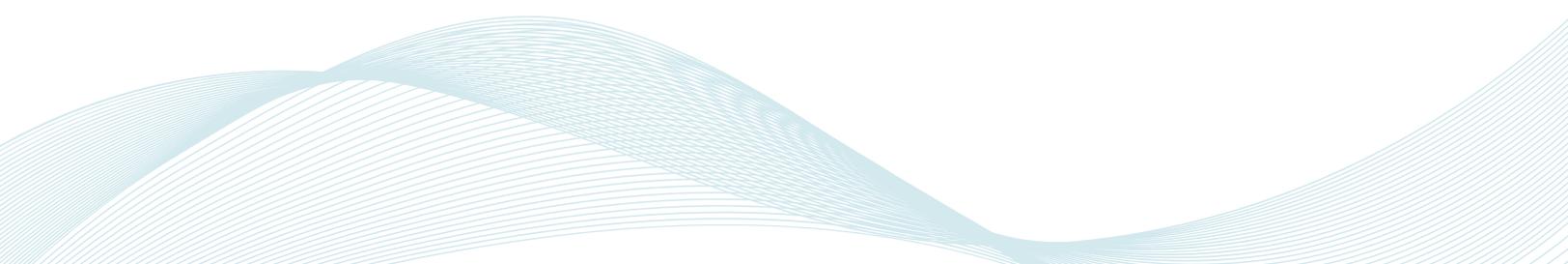
- Associate Director of Basic/Translational Science – interviews underway
- Associate Director of Public Policy – still looking, please send any NIH-funded candidates our way

INCREASING TRAINING OPPORTUNITIES

Under the leadership of Dr. Kristina Jackson, we are preparing a T32 submission “**Training in Etiology and Consequences of Alcohol Use Across the Lifespan**” to NIAAA which would provide funding for **4 postdoctoral trainees**. Trainees would receive **faculty mentoring** of highly specific research skills, rigorous and standardized **training** in alcohol research, **grantsmanship** support, and **professional development** activities.

UPCOMING EVENTS

Following summer conferences, we are excited to see everyone at some of our fall programming.

- Friday, September 6, 2024 - **RARC Fall Symposium**
 - October 31, 2024 - **Eating Disorders Lectureship** series featuring **Dr. Daniel Drucker**
 - **Psychedelics Research at Rutgers** featuring **Drs. Caroline Dorsen** and **Joanna Kempner**
- 

STAY CONNECTED

SIGN UP



Sign up for our weekly newsletter to stay up to date on the latest news and upcoming events related to addiction at Rutgers.

JOIN US

All Rutgers faculty, students, and staff with interest in addiction are invited to be active members of the RARC. We want to showcase your research, celebrate your grants, papers, and awards, and help publicize your events. To have your information included in the RARC, or to learn about ways you can be a member of our community, scan the QR code.



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THANK YOU TO ALL OF OUR COLLABORATING CENTERS AND INSTITUTES ACROSS RUTGERS.

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Center of Alcohol and Substance Use Studies
Center for Communication and Health Issues
Center for Gambling Studies
Center for Health Services Research
Center for Health, Identity, Behavior & Prevention Studies
Center for Healthy Aging
Center for Pharmacoepidemiology and Treatment Sciences
Center for Population Behavioral Health
Center for Population-Level Bioethics
Center for Psychiatric Health and Genomics
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Rutgers-Princeton Center for Computational Cognitive Neuropsychiatry
Rutgers Student Health
RWJBarnabas Health Institute for Prevention and Recovery
University Behavioral Health Care
W.M. Keck Center for Collaborative Neuroscience

AND THANK YOU TO OUR COMMUNITY OF
RESEARCHERS, CLINICAL PROVIDERS, AND
SUPPORTERS FOR MAKING OUR WORK POSSIBLE.



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Learn more about the ways you can
support our groundbreaking work.





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