

UNITING IN DISCOVERY

2022 ANNUAL REPORT

COMPETITIVE GRANT PROGRAMS

BIOMEDICAL SCIENCES

Career Awards for Medical Scientists

(CAMS): Five-year awards for physician-scientists provide \$700,000 to bridge advanced postdoctoral/fellowship training and the early years of faculty service. This award addresses the ongoing challenge of increasing the number of physician-scientists and aims to facilitate the transition to a career in research.

Resident Faculty Scholar Program (RFS):

Provides up to \$125,000 in support to faculty level academic scientists to utilize BWF as a site for mini-sabbaticals/project incubation allowing dedicated time to initiate or accelerate their work as aligned with BWF priorities and goals.

CLIMATE CHANGE AND HUMAN HEALTH

Climate and Health Interdisciplinary Awards

(CHI): Three-year awards provide \$375,000 to support collaborative exploratory work that opens new ground for comprehensively assessing or mitigating the impacts of climate change on human health.

Climate Change and Human Health Seed

Grant: Provides up to \$50,000 to stimulate the growth of new connections between scholars working in largely disconnected fields who might together change the course of climate change's impact on human health.

DIVERSITY IN SCIENCE

Graduate Diversity Enrichment Program

(GDEP): Two-year awards provide \$5,000 to underrepresented minority PhD students (enrolled in NC Institutions of Higher Education) with opportunities for greater science and research enrichment experiences.

Postdoctoral Diversity Enrichment Program

(PDEP): Three-year awards provide \$60,000 to support the development of underrepresented minority postdoctoral fellows in biomedical research.

INFECTIOUS DISEASES

Investigators in the Pathogenesis of

Infectious Disease (PATH): Five-year awards provide \$500,000 to support accomplished investigators at the assistant professor level in the study of infectious disease pathogenesis, with a focus on the intersection of human and microbial biology. The program aims to improve our understanding of how human hosts handle infectious challenges.

INTERFACES IN SCIENCE

Career Awards at the Scientific Interface

(CASI): Five-year awards provide \$500,000 to bridge advanced postdoctoral training and the early years of faculty service. These awards are intended to foster the early career development of researchers with backgrounds in the physical/mathematical/computational/engineering sciences whose work addresses biological questions.

REGULATORY SCIENCE

Innovation in Regulatory Science Awards

(IRSA): Five-year awards provide \$500,000 to academic investigators developing new methodologies or innovative approaches in regulatory science that will ultimately inform regulatory decisions.

REPRODUCTIVE SCIENCE

Next Gen Pregnancy Initiative (NGPI):

Four-year awards provide up to \$500,000 to stimulate both creative individual scientists and multi-investigator teams to approach healthy and adverse pregnancy outcomes using creative basic and translation science methods.

SCIENCE EDUCATION

Career Awards for STEM Teachers (CAST):

Five-year awards provide \$175,000 to eligible science or mathematics teachers in North Carolina's public primary and secondary public schools. This award recognizes teachers who have demonstrated solid knowledge of STEM content and have outstanding performance records in educating children.

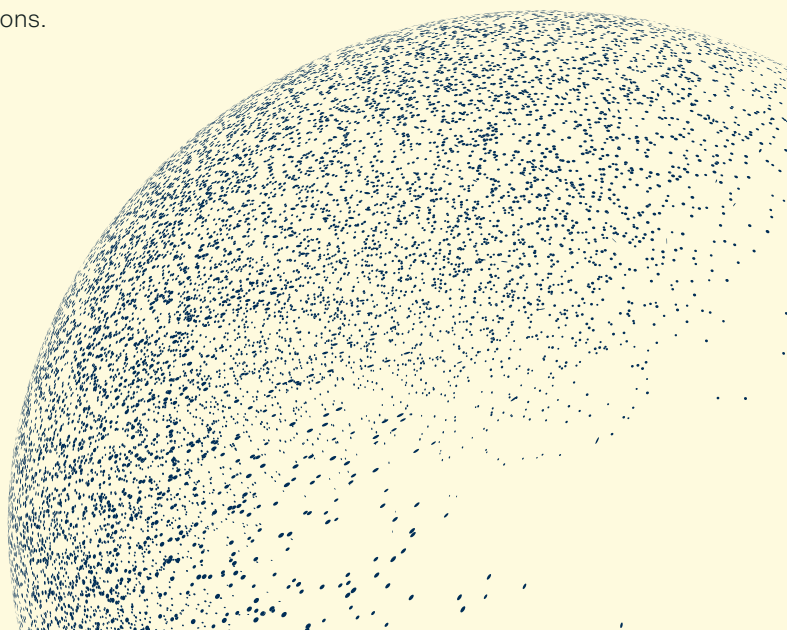
Promoting Innovation in Science and

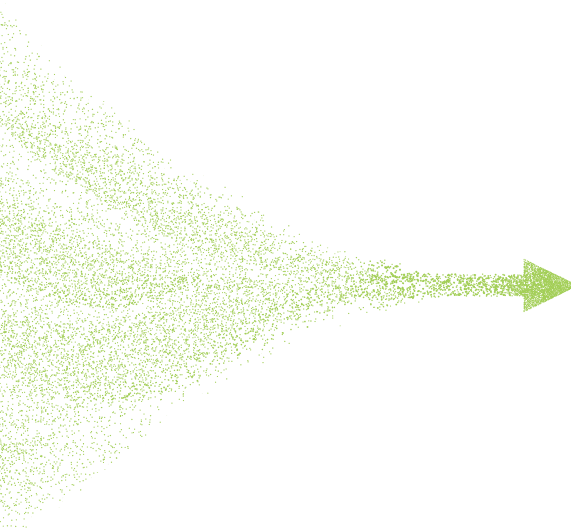
Mathematics (PRISM): Awards up to \$4,500 to provide teachers with funding for materials, equipment, and training to conduct hands-on, inquiry-based science and mathematics projects in the North Carolina public schools.

Student STEM Enrichment Program (SSEP):

Three-year awards provide up to \$180,000 to North Carolina nonprofit organizations, including public/private schools, universities, colleges, and museums. This program supports creative inquiry-based STEM enrichment activities that occur outside the typical school day for K-12 students.

For complete program information, including deadlines, please visit bwfund.org





“ Science has a place in everyone’s lives, whether a scientist or not, and everyone should have the opportunity to envision themselves being a scientist. ”

PRESIDENT’S MESSAGE



Dear Friends,

Together with our Board of Directors, I am pleased to share with you the annual report of the Burroughs Wellcome Fund for the fiscal year 2022. We continue to operate in unprecedented times, and despite the challenges, the foundation was able to continue to make great strides towards our mission “to serve and strengthen society by nurturing a diverse group of leaders in biomedical sciences to improve human health through education and powering discovery in frontiers of greatest need”.

Throughout the year we achieved many successes and milestones, such as an increased focus on funding strategies in climate change and human health, diversity in science, and science-arts partnerships seeking to enhance and inspire science communication. We are confident that the additional funding will continue to advance our mission in these critical areas. The foundation continues to provide vital assistance to the research enterprise, and we are committed to ensuring that all of our programs are effective and efficient in supporting our community. We are also dedicated to building relationships with our partners and stakeholders to expand scientific reach and impact.

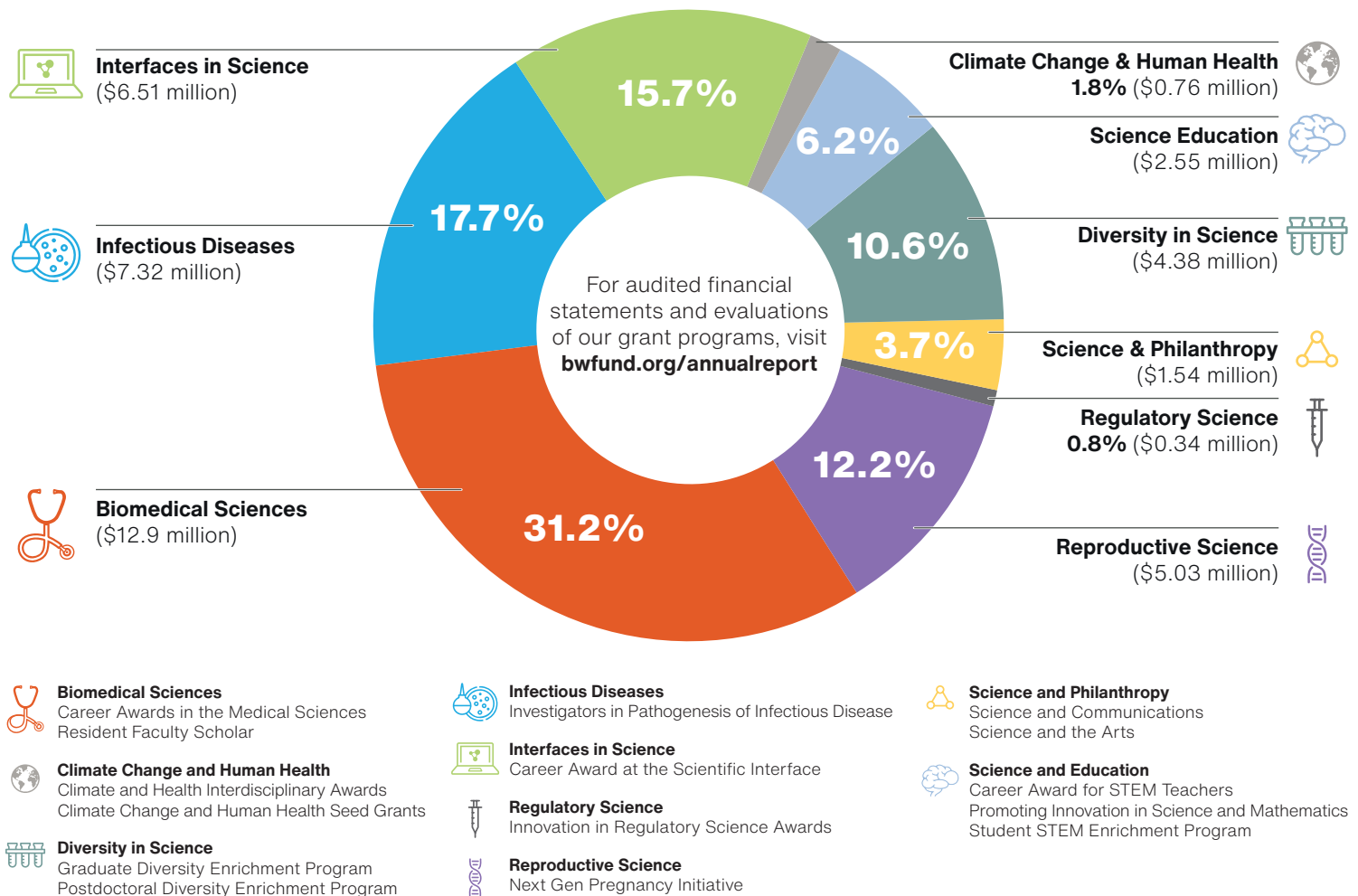
We recognize the importance of understanding the effects of climate change on the environment, human health and society. Climate change has already impacted the planet and has the potential to cause further widespread destruction if left unchecked, and research is key to developing strategies to mitigate its effects. Foundations often provide funding for research into climate change, as well as its effects on various industries, ecosystems, and communities. This research can be used to inform policy decisions, develop

new technologies, and mitigate the risks associated with climate change. By investing in climate change research, foundations are helping to ensure that our planet is better prepared to face the uncertain future of a rapidly changing environment. One area we feel especially important is to inspire the next generation of scientists and educators to make the area of climate change their priority.

BWF’s recognizes that climate change has had a severe impact on human health over time and will continue to impact without mitigation strategies. Rising temperatures, extreme weather events, and air pollution are just a few of the impacts that are undermining health and well-being. Heatwaves, floods, and droughts have increased in frequency and intensity, leading to an increase in illnesses such as heat-related illnesses, respiratory problems, and water-borne diseases. Changes in climate can also lead to an increase in insect-borne diseases such as malaria, dengue, and Lyme disease by changing vector-pathogen geography. Moreover, air pollution from burning fossil fuels has been linked to a range of health issues, from asthma to heart disease. As the climate continues to change, the impacts on human health are likely to become even more severe.

We have made great strides in promoting and creating effective strategies around our Diversity in Science initiatives. This has provided opportunities to bring together a range of perspectives and experiences that can help us to better understand and solve complex problems. Diversity of thought and experience can help us to identify and address potential biases that can have a negative impact on the scientific process. Additionally, by promoting diversity and inclusion in science, we can work to ensure that everyone can contribute to research and innovation, and to benefit from the outcomes of those efforts. Science has a place in everyone’s lives, whether a scientist or not, and everyone should have the opportunity to envision themselves being a scientist. In

BWF AWARDED MORE THAN \$41 MILLION IN GRANTS DURING FISCAL YEAR 2022



short, diversity is essential for enabling us to make the most of our collective potential and to move science forward.

We have continued to build upon our investments in the Science Communication program area. This is important as it helps bridge the gap between scientific discovery and the general public. Through science communication, scientists can explain their findings to the public in an understandable and accessible manner. This communication can lead to an increased understanding of science and its implications, as well as increased public engagement with the scientific process. Additionally, science communication can help researchers gain support for their work and inspire others, which can lead to even more research and discovery.

The connection between art and science is an important one. Art and science involve creativity, problem solving and critical thinking. Many of the same skills used in scientific experiments and discoveries can be used in creating art. For example, artists often use knowledge of color theory to create interesting and vibrant pieces and use mathematical

equations to create detailed and precise drawings. Additionally, scientific advances have made art more accessible and diverse. New technologies for printing, sculpting, and digital art have allowed for new types of art to be created and shared. The connection between art and science is a strong one and we hope to continue to foster this connection through continued funding mechanisms.

Thank you for your support of the foundation. We look forward to working together in 2023 to achieve our goals and to grow our impact in the scientific community.

Sincerely,

Louis J. Muglia, MD, PhD
 President and CEO
 Burroughs Wellcome Fund

COMPETITIVE GRANT AWARDEES

FISCAL YEAR 2022

CAREER AWARDS AT THE SCIENTIFIC INTERFACE

William Allen, PhD
Harvard University

Sima Asadi, PhD
Massachusetts Institute of Technology

Diego Calderon, PhD
University of Washington

Gregory Handy, PhD
University of Chicago

Freeman Lan, PhD
University of Wisconsin-Madison

Maijia Liao, PhD
Yale University School of Medicine

Leenoy Meshulam, PhD
University of Washington

Samantha Petti, PhD
Harvard University

Boyang Qin, PhD
Princeton University

Liat Shenhav, PhD
Rockefeller University

Andrew Yang, PhD
University of California-San Francisco

CAREER AWARDS FOR MEDICAL SCIENTISTS

Alice Cheng, MD, PhD
Stanford University

Theodore George Drivas, MD, PhD
University of Pennsylvania

William Allen Freed-Pastor, MD, PhD
Harvard Medical School

Alexander Gitlin, MD, PhD
Stanford University

Gil Hoftman, MD, PhD
University of California-Los Angeles

William L Hwang, MD, PhD
Harvard Medical School

Maya Evelyn Kotas, MD, PhD
University of California-San Francisco

Juan Carlos Osorio, MD
Memorial Sloan-Kettering Cancer Center

Kartik Pattabiraman, MD, PhD
Yale University

Jessica Renee Queen, MD, PhD
Johns Hopkins University School of Medicine

Carolyn Sangokoya, MD, PhD
University of California-San Francisco

Jay Sarthy, MD, PhD
Fred Hutchinson Cancer Research Center

Christina Theodoris, MD, PhD
Harvard Medical School

Josephine Wanjiru Thinwa, MD, PhD
University of Texas Southwestern Medical Center-Dallas

INVESTIGATORS IN THE PATHOGENESIS OF INFECTIOUS DISEASE

Jonathan Abraham, MD, PhD
Harvard Medical School

Salvador Almagro-Moreno, PhD
University of Central Florida

Sophie Helaine, PhD
Harvard Medical School

Steven Josefowicz, PhD
Weill Medical College of Cornell University

Christopher LaRock, PhD
Emory University School of Medicine

Vineet Menachery, PhD
University of Texas Medical Branch

Michael Reese, PhD
University of Texas Southwestern Medical Center-Dallas

Rebecca Voorhees, PhD
California Institute of Technology

Taia Wang, MD, PhD
Stanford University

Emily Wong, MD
University of Alabama-Birmingham

NEXT GEN PREGNANCY INITIATIVE

Yalda Afshar MD, PhD
University of California-Los Angeles School of Medicine

David R Archer PhD
Emory University

Jacqueline Ho, MD
Children's Hospital of Pittsburgh

Lisa A. Joss-Moore, PhD
University of Utah

Kellie A Jurado, PhD
University of Pennsylvania Perelman School of Medicine

Vincent J. Lynch, PhD
State University of New York-Buffalo

Monica Ailawadi Mainigi, MD
University of Pennsylvania

Elze Rackaityte, PhD
University of California-San Francisco

Jian Shu, PhD
Massachusetts General Hospital

Chandrasekhar Yallampalli, DVM, PhD
Baylor College of Medicine

POSTDOCTORAL DIVERSITY ENRICHMENT PROGRAM

Hector Arciniega Jr., PhD
Harvard Medical School

Danielle Françoise Atibalentja, MD, PhD
Stanford University

Heather Kennedy Beasley, PhD
Vanderbilt University

Maigen Michelle Bethea, PhD
University of Colorado

Lawrence Brandon Brown, MD
Johns Hopkins University

Jasmin Camacho, PhD
Stowers Institute for Medical Research

Kate Elizabeth Cavanaugh, PhD
University of California-San Francisco

Rose Berthe Creed, PhD
University of California-San Francisco

Lola Fagbami, PhD
University of Georgia

Aileen I Fernandez, PhD
Yale University

Diego Rivera Gelsinger, PhD
Columbia University

Stephanie Ann Herrlinger, PhD
Columbia University

Malina Jan Ivey, PhD
University of Cincinnati

Chinyere Agbaegbu Iweka, PhD
Stanford University

Zachary Bleiker Jones, PhD
St. Jude Children's Research Hospital

Demetrice Jordan, PhD
Harvard Medical School

Jasmine Kwasa, PhD
Carnegie Mellon University

Lakeisha Lewter, PhD
University of Texas-Dallas

Christopher Bernardo Medina, PhD
Emory University

Anny Reyes, PhD
University of California-San Diego

Cristina Caridad Santarossa, PhD
New York University School of Medicine

Dominique Curtis Stephens, PhD
Vanderbilt University in partnership with Fisk University

Cynthia Tchio, PhD
Morehouse School of Medicine

Andre Bevil Toussaint, PhD
Columbia University

Adelaide Tovar, PhD
University of Michigan-Ann Arbor

For a comprehensive list of awardees,
please visit bwfund.org

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Darcy Lewandowski
Program Associate

Alfred Mays
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Senior Program Officer

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Gertrude Elion Endowed
Program Officer and
Strategic Advisor

Samantha Moore
Program Assistant
and Data Specialist

Melanie Scott
Senior Program Associate
and Database Specialist

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The Burroughs Wellcome Fund serves and strengthens society by nurturing a diverse group of leaders in biomedical sciences to improve human health through education and powering discovery in frontiers of greatest need.

BWF's financial support is channeled primarily through competitive peer-reviewed award programs to degree-granting institutions in the U.S. and Canada on behalf of individual researchers. To complement these competitive award programs, BWF also makes grants to nonprofit organizations conducting activities intended to improve the general environment for science.

BWF believes that a diverse scientific workforce is essential to the process and advancement of research innovation, academic discovery, and public service.

Governed by a Board of Directors composed of distinguished scientists and business leaders, BWF was founded in 1955 as the corporate foundation of the pharmaceutical firm Burroughs Wellcome Co. In 1993, a generous gift from the Wellcome Trust, enabled BWF to become fully independent from the company, which was acquired by Glaxo in 1995.

**BURROUGHS
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FUND** 

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