

Diversity Drives Discovery

2020 ANNUAL REPORT

BURROUGHS
WELLCOME
FUND 

Grant Programs

Biomedical Sciences

Career Awards for Medical Scientists: 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 will help facilitate the transition to a career in research.

Resident Faculty Scholar Program: Provides up to \$125,000 in support to faculty level academic scientists at U.S. or Canadian institutions 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.

Career Guidance

Career Guidance for Trainees: Provides up to \$50,000 over a one-year period to support demonstration project that will model affordable approaches to improving trainees' readiness for stable, fulfilling careers.

Diversity in Science

Graduate Diversity Enrichment Program: Provides \$5,000 over two years to provide underrepresented minority PhD students (enrolled in NC Institutions of Higher Education) with opportunities for greater science and research enrichment experiences.

Postdoctoral Enrichment Program: Provides \$60,000 over three years to support the development of underrepresented minority postdoctoral fellows in biomedical research.

Infectious Diseases

Investigators in the Pathogenesis of Infectious Disease: 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: 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: Provides up to \$500,000 over five years to academic investigators developing new methodologies or innovative approaches in regulatory science that will ultimately inform regulatory decisions.

Reproductive Science

Next Gen Pregnancy Initiative: Provides up to \$500,000 over a four-year period 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 Science and Mathematics Teachers: Five-year awards provide \$175,000 each 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 science or mathematics content and have outstanding performance records in educating children. The award is a partnership between the North Carolina State Board of Education and BWF.

Student STEM Enrichment Program: 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. The program's goals are to nurture students' enthusiasm for science and mathematics, expose them to the excitement of scientific discovery, and interest them in pursuing careers in research or other science-related areas.

Promoting Innovation in Science and Mathematics: Awards up to \$4,500 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.

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

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As Maya Angelou conveyed: Prejudice is a burden that confuses the past, threatens the future and renders the present inaccessible.

President's Message



As I began in my new role as President and CEO in January 2020, I recognized the enormous potential that BWF had for even greater scientific impact. However, as it was for everyone on this planet, 2020 was a truly unprecedented year.

The challenges that the COVID-19 pandemic provided reinforced the unique capacity BWF has as an organization to address the issues of most urgent scientific and

societal need, be nimble in repurposing activities to continue our work, and support our network of awardees, advisors, and staff.

To paraphrase Denis Diderot: “Genius is present in every age, but the people carrying it within them remained benumbed unless extraordinary events occur to heat up and melt the mass so that it flows forth.” As extraordinary events heated up 2020, genius truly emerged.

In addition to previous award programs, our efforts in terrain mapping prioritized climate change and human health, science communication and data visualization, and further enhancement of the interactions of science and the arts. The past year has further demonstrated the critical importance of each of these themes in moving forward.

The pandemic reflects a dramatic and early instance of the consequences of global climate disruption. Expanded vector, host, and pathogen geographies bring into contact combinations of

infectious agents that previously did not occur. Working with the National Academies of Medicine, we have partnered to address climate change at its root causes – reducing carbon footprint due to fossil fuels, identifying avenues in the healthcare sector to reduce environmental impact, fostering climate change communication, and BWF modeling use of green and sustainable resources such as an investment in solar photovoltaics.

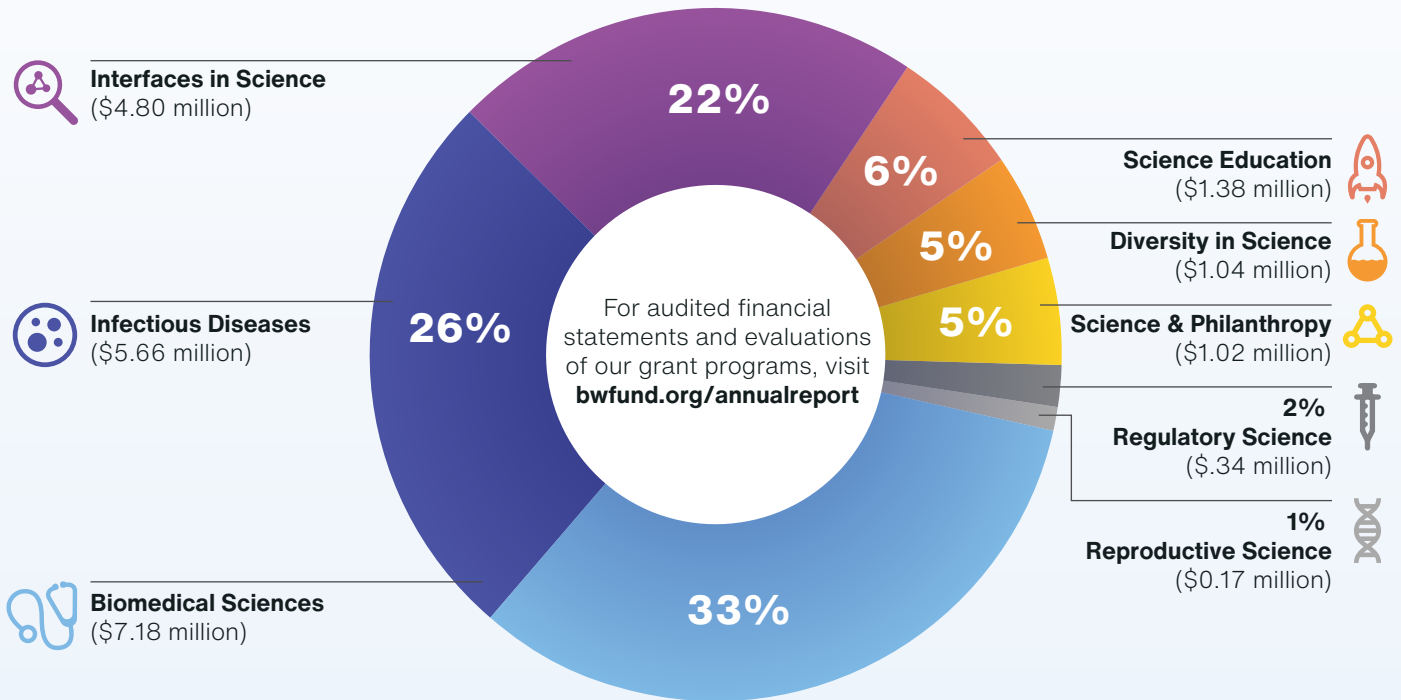
To address COVID-19 research directly, we awarded collaborative grants within the existing awardee network to generate innovative approaches to understanding the mechanisms of this disease and thinking about future pandemic prevention.

We recognized the hardships for early career investigators, and provided peer workshops, mentorship, and flexible use of grant awards to keep programs as productive as possible.

All BWF activities shifted to virtual platforms, and these have worked well with support from our meeting professional, Lori Hedrick, working with Barbara Evans, and our IT staff, Sam Caraballo, and Wendell Jones. These events have demonstrated that we can work effectively without extensive travel – and this further serves our goal of reducing our carbon footprint and detrimental environmental consequences.

Diversity, equity, and inclusion is a priority within programs such as the Postdoctoral Enrichment Program, Graduate Diversity Enrichment Program, and other investments such as bringing the RACE 2.0 exhibit to North Carolina and support for the establishment of the Dudley Flood Center for Educational Equity and Opportunity.

BWF awarded more than \$21 million in grants during fiscal year 2020



During 2020 we witnessed the profound display of ongoing racism and social injustice as evidence by the death of George Floyd, among others. As an organization, we emerge ignited and determined to work towards a safe and equitable society.

As Maya Angelou conveyed: Prejudice is a burden that confuses the past, threatens the future and renders the present inaccessible.

We now view every activity we are involved in through a DEI lens – the composition of our Board and advisory committees, and the prioritization of requests for funding that include engaging diverse scholars, such as our new partnership with *The Conversation* to identify scholars of color to communicate their research with a broad audience.

These efforts to strengthen science and society have further motivated us to focus on big, bold

goals around climate, racial justice, diversity, and inclusiveness of all types – beyond race, geography, gender, sexual orientation – serving to enrich the discussion, foster solutions, and engage the broad scientific community and the public. I look forward to the creative programs that will emerge because of the experiences of 2020.

Thank you.

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

FISCAL YEAR 2020

Competitive Grant Awardees

Career Award at the Scientific Interface

Ahmed S. Abdelfattah, PhD
Brown University

Zibo Chen, PhD
California Institute of Technology

Yogesh Goyal, PhD
University of Pennsylvania

Elizabeth R. Jerison, PhD
Stanford University

Stephanie E. Lindsey, PhD
Stanford University

Brittany S. Morgan, PhD
TBD

Cristina Rodriguez, PhD
University of California-Berkeley

Julea Vlassakis, PhD
University of California-Berkeley

Career Awards for Medical Scientists

Alexander George Bick, MD, PhD
Harvard Medical School

Julia Catherine Carnevale, MD
University of California-San Francisco

Emily Anne Ferenczi, MB, ChB, PhD
Harvard Medical School

Ryan Alexander Flynn, MD, PhD
Stanford University

Anna Nam, MD
Weill Medical College of Cornell University

Josephine Ni, MD
University of Pennsylvania

Xilma Rosa Ortiz-Gonzalez, MD, PhD
University of Pennsylvania

William Renthall, MD, PhD
Harvard Medical School

Andrew Ben Stergachis, MD, PhD
Harvard Medical School

Career Guidance for Trainees

Coaching for Career Development via the ASPET Mentoring Network

North Carolina State University

The STEM Advocacy Institute

University of Colorado Denver, Anschutz Medical Campus

University of Georgia Research Foundation, Inc.

University of North Carolina-Charlotte

University of Pittsburgh

Investigators in the Pathogenesis of Infectious Disease

Megan T. Baldrige, MD, PhD
Washington University School of Medicine

Brian P. Conlon, PhD
University of North Carolina-Chapel Hill

Gretchen Diehl, PhD
Memorial Sloan Kettering Cancer Center

Asma I. Hatoum, PhD
University of Illinois, Urbana-Champaign

Iliyan D. Iliev, PhD
Weill Medical College of Cornell University

Philip J. Kranzusch, PhD
Harvard Medical School

Anna Marie Selmecki, PhD
University of Minnesota Medical School

Golnaz Vahedi, PhD
University of Pennsylvania

Ivan Zanoni, PhD
Harvard Medical School

Postdoctoral Enrichment Program

Tyler Alexander, PhD
St. Jude Children's Research Hospital

Shayna T. J. Bradford, PhD
Washington University

Adrian Sergio Enriquez, PhD
Tulane University

Ebony Flowers, PhD
University of Southern California

Monica Gutierrez, PhD
Northwestern University

Joshua Hooks, PhD
Johns Hopkins University

Nisan Michael Hubbard, PhD
University of North Carolina-Chapel Hill

Clifford A Kapon, PhD
University of Hawaii-Hilo

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

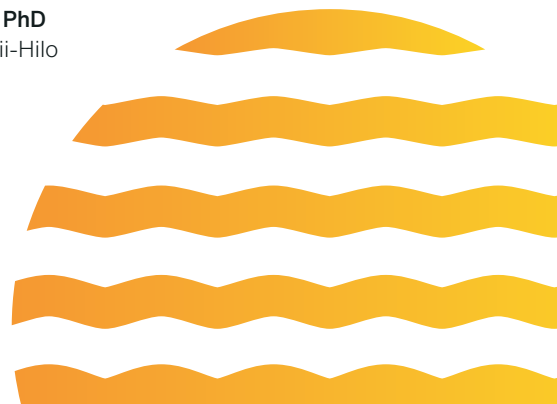
Valeria Marie Reyes Ruiz, PhD
Vanderbilt University

Andrew Santiago-Frangos, PhD
Montana State University

Chelsey Cierra Spriggs, PhD
University of Michigan-Ann Arbor

Jessica Rene Thomas, PhD
Vanderbilt University

Brittany Nicole Williams, DPhil, PhD
University of North Carolina-Chapel-Hill



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.

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Vice President, Finance

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Senior Communications
Officer

Muno Sekhon
Associate Communications
and Special Projects Officer

Facilities and Administration

Brent Epps
Facilities Administrative
Assistant

Glenda H. Gilbert
Senior Manager, Facilities
and Administration

Betsy Stewart
Administrative Assistant

Finance

Ken Browndorf
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Accounting Manager

Jennifer Caraballo
Senior Accountant

Information Technology

Sammy Caraballo
Systems and Web Engineer

Wendell Jones
Technology Coordinator

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Barbara Evans
Administrative Meeting
Assistant

Lori Hedrick
Meeting Professional

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Program Assistant

Alfred Mays
Senior Program Officer

Victoria McGovern, PhD
Senior Program Officer

Samantha Moore
Program Assistant

Kelly Rose, PhD
Program Officer

Melanie Scott
Senior Program Associate
and Database Specialist

Rolly L. Simpson Jr.
Senior Program Officer

Tiffanie Taylor
Senior Program Associate

Kendra Tucker
Program Associate
and Data Specialist

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Jenny Ting, PhD

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Philip R. Tracy



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