

The Promise of Discovery

2013 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 on-going problem of increasing the number of physician scientists and will help facilitate the transition to a career in research.

Collaborative Research Travel Grants:

Provide up to \$15,000 in support for interdisciplinary biomedical researchers from degree-granting institutions to travel to a laboratory to acquire a new research technique or to facilitate collaboration.

Diversity in Science

Postdoctoral Enrichment Program for Underrepresented Minorities:

Provides \$50,000 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 for opportunities for accomplished investigators at the assistant professor level to study infectious disease pathogenesis, with a focus on the intersection of human and microbial biology. The program is intended to shed light on the overarching issues of how human hosts handle infectious challenge.

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.

Population and Laboratory Based Sciences

Institutional Program Unifying Population and Laboratory Based Sciences:

Five-year awards provide \$2.5 million to unite population-level and laboratory-based biological sciences. The award supports the training of researchers working between existing research concentrations in population approaches to health and in basic biological sciences. The goal is to establish interdisciplinary training programs by partnering researchers working in disparate environments and intellectual frameworks.

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

Preterm Birth Initiative: Provides \$600,000 over a four-year period to bring together a diverse interdisciplinary group with the more traditional areas of parturition research to address the scientific issues related to preterm birth.

Science Education

Career Awards for Science and Mathematics Teachers:

Five-year awards provide \$175,000 to eligible science or mathematics teachers in the North Carolina public primary and secondary schools. The purpose of this award is to recognize 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 Science 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 science enrichment activities that occur outside the typical school day for K-12 students. The program's goals are to nurture students' enthusiasm about science, expose them to the excitement of scientific discovery, and interest them in pursuing careers in research or a variety of other careers in science.

Promoting Innovation in Science and Mathematics:

Awards up to \$4,000 provide teachers with funding for materials, equipment, and training to conduct hands-on, inquiry-based science and mathematics projects in North Carolina public schools.



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

“By providing flexible funding to talented and motivated individuals, we enable the risk-taking often needed to advance research and understanding.”



A Message from the President



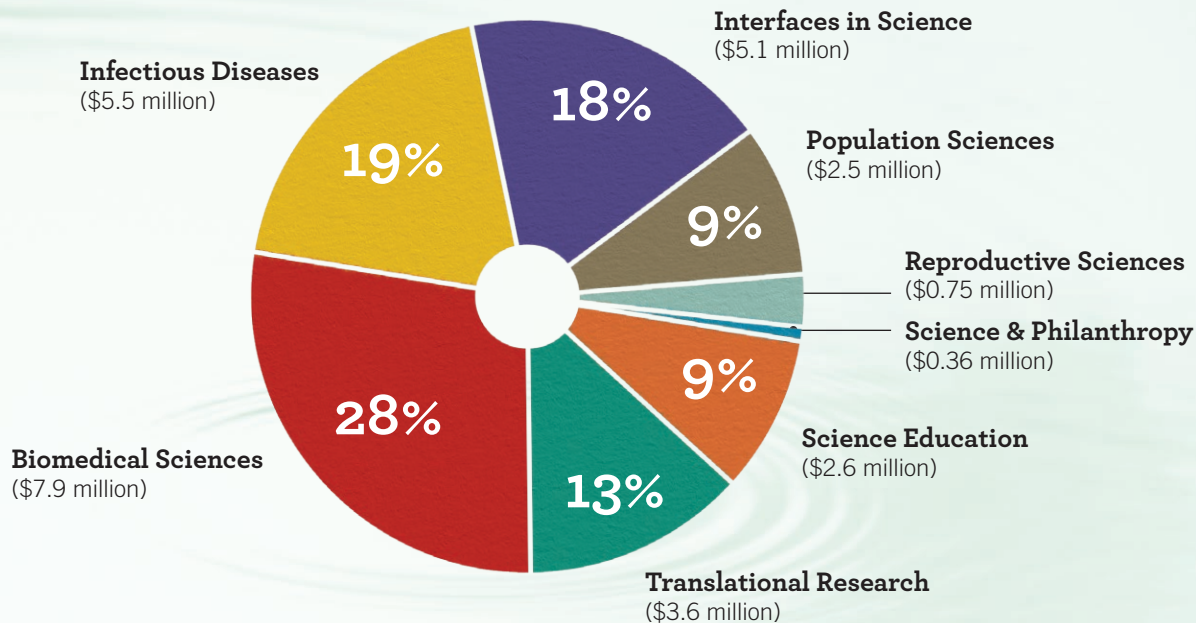
John E. Burris, Ph.D.
President
Burroughs Wellcome Fund

Biomedical research is usually an incremental endeavor. The result of one experiment may be a small but critical part of a thread that ultimately leads to a resolution of a more complex problem. The inability to predict which experiments will set the trajectory to a major discovery or even a cure presents a unique challenge to funding organizations as we try to determine our investments. Rather than focus on the projects themselves, we choose to focus on the individuals we deem the most promising, giving them the chance to make critical, incremental, and sometimes major insights in understanding. We know that it is difficult to anticipate all the necessary discoveries and approaches or to guarantee a precise timeline for success. By providing flexible funding to talented and motivated individuals, we enable the risk-taking often needed to advance research and understanding.

The Burroughs Wellcome Fund was able to fund superb science and education activities this year thanks to wise investments and a robust stock market. Our financial status is now sufficiently strong that we have been able to add new programs, and we are also planning to provide additional support for ongoing activities. We welcomed inaugural awardee classes to our Innovation in the Regulatory Science Awards and the Postdoctoral Enrichment Program for Underrepresented Minorities. We are pleased that we are able to provide stable and increased funding at this time of uncertainty for government support of biomedical research.

Although we fund individual researchers, we recognize that interdisciplinary, collaborative interactions make important contributions to advance understanding

BWF distributed \$28.4 million in grants during fiscal year 2013.



For audited financial statements and evaluations of our grant programs, visit www.bwfund.org/annualreport or scan the QR code.



of complex problems. Many of the big questions left in science now exist beyond the traditional disciplinary borders. To help address these questions, we are encouraging collaboration through activities such as our annual networking meeting, travel grants that introduce investigators to new techniques, the population and laboratory based sciences program, and our interfaces career awards. We want different approaches and perspectives to be brought to bear on problems that are often too difficult for one individual or discipline to solve.

We also recognize that the education of all members of society is integral to the long-term health and success of biomedical research. Young people, in particular, need strong preparation in science and mathematics, not only to prepare them for job success, but also to

arm them with the intellectual skills necessary to solve problems of all types throughout their lives. An educated public can better understand the importance of biomedical research and, in these tight economic times, can help provide the support needed for research funding. We coordinate a number of programs in education to get the next generation excited about science and math and perhaps encourage them to pursue a career in those fields. Even if they don't become scientists, we hope they will better understand and support scientific endeavors.

In this coming year, we will be taking a careful look at our programs and our funding strategy. Though we constantly monitor the funding landscape for biomedical research, every five years we conduct a more concentrated review of

our strategy to ensure we are indeed following our mission to advance biomedical research and education in underserved and important areas of biomedical science.

We at the Burroughs Wellcome Fund feel confident that by investing in education and promising innovative researchers who ask critical questions, we will help advance biomedical research to the benefit of all.

A handwritten signature in black ink, which appears to read "John E. Burris".

Fiscal Year 2013 Major Competitive Grant Awardees

Career Awards at the Scientific Interface

Gregory R. Bowman, Ph.D.

University of California-Berkeley

Yaniv Erlich, Ph.D.

Whitehead Institute for Biomedical Research

Stephanie I. Fraley, Ph.D.

Johns Hopkins University School of Medicine

Hernan G. Garcia, Ph.D.

Princeton University

Karen E. Kasza, Ph.D.

Memorial Sloan-Kettering Cancer Center

Gabriel Kwong, Ph.D.

Massachusetts Institute of Technology

Megan N. McClean, Ph.D.

Princeton University

Mikhail G. Shapiro, Ph.D.

University of California-Berkeley

Paul A. Sigala, Ph.D.

Washington University

Bo Wang, Ph.D.

University of Illinois-Urbana-Champaign

Career Awards for Medical Scientists

Susanne Elizabeth Ahmari, M.D., Ph.D.

Columbia University

Gautam Bhave, M.D., Ph.D.

Vanderbilt University Medical Center

Ajai Arvind Dandekar, M.D., Ph.D.

University of Washington

Andrew Eugene Hermann Elia, M.D., Ph.D.

Harvard Medical School

Gaorav P Gupta, M.D., Ph.D.

Memorial Sloan-Kettering Cancer Center

Andrew Caleb Hsieh, M.D.

University of California-San Francisco

Jean-Sebastien Joyal, M.D., Ph.D.

University of Montreal Faculty of Medicine

Alex Kentsis, M.D., Ph.D.

Harvard Medical School

Jenieli Emily Nett, M.D., Ph.D.

University of Wisconsin-Madison

Rhea Myers Sumpter, Jr., M.D., Ph.D.

University of Texas Southwestern Medical Center-Dallas

Career Awards for Science and Mathematics Teachers

Michelle Beard

Allegheny High School

Kimberly Clark

Charles D. Owen High School

Michelle Ellis

Grier Middle School

Christopher Fisher

Allenbrook Elementary

Sonja McKay

Exploris Middle School

David C. Taylor

McClintock Middle School

Innovation in Regulatory Science Award

Dana V. Devine, Ph.D.

Canadian Blood Services

Kathleen M. Giacomini, Ph.D.

University of California-San Francisco

Alison H. Harrill, Ph.D.

University of Arkansas for Medical Sciences

Calum A. MacRae, M.B. Ch.B., Ph.D.

Brigham and Women's Hospital/Harvard Medical School

Vishal S. Vaidya, Ph.D.

Brigham and Women's Hospital

Susan W. Yackee, Ph.D.

University of Wisconsin-Madison

Investigators in the Pathogenesis of Infectious Disease

Abraham Brass, M.D., Ph.D.

University of Massachusetts Medical School

Dustin Brisson, Ph.D.

University of Pennsylvania

Michael Federle, Ph.D.

University of Illinois-Chicago

Xiarong Lin, Ph.D.

Texas A&M University

Suzanne Noble, M.D., Ph.D.

University of California-San Francisco

Sara Sawyer, Ph.D.

University of Texas-Austin

Emily Troemel, Ph.D.

University of California-San Diego

David Weiss, Ph.D.

Emory University

Felix Yarovinsky, M.D.

University of Texas Southwestern Medical Center

Liang Zhou, M.D., Ph.D.

Northwestern University

Postdoctoral Enrichment Program

Mehabaw Derebe, Ph.D.

University of Texas Southwestern Medical Center at Dallas

Kimberly Kempadoo, Ph.D.

Columbia University College of Physicians & Surgeons

Daniel Koch, Ph.D.

Stanford University

Carlos Ponce, M.D., Ph.D.

Harvard Medical School

Francisco Robles, Ph.D.

Duke University

Philip Romero, Ph.D.

University of California-San Francisco

Felipe Santiago-Tirado, Ph.D.

Washington University School of Medicine

Racquel Sherwood, Ph.D.

Yale University

Sade Spencer, Ph.D.

Medical University of South Carolina

Nikki Traylor-Knowles, Ph.D.

Stanford University

Student Science Enrichment Program

Boys & Girls Clubs of Wake County

Collaborative STEM Initiative (CSI)

Duke University

Student Engineers Network:
Strengthening
Opportunities in Research
(SENSOR) Saturday Academy

Foundation of the Carolinas

Summer Science Experience – Sixth
Grade Science Sleuths and Ten80 PLUS

Marbles Kids Museum

Marbles STEM Play Corps

Montreat College

Hiking MYLES of Science

North Carolina State University

North Carolina Floating Classroom
Program II

Olympic High School

B-3 Summer Research and Science
Saturday Program

**Pisgah Astronomical Research
Institute**

3D Planets

Shodor Education Foundation Inc.

Computing MATTERS: Nurturing the
Seedlings of SUCCEED

University of North Carolina

-Chapel Hill

Climate Leadership and Energy
Awareness Program

University of North Carolina

-Greensboro

UBEATS: A BioMusic STEM Intervention
for ESL Students in Guilford County

Wake Forest University Health Sciences

Medical Careers and Technology
Academy: Enriching Native and
Appalachian Student Experiences in
Health Sciences



The Burroughs Wellcome Fund is an independent private foundation dedicated to advancing the biomedical sciences by supporting research and other scientific and educational activities. Within this broad mission, BWF seeks to accomplish two primary goals—to help scientists early in their careers develop as independent investigators and to advance fields in the basic biomedical sciences that are undervalued or in need of particular encouragement.

Financial support is channeled primarily through competitive peer-reviewed award programs. Grants are made primarily to degree-granting institutions on behalf of individual researchers. To complement these competitive award programs, grants are also made to nonprofit organizations conducting activities intended to improve the general environment for science.

BWF was founded in 1955 as the corporate foundation of Burroughs Wellcome Co., the U.S. branch of the Wellcome pharmaceutical enterprise, based in the United Kingdom. In 1993, BWF received a \$400 million gift from the Wellcome Trust, the main entity in the enterprise, to become a fully independent foundation.

Burroughs Wellcome Fund

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