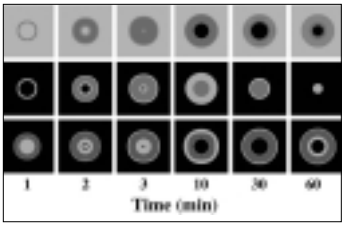
In 2001, an international exchange program developed by the institute enabled education leaders to travel to the Netherlands to visit schools, meet students, and converse with teachers and administrators. The primary purpose of the trip was to review methods and practices used in science and mathematics education in order to better understand the reasons students in other countries, including the Netherlands, consistently score better on performance tests than do U.S. students.

When scientists are asked where they first became interested in science, many say it happened while visiting museums as children. Thus, reaching the museum community is an important goal for BWF. In 2000, the Fund provided a grant to the science museum community in North Carolina to establish the Grassroots Science Museum Collaborative, which is the first such collaborative in the United States. The collaborative coordinates the activities of 19 science museums across the state and integrates these efforts with school activities to better reach not only children, but also teachers, parents, and grandparents.

In 1995, the North Carolina Public School Forum published a report titled "The State of Disconnectedness: An Examination of Mathematics and Science Instruction in the North Carolina Public Schools," which showed that poor communication and disconnected, isolated science education initiatives hamper efforts to improve science, mathematics, and technology education in the state. In 2001, BWF responded by establishing a neutral, nonprofit entity to function as a science, mathematics, and technology education champion for North Carolina. By developing collaborative partnerships among those responsible for and interested in promoting science education, BWF hopes to move the state from isolated model programs to an integrated strategy that will provide high-quality science education for all of the state's students.

In a world filled with products of scientific inquiry, scientific literacy has become a necessity for everyone. We all need to be able to use scientific information to make choices that arise on a daily basis. At the Fund, we believe everyone deserves to share in the excitement and personal fulfillment that can come from understanding and learning about the natural world, and we hope that through our efforts, we will help make science literacy a reality for all students.



Math test

Cells are highly regulated subunits of every tissue in the human body. One of the ways that cells communicate is by direct contact, in a so-called synaptic junction. Dr. Jay Groves of the University of California-Berkeley, a 2000 BWF Career Award in the Biomedical Sciences recipient, is studying the physical patterns of proteins at the synaptic junction between two immune system cells as they communicate, shown here as a visual representation of a mathematical model.

REPORT ON FINANCE

The Burroughs Wellcome Fund's investments totaled $639.6 million at August 31, 2001, the end of our fiscal year. BWF's primary financial goal is to pursue an investment strategy that will support annual spending needs and maintain a constant real level of assets over the long term. To achieve this goal, a very high percentage of our investments is placed in strategies that derive the bulk of their returns from exposure to U.S. and international capital markets. Hence, fluctuations in BWF's investment results will be due largely to variability in capital market returns.

BWF's investment policies are developed with the recommendations and review of the Investment Committee, which is appointed by and reports to BWF's Board of Directors. The committee, which meets three times a year, has seven voting members, including four representatives from outside BWF and three representatives of our board. The board's chair, BWF's president, and BWF's vice president for finance also serve on the committee as nonvoting members.

As part of BWF's investment strategy, we have established "allocation targets"—that is, percentages of our total assets to be invested in particular asset classes. Investment managers hired by BWF pursue more focused mandates within each sector. As of the end of the fiscal year, BWF's asset mix and market values were:

- U.S. large capitalization equity assets had a market value of $179.9 million. The sector's target allocation was 31 percent, and actual holdings stood at 28.1 percent.
- U.S. small capitalization equity assets had a market value of $91.5 million. The sector's target allocation was 14 percent, and actual holdings stood at 14.3 percent.
- International equity assets had a market value of $160.9 million. The sector's target allocation was 30 percent, and actual holdings stood at 25.2 percent.
- Fixed income assets had a market value of $158.3 million. The sector's target allocation was 22 percent, and actual holdings stood at 24.7 percent.
- Cash equivalent assets had a market value of $10.9 million. The sector's target allocation was 3 percent, and actual holdings stood at 1.7 percent.
- Alternative assets had a market value of $38.1 million. The sector did not have a target allocation, and actual holdings stood at 6 percent. The maximum permitted allocation to alternative assets stood at 8 percent.

The total market value of BWF's investments decreased by $124.1 million, or 16.2 percent, from the end of the previous fiscal year. This large decrease in assets was due primarily to poor returns in world equity markets over the course of the fiscal year. BWF's total investment return for the fiscal year was -11 percent. The two sectors that drove this result were the international equity sector, which posted a return of -25.4 percent for the fiscal year, and the U.S. large capitalization equity sector, which had a -17.1 percent return. U.S. small capitalization equities had an -8.2 percent return, while fixed income produced a 13.7 percent result.

As of August 31, 2001, BWF employed 11 investment managers. In the U.S. large capitalization equity sector, the managers were Independence Investment Associates; Westpeak Investment Advisors; and Cohen, Klingenstein and Marks. Credit Suisse Asset Management; Kennedy Capital Management; and Scudder Kemper Investments managed U.S. small capitalization equities. Pacific Investment Management Company and Smith Breeden Associates were the fixed income managers. Capital Guardian Trust Company and Hansberger Global Investors managed international equities. State Street Global Advisors managed a hedge fund. BWF also held investments in six venture capital funds: Intersouth Partners IV and V, the Spray Venture Fund, Mission Ventures II, the North Carolina Bioscience Investment Fund, and Tech Amp II.

Finally, the increase in the allocation to alternative investments from that of August 2000 was mainly the result of a December 2000 investment in a fund of approximately 20 alternative investment strategies overseen by Quellos Capital Management. This fund expects to generate equity-like returns over time without systematic exposure to returns in world capital markets. To the extent this strategy helps reduce the variability of BWF's investment returns through time, year-to-year grant and operating expense payout will be easier for BWF to manage.

FINANCIAL STATEMENTS AND ADDITIONAL INFORMATION

Report of Independent Accountants

To the Board of Directors of
The Burroughs Wellcome Fund

In our opinion, the accompanying statements of financial position and the related statements of activities and of cash flows present fairly, in all material respects, the financial position of The Burroughs Wellcome Fund (the "Fund") at August 31, 2001 and 2000, and the changes in its net assets and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Fund's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed.

Our 2001 audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The information presented in Schedule I is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

PricewaterhouseCoopers LLP

Raleigh, North Carolina
October 5, 2001

Statements of Financial Position

August 31, 2001 and 2000
(All dollar amounts presented in thousands)

	2001	2000
ASSETS		
Cash and cash equivalents	$ 44,825	$ 33,473
Marketable securities	635,880	781,162
Accrued interest and dividends receivable	2,156	2,480
Federal excise tax receivable	1,403	-
Other assets	22	31
Total current assets	684,286	817,146
Property and equipment, net	14,590	14,999
Total assets	$ 698,876	$ 832,145
LIABILITIES AND NET ASSETS		
Transactions payable, net	$ 42,544	$ 52,425
Accounts payable and other liabilities	960	1,064
Unpaid awards	78,888	70,028
Deferred federal excise tax liability	-	1,985
Total liabilities	122,392	125,502
Commitments and contingencies (Note 6)		
Unrestricted net assets	576,484	706,643
Total liabilities and net assets	$ 698,876	$ 832,145

The accompanying notes are an integral part of these financial statements.

Statements of Activities

Years Ended August 31, 2001 and 2000
(All dollar amounts presented in thousands)

	2001	2000
Revenues:		
Interest and dividends, less investment expenses of $4,254 and $3,627 in 2001 and 2000, respectively	$ 14,848	$ 16,423
Net realized gain on sales of marketable securities	3,654	99,422
Total revenues	18,502	115,845
Expenses:		
Program services	42,655	39,223
Management and general	4,960	4,799
Total expenses before federal excise tax	47,615	44,022
Net unrealized (depreciation) appreciation of marketable securities, net of (benefit from) provision for deferred federal excise taxes of $(1,985) and $406 in 2001 and 2000, respectively	(102,449)	19,805
Federal excise tax benefit (expense)	1,403	(2,155)
Total net (depreciation) appreciation and federal excise tax benefit (expense)	(101,046)	17,650
Change in net assets	(130,159)	89,473
Net assets at beginning of year	706,643	617,170
Net assets at end of year	$ 576,484	$ 706,643

The accompanying notes are an integral part of these financial statements.

Statements of Cash Flows

Years Ended August 31, 2001 and 2000
(All dollar amounts presented in thousands)

	2001	2000
Cash flows from operating activities:		
Change in net assets	$ (130,159)	$ 89,473
Adjustments to reconcile change in net assets to net cash (used in) provided by operating activities:		
Depreciation	730	517
Net realized gain on sales of marketable securities	(3,654)	(99,422)
Net unrealized depreciation (appreciation) of marketable securities	104,434	(20,211)
(Benefit from) provision for deferred federal excise taxes	(1,985)	406
Awards granted, net of cancellations and change in unamortized discount	42,943	39,453
Award payments made	(34,083)	(32,820)
Changes in operating assets and liabilities:		
Decrease (increase) in transactions payable, net	(9,881)	40,704
Decrease in accrued interest and dividends receivable	324	318
Increase in federal excise tax receivable	(1,403)	-
Decrease in other assets	9	21
Decrease in accounts payable and other liabilities	(104)	(91)
Net cash (used in) provided by operating activities	(32,829)	18,348
Cash flows from investing activities:		
Purchases of marketable securities	(1,434,649)	(1,547,198)
Proceeds from sales of marketable securities	1,479,151	1,529,008
Purchase of property and equipment	(321)	(3,518)
Net cash provided by (used in) investing activities	44,181	(21,708)
Net increase (decrease) in cash and cash equivalents	11,352	(3,360)
Cash and cash equivalents at beginning of year	33,473	36,833
Cash and cash equivalents at end of year	$ 44,825	$ 33,473
Supplemental disclosure of cash flow information:		
Cash paid during the year for federal excise taxes	$ -	$ 2,155

The accompanying notes are an integral part of these financial statements.

Notes to Financial Statements

Years Ended August 31, 2001 and 2000
(All dollar amounts presented in thousands)

1. Organization and Summary of Significant Accounting Policies

The Burroughs Wellcome Fund (the "Fund") is a private foundation established to advance the medical sciences by supporting research and other scientific and educational activities.

Cash equivalents

Cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash and have a maturity of three months or less at the time of purchase.

Forward currency contracts

The Fund enters into financial instruments with off-balance sheet risk in the normal course of its investment activity, primarily forward contracts, to reduce the Fund's exposure to fluctuations in foreign currency exchange rates. These contracts are for delivery or sale of a specified amount of foreign currency at a fixed future date and a fixed exchange rate. Gains or losses on these contracts occur due to fluctuations in exchange rates between the commencement date and the settlement date. Gains and losses on settled contracts are included within "net realized gains or losses on sales of marketable securities," and the changes in market value of open contracts is included within "net unrealized appreciation (depreciation) of marketable securities" in the accompanying statements of activities. It is the Fund's policy to utilize forward contracts to reduce foreign exchange rate risk when foreign-based investment purchases or sales are anticipated.

The contract amount of these forward currency contracts totaled $5,152 and $2,676 at August 31, 2001 and 2000, respectively. Realized gain (loss) on forward currency contracts totaled $669 and ($608) in 2001 and 2000, respectively. The market value of open forward currency contracts at August 31, 2001 and 2000 was $298 and $317, respectively. The market value is recorded as an asset in the Fund's financial statements. The average market value of open foreign currency contracts totaled $233 and ($238) for the years ending August 31, 2001 and 2000, respectively.

Futures contracts

The Fund enters into futures contracts in the normal course of its investment activity to manage the exposure to interest rate risk associated with bonds and mortgage backed securities. The Fund is required to pledge collateral to enter into these contracts. The amounts pledged for futures contracts at August 31, 2001 and 2000 were $1,777 and $235, respectively. It is the Fund's intention to terminate these contracts prior to final settlement. Gains and losses on the contracts are settled on a daily basis. Included in transactions payable at August 31, 2001 and 2000 is the net settlement relating to these contracts of $11 and $0, respectively.

Options

The Fund utilizes options to manage the exposure to interest rate risk associated with mortgage backed securities. The market value of these options totaled $1,504 and $23 at August 31, 2001 and 2000, respectively, which is recorded as an asset in the Fund's financial statements. The average fair value of open contracts totaled $610 and ($816) for the years ending August 31, 2001 and 2000. Realized losses on options totaled $214 and $2,450 for the years ending August 31, 2001 and 2000, respectively.

Marketable securities

Marketable securities are carried at estimated market values based on quoted prices. Gains and losses from sales of securities are determined on an average cost basis and are recognized when realized. Changes in the estimated market value of securities are reflected as unrealized appreciation or depreciation in the accompanying statements of activities. The Fund has investment advisors which manage its portfolio of marketable securities. The Fund's management critically evaluates investment advisor performance and compliance with established diversification and investment policies.

Property and Equipment
Property and equipment is primarily comprised of a building, furniture, and computer equipment which are stated at cost less accumulated depreciation and are being depreciated over their estimated useful lives using the straight-line method. Ordinary maintenance and repair costs are expensed as incurred.

Building	40 years
Furniture and Fixtures	7 years
Computer Equipment	3 years

Transactions receivable and transactions payable, net
These amounts represent the net receivable or payable resulting from investment transactions with trade dates prior to August 31 and settlement dates subsequent to August 31.

Awards granted and unpaid awards
Grants are expensed at their fair value in the year in which the award is granted. Grants payable over several years are expensed, and carried on the statements of financial position, at the present value of their estimated future cash flows, using a risk free discount rate determined at the time the award is granted.

Functional allocation of expenses
Costs of the Fund's operations and activities have been summarized on a functional basis in the statement of activities.

Estimated fair value of financial instruments
Financial instruments include cash and cash equivalents, marketable securities, accrued interest and dividends receivable, accounts payable, and unpaid awards. All financial instruments are reported at their estimated fair value. The carrying values of accrued interest and dividends receivable, accounts payable, and unpaid awards approximate fair values based upon the timing of future expected cash flows. The estimated fair value of marketable securities is determined based upon the latest quoted sales price for such securities as of the balance sheet date. The Fund's remaining assets and liabilities are not considered financial instruments.

Use of Estimates
The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Market Risk
Market risk represents the risk of changes in value of a financial instrument, derivative or non-derivative, caused by fluctuations in interest rates, foreign exchange rates and equity prices. The Fund manages these risks by using derivative financial instruments in accordance with established policies and procedures.

Reclassifications
Certain reclassifications were made to the August 31, 2000 financial statements to conform them to the August 31, 2001 presentation.

2. Property and Equipment

The Fund's property and equipment consisted of the following:

	2001	2000
Building	$ 13,451	$ 13,361
Furniture and Fixtures	1,717	1,540
Computer Equipment	669	615
	15,837	15,516
Less: accumulated depreciation	(1,247)	(517)
	$ 14,590	$ 14,999

3. Federal Excise Taxes

The Fund is exempt from federal income taxes under Section 501(c)(3) of the Internal Revenue Code. However, since the Fund meets the definition of a private foundation under the Internal Revenue code, it is subject to federal excise tax on its annual net investment income. The federal excise tax receivable at August 31, 2001 represents an overpayment in fiscal 2000 due to the Fund qualifying at a 1% tax rate rather than the normal 2% tax rate.

Deferred federal excise taxes represent the tax liability on unrealized appreciation of marketable securities. At August 31, 2001, the Fund is in a net unrealized depreciation position. Management has not recorded a deferred tax asset as there could be no reasonable assurance of its realization.

4. Unpaid Awards

Unpaid awards as of August 31 are scheduled for payment as follows:

	2001	2000
Payable in less than one year	$ 34,409	$ 28,710
Payable in one to five years	47,852	47,833
	82,261	76,543
Unamortized discount	(3,373)	(6,515)
Total	$ 78,888	$ 70,028

The expected future liability to the Fund has been calculated based on discount rates ranging from 2.56% to 6.70%.

5. Marketable Securities

The cost and estimated market values of marketable securities at August 31 are as follows:

	2001		2000	
	Cost	Estimated Market Value	Cost	Estimated Market Value
U.S. and foreign governmental obligations	$ 110,968	$ 113,972	$ 136,483	$ 136,430
Corporate bonds	61,631	63,747	75,516	74,840
Common and preferred stocks	263,449	268,273	288,352	345,847
Foreign stocks and foreign equity fund	167,815	151,230	174,302	217,033
Option and forward foreign currency investments	6,148	6,077	68	136
Venture capital investments	11,369	11,230	6,876	6,876
Mutual fund	20,000	21,351	-	-
	$ 641,380	$ 635,880	$ 681,597	$ 781,162

6. Commitments

The Fund leased office space under an operating lease until December 1999. Rental expense for this lease was $0 and $41 in fiscal 2001 and 2000, respectively.

7. Employee Benefit and Retirement Plans

The Fund provides medical insurance to all employees working at least thirty hours per week. Coverage extends to each employee's spouse and dependent children, if applicable. The expense for this employee benefit was $88 and $99 during fiscal 2001 and 2000, respectively.

The Fund has a defined-contribution retirement plan covering all employees working at least twenty hours per week. Under the terms of the plan, the Fund matches 50% of all employees' contributions up to 6% of the employee's annual compensation. Employees are 100% vested in employee and employer contributions immediately. The Fund also has a defined-contribution retirement plan funded solely through employer contributions. Under the terms of the plan, the Fund contributes 10% of the employee's annual compensation. This plan covers all employees and vesting in contributions is immediate. The expense for these retirement plans was $40 and $148 in fiscal 2001 and $37 and $136 in fiscal 2000.

8. Classification of Expenses

During the years ended August 31, expenses were classified as follows:

	2001		2000	
	Program Services	Management and General	Program Services	Management and General
Awards granted, net of cancellations and refunds of $6,221 and $6,770 in 2001 and 2000, respectively	$ 42,655	$ -	$ 39,223	$ -
Salaries and other employee expenses	-	2,171	-	1,960
Depreciation expense	-	729	-	517
Travel and entertainment	-	749	-	595
Maintenance and supplies	-	616	-	764
Honoraria	-	323	-	351
Professional fees	-	178	-	313
Printing and design costs	-	89	-	144
Rent	-	-	-	41
Miscellaneous	-	105	-	114
Total expenses	$ 42,655	$ 4,960	$ 39,223	$ 4,799

Schedule I: Statement of Awards Granted

Year Ended August 31, 2001

Schedule I information is included in the "Grants Index" beginning on page 26. The dollar amounts listed in the schedule reflect the actual dollar amounts (not rounded to thousands) approved and paid to awardees.

GRANTS INDEX

Program Summary

	Approved	Paid	Transferred/ Cancelled*
BASIC BIOMEDICAL SCIENCES			
Career Awards in the Biomedical Sciences	$ 14,949,046	$ 9,641,446	$ 4,554,500
Career Awards Collaborative Grant	68,564	-	-
Hitchings-Elion Fellowships	914,509	558,384	751,350
Life Sciences Research Fellowships	369,000	328,000	-
Obstetrics and Gynecology Research Fellowships	153,000	184,000	-
History of Medicine Travel Grants	5,524	5,524	-
BWF Research Travel Grants	274,837	299,013	7,024
Other Grants	727,000	615,500	-
TOTAL	$ 17,461,480	$ 11,631,867	$ 5,312,874
INFECTIOUS DISEASES			
Scholar Awards in Molecular Parasitology	$ 1,275,000	$ 1,072,500	$ 382,500
New Investigator Awards in Molecular Parasitology	630,000	617,500	-
Scholar Awards in Molecular Pathogenic Mycology	425,000	1,082,500	-
New Investigator Awards in Molecular Pathogenic Mycology	630,000	795,000	-
New Initiatives in Malaria Research	1,300,000	1,430,000	-
Other Grants	563,072	1,102,731	213,372
TOTAL	$ 4,823,072	$ 6,100,231	$ 595,872
INTERFACES IN SCIENCE			
Institutional Awards at the Scientific Interface	$ 11,250,000	$ 4,446,406	$ -
Innovation Awards in Functional Genomics	-	889,583	-
Other Grants	490,384	190,384	-
TOTAL	$ 11,740,384	$ 5,526,373	$ -
TRANSLATIONAL RESEARCH			
Clinical Scientist Awards in Translational Research	$ 7,500,000	$ 5,100,000	$ -
New Investigator Awards in the Pharmacological or Toxicological Sciences	2,100,000	2,215,000	-
Other Grants	417,700	887,700	-
TOTAL	$ 10,017,700	$ 8,202,700	$ -

	Approved	Paid	Transferred/ Cancelled*
SCIENCE EDUCATION			
Student Science Enrichment Program	$ 1,133,036	$ 1,135,068	$ 24,403
BWF Visiting Professorships in the Basic Medical Sciences	165,000	160,000	-
BWF Visiting Professorships in the Microbiological Sciences	55,000	55,000	-
Other Grants	98,317	894,148	-
TOTAL	$ 1,451,353	$ 2,244,216	$ 24,403
SCIENCE AND PHILANTHROPY			
General	$ 162,300	$ 162,300	$ -
Communications	46,000	46,000	-
History of Medicine	15,000	-	-
Science Policy	17,500	192,500	-
TOTAL	$ 240,800	$ 400,800	$ -
TOTALS	**$ 45,734,789**	**$ 34,106,187**	**$ 5,933,149**

GRAND TOTALS† Approved $ 39,801,640 Paid $ 34,106,187

* The "Transferred/Cancelled" totals reflect grants made to award recipients who changed institutions, modified the terms of their grant at their current institution, or both changed institutions and modified their grant. In these cases, BWF's policy has been to cancel the remaining portion of the original grant and, as necessary, approve a new grant. When the award recipient has changed institutions, the new grant is made to the new institution; when the award recipient has not moved but has modified the terms, the new grant is made to the current institution.

† To more accurately reflect the total amount that BWF approved in actual "new" dollars during this fiscal year, the "Transferred/Cancelled" total must be deducted from the "Approved" total.

Key to Grants Index—BWF makes all grants to nonprofit organizations. For most of the programs listed in the following sections, the name of the individual on whose behalf the grant is made is listed first, the title of the award recipient's project is listed second, and the name of the organization that received the money is listed third. For programs that may have coaward recipients, the award recipients and their organizations are listed first, followed by the project title. For grants made directly to organizations and not on behalf of an individual, the name of the organization is listed first, followed by the title of the project or a brief description of the activity being supported.

Basic Biomedical Sciences

TOTALS: Approved $17,461,480 Paid $11,631,867 Transferred/Cancelled $5,312,874

Career Awards in the Biomedical Sciences

Career awards are postdoctoral-faculty bridging awards. During the fiscal year, some award recipients change institutions, modify the terms of their award at their current institution, or both change institutions and modify their award. In these cases, BWF's policy has been to cancel the remaining portion of the original award and, as necessary, approve a new award. When the award recipient has changed institutions, the new award is made to the new institution; when the award recipient has not moved but has modified the terms, the new award is made to the current institution. In the following descriptions, the name of the award recipient is listed first, the title of the project is listed second, the award recipient's current institution is listed third, and the amount approved or paid to the institution is listed fourth. For award recipients who either changed institutions or modified their award, the portion of the award paid to the original institution, as well as any portion that was transferred or cancelled, is listed last, in parentheses. For new award recipients still in the postdoctoral period, the portion of the award intended to cover a future faculty appointment is listed last, in parentheses.

Matthew L. Albert, M.D., Ph.D.
Tumor immunity versus tumor-mediated immunosuppression: characterizing the cellular and molecular mechanism of cross-priming and cross-tolerance
Rockefeller University
Approved $122,000 Paid $29,500
($386,000 approved for future faculty appointment)

Ravi Allada, M.D.
Molecular and genetic analysis of the circadian rhythm gene *Clock* in *Drosophila*
Northwestern University
Approved $403,146 Paid $210,146
($386,000 of original award to Brandeis University was transferred/cancelled)

Matthew P. Anderson, M.D., Ph.D.
Role of T-type calcium channels in thalamic and hippocampal rhythmic activity
Massachusetts Institute of Technology
Paid $61,000

Oscar M. Aparicio, Ph.D.
Understanding the relationship of DNA replication to cell cycle control of cellular proliferation and chromosomal organization
University of Southern California
Paid $127,500

Nenad Ban, Ph.D.
Determination of the high resolution structure of the large ribosomal subunit
($314,000 of original award to Yale University was transferred/cancelled)

Jody L. Baron, M.D., Ph.D.
Role of the innate immune system in acute and chronic hepatitis B: studies in a novel transgenic mouse model of primary HBV infection
University of California-San Francisco School of Medicine
Paid $61,000

Greg J. Bashaw, Ph.D.
Molecular mechanisms of attractive and repulsive axon guidance at the midline of *Drosophila*
University of California-Berkeley
Paid $29,500

Gregory J. Beitel, Ph.D.
Mechanisms that control and execute the cell movements and shape changes underlying metazoan morphogenesis
Northwestern University
Paid $115,500

Leonardo Belluscio, Ph.D.
Learning and memory in the mouse olfactory bulb
Duke University Medical Center
Paid $61,000

Guoqiang Bi, Ph.D.
Spatio-temporal specificity of synaptic plasticity at single synaptic contacts
University of Pittsburgh School of Medicine
Paid $131,000
($29,500 of original award to the University of California-San Diego was transferred/cancelled)

David Bilder, Ph.D.
Genetic analysis of epithelial cell architecture
Harvard Medical School
Approved $59,000 Paid $29,500
($386,000 approved for future faculty appointment)

Mark Bix, Ph.D.
Effector CD4+ T-cell development: evidence for the stochastic generation and clonal distribution of a combinatorial cytokine repertoire
University of Washington School of Medicine
Paid $118,250

Azad Bonni, M.D., Ph.D.
Regulation of glial fate specification in the central nervous system
Harvard Medical School
Paid $124,000

Carrie B. Brachmann, Ph.D.
Using *Drosophila* as a tool for the study of apoptotic regulation
Washington University School of Medicine
Approved $122,000 Paid $29,500
($386,000 approved for future faculty appointment)

Edward S. Brodkin, M.D.
Genetic analysis of anxiety-related behaviors in mice
Princeton University
Paid $30,800

Chester W. Brown, M.D., Ph.D.
Understanding the reproductive roles of the activins using an activin beta B knock-in model
Baylor College of Medicine
Paid $95,000

Michael D. Bulger, Ph.D.
Relationship between organization and function at the mammalian beta-globin locus
University of Washington School of Medicine
Paid $61,000

Walter R. Burack, M.D., Ph.D.
Analysis of the immunological synapse: a membrane-associated machine
Washington University School of Medicine
Paid $61,000

Kathleen M. Caron, Ph.D.
Reproductive and cardiovascular effects of the adrenomedullin system
University of North Carolina-Chapel Hill School of Medicine
Approved $122,000 Paid $29,500
($386,000 approved for future faculty appointment)

David C. Chan, M.D., Ph.D.
Structural and mechanistic studies of virus-mediated membrane fusion
California Institute of Technology
Paid $115,500

Michael K. Cooper, M.D.
Modulation of sonic hedgehog signal transduction by cholesterol homeostasis
Johns Hopkins University School of Medicine
Paid $64,500

John D. Crispino, Ph.D.
Functional characterization of hematopoietic transcription factor complexes
University of Chicago
Paid $193,000

David E. Cummings, M.D.
Studies of spermatogenesis and metabolism using mutant mice
University of Washington School of Medicine
Paid $118,250

George Q. Daley, M.D., Ph.D.
Probing the pathogenesis of chronic myelogenous leukemia
Massachusetts Institute of Technology
Paid $60,500

Gregory C. DeAngelis, Ph.D.
Neural mechanisms underlying perceptual feature binding
Washington University School of Medicine
Paid $118,250

Paul De Koninck, Ph.D.
Decoding rhythms in the nervous system
University of Laval
Approved $386,000 Paid $65,500
($31,500 of original award to Stanford University Medical Center was paid; $386,000 of original award to Stanford University Medical Center was transferred/cancelled)

Abby F. Dernburg, Ph.D.
Chromosome architecture and the fidelity of meiotic segregation
University of California-Berkeley
Paid $65,500

Aaron DiAntonio, M.D., Ph.D.
Genetic analysis of synapse formation, growth, and plasticity
Washington University School of Medicine
Paid $118,250

Ricardo E. Dolmetsch, Ph.D.
Voltage-gated calcium channel signaling in the nucleus
Harvard Medical School
Approved $122,000 Paid $29,500
($386,000 approved for future faculty appointment)

Kelly S. Doran, Ph.D.
Penetration of the blood-brain barrier in GBS meningitis
University of California-San Diego
Paid $29,500

Charles G. Eberhart, M.D., Ph.D.
Analysis of medulloblastoma pathobiology and response to novel therapies using murine transgenic models
Johns Hopkins University School of Medicine
Approved $59,000 Paid $29,500
($386,000 approved for future faculty appointment)

Peter J. Espenshade, Ph.D.
Molecular mechanism of cholesterol homeostasis in mammalian cells
University of Texas Southwestern Medical Center-Dallas
Approved $122,000 Paid $29,500
($386,000 approved for future faculty appointment)

Miguel Estevez, M.D., Ph.D.
Investigation of a calcium channel related to migraine and epilepsy in both an invertebrate and a mouse model
University of Pittsburgh Medical Center
Approved $122,000 Paid $29,500
($386,000 approved for future faculty appointment)

Guowei Fang, Ph.D.
Mechanism of spindle assembly checkpoint control
Stanford University Medical Center
Paid $115,500

Kathryn M. Ferguson, Ph.D.
Structural basis for erbB receptor activation by epidermal growth factor agonists and neuregulin
University of Pennsylvania School of Medicine
Approved $122,000 Paid $29,500
($386,000 approved for future faculty appointment)

Elizabeth A. Finch, Ph.D.
Postsynaptic calcium signaling by inositol trisphosphate in neuronal dendrites
Emory University School of Medicine
Paid $193,000

Reiko Maki Fitzsimonds, Ph.D.
Distributed properties of synaptic plasticity in neural networks
Yale University School of Medicine
Paid $60,500

Robert C. Flaumenhaft, M.D., Ph.D.
SNARE proteins in platelet alpha-granule secretion
Harvard Medical School
Paid $127,500

Nicholas R. Gaiano, Ph.D.
Neural stem cells in the mammalian forebrain: the roles of Notch and FGF signaling
New York University School of Medicine
Approved $59,000 Paid $29,500
($386,000 approved for future faculty appointment)

Timothy P. Galitski, Ph.D.
Genetic networks
Massachusetts Institute of Technology
Approved $63,000

Jeffrey S. Glenn, M.D., Ph.D.
Prenylation and viral assembly
Stanford University School of Medicine
Paid $118,250

Joshua I. Gold, Ph.D.
Neural basis of perceptual-decision formation
University of Washington School of Medicine
Approved $59,000 Paid $29,500
($386,000 approved for future faculty appointment)

Patrick A. Grant, Ph.D.
Analysis of histone acetyltransferase/transcriptional adaptor complexes in the regulation of gene expression
University of Virginia Health Sciences Center
Paid $124,000

Michael Graziano, Ph.D.
From eye to hand: sensory-motor integration in the primate brain
Princeton University
Paid $97,000

Matthias Gromeier, M.D.
Principles of polio neuropathies: exploiting poliovirus of brain cancer
Duke University Medical Center
Paid $124,000

Jay T. Groves, Ph.D.
Studies of cell recognition and signaling with micropatterned lipid membranes
University of California-Berkeley
Paid $29,500

Karen J. Guillemin, Ph.D.
Genetic and cellular basis of *Helicobacter pylori*-associated malignancies
University of Oregon
Approved $386,000 Paid $65,500

Carrie Haskell-Luevano, Ph.D.
Determination of the physiological and pharmacological role of the brain-specific agouti-related transcript
University of Florida College of Pharmacy
Paid $121,000

Zhigang He, M.D., Ph.D.
Signaling mechanisms mediating the repulsive effects on developing and regenerating axons
Harvard Medical School
Paid $127,500

Victoria G. Herman, Ph.D.
Defining the molecular code for synaptic target selection
University of California-Los Angeles School of Medicine
Approved $122,000 Paid $29,500
($386,000 approved for future faculty appointment)

Joel N. Hirschhorn, M.D., Ph.D.
Genetic analysis of complex endocrine disorders
Harvard Medical School
Approved $59,000 Paid $29,500
($386,000 approved for future faculty appointment)

Michael D. Hogarty, M.D.
BIN1: a *MYCN* interacting neuroblastoma suppressor
University of Pennsylvania School of Medicine
Paid $29,500

Lora V. Hooper, Ph.D.
Molecular analysis of commensal host-microbial interactions in the intestine
Washington University School of Medicine
Paid $61,000

Jennifer S. Hovis, Ph.D.
Understanding lipid and protein interactions at the molecular level in model cell membranes
Stanford University
Approved $122,000 Paid $29,500
($386,000 approved for future faculty appointment)

Xianxin Hua, M.D., Ph.D.
Identification and characterization of novel components in the TGF-ß signaling pathway
University of Pennsylvania Health System
Approved $357,500 Paid $178,750
($419,100 of original award to the Massachusetts Institute of Technology was transferred/cancelled)

Alan J. Hunt, Ph.D.
Role of microtubule dynamics in mitotic chromosome movement
University of Michigan Health System
Paid $60,500

Jeffry S. Isaacson, Ph.D.
Biophysical properties of presynaptic terminals in the central nervous system
University of California-San Diego School of Medicine
Paid $89,100

Akiko Iwasaki, Ph.D.
Defining the mechanism of immune induction and effector function in the female genital mucosa
Yale University School of Medicine
Paid $127,500

Ursula H. Jakob, Ph.D.
Structural and functional characterization of new heat shock proteins
University of Michigan Health System
Paid $29,500

James D. Jontes, Ph.D.
Role of protocadherins in neural development studied in living zebra fish embryos
Stanford University
Approved $122,000 Paid $29,500
($386,000 approved for future faculty appointment)

David K. R. Karaolis, Ph.D.
Pathogenicity islands in the emergence of epidemic and pandemic cholera
University of Maryland-Baltimore School of Medicine
Paid $118,250

Suzanne L. Kirby, M.D., Ph.D.
Proliferative advantage for therapeutic bone marrow
University of North Carolina-Chapel Hill School of Medicine
Paid $60,500

Laura J. Knoll, Ph.D.
Molecular genetic approaches to investigate developmental regulation in *Toxoplasma gondii*
Stanford University Medical Center
Paid $31,500

William R. Kobertz, Ph.D.
Molecular interactions of the lipid-exposed surfaces of integral membrane proteins
University of Massachusetts Medical School
Approved $59,000 Paid $29,500
($386,000 approved for future faculty appointment)

Scott C. Kogan, M.D.
Use of a transgenic mouse model of acute promyelocytic leukemia to elucidate disease pathogenesis and to improve therapy
University of California-San Francisco School of Medicine
Paid $118,250

William L. Kraus, Ph.D.
Biochemical analysis of estrogen receptor activity with chromatin templates
Cornell University
Paid $121,000

Bruce T. Lahn, Ph.D.
Systematic investigation of mammalian spermatogenesis
University of Chicago
Paid $127,500

Benhur Lee, M.D.
HIV-1 coreceptors and their role in HIV-associated hematopoietic dysfunction
University of California-Los Angeles
Approved $29,500 Paid $160,500
($29,500 of original award to the University of Pennsylvania School of Medicine was transferred/cancelled)

Jeh-Ping Liu, Ph.D.
Molecular mechanisms in neural crest specification
University of Virginia Health System
Approved $357,500 Paid $121,000
($357,500 of original award to the Columbia University College of Physicians and Surgeons was transferred/cancelled)

Hiten D. Madhani, M.D., Ph.D.
Specificity of signal transduction during dimorphic development of yeast
University of California-San Francisco
Paid $118,250

Mala S. Mahendroo, Ph.D.
Characterization of fecundity and parturition defects in mice deficient in steroid 5 alpha-reductase type 1
University of Texas Southwestern Medical Center-Dallas
Paid $118,250

Zachary F. Mainen, Ph.D.
Optical studies of synaptic plasticity mechanisms
Cold Spring Harbor Laboratory
Paid $118,250

Kelsey C. Martin, M.D., Ph.D.
Communication between the synapse and the nucleus during long-lasting synaptic plasticity
University of California-Los Angeles School of Medicine
Paid $118,250

Robert Menard, M.D., Ph.D.
Genetic analysis of malaria sporozoite virulence
($121,000 of award to New York University Medical Center was transferred/cancelled)

Chandra Mohan, M.D., Ph.D.
B-cell tolerance and humoral autoimmunity
University of Texas Southwestern Medical Center-Dallas
Paid $121,000

Kelle H. Moley, M.D.
Glucose transport and apoptosis in blastocysts from diabetic mice
Washington University School of Medicine
Paid $115,500

Inke S. Nathke, Ph.D.
Role of APC/catenin complexes in colon cancer
University of Dundee
Paid $60,500

James M. Olson, M.D., Ph.D.
NeuroD abrogation in neuroblastoma
University of Washington School of Medicine
Paid $178,750

Karen M. Ottemann, Ph.D.
Chemotaxis in *Helicobacter pylori* and its role in pathogenesis
University of California-Santa Cruz
Paid $178,750

Martin S. Pavelka Jr., Ph.D.
Biosynthesis of the mycobacterial cell wall
University of Rochester
Paid $121,000

Thomas T. Perkins, Ph.D.
Measurements of single DNA-based molecular motors
Stanford University
Paid $31,500

Samuel J. Pleasure, M.D., Ph.D.
Molecular control of cell fate in the dentate gyrus
University of California-San Francisco School of Medicine
Paid $127,500

Salman T. Qureshi, M.D.
Genetic analysis of innate resistance to bacterial pathogens
Yale University School of Medicine
Approved $477,400 Paid $89,100
($477,400 of original award to the McGill University Faculty of Medicine was transferred/cancelled)

Jill Rafael, Ph.D.
Role of muscle proteins in synaptic structure and neuromuscular disease
Ohio State University School of Medicine
Paid $127,500

Matthew Redinbo, Ph.D.
Structural and functional characterization of human topoisomerase I and the Werner syndrome helicase
University of North Carolina-Chapel Hill
Paid $127,500

David J. Robbins, Ph.D.
Dissecting the hedgehog signal transduction pathway
University of Cincinnati College of Medicine
Paid $60,500

Douglas N. Robinson, Ph.D.
Studies of the mechanisms of cytokinesis using *Dictyostelium*
Stanford University School of Medicine
Paid $61,000

Aimee K. Ryan, Ph.D.
Analysis of inductive events responsible for specification and differentiation of the anterior pituitary gland
McGill University
Approved $357,500 Paid $178,750
($357,500 of original award to the University of California-San Diego was transferred/cancelled)

Bernardo L. Sabatini, M.D., Ph.D.
Role of localized biochemical signaling in the regulation of synaptic function and spine morphogenesis
Cold Spring Harbor Laboratory
Approved $59,000 Paid $29,500
($386,000 approved for future faculty appointment)

Maria A. Schumacher, Ph.D.
Structural biology of cell growth, development, and regulation
Oregon Health Sciences University
Approved $63,000 Paid $63,000

Nirao M. Shah, Ph.D.
Genetic analysis of neural circuits mediating sexually dimorphic behaviors in mammals
Columbia University College of Physicians and Surgeons
Paid $61,000

Krishna V. Shenoy, Ph.D.
Early reach plans in posterior parietal cortex
California Institute of Technology
Paid $31,500
Stanford University
Paid $65,500

Elaine K. Sia, Ph.D.
Analysis of yeast mutants with altered simple repeat stability
University of Rochester
Paid $115,500

Upinder Singh, M.D.
Transcriptional control in *Entamoeba histolytica*
Stanford University School of Medicine
Paid $91,300

Barry P. Sleckman, M.D., Ph.D.
Lineage-specific regulation of T cell receptor beta rearrangement
Washington University School of Medicine
Paid $60,500

Douglas E. Smith, Ph.D.
Single molecular studies of viral DNA packaging
University of California-Berkeley
Approved $122,000 Paid $29,500
($386,000 approved for future faculty appointment)

Leonidas Stefanis, M.D.
Proteases in neuronal cell death
Columbia University College of Physicians and Surgeons
Paid $60,500

Theodore S. Steiner, M.D.
Isolation and characterization of an interleukin 8 releasing protein from enteroaggregative *Escherichia coli*
University of British Columbia Faculty of Medicine
Approved $386,000 Paid $131,000
($483,500 of original award to the University of Virginia Health Sciences Center was transferred/cancelled)

Xin Sun, Ph.D.
Understanding the endoderm in organogenesis and regeneration
University of California-San Francisco
Approved $59,000 Paid $29,500
($386,000 approved for future faculty appointment)

Surachai Supattapone, M.D., D.Phil.
Structure and biology of a soluble prion
Dartmouth Medical School
Approved $357,500 Paid $60,500
($357,500 of original award to the University of California-San Francisco School of Medicine was transferred/cancelled)

Roger B. Sutton, Ph.D.
Biophysical and structural investigation of Ca^{+2} in neurotransmitter release
Stanford University
Paid $90,500

Suzanne J. Szabo, Ph.D.
T-bet, a novel t-box transcription factor that directs T-helper cell type 1 lineage commitment
Harvard School of Public Health
Paid $61,000

Sarah A. Tishkoff, Ph.D.
Molecular sequence variation in G6PD and its role in malarial resistance
University of Maryland-College Park
Approved $357,500 Paid $178,750
($357,500 of original award to Pennsylvania State University was transferred/cancelled)

Heidi A. Tissenbaum, Ph.D.
Genetic and molecular analysis of genes controlling longevity in *Caenorhabditis elegans*
University of Massachusetts Medical School
Approved $386,000 Paid $65,500

Stephen H. Tsang, M.D., Ph.D.
Unraveling genetic pathways leading to cell death in mice lacking the gamma subunit of the cGMP phosphodiesterase
University of California-Los Angeles School of Medicine
Approved $122,000 Paid $29,500
($386,000 approved for future faculty appointment)

Katharine S. Ullman, Ph.D.
Biochemical dissection of RNA export using in vitro nuclear reconstitution
University of Utah
Paid $60,500

James A. Waddle, Ph.D.
Generation of markers and methods to study asymmetric cell divisions in living *Caenorhabditis elegans* embryos
University of Texas Southwestern Medical Center-Dallas
Paid $60,500

Johannes Walter, Ph.D.
Characterization of eukaryotic replication initiation factors using a soluble, cell-free system
Harvard Medical School
Paid $118,250

Michael M. Wang, M.D., Ph.D.
Estrogen receptors and neuroprotection against excitotoxic injury
Johns Hopkins University School of Medicine
Paid $61,000

William A. Weiss, M.D., Ph.D.
Transgenic model for neuroblastoma
University of California-San Francisco School of Medicine
Paid $60,500

Anthony P. West, Ph.D.
Identification of the natural ligand of methuselah, a *Drosophila* GPCR associated with extended lifespan
California Institute of Technology
Approved $122,000 Paid $29,500
($386,000 approved for future faculty appointment)

Carmen J. Williams, M.D., Ph.D.
Signal transduction mechanisms during mouse egg activation
University of Pennsylvania School of Medicine
Paid $118,250

Michael B. Yaffe, M.D., Ph.D.
Scaffolding and chaperone proteins in signal transduction: 14-3-3 regulation of mitosis and programmed cell death
Massachusetts Institute of Technology
Approved $386,000 Paid $131,000
Harvard Medical School
Approved $31,500 Paid $31,500
($386,000 of original award to Harvard Medical School was transferred/cancelled)

Cassian Yee, M.D.
Adoptive immunotherapy of melanoma using T cells specific for potential tumor rejection antigens
University of Washington School of Medicine
Paid $60,500

Deborah L. Yelon, Ph.D.
Patterning during organogenesis: genetic analysis of cardiac chamber formation
New York University School of Medicine
Paid $127,500

Yanping Zhang, Ph.D.
ARF-MDM-p53 tumor suppression pathway
($92,500 of original award to the University of North Carolina-Chapel Hill School of Medicine was transferred/cancelled)

SUBTOTALS: Approved $14,949,046
Paid $9,641,446
Transferred/Cancelled $4,554,500

Career Awards Collaborative Grant

Louis J. Muglia, M.D., Ph.D.
Glucocorticoid effects of T cell development
Washington University School of Medicine
Approved $24,044

Matthew Redinbo, Ph.D.
Structural genomics: high-throughput methods and human nuclear receptors
University of North Carolina-Chapel Hill
Approved $19,520

Upinder Singh, M.D.
Genomic approaches to investigating *Entamoeba histolytica* pathogenesis
Stanford University School of Medicine
Approved $25,000

SUBTOTALS: Approved $68,564

Hitchings-Elion Fellowships

Michael W. Black, Ph.D.
Secretion-dependent regulation of ribosome synthesis in *Saccharomyces cerevisiae*
Medical Research Council
Paid $32,250

Tamara Caspary, Ph.D.
Identification and characterization of novel genes involved in mammalian sex determination
Memorial Sloan-Kettering Cancer Center
Approved $122,246 Paid $62,246
($288,000 of original grant to the National Institute for Medical Research was transferred/cancelled)
($168,000 approved for future faculty appointment)

John W. R. Copeland, Ph.D.
Activation of SRF actin remodeling proteins
Imperial Cancer Research Fund
Paid $59,000

Aaron R. Dinner, Ph.D.
Molecular mechanism of free radical oxidative DNA damage
University of Oxford
Paid $23,125
University of California-Berkeley
Paid $27,750

Francine Durocher, Ph.D.
Identifying common low-penetrance genes and gene-environment interactions in breast cancer
University of Cambridge
Approved $27,500

John T. Finn, Ph.D.
Cell-cycle control of cell number in the retina
($44,100 of original award to the University College London School of Medicine was transferred/cancelled)

Reuben S. Harris, Ph.D.
Delineation of the mechanisms of immunoglobulin gene hypermutation
Medical Research Council
Paid $60,000

Alan J. Herr, Ph.D.
Probing the pathway of RNA-mediated defense with viral suppressor genes
Sainsbury Laboratory
Paid $54,500

Susan C. Hockings, Ph.D.
Biochemical and biophysical properties of an RNA binding protein from *Drosophila*
Washington University School of Medicine
Approved $58,713 Paid $34,213

Steven L. Kazmirski, Ph.D.
Structural and dynamical characterization of the folding pathway of the oligomerization domain of p53
University of Cambridge
Approved $12,000 Paid $12,000
($223,500 of original award to the University of Cambridge was transferred/cancelled)

Steven L. Kazmirski, Ph.D.
Computational analysis of ATP-dependent motor proteins that are involved in the loading of DNA polymerase clamps onto DNA during DNA replication
Rockefeller University
Approved $55,500 Paid $27,750
($168,000 approved for future faculty appointment)

Kenro Kusumi, Ph.D.
Notch pathway patterning of the mammalian brain and skeleton
University of Pennsylvania School of Medicine
Approved $195,750 Paid $27,750
($195,750 of original award to the National Institute for Medical Research was transferred/cancelled)

David J. Rossi, Ph.D.
Mechanisms of ischemia-induced excitotoxicity
University College London
Paid $55,500

Kristin C. Scott, Ph.D.
Ectopic silencing in fission yeast
Case Western Reserve University
Approved $51,700 Paid $51,700

Dean G. Tang, M.D., Ph.D.
Role of cell-cycle components in timing the oligodendrocyte precursor cell differentiation and senescence
University of Texas M. D. Anderson Cancer Center
Approved $51,500 Paid $27,000
University College London
Approved $3,600 Paid $3,600

SUBTOTALS: Approved $914,509
Paid $558,384
Transferred/Cancelled $751,350

Life Sciences Research Fellowships

These fellowships are administered in partnership with the Life Sciences Research Foundation. BWF awards the primary grant to the foundation, which distributes the funds to the individual awardees.

Ryan B. Case, Ph.D.
Biophysical analysis of 13S *Xenopus* condensin
University of California-Berkeley
Paid $41,000

Su L. Chiang, Ph.D.
Genetic approaches to identifying mycobacterial virulence genes
Harvard School of Public Health
Paid $41,000

Douglas J. Guarnieri, Ph.D.
Characterization of a *Drosophila* neuropeptide receptor involved in ethanol-induced behavior
University of California-San Francisco
Paid $41,000

Chau V. Huynh, Ph.D.
Intracellular interaction of *Leishmania amazonensis* with host histocompatibility complex (MHC) class II molecules
Yale University School of Medicine
Paid $41,000

Diane McFadden, Ph.D.
Characterization of *O*-acetylated carbohydrate epitopes on *Cryptococcus neoformans*
Albert Einstein College of Medicine
Approved $123,000 Paid $41,000

Peri Tate, Ph.D.
Heterochromatin proteins old and new
University of California-Berkeley
Paid $41,000

Scott T. Walsh, Ph.D.
Molecular recognition studies of human placental lactogen
University of Chicago
Approved $123,000 Paid $41,000

Robert T. Wheeler, Ph.D.
Creating a diversity of cell surface adhesin molecules in fungal pathogenesis
Massachusetts Institute of Technology
Approved $123,000 Paid $41,000

SUBTOTALS: Approved $369,000
Paid $328,000

Obstetrics and Gynecology Research Fellowships

Angeles A. Alvarez, M.D.
Duke University Medical Center
Regulation of angiogenesis in ovarian cancer and development of antiangiogenesis therapy
Approved $153,000 Paid $51,000

Oliver Dorigo, M.D.
University of California-Los Angeles School of Medicine
Development of a novel gene transfer system using gutless hybrid adeno-Epstein-Barr virus for prolonged transgene expression
Paid $61,000

Karen H. Lu, M.D.
Harvard Medical School
Genetic alterations in ovarian cancers associated with germ line *BRCA1* mutations
Paid $48,000

Douglas A. Woelkers, M.D.
University of Pittsburgh School of Medicine
Oxidative stress and preeclampsia
Paid $24,000

SUBTOTALS: Approved $153,000
Paid $184,000

History of Medicine Travel Grants

Jake W. Spidle, Ph.D.
Take two aspirin and call me in the morning: a survey history of aspirin
University of New Mexico
Approved $4,224 Paid $4,224

Bruce H. Weber, Ph.D.
A biography of Dr. Peter Dennis Mitchell (1920-92), Nobel Laureate (1978)
California State University-Fullerton
Approved $1,300 Paid $1,300

SUBTOTALS: Approved $5,524
Paid $5,524

BWF Research Travel Grants

**Grants are related to history of medicine.*

Nancy Anderson
Drawing, photography, and the microscope in 19th century studies of the cell
University of Michigan-Ann Arbor
Approved $2,075 Paid $2,075

Kathryn H. Arehart, Ph.D.
Models and auditory perception in listeners with cochlear hearing loss: theoretical development and clinical applications
University of Colorado-Boulder
Approved $5,770 Paid $5,770

Robert J. Brown
Britain and the Spanish influenza epidemic of 1918-19
Syracuse University
Approved $4,000 Paid $4,000

Jaime Caro, M.D.
Angiogenic and oncogenic roles of HIF-1 activation
Thomas Jefferson University Jefferson Medical College
Approved $14,800 Paid $14,800

John R. G. Challis, Ph.D., D.Sc.
Effects of glucocorticoids on placental and fetal development: implications for adult disease
University of Toronto Faculty of Medicine
Approved $7,600 Paid $7,600

Estelle Cohen, Ph.D.
Reproduction and the state in Britain 1850-1930, with particular reference to the work of Frances Hoggan, M.D. (1843-1927)
Harvard University
Approved $3,000

Bryan R. Cullen, Ph.D.
Design and analysis of improved gene therapy vectors based on foamy virus
Duke University Medical Center
Approved $9,454 Paid $9,454

Elisabeth M. Fine, Ph.D.
Concurrent recording of retinal and eye location in patients with age-related macular degeneration
Harvard Medical School
Approved $4,400 Paid $4,400

Darrell R. Galloway, Ph.D.
Development of a DNA-based vaccine against anthrax
Ohio State University
Approved $6,750 Paid $6,750

Ellen L. Goode, Ph.D.
Impact of estrogen metabolism and DNA repair polymorphisms on survival in a population-based sample of breast cancer patients
University of Washington School of Public Health and Community Medicine
Approved $10,000 Paid $10,000

Jacqueline M. Hibbert, Ph.D.
Stable isotope method to measure hemoglobin synthesis rate
Morehouse School of Medicine
Approved $5,630 Paid $5,630

David L. Hurley, Ph.D.
Developmental characterization of pituitary-specific transcription factors in the growth hormone-deficient dwarf rat
Tulane University
Approved $12,543 Paid $12,543

Brant E. Isakson
Mechanisms of peptide inhibition of gap junctional intercellular communication
University of Wyoming
Approved $4,400 Paid $4,400

Mei-ling A. Joiner, Ph.D.
Behavioral analysis of *Drosophila* mutants with altered electroretinograms
University of Iowa
Approved $10,640 Paid $10,640

Bernadette Kalman, M.D., Ph.D.
Genetics of multiple sclerosis
MCP Hahnemann University School of Medicine
Approved $12,974 Paid $12,974

Mark S. Kindy, Ph.D.
Identification of the serum amyloid A receptor: role in inflammation
University of Kentucky School of Medicine
Approved $9,480

Anjan Kowluru, Ph.D.
Novel roles for G-proteins in the apoptotic demise of the pancreatic beta cell: relevance to the pathophysiology of diabetes
Wayne State University
Approved $4,750 Paid $4,750

May H. Lesser
Study of the surgeon who performed the first liver transplantation in the United Kingdom
Tulane University School of Medicine
Approved $700 Paid $700

Stephen R. Lyle, M.D., Ph.D.
Role of MLK-3 in the proliferative potential of human hair follicle stem cells
Harvard Medical School
Paid $5,800

Elias R. Melhem, M.D.
In vivo study of white matter fiber tract myelination and orientation in neonatal brain using diffusion tensor magnetic resonance imaging
Johns Hopkins University School of Medicine
Approved $7,180 Paid $7,180

Morton W. Miller, Ph.D.
Ultrasound-induced hyperthermic teratogenesis
University of Rochester School of Medicine and Dentistry
Paid $3,335

Robert V. Miller, Ph.D.
Exploring the molecular biology and ecology of antibiotic resistance in Antarctic bacteria
Oklahoma State University
Approved $14,000 Paid $14,000

Ravi Murthy, M.D.
Subintimal angioplasty: application to critical ischemia in limb salvage in the end-stage renal disease population
University of Maryland Medical Center
Paid $2,600

Felicia V. Nowak, M.D., Ph.D.
Subcellular localization of the preoptic regulatory peptides
($7,024 of original award to Saint Louis University Health Sciences Center was transferred/cancelled)

Ike S. Okosun, Ph.D.
Intrauterine factors and adult diseases
Mercer University School of Medicine
Approved $5,300 Paid $5,300

Robert C. Olby, Ph.D.
Crick's Cambridge years
University of Pittsburgh
Approved $2,000 Paid $2,000

Michael B. A. Oldstone, M.D.
Molecular anatomy of the interaction of viral glycoprotein with its receptor
Scripps Research Institute
Approved $13,500 Paid $13,500

Stephen M. Patterson, Ph.D.
Influence of multiple risk factors for hypertension and fluid hydration on hemorheology reactivity
Ohio University
Paid $3,416

Samuel L. Perkins
Expression of C1fB on the surface of *Staphylococcus aureus*
Texas A&M University
Approved $3,900 Paid $3,900

Carol J. Phelps, Ph.D.
Differentiation of pituitary-regulation neurons in rodent models of hypothalamic or pituitary growth hormone deficiency
Tulane University School of Medicine
Approved $12,543 Paid $12,543

Carla M. Pugh, M.D.
Biomedical computations for a simulation tool: indications for skills assessment and the training of health care professionals
Stanford University
Approved $4,800 Paid $4,800

David B. Sacks, M.B., Ch.B.
Role of IQGAP1 and calmodulin in regulating the function of the Rho GTPases
Harvard Medical School
Approved $12,000 Paid $12,000

Jason K. Sello
Understanding the regulation of morphological differentiation and antibiotic biosynthesis in *Streptomyces* species
Harvard University
Approved $5,200 Paid $5,200

Thomas N. Seyfried, Ph.D.
In utero therapy for ganglioside storage disease
Boston College
Paid $5,100

L. David Sibley, Ph.D.
Genetic mapping in *Toxoplasma*
Washington University School of Medicine
Paid $4,125

Shanthi K. Sinniah, Ph.D.
Using chemical force microscopy to study receptor-ligand binding model systems
Calvin College
Approved $13,500 Paid $13,500

Patrick J. Skelly, Ph.D.
Inhibition of protease gene expression in schistosomes by RNA-mediated interference
Harvard School of Public Health
Approved $7,800 Paid $7,800

Philip D. Sloane, M.D.
Behavior mapping as a quality of life indicator for Alzheimer's disease
University of North Carolina-Chapel Hill School of Medicine
Approved $3,350 Paid $3,350

Stephen D. Smith
Perception without awareness in depressed populations: an fMRI study
University of Waterloo
Approved $6,000 Paid $6,000

Donald J. Tipper, Ph.D.
Translocation of the receptor for pathogenic *Escherichia coli* to host cells
University of Massachusetts Medical School
Paid $12,280

Sandor Vajda, Ph.D.
Iterative approach to protein-protein docking
Boston University
Approved $6,078 Paid $6,078

Geoffrey B. West, Ph.D.
Universal scaling laws in biology
University of New Mexico
Approved $10,000 Paid $10,000

John A. White, Ph.D.
Effects of molecular fluctuations on analog and digital signaling pathways in the nervous system
Boston University
Approved $10,520 Paid $10,520

Michael M. Zeineh
Visualizing the activity of the human hippocampus during memory experiments
University of California-Los Angeles School of Medicine
Approved $4,850 Paid $4,850

Sheryl S. Zimmerman, Ph.D.
Behavior mapping as a quality of life indicator for Alzheimer's disease
University of North Carolina-Chapel Hill School of Medicine
Approved $3,350 Paid $3,350

SUBTOTALS: **Approved $274,837**
Paid $299,013
Transferred/Cancelled $7,024

Other Grants

In addition to making competitive awards, BWF makes noncompetitive grants for activities that are closely related to our major focus areas. These grants are intended to enhance the general environment for research in the targeted areas.

American Association for the Advancement of Science
Support for a Web-based program to help young research scientists improve their interviewing skills
Approved $5,000 Paid $5,000

American Association for the Advancement of Science
Support for the Career Development Center, a Web site for young research scientists
Approved $147,000 Paid $147,000

American Association for the Advancement of Science
Support for Next Wave Web site promotions
Approved $30,000 Paid $30,000

American Association of Obstetricians and Gynecologists Foundation
Support for evaluating and restructuring a foundation fellowship program
Approved $20,000 Paid $20,000

American Society of Andrology
Support for postdoctoral travel awards to the seventh International Congress of Andrology
Approved $3,000 Paid $3,000

Association of American Medical Colleges
Support for postdoctoral fellows to attend a meeting of the association's Group on Graduate Research, Education, and Training
Paid $11,500

Commission on Professionals in Science and Technology
Support for general activities
Approved $1,000 Paid $1,000

Marine Biological Laboratory
Support for the course titled "Frontiers in Reproduction"
Approved $384,375 Paid $164,125

National Academy of Sciences
Support for a convocation on enhancing the postdoctoral experience
Approved $20,000 Paid $20,000

Society for the Study of Reproduction
Support for postdoctoral trainees to attend the society's annual meetings
Approved $5,000 Paid $11,000

University of California-San Francisco School of Medicine
Support for the Reproductive Scientist Development Program
Paid $160,000

University of North Carolina-Chapel Hill School of Medicine
Support for travel of speakers attending the University of North Carolina Postdoc Association meeting
Approved $1,000 Paid $1,000

University of Pennsylvania School of Medicine
Support for planning and administering the "Frontiers in Reproduction" course
Approved $110,625 Paid $41,875

SUBTOTALS: Approved $727,000
Paid $615,500

Infectious Diseases

TOTALS: Approved $4,823,072 Paid $6,100,231 Transferred/Cancelled $595,872

Scholar Awards in Molecular Parasitology

Alan A. Aderem, Ph.D.
Macrophage responses to *Leishmania* infection
University of Washington School of Medicine
Approved $425,000 Paid $127,500
($382,500 of original award to the University of Washington School of Medicine was transferred/cancelled)

Norma W. Andrews, Ph.D.
Role of lysosome exocytosis in the cell invasion mechanism of *Trypanosoma cruzi*
Yale University School of Medicine
Paid $80,000

Paul J. Brindley, Ph.D.
Schistosome transgenesis
Tulane University School of Public Health and Tropical Medicine
Approved $425,000 Paid $42,500

Daniel E. Goldberg, M.D., Ph.D.
Hemoglobin metabolism in *Plasmodium falciparum*
Washington University School of Medicine
Paid $80,000

Patricia J. Johnson, Ph.D.
Investigation of potential chemotherapeutic targets and the pathogenesis of the human-infective parasite *Trichomonas vaginalis*
University of California-Los Angeles School of Medicine
Paid $80,000

Scott M. Landfear, Ph.D.
Biology of membrane transporters in *Leishmania* parasites
Oregon Health Sciences University School of Medicine
Paid $80,000

James H. McKerrow, M.D., Ph.D.
Parasite proteases: analysis of structure-function relationships and structure-based drug design
University of California-San Francisco School of Medicine
Paid $60,000

Marc Ouellette, Ph.D.
Functional genomics of drug resistance in *Leishmania*
Laval University Faculty of Medicine
Approved $425,000 Paid $42,500

Edward J. Pearce, Ph.D.
Role of the TGF-beta superfamily in host signaling to schistosomes
Cornell University College of Veterinary Medicine
Paid $85,000

William Petri Jr., M.D., Ph.D.
Adherence and cytolysis by *Entamoeba histolytica*
University of Virginia Health Sciences Center
Paid $60,000

Margaret A. Phillips, Ph.D.
Design of inhibitors for *Trypanosoma brucei* ornithine decarboxylase using a combination of structure-based approaches and combinatorial chemistry
University of Texas Southwestern Medical Center-Dallas
Paid $85,000

David S. Roos, Ph.D.
Exploring the function of the apicomplexan plastid
University of Pennsylvania
Paid $20,000

L. David Sibley, Ph.D.
Molecular pathogenesis in toxoplasmosis
Washington University School of Medicine
Paid $85,000

Samuel L. Stanley, M.D.
Pathways for amebic induction of inflammation and programmed cell death
Washington University School of Medicine
Paid $85,000

Elisabetta Ullu, Ph.D.
Molecular analysis of the nucleus in *Trypanosoma brucei*
Yale University School of Medicine
Paid $60,000

SUBTOTALS: Approved $1,275,000
Paid $1,072,500
Transferred/Cancelled $382,500

New Investigator Awards in Molecular Parasitology

Cornelis J. Beckers, Ph.D.
Role of cytoplasmic calcium in the regulation of motility and host cell invasion by *Toxoplasma gondii*
University of Alabama-Birmingham School of Medicine
Paid $32,500

Vivian M. Bellofatto, Ph.D.
Molecular analysis of trypanosome gene transcription
University of Medicine and Dentistry of New Jersey
Paid $32,500

Michael Cappello, M.D.
Molecular pathogenesis of hookworm anemia
Yale University School of Medicine
Paid $70,000

Vernon B. Carruthers, Ph.D.
Defining the proteome of toxoplasma secretory proteins
Johns Hopkins University School of Public Health
Approved $210,000 Paid $35,000

Daniel J. Eichinger, Ph.D.
Control of encystation-specific gene expression in *Entamoeba*
New York University School of Medicine
Paid $70,000

Theresa Gaasterland, Ph.D.
Comparative genome annotation of *Plasmodium falciparum*, *Leishmania major*, and *Trypanosoma brucei*
Rockefeller University
Paid $70,000

Stuart J. Kahn, M.D.
Analysis of the naive T-cell response to the surface glycoprotein superfamily of *Trypanosoma cruzi*
University of Washington School of Medicine
Paid $32,500

Kami Kim, M.D.
Signaling pathways and *Toxoplasma gondii* differentiation
Albert Einstein College of Medicine
Paid $32,500

Silvia N. J. Moreno, Ph.D.
Pyrophosphate metabolism in *Toxoplasma gondii*
University of Illinois at Urbana-Champaign College of Veterinary Medicine
Paid $70,000

Martin Olivier, Ph.D.
Role of the macrophage protein tyrosine phosphatase SHP-1 in *Leishmania* pathogenesis
Laval University Faculty of Medicine
Paid $32,500

Barbara Papadopoulou, Ph.D.
Functional genomics of stage-specific gene expression in the kinetoplastid protozoan *Leishmania donovani*
Laval University Faculty of Medicine
Approved $210,000 Paid $35,000

Christian Tschudi, Ph.D.
Function of cis-splicing in trypanosome RNA
Yale University School of Medicine
Paid $70,000

Gary E. Ward, Ph.D.
Chemical genetic approach to the study of host cell invasion by *Toxoplasma gondii*
University of Vermont College of Medicine
Approved $210,000 Paid $35,000

SUBTOTALS: Approved $630,000
Paid $617,500

Scholar Awards in Molecular Pathogenic Mycology

Martin Bard, Ph.D.
Characterization of new target sites for antifungal intervention in the *Candida albicans* ergosterol pathway
Indiana University-Purdue University at Indianapolis
Paid $85,000

Judith Berman, Ph.D.
Use of *Saccharomyces cerevisiae* to study molecular mechanisms of *Candida albicans* pathogenicity
University of Minnesota
Paid $80,000

William A. Fonzi, Ph.D.
Environmental signals and virulence of *Candida albicans*
Georgetown University Medical Center
Paid $60,000

William E. Goldman, Ph.D.
Probing the parasitic lifestyle of *Histoplasma capsulatum*
Washington University School of Medicine
Paid $60,000

Joseph Heitman, M.D., Ph.D.
Signal transduction pathways regulating virulence of *Cryptococcus neoformans*
Duke University Medical Center
Paid $80,000

Alexander D. Johnson, Ph.D.
Analysis of a mating-type-like locus in *Candida albicans*
University of California-San Francisco School of Medicine
Paid $40,000

Elizabeth J. Keath, Ph.D.
Novel molecular and DNA vaccine approaches to *Histoplasma capsulatum*
Saint Louis University
Paid $80,000

Bruce Klein, M.D.
Genetic immunization against pathogenic fungi
University of Wisconsin Medical School
Paid $60,000

James W. Kronstad, Ph.D.
Temperature-regulated and infection-regulated gene expression in *Cryptococcus neoformans*
University of British Columbia
Paid $85,000

Stuart M. Levitz, M.D.
Use of molecular biology to identify *Cryptococcus neoformans* antigens that stimulate cell-mediated immunity
Boston University School of Medicine
Paid $80,000

Aaron P. Mitchell, Ph.D.
Analysis of the *Candida* CaRIM transduction pathway
Columbia University College of Physicians and Surgeons
Paid $80,000

Carol S. Newlon, Ph.D.
Analysis of chromosome structure and function in the pathogenic basidiomycete *Cryptococcus neoformans*
University of Medicine and Dentistry of New Jersey
Approved $425,000 Paid $42,500

Peter A. B. Orlean, Ph.D.
Glycolipid anchoring of protein and wall biogenesis in fungal pathogens
University of Illinois at Urbana-Champaign
Paid $80,000

Michael P. Snyder, Ph.D.
Analysis of morphogenic differentiation in *Candida albicans*
Yale University
Paid $85,000

Paula Sundstrom, Ph.D.
Global regulatory circuits and candidiasis
Ohio State University School of Medicine
Paid $85,000

SUBTOTALS: Approved $425,000
Paid $1,082,500

New Investigator Awards in Molecular Pathogenic Mycology

J. Andrew Alspaugh, M.D.
Signal transduction and pathogenicity of *Cryptococcus neoformans*
Duke University Medical Center
Approved $210,000 Paid $35,000

Kent L. Buchanan, Ph.D.
Acquired host resistance in cryptococcal meningitis
Tulane University Medical Center
Paid $32,500

Gary M. Cox, M.D.
Antisense repression in *Cryptococcus neoformans*
Duke University Medical Center
Paid $70,000

Tamara L. Doering, M.D., Ph.D.
Mechanisms of capsule biosynthesis in *Cryptococcus neoformans*
Washington University School of Medicine
Paid $70,000

Scott G. Filler, M.D.
Stimulation of endothelial cells in *Candida albicans*
University of California-Los Angeles School of Medicine
Paid $70,000

Gary B. Huffnagle, Ph.D.
Role of melanin production by *Cryptococcus neoformans* in evasion of host defenses
University of Michigan Medical Center
Paid $32,500

Ashraf S. Ibrahim, Ph.D.
Molecular genetics approach for studying the role of iron permease in the virulence of *Rhizopus oryzae*
University of California-Los Angeles School of Medicine
Approved $210,000 Paid $35,000

Patrick J. Keeling, Ph.D.
Early infection and adaptation to intracellular parasitism in *Microsporidia*
University of British Columbia
Paid $70,000

Jennifer K. Lodge, Ph.D.
Identification of virulence-related determinants in *Cryptococcus neoformans*
Saint Louis University School of Medicine
Paid $32,500

Jose L. Lopez-Ribot, Pharm.D., Ph.D.
Gene and protein expression profiling in *Candida albicans* biofilms
University of Texas Health Science Center-San Antonio
Approved $210,000 Paid $35,000

Neal F. Lue, M.D., Ph.D.
Functional analysis of telomerase components in *Candida albicans*
Weill Medical College of Cornell University
Paid $70,000

Anita Sil, M.D., Ph.D.
Genetic analysis of pathogenesis in *Histoplasma capsulatum*
University of California-San Francisco School of Medicine
Paid $70,000

A. George Smulian, M.B., B.Ch.
Role of MAP kinase Mkp1 in the regulation of cell wall synthesis in *Pneumocystis carinii*
University of Cincinnati College of Medicine
Paid $70,000

Brian L. Wickes, Ph.D.
Identification of mating type-associated antifungal targets in *Cryptococcus neoformans*
University of Texas Health Science Center-San Antonio
Paid $32,500

Jon Woods, M.D., Ph.D.
Antisense regulation of a protein kinase gene in *Histoplasma capsulatum*
University of Wisconsin Medical School
Paid $70,000

SUBTOTALS: Approved $630,000
Paid $795,000

New Initiatives in Malaria Research

James P. Allen, Ph.D.
Elizabeth Davidson, Ph.D.
Arizona State University
Structure-based design of mosquitocidal toxins
Paid $25,000

Russ B. Altman, M.D., Ph.D.
Stanford University School of Medicine
Knowledge base of biological function for malaria
Paid $100,000

Sailen Barik, Ph.D.
University of South Alabama College of Medicine
Signal transduction in *Plasmodium*
Paid $25,000

Scott D. Bohle, Ph.D.
University of Wyoming
Peter W. Stephens, Ph.D.
State University New York-Stony Brook
Interaction of the quinoline antimalarials and malaria pigment
Paid $100,000

Jon C. Clardy, Ph.D.
Cornell University
Inhibitors of dihydroorotate dehydrogenase for malaria treatment
Paid $100,000

Fred E. Cohen, M.D., D.Phil.
University of California-San Francisco
Joseph L. Derisi, Ph.D.
University of California-San Francisco School of Medicine
Functional genomics approach to identification of new antimalarial drug targets
Approved $400,000 Paid $50,000

John B. Dame, Ph.D.
University of Florida College of Veterinary Medicine
Thomas C. Rowe, Ph.D.
University of Florida College of Medicine
Discovery of a novel malarial DNA gyrase and its development as a drug target
Paid $50,000

Roberto Docampo, M.D., Ph.D.
University of Illinois at Urbana-Champaign College of Veterinary Medicine
Acidocalcisomes in *Plasmodium*
Paid $25,000

David A. Fidock, Ph.D.
William R. Jacobs, Ph.D.
Albert Einstein College of Medicine
Molecular genetic analysis of *Plasmodium falciparum*
Approved $100,000 Paid $25,000

Partho Ghosh, Ph.D.
University of California-San Diego
Structural studies of *Plasmodium falciparum* histidine-rich protein 2
Paid $50,000

Daniel L. Hartl, Ph.D.
Harvard University
Dyann F. Wirth, Ph.D.
Harvard School of Public Health
Why are there so few synonymous single nucleotide polymorphisms in *Plasmodium falciparum*
Paid $100,000

Timothy A. J. Haystead, Ph.D.
Duke University Medical Center
Mining the malarial purine-binding proteome for novel drugs and their targets
Approved $200,000 Paid $50,000

Christopher A. Hunter, Ph.D.
University of Pennsylvania School of Veterinary Medicine
Role of NF_KB in resistance to malaria
Paid $25,000

Anthony A. James, Ph.D.
University of California-Irvine
Genetic control of anopheline vectors
Paid $100,000

Keith A. Joiner, M.D.
Yale University School of Medicine
Mechanism of hemoglobin uptake in malaria
Approved $400,000 Paid $50,000

Kami Kim, M.D.
Vern L. Schramm, Ph.D.
Albert Einstein College of Medicine
Genetic dissection of purine salvage pathways in *Plasmodium*
Approved $100,000 Paid $25,000

Walter H. Lewis, Ph.D.
Washington University
Daniel E. Goldberg, M.D., Ph.D.
Washington University School of Medicine
Optimizing the search for new antimalarial therapeutics
Paid $100,000

Michael A. Marletta, Ph.D.
University of Michigan College of Pharmacy
Heme detoxification in *Plasmodium*
Paid $50,000

Thomas V. McDonald, M.D.
Albert Einstein College of Medicine
K^+ channels as therapeutic targets in malaria
Paid $25,000

Paul D. Roepe, Ph.D.
Georgetown University
James A. Martiney, Ph.D.
Kenneth S. Warren Laboratories
Single-cell photometric analysis of drug-resistant malaria
Paid $80,000

Stewart H. Shuman, M.D., Ph.D.
Sloan-Kettering Institute
Targeting of mRNA cap formation for treatment of malaria
Approved $100,000 Paid $25,000

Mary M. Stevenson, Ph.D.
Philippe Gros, Ph.D.
McGill University Faculty of Medicine
Genetic and functional dissection of susceptibility to malaria
Paid $100,000

Akhil B. Vaidya, Ph.D.
MCP Hahnemann University School of Medicine
Plasma membrane proton pumps in malaria parasites
Paid $100,000

Dyann F. Wirth, Ph.D.
Harvard School of Public Health
Plasmodium falciparum transcriptome: analysis of drug response
Paid $50,000

SUBTOTALS: Approved $1,300,000
Paid $1,430,000

Other Grants

In addition to making competitive awards, BWF makes noncompetitive grants for activities that are closely related to our major focus areas. These grants are intended to enhance the general environment for research in the targeted areas.

GENERAL

American Society of Tropical Medicine and Hygiene
Support for a new BWF-ASTMH Fellowship in Tropical Infectious Diseases
Paid $52,000

CDC Foundation
Support for students who participate in the CDC's Elective Rotation in Applied Epidemiology as part of the Epidemic Intelligence Service's Fiftieth Anniversary Fellowship Program
Approved $5,000 Paid $5,000

Duke University
Support for the United Kingdom-United States Exchange Program reunion and review meeting
Approved $20,000

National Academy of Sciences
Support for the Institute of Medicine's Forum on Emerging Infections
Approved $25,000 Paid $25,000

National Institute of Allergy and Infectious Diseases
Support for a conference titled "Dendritic Cells at the Host-Pathogen Interface"
Approved $3,000 Paid $3,000

North Carolina Department of Health and Human Services
Support for a project titled "Surveillance and Evaluation of Environmental Microbiology in the Aftermath of Flooding in Eastern North Carolina, 1999"
Paid $50,000

University of Cambridge
Support for a "Try-Tryp" meeting
Approved $35,000 Paid $35,000

WHO/TDR
Support for the International Training Course on Bioinformatics (Computational Biology) Applied to Genomic Studies
Approved $12,000 Paid $12,000

MOLECULAR PARASITOLOGY

American Society of Tropical Medicine and Hygiene
Support for the society's annual meeting
Approved $25,000 Paid $25,000

Cesar Chavez Multicultural Academy
Support for program activities, in lieu of an honorarium for Thomas E. Wellems, M.D., Ph.D., a member of the BWF Molecular Parasitology/Malaria Advisory Committee
Approved $3,000 Paid $3,000

Fogarty International Center
Support for the third Pan-African conference organized by the Multilateral Initiative on Malaria
Approved $20,000 Paid $20,000

Gordon Research Conferences
Support for the Malaria Gordon Conference
Approved $10,000 Paid $10,000

Harvard School of Public Health
Support for the Harvard Malaria Initiative workshop titled "Genomes to Drugs"
Approved $10,000 Paid $10,000

Keystone Symposia
Support for a meeting titled "Molecular Helminthology: An Integrated Approach" and for a meeting workshop titled "Threat of Drug Resistance: Strategy Session"
Paid $12,500

Keystone Symposia
Support for Robert Bergquist, Ph.D., of WHO/TDR, to attend the symposium titled "Toward the Genetic Manipulation of Insects"
Approved $3,000 Paid $3,000

Keystone Symposia
Support for two symposia: "Malaria's Challenge: From Infants to Genomics to Vaccines" and "Drugs Against Tropical Protozoan Parasites: Target Selections, Structural Biology, and Rational Medicinal Chemistry"
Approved $10,000 Paid $10,000

Laval University Faculty of Medicine
Support for two symposia of past and present BWF awardees in the molecular parasitology program held at the International Congress of Parasitology
Approved $10,000 Paid $10,000

Malaria Foundation
Support for activities to reach the international scientific community
Approved $50,000 Paid $50,000

Marine Biological Laboratory
Support for the training course titled "Biology of Parasitism," from 1999 to 2003
Paid $150,000

Monash University
Support for creation of an integrated *Plasmodium* genome database
Approved $213,372 Paid $69,033

National Institute of Allergy and Infectious Diseases
Support for the BWF/NIAID/Biology of Parasitic Infection lecture series
Approved $5,000 Paid $5,000

Naval Medical Research Center
Support for a meeting on variant proteins expressed on the surface of infected erythrocytes and their role in developing malaria vaccines
Approved $7,500 Paid $7,500

Seattle Biomedical Research Institute
Support for travel costs of BWF new investigator Theresa Gaasterland, Ph.D., to give a seminar at the institute
Approved $1,000 Paid $1,000

Stanford Genome Technology Center
Support for finalizing genome sequencing "gap closure" for *Plasmodium falciparum* chromosome 12
Paid $100,000

University of Georgia
Support for the Center for Tropical and Emerging Global Diseases, in lieu of an honorarium for Daniel G. Colley, Ph.D., a member of the BWF Molecular Parasitology/Malaria Advisory Committee
Approved $3,000 Paid $3,000

University of Pennsylvania
Support for creation of an integrated *Plasmodium* genome database
Paid $254,498
($213,372 of original award to the University of Pennsylvania was transferred/cancelled)

University of Texas Southwestern Medical Center-Dallas
Support for a meeting titled "Polyamine Metabolism of Parasitic Protozoa as a Drug Target"
Approved $2,000 Paid $2,000

PATHOGENIC MYCOLOGY

American Society for Microbiology
Support for the sixth annual conference on *Candida* and candidiasis
Approved $2,500 Paid $2,500

Institute for Genomic Research
Support for a meeting to discuss sequencing the *Aspergillis fumigatus* genome
Approved $7,500 Paid $7,500

Korean Baptist Church
Support for program activities, in lieu of an honorarium for June Kwon-Chung, Ph.D., a member of the BWF Molecular Pathogenic Mycology Advisory Committee
Approved $3,000 Paid $3,000

Marine Biological Laboratory
Support for the training course titled "Molecular Mycology: Current Approaches to Fungal Pathogenesis," from 2000 to 2002
Paid $85,000

Midwest Microbial Pathogenesis Meeting
Support for the group's seventh annual meeting
Approved $4,000 Paid $4,000

National Institute of Allergy and Infectious Diseases
Support for U.S. participants at the Medical Mycological Society of Japan's second U.S.-Japan meeting focusing on the importance of genome projects for the medical mycology community
Approved $10,000 Paid $10,000

Saint Louis University School of Medicine
Support for a *Cryptococcus neoformans* genome meeting
Approved $17,000 Paid $17,000

South Australian Medical Postgraduate Education Association
Support for 10 young investigators to attend the Fifth International Conference on *Cryptococcus* and Cryptococcosis
Approved $12,500 Paid $12,500

University of Arizona
Support for scientists to travel to the Twenty-First Fungal Genetics Conference
Approved $10,000 Paid $10,000

University of British Columbia
Support for a symposium on the evolution of protist parasites, held at the International Society for Evolutionary Protistology
Approved $10,000 Paid $10,000

University of Cincinnati College of Medicine
Support for the Seventh International Workshops on Opportunistic Protists
Approved $5,000 Paid $5,000

University of Virginia Health System
Support for a symposium on the *E. histolytica* genome project at the annual American Society of Tropical Medicine and Hygiene meeting
Approved $8,700 Paid $8,700

SUBTOTALS: **Approved $563,072**
Paid $1,102,731
Transferred/Cancelled $213,372

Interfaces in Science

TOTALS: Approved $11,740,384 Paid $5,526,373

Institutional Awards at the Scientific Interface

Listed by name of the training program, the institution or consortium conducting the program, and the researchers directing the program.

Cross-Disciplinary Training Program in Biophysical Dynamics
University of Chicago
Stephen J. Kron, M.D., Ph.D.
Norbert F. Scherer, Ph.D.
Approved $2,500,000 Paid $375,000

Graduate Program in Quantitative Biology
University of California-San Francisco School of Pharmacy
David A. Agard, Ph.D.
University of California-San Francisco School of Medicine
Ken A. Dill, Ph.D.
University of California-San Francisco School of Pharmacy
Approved $2,500,000 Paid $375,000

Interdisciplinary Graduate and Postdoctoral Training Program in Physics, Chemistry, and Biology
Rockefeller University
Stephen K. Burley, M.D., D.Phil.
Albert Libchaber, Ph.D.
Paid $548,000

Interdisciplinary Training Program in Brain Science
Brown University
John P. Donoghue, Ph.D.
David Mumford, Ph.D.
Paid $460,952

La Jolla Interfaces in Science Training Program
Consortium of the University of California-San Diego, the Scripps Research Institute, the Salk Institute of Biological Studies, and the San Diego Supercomputing Center; grant administered by the University of California-San Diego
Elizabeth D. Getzoff, Ph.D.
Scripps Research Institute
José N. Onuchic, Ph.D.
University of California-San Diego
Approved $1,000,000 Paid $549,954

Program in Computational Biology
Johns Hopkins University
Michael Paulaitis, Ph.D.
Johns Hopkins University
George D. Rose, Ph.D.
Johns Hopkins University School of Medicine
Paid $500,000

Program in Computational Molecular Biology
California Institute of Technology
Scott E. Fraser, Ph.D.
Michael L. Roukes, Ph.D.
Paid $500,000

Program in Mathematical and Computational Neuroscience
Boston University
Howard B. Eichenbaum, Ph.D.
Nancy J. Kopell, Ph.D.
Approved $1,750,000 Paid $262,500

Program in Mathematics and Molecular Biology
Consortium of 17 laboratories at 12 institutions nationwide; grant administered by Florida State University
Wilma K. Olson, Ph.D.
Rutgers, the State University of New Jersey-Piscataway
DeWitt L. Sumners, Ph.D.
Florida State University
Approved $1,000,000 Paid $500,000

Training Program in Biological Dynamics
Princeton University
John J. Hopfield, Ph.D.
Simon A. Levin, Ph.D.
Approved $2,500,000 Paid $375,000

SUBTOTALS: Approved $11,250,000
Paid $4,446,406

Innovation Awards in Functional Genomics

These special one-time-only awards were made in conjunction with the dedication of BWF's headquarters building in 2000. Future support for the field of functional genomics is incorporated into ongoing BWF programs.

Christopher B. Burge, Ph.D.
Phillip A. Sharp, Ph.D.
Massachusetts Institute of Technology
Whole genome approaches to pre-mRNA splicing specificity and regulation
Paid $100,000

Wah Chiu, Ph.D.
Baylor College of Medicine
Gregor Eichele, Ph.D.
Max-Planck Institute for Experimental Endocrinology
Spatial and temporal database of gene expression patterns of mouse brain
Paid $68,000

R. Mark Henkelman, Ph.D.
University of Toronto Faculty of Medicine
Eugene Fiume, Ph.D.
University of Toronto
Automated image analysis of genetically modified mice
Paid $100,000

Terence T.-L. Hwa, Ph.D.
University of California-San Diego
Gene expression profiles based on statistical significance of clustering analysis
Paid $63,250

Monica J. Justice, Ph.D.
John S. Weber, Ph.D.
Baylor College of Medicine
Ian J. Jackson, Ph.D.
Western General Hospital
Mutagenesis of central mouse chromosome 4: a paradigm for functional analysis of mammalian genomes
Paid $100,000

Sudhir Kumar, Ph.D.
Arizona State University
Computational genomic analysis to identify and dissect functionally important mutations in protein sequences
Paid $50,000

Elaine A. Ostrander, Ph.D.
Leonid Kruglyak, Ph.D.
University of Washington School of Medicine
Mapping cancer susceptibility genes in dogs by linkage disequilibrium
Paid $100,000

Gene E. Robinson, Ph.D.
University of Illinois at Urbana-Champaign
Sociogenomics: functional genomic analyses of social behavior with microarrays
Paid $133,333

Eric D. Siggia, Ph.D.
Frederick R. Cross, Ph.D.
Rockefeller University
Computational and experimental analysis of promoters in the genome of budding yeast
Paid $25,000

Oliver Smithies, D.Phil.
University of North Carolina-Chapel Hill School of Medicine
Computer simulation and animal modeling of complex genetic systems
Paid $100,000

Alan R. Templeton, Ph.D.
Washington University
Cladistic analyses of epistasis among candidate genes influencing common disease
Paid $50,000

SUBTOTALS: Paid $889,583

Other Grants

In addition to making competitive awards, BWF makes noncompetitive grants for activities that are closely related to our major focus areas. These grants are intended to enhance the general environment for research in the targeted areas.

INTERFACES IN SCIENCE

Biophysical Society
Support for the postdoctoral career development session at the society's annual meeting
Approved $2,500 Paid $2,500

Canadian Genetic Diseases Network
Support for an expansion of the computer-laboratory workshops in bioinformatics
Approved $106,000 Paid $106,000

Florida State University
Support for a meeting titled "Modelling across the Scales" to include the trainees and mentors from BWF's 10 Institutional Awards at the Scientific Interface training programs
Approved $300,000

Marine Biological Laboratory
Support for advertising the course titled "Modeling of Biological Systems"
Approved $6,884 Paid $6,884

National Academy of Sciences
Support for a workshop on the interface of biomedical science with the mathematical sciences
Approved $25,000 Paid $25,000

FUNCTIONAL GENOMICS

Institute for Theoretical Physics
Support for a Statistical Physics and Biological Information Program
Approved $50,000 Paid $50,000

SUBTOTALS: **Approved $490,384**
Paid $190,384

Translational Research

(Encompassing grant programs formerly grouped under the focus area therapeutic sciences)

TOTALS: Approved $10,017,700 Paid $8,202,700

Clinical Scientist Awards in Translational Research

During the fiscal year, some award recipients change institutions, modify the terms of their award at their current institution, or both change institutions and modify their award. In these cases, BWF's policy has been to cancel the remaining portion of the original award and, as necessary, approve a new award. When the award recipient has changed institutions, the new award is made to the new institution; when the award recipient has not moved but has modified the terms, the new award is made to the current institution. In the following descriptions, the name of the award recipient is listed first, the title of the project is listed second, the award recipient's current institution is listed third, and the amount approved or paid to the institution is listed fourth. For award recipients who either changed institutions or modified their award, the portion of the award paid to the original institution, as well as any portion that was transferred or cancelled, is listed last, in parentheses.

Sunil K. Ahuja, M.D.
HIV-1 AIDS pathogenesis: bridging the gap between host genotype and HIV transmission/disease phenotype
University of Texas Health Science Center-San Antonio
Approved $750,000 Paid $75,000

Nina Bhardwaj, M.D., Ph.D.
Vaccination of HIV-1 positive individuals by antigen-pulsed dendritic cells
Rockefeller University
Paid $150,000

Cameron S. Carter, M.D.
Multimodal brain imaging and the pharmacotherapy of cognitive disability in schizophrenia
University of Pittsburgh School of Medicine
Approved $750,000 Paid $75,000

Gilbert Chu, M.D., Ph.D.
Cancer treatment by genome-wide transcription scanning
Stanford University Medical Center
Paid $150,000

Robert B. Darnell, M.D., Ph.D.
Detection and activation of tumor-specific killer cells in animal models and cancer patients
Rockefeller University
Paid $150,000

Claire M. Doerschuk, M.D.
Response of neutrophils during inflammatory lung disease
Case Western Reserve University School of Medicine
Paid $150,000

Robert W. Doms, M.D., Ph.D.
Chemokine receptors as new targets for HIV-1 therapeutics
University of Pennsylvania School of Medicine
Paid $150,000

Jeffrey A. Drebin, M.D., Ph.D.
Targeted suppression of B-catenin in colorectal cancer
Washington University School of Medicine
Approved $750,000 Paid $75,000

Brian J. Druker, M.D.
Mechanism-based therapy for chronic myelogenous leukemia
Oregon Health Sciences University
Paid $150,000

Erol Fikrig, M.D.
Borrelia gene expression and lyme arthritis
Yale University School of Medicine
Paid $150,000

Glenn I. Fishman, M.D.
Gap junction channels as novel anti-arrhythmic targets
Mount Sinai School of Medicine
Approved $750,000 Paid $75,000

Thomas F. Gajewski, M.D., Ph.D.
Development of a second generation melanoma vaccine
University of Chicago Pritzker School of Medicine
Paid $150,000

Lisa M. Guay-Woodford, M.D.
Genetic modifiers in recessive polycystic kidney disease: implications for pathogenesis and therapeutics
University of Alabama-Birmingham School of Medicine
Approved $750,000 Paid $75,000

Eva Guinan, M.D.
Extending the donor pool by inducing alloantigen specific T-cell anergy ex vivo for human hematopoietic stem cell transplantation
Harvard Medical School
Paid $150,000

Barbara L. Hempstead, M.D., Ph.D.
Growth factor regulation of coronary angiogenesis
Weill Medical College of Cornell University
Paid $150,000

Marshall S. Horwitz, M.D., Ph.D.
Therapeutic inhibition of aberrant protease activity in inherited neutropenias
University of Washington School of Medicine
Approved $750,000 Paid $75,000

Daniel C. Javitt, M.D., Ph.D.
NMDA-based treatment development for schizophrenia
New York University School of Medicine
Paid $150,000

Alex E. MacKenzie, M.D., Ph.D.
Cytoprotective NAIP and XIAP genes: identification of activation pathways and inducing agents
University of Ottawa Faculty of Medicine
Paid $150,000

Joseph M. McCune, M.D., Ph.D.
Regulation of human thymic function in vivo
University of California-San Francisco School of Medicine
Paid $150,000

M. Juliana McElrath, M.D., Ph.D.
Induction of cellular immunity in HIV-1 exposed seronegative individuals
University of Washington School of Medicine
Paid $150,000

Elizabeth M. McNally, M.D., Ph.D.
Microvascular spasm in the progression of cardiomyopathy
University of Chicago
Approved $750,000 Paid $75,000

Jason D. Morrow, M.D.
Isoprostanes as markers and mediators of oxidant stress in humans
Vanderbilt University Medical Center
Paid $150,000

Anthony J. Muslin, M.D.
Signaling mechanisms in cardiovascular disease
Washington University School of Medicine
Approved $750,000 Paid $75,000

Mark R. Philips, M.D.
Endomembrane trafficking of Ras: novel molecular targets for anticancer agents
New York University School of Medicine
Paid $150,000

Steven A. Porcelli, M.D.
Defining the protective human CD8+ T-cell response against *Mycobacterium tuberculosis*
Albert Einstein College of Medicine
Approved $750,000 Paid $75,000

Daniel J. Rader, M.D.
Novel therapeutic approach to atherosclerosis through modulation of HDL metabolism
University of Pennsylvania School of Medicine
Paid $150,000

W. Edward Robinson Jr., M.D., Ph.D.
Structure-function analyses of clinically relevant HIV integrases
University of California-Irvine College of Medicine
Paid $150,000

Don C. Rockey, M.D.
Cellular and molecular basis of portal hypertension: an endothelialopathy in cirrhosis
Duke University Medical Center
Paid $150,000

Howard A. Rockman, M.D.
Novel molecular therapeutic strategies in heart failure: role of beta-adrenergic receptor desensitization
Duke University Medical Center
Paid $150,000

Antony Rosen, M.B., Ch.B.
Altered structure and clearance of autoantigens during apoptosis: implications for autoimmunity
Johns Hopkins University School of Medicine
Paid $150,000

Marc E. Rothenberg, M.D., Ph.D.
Experimental analysis of eosinophil-associated gastrointestinal inflammation
University of Cincinnati College of Medicine
Approved $750,000 Paid $75,000

Christian W. Schindler, M.D., Ph.D.
Intervention of IL-5 signaling: a therapeutic paradigm for asthma
Columbia University College of Physicians and Surgeons
Paid $150,000

Ann Marie Schmidt, M.D.
Novel therapeutic strategy for the prevention and treatment of diabetic complications: antagonism of receptor for advanced glycation end products (RAGE)
Columbia University College of Physicians and Surgeons
Paid $150,000

Mark H. Siegelman, M.D., Ph.D.
Functionally activated lymphocyte CD44 in the initiation and perpetuation of autoimmune disease
University of Texas Southwestern Medical Center-Dallas
Paid $150,000

Joyce M. Slingerland, M.D., Ph.D.
Resistance to tamoxifen: a consequence of altered $p27^{Kip1}$ regulation during breast cancer progression
University of Toronto Faculty of Medicine
Paid $150,000

Dennis J. Templeton, M.D., Ph.D.
Stress signaling inhibitors potentiate genotoxin-induced apoptosis in a human colon tumor model
Case Western Reserve University School of Medicine
Paid $150,000

Matthew L. Warman, M.D.
Delineating the proteins and pathways that maintain human joints and their potential for treating heritable and acquired forms of arthritis
Case Western Reserve University School of Medicine
Paid $150,000

Mark J. Yeager, M.D., Ph.D.
Structure and function of cardiac gap junction membrane channels
Scripps Research Institute
Paid $150,000

Hagop Youssoufian, M.D.
Transcellular gene therapy: application to Fanconi anemia
Baylor College of Medicine
Paid $150,000

SUBTOTALS: Approved $7,500,000
Paid $5,100,000

New Investigator Awards in the Pharmacological or Toxicological Sciences

PHARMACOLOGICAL SCIENCES

Lee S. Bardwell, Ph.D.
Novel roles for protein-protein interactions in mitogen-activated protein kinase signaling
University of California-Irvine
Paid $70,000

Peter J. Belshaw, Ph.D.
Combinatorial synthesis of non-ribosomal peptide-based electrophilic libraries
University of Wisconsin-Madison
Approved $210,000 Paid $35,000

Anton M. Bennett, Ph.D.
p21Ras signaling by protein tyrosine dephosphorylation
Yale University School of Medicine
Approved $210,000 Paid $35,000

Charles M. Brenner, Ph.D.
Genomic approach to identify chemotherapeutic targets
Thomas Jefferson University Jefferson Medical College
Paid $32,500

Kathleen Collins, Ph.D.
Biochemical and structural characterization of recombinant *Tetrahymena* telomerase
University of California-Berkeley
Paid $32,500

Graeme W. Davis, Ph.D.
Molecular and genetic analysis of synaptic homeostasis
University of California-San Francisco School of Medicine
Paid $70,000

Pehr A. B. Harbury, Ph.D.
DNA display: in vitro evolution of small molecules
Stanford University School of Medicine
Paid $70,000

Bruce A. Hay, Ph.D.
Identification and characterization of regulators of caspase-dependent cell death signaling
California Institute of Technology
Paid $32,500

Neil L. Kelleher, Ph.D.
Genome-proteome correlations in respiratory pathogens: an experimental approach for identification of new pharmacological targets
University of Illinois at Urbana-Champaign
Paid $70,000

Kerry Kornfeld, M.D., Ph.D.
Sar-5, a novel negative regulator of Ras signaling
Washington University School of Medicine
Paid $32,500

Calvin J. Kuo, M.D., Ph.D.
Physiologic and pathologic roles of vascular endothelial growth factor
Stanford University School of Medicine
Approved $210,000 Paid $35,000

Andres V. Maricq, M.D., Ph.D.
Dominant activation of neurons: a genetic approach to uncover mechanisms of neuronal signaling and control of behavior
University of Utah
Paid $70,000

Carla Mattos, Ph.D.
Surface features of the Ral GTPase obtained from the multiple solvent crystal structures and from its complex with RalBP1 and calmodulin
North Carolina State University
Paid $70,000

Rama Ranganathan, M.D., Ph.D.
Assembly and function of multi-protein complexes in visual signaling
University of Texas Southwestern Medical Center-Dallas
Paid $32,500

Ram Sasisekharan, Ph.D.
Heparin-like glycosaminoglycans as a target for therapeutic intervention
Massachusetts Institute of Technology
Paid $70,000

David P. Siderovski, Ph.D.
GoLoco motif-derived peptides as selective G-protein "perturbagens"
University of North Carolina-Chapel Hill School of Medicine
Approved $210,000 Paid $35,000

Scott K. Silverman, Ph.D.
Phototriggered folding approaches to RNA structural motifs and RNA-protein interactions
University of Illinois at Urbana-Champaign
Approved $210,000 Paid $35,000

Erik J. Sontheimer, Ph.D.
Reversible control of RNA structure with small biarsenical ligands
Northwestern University
Paid $70,000

Natalie C. Strynadka, Ph.D.
Antibiotic discovery targeting essential proteins on the bacterial outer membrane
University of British Columbia Faculty of Medicine
Paid $70,000

Joseph Tsien, Ph.D.
Novel pharmacogenetic approach to neuronal signaling
Princeton University
Paid $70,000

Wilfred A. van der Donk, Ph.D.
Exploring the post-translational modifications of lantibiotics
University of Illinois at Urbana-Champaign
Paid $32,500

Lu-Yang Wang, Ph.D.
Regulation of synaptic strength by subtype-specific coupling between Ca^{2+} channels and metatropic receptors
University of Toronto Faculty of Medicine
Approved $210,000 Paid $35,000

Beverly R. Wendland, Ph.D.
New pathways to the cell interior: dominant negative and positive effectors of endocytosis
Johns Hopkins University
Paid $70,000

Hongtao Yu, Ph.D.
Molecular investigation of transitions and checkpoints in mitosis
University of Texas Southwestern Medical Center-Dallas
Paid $70,000

TOXICOLOGICAL SCIENCES

Raffi V. Aroian, Ph.D.
Bacillus thuringiensis toxicity and resistance in nematodes
University of California-San Diego
Paid $70,000

Karlene A. Cimprich, Ph.D.
Exploring DNA damage checkpoints using a cell-free system
Stanford University School of Medicine
Paid $70,000

Philip A. Cole, M.D., Ph.D.
Chemical cross-linking agents for identification of substrates for protein kinases
Johns Hopkins University School of Medicine
Paid $32,500

Virginia W. Cornish, Ph.D.
In vivo screening for enzymatic activity
Columbia University
Paid $70,000

Mohanish P. Deshmukh, Ph.D.
Caspase activation during apoptosis: a novel mechanism of regulation in neurons
University of North Carolina-Chapel Hill School of Medicine
Approved $210,000 Paid $35,000

Bevin P. Engelward, Sc.D.
Fluorescent detection of loss heterozygosity in mammals
Massachusetts Institute of Technology
Paid $70,000

James M. Ford, M.D.
Transcriptional regulation of damage-inducible DNA repair genes
Stanford University School of Medicine
Paid $70,000

Hilary A. Godwin, Ph.D.
Biophysical approaches to lead toxicology: biochemistry, detection, and chelation of Pb(II)
Northwestern University
Paid $32,500

Su Guo, Ph.D.
Mechanism of action of neurotoxins that induce parkinsonism: a molecular genetic study in zebra fish
University of California-San Francisco School of Pharmacy
Approved $210,000 Paid $35,000

Carla M. Koehler, Ph.D.
Mitochondrial biogenesis in health and disease: assembly of the mitochondrial inner membrane
University of California-Los Angeles
Paid $70,000

Fang Liu, Ph.D.
Role of transforming growth factor-beta-inducible gene regulation in tumorigenesis
Rutgers, the State University of New Jersey College of Pharmacy
Paid $70,000

Anna K. Mapp, Ph.D.
Small molecules for reprogramming gene expression
University of Michigan College of Pharmacy
Approved $210,000 Paid $35,000

Thomas W. Muir, Ph.D.
Structure-activity analysis of the autoinducing peptides from *Staphylococcus aureus* responsible for virulence
Rockefeller University
Paid $70,000

Tomas A. Prolla, Ph.D.
Genetic characterization of the DNA mismatch repair system in induced mutagenesis
University of Wisconsin Medical School
Paid $70,000

Terry L. Sheppard, Ph.D.
Chemical toxicology of oxidative DNA damage lesions
Northwestern University
Approved $210,000 Paid $35,000

Zhigang Wang, Ph.D.
Mechanism of DNA damage-induced mutagenesis in humans
University of Kentucky
Paid $32,500

Zhengui Xia, Ph.D.
Mechanisms of arsenite neurotoxicity
University of Washington School of Public Health and Community Medicine
Paid $70,000

E. Lynn Zechiedrich, Ph.D.
DNA repair and topoisomerases
Baylor College of Medicine
Paid $32,500

SUBTOTALS: Approved $2,100,000
Paid $2,215,000

Other Grants

Scholar Awards in Experimental Therapeutics

This program was superceded by the Clinical Scientist Awards in Translational Research program.

Arturo Casadevall, M.D., Ph.D.
Development of novel antibody-based drugs against bacterial and fungal pathogens
Albert Einstein College of Medicine
Paid $60,000

Jonathan D. Gitlin, M.D.
Mechanisms of cellular copper homeostasis
Washington University School of Medicine
Paid $80,000

Daniel L. Kaufman, Ph.D.
Biopharmaceuticals for the prevention of insulin-dependent diabetes mellitus
University of California-Los Angeles School of Medicine
Paid $80,000

Thomas Michel, M.D., Ph.D.
Nitric oxide synthases and vascular signal transduction
Harvard Medical School
Paid $60,000

SUBTOTALS: Paid $280,000

Scholar Awards in Toxicology

This program was superceded by the New Investigator Awards in the Pharmacological or Toxicological Sciences programs.

Christopher Bradfield, Ph.D.
Molecular genetic approaches to study dioxin toxicology
University of Wisconsin-Madison
Paid $60,000

Titia de Lange, Ph.D.
Cell-based assays for telomerase toxicity
Rockefeller University
Paid $80,000

SUBTOTALS: Paid $140,000

In addition to making competitive awards, BWF makes noncompetitive grants for activities that are closely related to our major focus areas. These grants are intended to enhance the general environment for research in the targeted areas.

TRANSLATIONAL RESEARCH

American Federation for Medical Research
Support for trainees to attend the federation's annual meeting
Approved $10,000 Paid $10,000

American Society for Clinical Investigation/American Association of Physicians
Support for the joint meeting of the society and the association
Approved $10,000 Paid $10,000

Association of American Medical Colleges
Support for the development of the Association for the Accreditation of Human Research Protection Programs
Approved $200,000 Paid $200,000

Clinical Research Alliance
Support for a meeting titled "Clinical Research 2001"
Approved $75,000 Paid $75,000

National Academy of Sciences
Support for the Institute of Medicine's Clinical Research Roundtable
Paid $50,000

PHARMACOLOGICAL OR TOXICOLOGICAL SCIENCES

American Society for Pharmacology and Experimental Therapeutics
Support for a symposium and associated plenary speaker at the Experimental Biology 2001 meeting
Approved $10,000 Paid $10,000

Aspen Cancer Conference
Support for young investigators to attend a conference titled "Mechanisms of Toxicity, Carcinogenesis, Cancer Prevention, and Cancer Therapy"
Approved $3,000 Paid $3,000

Baylor College of Medicine
Support for laboratory clean up due to damage from Tropical Storm Allison
Approved $15,000 Paid $15,000

Cold Spring Harbor Laboratory
Support for a meeting to examine how pharmacogenomics and diagnostics will intersect
Approved $10,000 Paid $10,000

McGill University
Support for the Second International Meeting on Male-Mediated Developmental Toxicity
Approved $5,000 Paid $5,000

Society of Toxicology
Support for a program to introduce undergraduates to the field of toxicology and for travel awards associated with the society's annual meeting
Approved $10,000 Paid $10,000

Society of Toxicology of Canada
Support for the society's annual symposium
Approved $6,700 Paid $6,700

Stanford University
Support for a conference on DNA repair
Approved $10,000 Paid $10,000

Teratology Society
Support for the society's annual meeting
Approved $5,000 Paid $5,000

GENERAL

International Conference on the Chemistry and Biology of Mineralized Tissues
Support for two new investigators to travel to the Sixth International Conference on the Chemistry and Biology of Mineralized Tissues
Approved $3,000 Paid $3,000

North Carolina Biotechnology Center
Support for the North Carolina Genomics and Bioinformatics Consortium
Approved $45,000 Paid $45,000

SUBTOTALS: Approved $417,700
Paid $467,700

Science Education

TOTALS: Approved $1,451,353 Paid $2,244,216 Transferred/Cancelled $24,403

Student Science Enrichment Program

American Chemical Society, North Carolina Local Section
Summer Educational Experience for the Disadvantaged
Approved $179,779 Paid $59,979

Bennett College
Mathematics, Science, Engineering, and Technology Scholars Program
Paid $60,000

Campbell University School of Pharmacy
Harnett Central Middle School Science and Technology Enrichment Program
Approved $109,800 Paid $42,850

Catawba Science Center
Science Technology Enrichment Program
Approved $113,280 Paid $36,300

Cumberland County Schools
Cape Fear Natural Science Academy
Paid $60,000

Duke University
Design to Learn
Paid $23,532

Duke University
Techtronics: Hands-on Exploration of Technology in Everyday Life
Approved $167,500 Paid $47,500

Duke University Nicholas School of the Environment and Earth Sciences
Connecting Coastal Communities
Approved $84,659 Paid $28,053

Durham Academy
Durham Public Schools Summer Institute
Paid $60,000

Johnson C. Smith University
Intensive Summer Science Camp
Paid $58,897

Lenoir-Rhyne College
Carolina Institute for the Multicultural Approach to Science
Approved $179,995 Paid $60,000

Mountain Area Gardens in Community
Middle School Apprenticeship Program in Garden-Related Sciences
($24,403 of original award was transferred/cancelled)

North Carolina Museum of Life and Science
Museums and Universities for Science Enrichment of Students
Paid $60,724

North Carolina State Museum of Natural Science
Girls in Science Statewide Project
Paid $54,975

North Carolina State University
Performing Inquiry Based Exploration
Approved $66,600 Paid $22,200

North Carolina State University
Science and Mathematics Colloquies at the Science House
Paid $58,311

Onslow Community Ministries
Sturgeon City Student Science Series
Approved $51,693 Paid $51,693

Pines of Carolina Girl Scout Council
Healthy START-UP: Science and Technology around Research Triangle Park
Paid $60,000

Roanoke Rapids City Schools
Summer Science Explorations in the Roanoke Valley
Paid $20,000

Shaw University
Mentoring and Encouraging the Science Skills of Youth
Paid $60,000

Shodor Education Foundation
Stimulating Understanding of Computational Science through Collaboration, Experiment, and Discovery
Paid $58,596

Swain County Schools
Students Involved and Experiencing Nature, Careers in Science, and Environmental Awareness
Paid $26,673

University of North Carolina-Chapel Hill School of Medicine
Scientific Enrichment Opportunities for High School Students
Approved $179,730 Paid $59,910

University of North Carolina-Wilmington
Oceanographic field support for Summer Ventures in Science and Mathematics
Paid $10,125

Warren Wilson College
Environmental Science Camp
Paid $48,750

Wilmington Children's Museum
Middle School Docent Program
Paid $6,000

SUBTOTALS: Approved $1,133,036
Paid $1,135,068
Transferred/Cancelled $24,403

BWF Visiting Professorships in the Basic Medical Sciences

Listed by host institution, visiting professor, and professor's affiliation. Titles of BWF Lectures cited if given in fiscal year 2001.

Albert Einstein College of Medicine
Jack L. Strominger, M.D.
Harvard University
Paid $5,000

Baylor College of Medicine
Richard A. Crowther, Ph.D.
Medical Research Council (United Kingdom)
Approved $5,000

Baylor College of Medicine
Carl H. June, M.D.
University of Pennsylvania School of Medicine
Adoptive immunotherapy: long-term memories and therapeutic vaccines for lymphoma
Paid $5,000

Case Western Reserve University School of Medicine
Susan S. Taylor, Ph.D.
University of California-San Diego
Approved $5,000

Central Caribbean University School of Medicine
Anatoli Lopatin, Ph.D.
University of Michigan-Ann Arbor
Approved $5,000

Creighton University School of Medicine
William E. Paul, M.D.
National Institute of Allergy and Infectious Diseases
Cytokine biology
Paid $5,000

Dalhousie University Faculty of Medicine
Victor Ling, Ph.D.
University of British Columbia Faculty of Medicine
Approved $5,000

East Carolina University School of Medicine
David A. Williams, M.D.
Indiana University School of Medicine
Approved $5,000

Harvard Medical School
Mitchell Kronenberg, Ph.D.
La Jolla Institute of Allergy and Immunology
Approved $5,000

Indiana University-Bloomington
Jill Bargonetti, Ph.D.
Hunter College
Tumor suppression by a central controller called p53
Paid $5,000

Iowa State University
Helmut Sies, M.D., Ph.D.
University of Dusseldorf (Germany)
Approved $5,000

Iowa State University
J. G. Sutcliffe, Ph.D.
Scripps Research Institute
Using total gene expression analysis; gene expression profiling to investigate neuropsychiatric disorders and neuromodulatory peptides for sleeping, dreaming, and eating
Paid $5,000

Louisiana State University Health Sciences Center
Miles D. Houslay, Ph.D.
University of Glasgow (United Kingdom)
Viral immune evasion
Paid $5,000

Loyola University of Chicago Stritch School of Medicine
Hidde L. Ploegh, Ph.D.
Harvard Medical School
Paid $5,000

Marshall University School of Medicine
Daria Mochly-Rosen, Ph.D.
Stanford University School of Medicine
Localization inhibitors in signal transduction: what we dream of, nature dreamt before
Paid $5,000

McGill University Faculty of Medicine
Gerard Karsenty, M.D., Ph.D.
Baylor College of Medicine
Approved $5,000

McGill University Faculty of Medicine
Salvador Moncada, M.D., Ph.D.
University College London (United Kingdom)
Nitric oxide and cell respiration: physiology and pathophysiology
Paid $5,000

Medical College of Wisconsin
Donald A. Fischman, M.D.
Weill Medical College of Cornell University
Approved $5,000

Medical University of South Carolina College of Medicine
Aravinda Chakravarti, Ph.D.
Johns Hopkins University School of Medicine
Approved $5,000

Memorial University of Newfoundland Faculty of Medicine
Stephen W. Scherer, Ph.D.
Hospital for Sick Children in Toronto
Approved $5,000

Morehouse School of Medicine
Alan A. Jackson, M.B., B.Chir., M.D.
University of Southampton (United Kingdom)
Approved $5,000

Morehouse School of Medicine
Stephen C. Strom, Ph.D.
University of Pittsburgh
Use of hepatocytes in basic and clinical studies
Paid $5,000

New York University School of Medicine
Jose M. C. Ribeiro, M.D., Ph.D.
National Institute of Allergy and Infectious Diseases
Approved $5,000

North Dakota State University
Adrianne Bendich, Ph.D.
SmithKline Beecham Consumer Health Care
Supplements: role in improving health in the 21st century
Paid $5,000

North Dakota State University College of Pharmacy
Maret G. Traber, Ph.D.
Oregon State University
Approved $5,000

Oregon State University College of Pharmacy
Frances M. Ashcroft, Ph.D., Sc.D.
University Laboratory of Physiology (United Kingdom)
Approved $5,000

Pennsylvania State University College of Medicine
Alphonse E. Sirica, Ph.D.
Virginia Commonwealth University
Biliary cancer: molecular pathogenesis to new therapeutic strategies
Paid $5,000

Purdue University School of Pharmacy and Pharmaceutical Sciences
William A. Catterall, Ph.D.
University of Washington School of Medicine
Approved $5,000

Rutgers, the State University of New Jersey-Piscataway
Eric Westhof, Ph.D.
University Louis Pasteur (France)
Approved $5,000

Saint Francis Xavier University
John W. Hanrahan, Ph.D.
McGill University
Approved $5,000

Saint Louis University School of Medicine
Ronald C. Conaway, Ph.D.
Oklahoma Medical Research Foundation
Approved $5,000

State University of New York Upstate Medical Center-Syracuse
Mikhail Ugryumov, M.D., Ph.D.
Russian Academy of Sciences (Russia)
Neurotransplantation in treatment of neurodegenerative diseases
Paid $5,000

Texas A&M University College of Veterinary Medicine
Elaine A. Ostrander, Ph.D.
Fred Hutchinson Cancer Research Center
Approved $5,000

Tulane University School of Medicine
Edward B. Ziff, Ph.D.
New York University
Trafficking of AMPA receptors and the regulation of excitatory synapses
Paid $5,000

University of Arizona College of Medicine
Susan L. Lindquist, Ph.D.
University of Chicago
From mad cows to “psi-chotic” yeast: new frontiers in genetics, disease, and materials science
Paid $5,000

University of Calgary Faculty of Medicine
Edward E. Harlow, Ph.D.
Harvard Medical School
Paid $5,000

University of California-Berkeley
James Barber, Ph.D.
Imperial College of Science, Technology, and Medicine (United Kingdom)
Where does the oxygen we breathe come from?
Paid $5,000

University of California-Davis
Frederic M. Richards, Ph.D.
Yale University
Paid $5,000

University of California-Los Angeles School of Medicine
Michael A. Farrell, M.B., B.Chir.
Royal College of Surgeons (Republic of Ireland)
Approved $5,000

University of California-San Francisco School of Medicine
Shirley M. Tilghman, Ph.D.
Princeton University
Epigenetic regulation of mammalian growth and development
Paid $5,000

University of Colorado-Boulder
Xiao-dong Wang, Ph.D.
University of Texas Southwestern Medical Center-Dallas
Approved $5,000

University of Georgia
Charles J. Billington, M.D.
Minneapolis Veterans Affairs Medical Center
Approved $5,000

University of Guelph
John C. Herr, Ph.D.
University of Virginia Health Sciences Center
From basic sperm biology to commercialization of a diagnostic device: biotechnology underlying Sperm Check I, an immunochromatographic card for detecting low numbers of sperm
Paid $5,000

University of Miami School of Medicine
Irving L. Weissman, M.D.
Stanford University School of Medicine
Approved $5,000

University of Michigan-Dearborn
Ralph M. Garruto, Ph.D.
State University of New York-Binghamton
Approved $5,000

University of Minnesota
Tony Hunter, Ph.D.
Salk Institute for Biological Studies
Cell signaling through tyrosine phosphorylation
Paid $5,000

University of Minnesota-Duluth School of Medicine
Dean P. Jones, Ph.D.
Emory University School of Medicine
Approved $5,000

University of Mississippi Medical Center
Charles F. Stevens, M.D., Ph.D.
Salk Institute for Biological Studies
Paid $5,000

University of Missouri-Columbia School of Medicine
Ian A. Wilson, D.Phil.
Scripps Research Institute
Paid $5,000

University of Missouri-Kansas City School of Medicine
Ralph Snyderman, M.D.
Duke University Medical Center
Enhancing clinical research: a key to improving health in the United States
Paid $5,000

University of Montreal Faculty of Medicine
John G. R. Jefferys, Ph.D.
University of Birmingham (United Kingdom)
Neuronal networks for oscillations and epilepsy and neuronal mechanisms of transition to seizures
Paid $5,000

University of North Carolina-Chapel Hill School of Pharmacy
Tamar Schlick, Ph.D.
New York University
A trajectory of DNA from applied to basic research
Paid $5,000

University of North Carolina-Chapel Hill School of Public Health
Barbara B. Kahn, M.D.
Harvard Medical School
Approved $5,000

University of Pittsburgh School of Medicine
Angela M. Gronenborn, Ph.D.
National Institute of Diabetes and Digestive and Kidney Diseases
Molecular structures: important clues for understanding biology
Paid $5,000

University of South Dakota School of Medicine
John E. Hall, Ph.D.
University of Mississippi Medical Center
Role of neuropeptides and the sympathetic nervous system in obesity hypertension
Paid $5,000

University of Texas Medical Branch-Galveston
Jan-Ake Gustafsson, M.D., Ph.D.
Karolinska Institute (Sweden)
Approved $5,000

University of Vermont College of Medicine
Pier M. Mannucci, M.D.
University of Milan (Italy)
Progress and problems in congenital coagulation disorders
Paid $5,000

University of Washington School of Medicine
Leslie A. Leinwand, Ph.D.
University of Colorado-Boulder
Approved $5,000

University of Western Ontario Faculty of Medicine and Dentistry
John E. Walker, D.Phil.
Medical Research Council (United Kingdom)
Approved $5,000

University of Wisconsin School of Medicine
Arturo Casadevall, M.D., Ph.D.
Albert Einstein College of Medicine
Approved $5,000

Virginia Commonwealth University
Can Ince, M.D.
University of Amsterdam (Netherlands)
Paid $5,000

Washington State University College of Pharmacy
Lawrence A. Loeb, M.D., Ph.D.
University of Washington School of Medicine
Approved $5,000

Wayne State University School of Medicine
Anthony T. Campagnoni, Ph.D.
University of California-Los Angeles
Problem in reverse genetics: finding an alternative function for myelin basic protein gene
Paid $5,000

West Virginia University School of Pharmacy
James R. Halpert, Ph.D.
University of Texas Medical Branch-Galveston
Structure-function relationships of mammalian drug-metabolizing cytochrome P450
Paid $5,000

Wright State University School of Medicine
Debra I. Diz, Ph.D.
Wake Forest University School of Medicine
Approved $5,000

SUBTOTALS: Approved $165,000
Paid $160,000

BWF Visiting Professorships in the Microbiological Sciences

Listed by host institution, visiting professor, and professor's affiliation. Titles of BWF lectures cited if given in fiscal year 2001.

Chaminade University of Honolulu
John M. Besser, Ph.D.
Minnesota Department of Health
Public health care in the former Soviet Union
Paid $5,000

Davidson College
Raul J. Cano, Ph.D.
California Polytechnic State University
Approved $5,000

Florida International University
Nicholas Cohen, Ph.D.
University of Rochester School of Medicine and Dentistry
Approved $5,000

Florida International University
Michael A. Zasloff, M.D., Ph.D.
Magainin Research Institute
Paid $5,000

Georgia Southern University
Bettina Wilske, Ph.D.
Max von Pettenkofer Institute for Hygiene and Medicinal Microbiology (Germany)
Lyme borreliosis: causative agent, epidemiology, and clinical picture
Paid $5,000

Goucher College
Lynn Margulis, Ph.D.
University of Massachusetts
Approved $5,000

Lehman College
Roberto Docampo, M.D., Ph.D.
University of Illinois at Urbana-Champaign College of Veterinary Medicine
Trypanosomal acidocalcisomes
Paid $5,000

Louisiana State University
Bonnie L. Bassler, Ph.D.
Princeton University
Approved $5,000

McMaster University
Jens Boman, M.D.
University Hospital of Umea (Sweden)
The role of *Chlamydia pneumoniae* in respiratory disease
Paid $5,000

Morehouse School of Medicine
Anthony S. Fauci, M.D.
National Institute of Allergy and Infectious Diseases
Approved $5,000

North Carolina Central University
Stuart M. Brown, Ph.D.
New York University Medical Center
Approved $5,000

Northern Arizona University
Erik de Clercq, M.D., Ph.D.
University of Leuven Medical School (Belgium)
Chemotherapy of human immunodeficiency virus infection
Paid $5,000

Oakland University
Timothy J. Donohue, Ph.D.
University of Wisconsin-Madison
Approved $5,000

Oklahoma State University
James M. Tiedje, Ph.D.
Michigan State University
Getting a grip on microbial diversity
Paid $5,000

University of Central Arkansas
Thomas M. Terry, Ph.D.
University of Connecticut
Paid $5,000

University of Guam
William Fenical, Ph.D.
University of California-San Diego
Approved $5,000

University of Guelph
Geoffrey M. Gadd, Ph.D.
University of Dundee (United Kingdom)
Approved $5,000

University of Missouri-Rolla
Kenneth H. Nealson, Ph.D.
California Institute of Technology
The search for life in the universe: lessons from the Earth
Paid $5,000

University of Puerto Rico-Humacao University College
Mindy Brashears, Ph.D.
University of Nebraska-Lincoln
Current issues in hazard analysis and critical control point
Paid $5,000

University of Tennessee-Knoxville
Harald von Boehmer, M.D., Ph.D., D.Sc.
Dana-Farber Cancer Institute
Paid $5,000

University of Texas-El Paso
Joseph O. Falkinham III, Ph.D.
Virginia Polytechnic Institute and State University
Approved $5,000

Wayne State University School of Medicine
Randall K. Holmes, M.D., Ph.D.
University of Colorado Health Sciences Center
Approved $5,000

SUBTOTALS: Approved $55,000
Paid $55,000

Other Grants

In addition to making competitive awards, BWF makes noncompetitive grants for activities that are closely related to our major focus areas. These grants are intended to enhance the general environment for research in the targeted areas.

Alzheimer's Association
Support for programs, in lieu of an honorarium for Elmima Johnson, Ph.D., a member of the SSEP Advisory Committee
Approved $1,250 Paid $1,250

American Heart Association
Support for programs, in lieu of an honorarium for Elmima Johnson, Ph.D., a member of the SSEP Advisory Committee
Approved $1,250 Paid $1,250

American Society for Microbiology
Support for administering the BWF Visiting Professorships in the Microbiological Sciences
Approved $2,500 Paid $2,500

American Society for Microbiology
Support for the annual Biomedical Research Conference for Minority Students
Approved $5,000 Paid $5,000

Canadian Federation of Biological Societies
Support for administering the BWF Visiting Professorships in the Basic Medical Sciences
Approved $2,500 Paid $5,000

Durham Public Education Network
Support for general activities
Approved $500 Paid $500

Durham Public Education Network
Support for a one-year pilot science education project
Approved $17,000 Paid $17,000

Federation of American Societies for Experimental Biology
Support for administering the BWF Visiting Professorships in the Basic Medical Sciences
Approved $11,317 Paid $11,317

Grantmakers for Education
Support for general activities
Approved $3,000 Paid $3,000

Medical Research Council of Canada
Support for the BWF Student Research Award Program
Paid $500,000

National Academy of Sciences
Support for a workshop on issues and opportunities for Ph.D. scientists who are interested in becoming high school teachers
Paid $100,000

National Association of Academies of Science
Support for a session at the annual meeting of the American Association for the Advancement of Science to provide high school students an opportunity to interact with scientists
Approved $2,500 Paid $2,500

North Carolina Biotechnology Center
Support for the Student National Medical Association's clinical research symposium and a health and career awareness fair for middle school and high school students and their parents
Approved $2,500 Paid $2,500

North Carolina Center for International Understanding
Support for four teachers to participate in the center's Math/Science Exchange and Study Program
Approved $8,000 Paid $8,000

North Carolina FFA Foundation
Support for the foundation's Agriscience Fair
Approved $500 Paid $500

North Carolina Society of Hispanic Professionals
Support for the Hispanic Educational Summit 2001
Approved $500 Paid $500

North Carolina State University
Support for a series of conferences of representatives from university science departments to discuss K-12 outreach
Paid $90,431

Public School Forum of North Carolina
Support for developing an international study program for educational policymakers
Paid $47,900

Public School Forum of North Carolina
Support for the Institute for Educational Policymakers
Paid $75,000

Shodor Education Foundation
Support for developing and maintaining the Student Science Enrichment Program Web site
Approved $15,000 Paid $15,000

University of North Carolina-Chapel Hill
Support for developing the Center for Functional Nanostructures
Approved $25,000 Paid $5,000

SUBTOTALS: Approved $98,317
Paid $894,148

Science and Philanthropy

TOTALS: Approved $240,800 Paid $400,800

General

American Society for Cell Biology
Support for the society's annual meeting
Approved $3,600 Paid $3,600

American Society for Clinical Nutrition
Support for the National Clinical Nutrition Internships program
Approved $6,000 Paid $6,000

American Society for Nutritional Sciences
Support for a new graduate education initiative
Approved $11,000 Paid $11,000

Council on Foundations
Support for general activities
Approved $39,600 Paid $39,600

Foundation Center
Support for general activities
Approved $7,500 Paid $7,500

Foundation for the National Institutes of Health
Support for the tenth anniversary symposium of the Office of Research on Women's Health
Approved $2,500 Paid $2,500

Grantmakers in Health
Support for general activities
Approved $5,000 Paid $5,000

National Institute of Environmental Health Sciences
Support for a biomedical science career fair
Approved $3,600 Paid $3,600

National Library of Medicine
Support for general activities
Approved $5,000 Paid $5,000

North Carolina Association for Biomedical Research
Support for general activities
Approved $25,000 Paid $25,000

North Carolina Center for Nonprofits
Support for a conference commemorating the center's tenth anniversary
Approved $13,500 Paid $13,500

Sigma Xi, the Scientific Research Society
Support for a conference titled "Science, the Arts, and the Humanities: Connections and Collisions"
Approved $10,000 Paid $10,000

Southeastern Council of Foundations
Support for general activities
Approved $5,000 Paid $5,000

University of North Carolina-Chapel Hill School of Pharmacy
Support for the development of the Institute of Natural Medicine
Approved $25,000 Paid $25,000

SUBTOTALS: Approved $162,300
Paid $162,300

Communications

American Association for the Advancement of Science
Support for the Mass Media Science and Engineering Fellows Program
Approved $16,000 Paid $16,000

Council for the Advancement of Science Writing
Support for the New Horizons in Science Briefing and the Traveling Fellowship Program
Approved $30,000 Paid $30,000

SUBTOTALS: Approved $46,000
Paid $46,000

History of Medicine

Wellcome Trust
Support for the Wellcome Trust's tour of the exhibit titled "The Phantom Museum"
Approved $15,000

SUBTOTALS: Approved $15,000

Science Policy

American Association for the Advancement of Science
Support for the Center for Science, Technology, and Congress
Paid $100,000

Association of Academic Health Centers
Support for the annual fall meeting, titled "Exploring the Nexus of Research and Business: the Balanced Solutions for Academic Health Centers"
Approved $7,500 Paid $7,500

Center for the Advancement of Health
Support for translating research into policy and practice
Paid $50,000

Research!America
Support for a project to advocate increased funding for medical research
Paid $25,000

Society for Women's Health Research
Support for the dissemination of an Institute of Medicine report on sex-based biology
Approved $10,000 Paid $10,000

SUBTOTALS: Approved $17,500
Paid $192,500

INFORMATION FOR APPLICANTS

The Burroughs Wellcome Fund makes approximately 90 percent of our grants through competitive award programs, which support investigators in targeted areas of basic scientific research that have relevance to human health. Most of BWF's award programs are open only to citizens or permanent residents of the United States and Canada. (Programs with different requirements are noted in the descriptions that follow.) Awards are made with the advice of our advisory committees, which comprise scientists and educators selected for their expertise in the program areas. Program application deadlines for the 2003 award series are listed in the "Program Application Deadlines" section on page 71.

Most grants are made only to degree-granting institutions on behalf of individual researchers, who must be nominated by their institution. Institutions receiving grants must be tax-exempt 501(c)(3) organizations. Government agencies, such as the National Institutes of Health and the Centers for Disease Control and Prevention, generally are not eligible for grants.

Throughout the following program descriptions, references to M.D. and Ph.D. degrees include all types of medical and scientific doctoral degrees.

BWF believes that diversity within the scientific community enhances the well-being of the research enterprise; therefore, we encourage applications from women and from members of underrepresented minority groups.

BWF does not support activities that are primarily clinical in nature (such as disease diagnosis and treatment) or primarily related to health care and health care policy. We generally do not provide support for research projects or other activities outside our competitive programs, nor do we generally support endowments, development campaigns, ordinary operating expenses, capital facilities and equipment, or publications.

To obtain the most up-to-date information about our award programs, visit our Web site at www.bwfund.org

BURROUGHS WELLCOME FUND

Telephone (919) 991-5100
Fax (919) 991-5160

www.bwfund.org

Mailing Address:
Post Office Box 13901
Research Triangle Park, NC 27709-3901

Shipping Address:
21 T.W. Alexander Drive
Research Triangle Park, NC 27709

Competitive Award Programs

Basic Biomedical Sciences

Career Awards in the Biomedical Sciences

These awards are made in honor of Gertrude B. Elion, D.Sc., and George H. Hitchings, Ph.D., who shared the 1988 Nobel Prize in Physiology or Medicine and were long associated with the Burroughs Wellcome Fund. The awards are intended to foster the development and productivity of biomedical researchers who are early in their careers and to help them make the critical transition to becoming independent investigators. The grants provide $500,000 over five years to bridge advanced postdoctoral training and the first three years of faculty service. Recipients may spend part of the grant period at institutions in the United Kingdom. BWF expects to award about 20 of these grants annually. Approximately half of the awards will go to researchers with a Ph.D. degree and half to those with an M.D. or M.D.-Ph.D. degree. Candidates must have completed at least 12 months but not more than 48 months of postdoctoral research training by the application deadline. For candidates with M.D. degrees, postdoctoral training excludes clinically oriented residencies that do not contain a major research component. Researchers who hold a faculty appointment as an assistant professor or the equivalent, or who know they will hold such an appointment within a year of the application deadline, are not eligible.

Infectious Diseases

Investigators in Pathogenesis of Infectious Disease

These awards provide new opportunities for accomplished investigators at the assistant professor level to study pathogenesis, with a focus on the intersection of human and pathogen biology. The program is intended to shed light on the overarching issues of how human hosts handle infectious challenge. These five-year grants, which provide $80,000 per year, are intended to give recipients the freedom and flexibility to pursue new avenues of inquiry and higher-risk research projects that hold potential for advancing significantly the biochemical, pharmacological, immunological, and molecular biological understanding of how infectious agents and the human body interact. BWF is particularly interested in work focused on the host, as well as host-pathogen studies originating in viral, bacterial, fungal, or parasite systems. Studies in these areas may have their root in the pathogen, but the focus of the work should be on the effects on the host at the cellular and/or systemic levels. Excellent animal models of human disease are within the scope of the program. Candidates must have an established record of independent research and hold a tenure-track position as an assistant professor or equivalent at a degree-granting institution in the United States or Canada. Up to nine of these grants will be awarded.

Interfaces in Science

Career Awards at the Scientific Interface

These awards are intended to foster the early career development of researchers with backgrounds in the physical/computational sciences whose work addresses biological questions and who are dedicated to pursuing a career in academic research. Candidates are expected to draw from their training in a scientific field other than biology to propose innovative approaches to answer important questions in the biological sciences. The grants provide up to $500,000 over five years to support up to two years of advanced postdoctoral training and the first three years of a faculty appointment. BWF expects to award up to eight of these grants in 2003. Candidates must have a Ph.D. degree in physics, chemistry (physical, theoretical, or computational), mathematics, computer science, statistics, or engineering. Exceptions will be made only if the candidate can demonstrate significant expertise in one of these areas, evidenced by publications or advanced course work. In addition to being open to U.S. and Canadian citizens and permanent residents, this program is open to temporary residents whose lawful immigration status has been granted and will extend for the duration of the award.

Institutional Awards at the Scientific Interface

These grants, which are made to degree-granting institutions, are intended to encourage the interdisciplinary training of graduate and postdoctoral students from the physical, chemical, and computational sciences so they can better apply their unique knowledge and talents to biological problems. BWF has made grants in this program in 1996, 1998, and 2000. We expect to commit up to $10 million for these grants each year they are offered, and the grants will provide from $150,000 to $500,000 per year for up to five years. Emphasis will be placed on supporting new programs or existing programs that will change graduate and postdoctoral training in a meaningful way, as opposed to programs seeking more funding for activities already under way. Specific guidelines may change for future awards, which will not be made until at least 2004.

Translational Research

Clinical Scientist Awards in Translational Research

These awards are intended to foster the development and productivity of established independent physician-scientists who will strengthen translational research, the two-way transfer between work at the laboratory bench and clinical medicine. The grants provide $750,000 over five years ($150,000 per year). BWF expects to award up to 10 of these grants annually. We are interested particularly in supporting investigators who will bring novel ideas and new approaches to translational research and who will mentor the next generation of physician-scientists. Proposed activities may draw on the many recent advances in the basic biomedical sciences—including such fields as biochemistry, cell biology, genetics, immunology, molecular biology, and pharmacology—that provide a wealth of opportunities for studying and alleviating human disease. Candidates generally must be affiliated with a medical school; candidates at other types of degree-granting institutions (including schools of veterinary medicine, public health, and pharmacy) will be considered only if they can demonstrate a plan for coordinating with institutions that provide the patient connection essential for translational research. Candidates must have an M.D. or M.D.-Ph.D. degree and hold an appointment or joint appointment in a subspecialty of clinical medicine. In exceptional circumstances, non-M.D. candidates will be considered if their work is likely to contribute significantly to the clinical enterprise; these candidates should hold an appointment or joint appointment in a clinical department. Candidates must be tenure-track investigators at the late assistant professor level or the associate professor level, or hold an equivalent tenure-track position, at the time of application. Candidates must present evidence of already having established an independent research career, as this is not a "new investigator" award. Individuals holding the rank of professor are ineligible.

Science Education

Student Science Enrichment Program

These awards are limited to nonprofit organizations in BWF's home state of North Carolina. BWF provides $1 million annually for this program, and grants provide up to $60,000 per year for three years. The program's goals include improving students' competence in science, nurturing their enthusiasm for science, and interesting them in pursuing careers in research or other science-related areas. The awards are intended to support projects that provide creative science enrichment activities for students in the sixth through twelfth grades who have shown exceptional skills and interest in science, as well as those who may not have had an opportunity to demonstrate conventional "giftedness" in science but are perceived to have high potential. The projects must enable students to participate in hands-on scientific activities and pursue inquiry-based avenues of exploration—an educational approach that has proven to be an effective way to increase students' understanding and appreciation of the scientific process. Project activities must take place outside of the usual school environment, such as after school, on weekends, or during vacation periods. Projects may be conducted all year, during the school year, or during the summer. Eligible organizations include colleges and universities, community groups, museums and zoos, public and private schools, scientific groups, and others that can provide experiential activities for middle school and high school students. We encourage partnerships—for example, between scientific groups and school systems or between universities and community groups. Industries may participate in collaboration with nonprofit organizations that assume the lead role.

Science and Philanthropy

BWF makes noncompetitive grants for activities that fall outside of our competitive award programs but are closely related to our targeted areas, such as career development of scientists or the pathogenesis of infectious disease. We place special priority on working with nonprofit organizations, including government agencies, to leverage financial support for our targeted areas of research, and on encouraging other foundations to support biomedical research. Proposals should be submitted to BWF in the form of a letter, which should be no more than five pages. Applicants should describe the focus of the activity, the expected outcomes, and the qualifications of the organization or individuals involved; provide certification of the sponsor's Internal Revenue Service tax-exempt status; and give the total budget for the activity, including any financial support obtained or promised. Proposals are given careful preliminary review, and those deemed appropriate are presented for consideration by BWF's Board of Directors.

PROGRAM APPLICATION DEADLINES

2003 Award Series

BASIC BIOMEDICAL SCIENCES	
Career Awards in the Biomedical Sciences	October 1, 2002
INFECTIOUS DISEASES	
Investigators in Pathogenesis of Infectious Disease	November 1, 2002
INTERFACES IN SCIENCE	
Career Awards at the Scientific Interface	May 1, 2002
Institutional Awards at the Scientific Interface	See note below*
TRANSLATIONAL RESEARCH	
Clinical Scientist Awards in Translational Research	September 1, 2002
SCIENCE EDUCATION	
Student Science Enrichment Program	April 10, 2002
SCIENCE AND PHILANTHROPY	Received all year

** These institutional awards are offered periodically, alternating with Career Awards at the Scientific Interface.*

ADVISORY COMMITTEES

The Burroughs Wellcome Fund uses advisory committees for each competitive award program to review grant applications and make recommendations to BWF's Board of Directors, which makes the final decisions. We select members of these committees for their scientific and educational expertise in the program areas. In addition, BWF uses a financial advisory committee to help in developing and reviewing the Fund's investment policies. This committee is appointed by and reports to the Board of Directors.

Career Awards in the Biomedical Sciences

Mina J. Bissell, Ph.D.
Ernest Orlando Lawrence Berkeley National Laboratory

Pamela J. Bjorkman, Ph.D.
Howard Hughes Medical Institute
California Institute of Technology

William Chin, M.D.
Eli Lilly and Company

Patricia K. Donahoe, M.D.
Massachusetts General Hospital
Harvard Medical School

Elaine Fuchs, Ph.D.
Howard Hughes Medical Institute
University of Chicago

Phil Gold, M.D., Ph.D.
Montreal General Hospital
McGill University Faculty of Medicine

Thomas M. Jessell, Ph.D.
Columbia University

Lawrence C. Katz, Ph.D.
Howard Hughes Medical Institute
Duke University Medical Center

Stanley J. Korsmeyer, M.D.
Howard Hughes Medical Institute
Dana-Farber Cancer Institute
Harvard Medical School

George M. Langford, Ph.D.
Dartmouth College

Martin M. Matzuk, M.D., Ph.D.
Baylor College of Medicine

Suzanne R. Pfeffer, Ph.D. (Cochair)
Stanford University School of Medicine

John F. Sheridan, Ph.D.
Ohio State University

Jerome F. Strauss III, M.D., Ph.D. (Cochair)
University of Pennsylvania Health System

Ian A. Wilson, D.Phil.
Scripps Research Institute

James M. Wilson, M.D., Ph.D.
Institute for Human Gene Therapy
University of Pennsylvania Health System

Christopher Wylie, Ph.D.
University of Cincinnati College of Medicine

Investigators in Pathogenesis of Infectious Disease

Arturo Casadevall, M.D., Ph.D.
Albert Einstein College of Medicine

Mary K. Estes, Ph.D.
Baylor College of Medicine

Stephen L. Hajduk, Ph.D.
University of Alabama-Birmingham School of Medicine

Philippa Marrack, Ph.D.
Howard Hughes Medical Institute
National Jewish Medical and Research Center

Magdalene So, Ph.D.
Oregon Health Sciences University

P. Frederick Sparling, M.D. (Chair)
University of North Carolina-Chapel Hill School of Medicine

Interfaces in Science

Robert H. Austin, Ph.D.
Princeton University

Carlos Bustamante, Ph.D.
Howard Hughes Medical Institute
University of California-Berkeley

Susan N. Coppersmith, Ph.D.
University of Wisconsin-Madison

Jeffrey I. Gordon, M.D. (Chair)
Washington University School of Medicine

Douglas A. Lauffenburger, Ph.D.
Massachusetts Institute of Technology

Michael C. Reed, Ph.D.
Duke University

Susan S. Taylor, Ph.D.
Howard Hughes Medical Institute
University of California-San Diego School of Medicine

Clinical Scientist Awards in Translational Research

Martin J. Blaser, M.D. (Cochair)
New York University Medical Center

Bruce A. Chabner, M.D.
Massachusetts General Hospital

Susan George, M.D.
University of Toronto Faculty of Medicine

John W. Griffin, M.D.
Johns Hopkins University School of Medicine

Alan Krensky, M.D.
Stanford University Medical Center

John E. Niederhuber, M.D.
University of Wisconsin Medical School

Jennifer M. Puck, M.D. (Cochair)
National Human Genome Research Institute
National Institutes of Health

Marlene Rabinovitch, M.D.
University of Toronto Faculty of Medicine
University of Toronto Hospital for Sick Children

Judith L. Swain, M.D.
Stanford University Medical Center

Craig B. Thompson, M.D.
Leonard and Madlyn Abramson Family Cancer Research Institute
University of Pennsylvania Medical Center

Michael J. Welsh, M.D.
Howard Hughes Medical Institute
University of Iowa College of Medicine

Wayne M. Yokoyama, M.D.
Howard Hughes Medical Institute
Washington University School of Medicine

New Investigator Awards in the Pharmacological or Toxicological Sciences

This program is being discontinued after the 2001 award series; however the advisory committees will continue to monitor awardees' progress.

PHARMACOLOGICAL SCIENCES SUBCOMMITTEE

Lorraine J. Gudas, Ph.D.
Weill Medical College of Cornell University

T. Kendall Harden, Ph.D.
University of North Carolina-Chapel Hill School of Medicine

Lee E. Limbird, Ph.D. (Chair)
Vanderbilt University Medical Center

Victor Ling, Ph.D.
British Columbia Cancer Research Centre

Palmer Taylor, Ph.D.
University of California-San Diego School of Medicine

Jeffrey M. Trent, Ph.D.
National Human Genome Research Institute
National Institutes of Health

TOXICOLOGICAL SCIENCES SUBCOMMITTEE

Barbara F. Hales, Ph.D.
McGill University Faculty of Medicine

Philip Hanawalt, Ph.D.
Stanford University

Victor A. Levin, M.D.
University of Texas M. D. Anderson Cancer Center

Baldomero M. Olivera, Ph.D.
University of Utah

Stephen H. Safe, D.Phil.
Texas A&M University College of Veterinary Medicine

Thomas J. Slaga, Ph.D. (Chair)
AMC Cancer Research Center

Student Science Enrichment Program

John E. Burris, Ph.D. (Cochair)
Beloit College

Luciano Corazza, Ph.D.
University of California-San Diego

G. Thomas Houlihan, Ph.D.
Council of Chief State School Officers

Samuel Houston, Ed.D.
Edgate.com

Marian Johnson-Thompson, Ph.D.
National Institute of Environmental Health Sciences

Shirley M. Malcom, Ph.D. (Cochair)
American Association for the Advancement of Science

Sally G. Shuler
Smithsonian Institution

Liz Woolard
W. G. Enloe High School

Investment Committee

The committee is composed of four members from outside BWF and two members from BWF's Board of Directors. The board's chair, BWF's president, and BWF's vice president for finance also serve on the committee as nonvoting members.

Stephen D. Corman (Chair)
BWF Board of Directors

Michael Even
Citigroup

Ronald Frashure
Acadian Asset Management

W. Curtis Livingston
Western Asset Management

Walter Niemasik
Snyder Capital Management

Philip R. Tracy
BWF Board of Directors

BOARD OF DIRECTORS

Enriqueta C. Bond, Ph.D.

President
Burroughs Wellcome Fund

Gail H. Cassell, Ph.D.

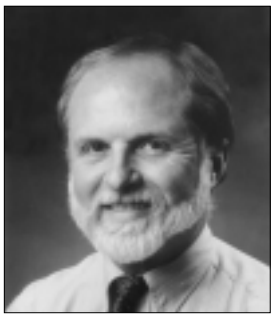
Vice President, Infectious Diseases
Drug Discovery Research and Clinical Investigation
Eli Lilly and Company, Lilly Research Laboratories

Stephen D. Corman

Founder and former Chair and Chief Executive Officer
PharmaLink Inc.

Henry G. Friesen, M.D.

Distinguished Professor Emeritus, Senior Fellow
Center for the Advancement of Medicine
University of Manitoba
Chair of the Board, Genome of Canada



Albert James Hudspeth, M.D., Ph.D.

Investigator, Howard Hughes Medical Institute
F. M. Kirby Professor and Head, Laboratory of Sensory Neuroscience
Rockefeller University

David M. Kipnis, M.D. (Chair)

Distinguished University Professor of Medicine
Washington University School of Medicine

I. George Miller, M.D.

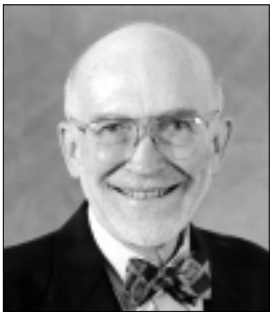
John F. Enders Professor of Pediatric Infectious Diseases
Professor of Epidemiology and Molecular Biophysics and Biochemistry
Yale University School of Medicine

Mary-Lou Pardue, Ph.D.

Boris Magasanik Professor of Biology
Massachusetts Institute of Technology

Philip R. Tracy

Of Counsel
Smith, Anderson, Blount, Dorsett, Mitchell & Jernigan, L.L.P.



Jean D. Wilson, M.D.

Charles Cameron Sprague Distinguished Professor of Biomedical Science
University of Texas Southwestern Medical Center-Dallas

STAFF

Executive

LEFT TO RIGHT:
Enriqueta C. Bond, Ph.D., *President*
Scott G. Schoedler, *Vice President, Finance*
Bernadette M. Marriott, Ph.D., *Vice President, Programs and Communications*

Administration, Finance, Meetings, and Technology

SITTING, LEFT TO RIGHT:
Jennifer Williams, *Accountant*
Kenneth P. Browndorf, *Senior Asset and Accounting Manager*
Martie H. Gregory, *Senior Manager, Facility and Administrative Services*
Judy McConnell, *Librarian/Secretary*

STANDING, LEFT TO RIGHT:
Wendell E. Jones, *Technology Coordinator*
Betsy Stewart, *Secretary*
Sam Caraballo, *Systems and Web Engineer*
Glenda H. Oxendine, *Document/Web Specialist*
Brent Epps, *Administrative Support*
Catherine L. Voron, *Meeting Professional*
Barbara J. Evans, *Administrative Meeting Assistant*

Programs and Communications

SITTING, LEFT TO RIGHT:
Jean A. Kramarik, *Program Associate*
D. Carr Agyapong, *Senior Program and Communications Officer*
Karyn Hede, *Communications Officer*
Nancy S. Sung, Ph.D., *Program Officer*

STANDING, LEFT TO RIGHT:
Rolly L. Simpson Jr., *Program Associate*
Victoria P. McGovern, Ph.D., *Program Officer*
Debra A. Linkous, *Program Associate*
Debra J. Jinwright, *Administrative Program Assistant*
Melanie B. Scott, *Program and Database Specialist*
Martin Ionescu-Pioggia, Ph.D., *Senior Program Officer*

CONTACT INFORMATION FOR MAJOR PROGRAMS

Staff E-mail Addresses and Focus Areas

ALL PROGRAM AREAS, UNIVERSITY RELATIONS

Bernadette Marriott, Ph.D., bmarriott@bwfund.org
Vice president, programs and communications

BASIC BIOMEDICAL SCIENCES

Martin Ionescu-Pioggia, Ph.D., mionescu@bwfund.org
Senior program officer

Rolly L. Simpson Jr., rsimpson@bwfund.org
Program associate

INFECTIOUS DISEASES

Victoria P. McGovern, Ph.D., vmcgovern@bwfund.org
Program officer

Jean A. Kramarik, jkramarik@bwfund.org
Program associate

INTERFACES IN SCIENCE; TRANSLATIONAL RESEARCH

Nancy S. Sung, Ph.D., nsung@bwfund.org
Program officer

Debra A. Linkous, dlinkous@bwfund.org
Program associate

SCIENCE EDUCATION

D. Carr Agyapong, cagyapong@bwfund.org
Senior program and communications officer

Melanie B. Scott, mscott@bwfund.org
Program and database specialist

To Obtain Information About Programs

BURROUGHS WELLCOME FUND

The most up-to-date information about our programs, including complete application information, can be found on our Web site at www.bwfund.org

Telephone (919) 991-5100
Fax (919) 991-5160

Mailing Address:
Post Office Box 13901
Research Triangle Park, NC 27709-3901

Shipping Address:
21 T.W. Alexander Drive
Research Triangle Park, NC 27709