A New Vision for Discovery

2014 Summary Annual Report
WHO WE ARE

The Foundation for the National Institutes of Health (FNIH) is an agile team of biomedical scientists, program managers and fundraisers. We work with a large network of forward-thinking leaders and organizations to seek new knowledge and apply it to improve health, lengthen life and reduce illness and disability. We orchestrate productive research collaborations, incubate new research models and channel resources for maximum impact. In all we do, we support the mission of the National Institutes of Health, the largest biomedical research agency in the world, as it works to *turn discovery into health*.

The FNIH is a not-for-profit 501(c)(3) charitable organization established by Congress in 1996.

ABOUT THE COVER

Type 2 diabetes, the most common form of diabetes, affects more than 100 million Americans who already have it or are at high risk. The FNIH is a key partner in an initiative to find biological pathways that are the best candidates for new treatments—for diabetes and other serious conditions. The cover illustration by artist Jody Rasch is an abstract interpretation of clusters of cells, including those that produce insulin.
There is an old adage that it takes years to become an overnight sensation. Indeed, in many fields, decades of planning, study and hard work eventually make possible what seems a sudden success story. For example, the phrase “public-private partnerships” is ubiquitous in some circles, but for many, a new concept. For the Foundation for the National Institutes of Health (FNIH), however, it is a successful way to drive progress—a formula we have used for nearly 20 years to build innovative and strategic alliances between the public and private sectors. These partnerships are crucial to the advancement of biomedical science because they provide a vehicle to create and support trailblazing projects and programs that enhance the mission of the National Institutes of Health (NIH).

Another of today’s most popular terms—born from decades of scientific and clinical research—is “precision medicine”: tailoring treatment to the needs and make-up of an individual. The potential impact on health due to such technologically advanced medicine is enormous and demonstrates why funding for medical research must be, and must remain, a national priority. This new way of preventing, diagnosing and treating disease did not happen overnight; it took strong investment from the U.S. government for basic research, unwavering dedication from scientists in academia, the private and the public sectors, generous philanthropic support from donors and, importantly, the unselfish commitment of thousands of patients who volunteer to become partners in the medical research enterprise.

The FNIH is uniquely positioned to work with these stakeholders to create partnerships that have transformed business-as-usual into business success. In this report, we are pleased to highlight some of the pioneering programs of the robust FNIH portfolio, including a new model for clinical trials that speed patient access to investigational drugs (Lung-MAP), new interventions that enhance the lives and health of some of the world’s poorest people (HIT-TB) and a radically new approach to early-stage drug development (AMP).

Yet there are challenges. In recent years, the NIH budget has suffered losses, both in real and inflation-adjusted dollars. A government shutdown and sequestration compounded the situation. If as a society we are to continue progress towards revolutionizing our ability to tackle disease and disability, this trend must be reversed to regain momentum.

The staff of the FNIH is inspired by our mission to help the NIH turn discovery into improved health. With the generous support of the biomedical community, our funders and our partners, we continue to leverage public and private funds to advance biomedical science forward through innovative leading-edge initiatives.
OUR PARTNERSHIPS
Everything we do depends on collaboration. The partnerships we forge provide funding support as well as expertise and resources to help us accomplish and expand our work. What we achieve collectively is far greater than that of any single organization.

WHAT WE DO
The FNIH stands at the center of a broad portfolio of initiatives focused on shared goals: advancing biomedical science to improve lives and supporting the mission of the NIH. One of the most important jobs the FNIH does is fundraising—without the ongoing support of our contributors these initiatives would not be possible.

RESEARCH PARTNERSHIPS — We develop collaborations with top experts from government, industry, academia and the not-for-profit sector and provide a neutral environment where we can work productively toward a common goal. Examples include:
• Portfolio Supporting NIH Research — Supporting and raising funds for multiple projects initiated by the NIH, while also convening the right partners within and outside of the NIH.
• Global Health — Coordinating and operating more than 50 collaborative projects in over 33 countries, including the Grand Challenges in Global Health (GCGH) supported by the Bill & Melinda Gates Foundation.
• Biomarkers Consortium — Initiating and managing more than 16 projects funded with over $50 million in private dollars, designed to discover and develop biological markers to support new drug development, preventive medicine and medical diagnostics.

SYMPOSIA, EVENTS & EXHIBITS — We organize and facilitate more than 60 events each year, creating a forum for innovative thinkers in biomedical sciences to share ideas and engage the public in disease and health awareness.

FELLOWSHIPS & AWARDS — We provide funding for training for early-career scientists, along with support and recognition for researchers whose findings have advanced biomedical science.

SUPPORT FOR THE NIH RESEARCH ENTERPRISE — Each year, FNIH undertakes a variety of projects to support the NIH community of researchers, patients and stakeholders. For example, in 2014, the FNIH raised funds to support renovations and enhancements to the The Edmond J. Safra Family Lodge, a facility that provides temporary housing for families of patients receiving care at the NIH Clinical Center.
A new vision for discovery. Today’s health challenges are too complex to be solved by any single organization—government, business, academia or not-for-profit—working in isolation. But often these organizations are not experienced at identifying partners and forging productive relationships. At the FNIH, we are connected to key players in all of these sectors, and we can facilitate their collaboration because we have created management and funding models that make large-scale, multi-partner projects succeed. This is our vision for discovery—and it works.
Joining forces to accelerate drug development

New medicines that show promise in the laboratory often do not succeed in human testing. In fact, about 95 percent fail, typically late in the clinical trials process after millions of dollars have been invested. Such a high-cost, low-reward pipeline points to the need for a better understanding of how diseases develop at the molecular level—which is why the FNIH is helping to lead an unprecedented partnership to fill this need. Launched in 2014, the Accelerating Medicines Partnership (AMP) is a $230 million, five-year effort joining the forces of the FNIH, the NIH and the Food and Drug Administration (FDA) with those of not-for-profit organizations and 10 biopharmaceutical companies to devise a radically new approach to early-stage drug development. These companies have agreed to share expertise, resources and data to answer a critical question: Which biological pathways underlying a given disease are the best candidates for targeting new treatments? Instead of having different organizations pursue disparate pathways in isolation, AMP will generate pre-competitive, disease-specific data on the genetic and biological markers most likely to yield success when used as targets for new medicines. The data will be publicly available to the biomedical community so that many can use it as the foundation for drug discovery. (For a list of AMP partners, see page 17.)
AMP: RHEUMATOID ARTHRITIS & LUPUS

Rheumatoid arthritis (RA) and lupus are just two of many disorders that occur when the immune system mistakenly attacks parts of the body that it is designed to protect, leading to inflammation that destroys tissues. Anti-inflammatory treatments can help, but most people with RA respond to current treatments only partially or temporarily. In the case of lupus, no effective targeted therapies exist for the most severe forms of the disease. AMP partners will analyze tissue and blood samples from people with RA and lupus to pinpoint genes, proteins, chemical pathways and networks involved at the cellular level. This is essential for developing targeted treatments for these debilitating conditions, but it also could shed light on the autoimmune process implicated in a wide range of diseases.
Creating Impact Beyond the Laboratory

The search for better tuberculosis treatments

Tuberculosis (TB) affected nine million people and caused 1.5 million deaths worldwide in 2013, affecting children and adults with HIV in developing nations particularly hard. TB is a bacterial infection that spreads through the air and attacks the respiratory system and other organs. Successful treatment requires taking multiple medications for several months, leading many patients to drop out prematurely—and remain contagious. Compounding this problem is the growing number of cases that are resistant to available drugs, most developed in the 1970s. With funding through the Bill & Melinda Gates Foundation, the Identification of high-quality HITs for Tuberculosis (HIT-TB) project at the FINH is helping to accelerate the search for new TB medications that could shorten and simplify treatment. This partnership includes the National Institute of Allergy and Infectious Diseases (NIAID), multiple pharmaceutical and agrichemical companies and several academic institutions to speed identification of compounds best suited for testing as potential drugs. The partners have shared their compound libraries and are using high-throughput screening to evaluate many molecules at once to identify “hits” to be prioritized for further study.
Support for a game-changing scientist

What if we could remove and replace damaged or defective parts of human DNA? Scientists have been working to find such a genome-editing tool, but Jennifer Doudna, Ph.D., Professor of Biochemistry, Biophysics and Structural Biology and a Howard Hughes Medical Institute Investigator at the University of California, Berkeley, stands apart. Dr. Doudna has focused her research on the structure of RNA, the molecule that carries out DNA instructions for creating the proteins that drive processes in the body. The FNIH awarded her the Lurie Prize in Biomedical Sciences in 2014 for that body of study, which includes her work on CRISPR (Clustered Regularly Interspaced Short Palindromic Repeats), that are repetitive RNA sequences in bacteria that play a role in their immunity. Doudna discovered that pieces of CRISPR RNA team up with a protein called Cas9 to cut through the DNA of an invading virus. Doudna and her team then engineered their own RNA/protein combination and showed it can be used to precisely edit the DNA of plants, animals and humans. This CRISPR tool has to be managed with careful attention to bioethical concerns, but it could function as “molecular scissors” that can fix faulty genes underlying a range of diseases and health conditions.

Genome exhibit reaches millions

Between June 2013 and August 2014, roughly three million Smithsonian visitors experienced Genome: Unlocking Life’s Code at the National Museum of Natural History, an exhibition made possible through funds raised, in part, by the FNIH. The result of a collaboration between the museum and the National Human Genome Research Institute, Genome awed visitors with the complexity and power of the human genome using 3-D models, interactive displays, custom animations and videos of real-life stories. It celebrated the 10th anniversary of the Human Genome Project and the successful sequencing of the human genetic blueprint, helping viewers understand how this knowledge is revolutionizing our understanding of human development, diversity and society, especially health and disease. In addition to the 4,400-square-foot exhibition itself, which took two years for museum designers and educators to develop and build, Genome included public events, educational symposia, an educators’ guide and the website www.unlockinglifescode.org. Genome is now on a multi-city tour that will take it to museums in California, the Midwest and Ontario through early 2018.

For an exhibition schedule, visit http://unlockinglifescode.org/traveling-exhibit.
Lung cancer: pioneering a more efficient approach to clinical trials

Patients with advanced squamous cell lung cancer have few good treatment options beyond surgery, yet the pace of traditional clinical trials remains slow, with most potential treatments never making it to the bedside. The Lung Cancer Master Protocol (Lung-MAP) trial, the result of a partnership that includes the FNIH, is pioneering a new model designed to speed access to investigational drugs for patients and allow multiple researchers to share one umbrella structure and recruitment process, significantly increasing their efficiency. Launched in June 2014, Lung-MAP uses genomic profiling technology to test patients for over 200 cancer-related genetic alterations, then assigns them to one of a number of investigational treatment studies based on their genetic profile. Within its first six months, Lung-MAP was enrolling patients at more than 400 sites in 39 states. The trial will add new investigational treatments over time, with the ultimate goal of testing 10 to 12 targeted therapies in 5,000 patients over the next five years. Besides the FNIH, partners in the effort include the National Cancer Institute, SWOG Cancer Research, Friends of Cancer Research, Foundation Medicine, five pharmaceutical companies and several lung cancer advocacy groups. (For a list of Lung-MAP partners, see page 17.)
River blindness: moving beyond control to elimination

Over the past few decades, focused efforts to control the tropical disease onchocerciasis, or river blindness, have drastically lowered incidence in South and Central America, but the disease continues to have a devastating impact in sub-Saharan Africa. River blindness is caused by Onchocerca volvulus worms, which are transmitted to humans through repeated bites from infected blackflies. Mass administration of the drug ivermectin is an effective control strategy, but it does not guarantee elimination of the disease from a population, as people can carry the worms without exhibiting symptoms. The FNIH is working with the NIAID to determine if a blood or urine test could be developed to identify people who are carriers of adult female Onchocerca volvulus worms (OvAF).

Once inside a human host, these females produce smaller larvae that over time can cause chronic skin disease, severe itching and eye lesions that lead to blindness. Knowing if someone is a carrier would ensure they could be treated and prevent transmission of the worms to uninfected blackflies. The FNIH and NIAID are studying OvAF and OvAF-infected humans to identify biomarkers in blood and urine that might indicate the presence of the female worm, and then test and validate the most promising candidates. The ultimate goal is a point-of-care test that would help eradicate river blindness around the globe.

Sarcopenia: defining diagnostic criteria for age-related muscle loss

Sarcopenia—age-related muscle loss and weakness—affects nearly 1 in 3 people over 60 and half of those over age 80. However, lack of an evidence-based definition for sarcopenia has limited our ability to understand its progression and develop strategies for prevention and treatment. This changed in April 2014 with the landmark publication of six special online articles in the Journals of Gerontology: Medical Sciences, which set forth data-driven diagnostic criteria for sarcopenia, including definitions of grip strength and muscle mass. The articles resulted from a collaborative project by the FNIH Biomarkers Consortium, the FDA, the National Institute on Aging and several pharmaceutical companies, in which researchers analyzed data from nine long-term epidemiologic studies involving over 26,000 healthy participants to generate a definition of sarcopenia. In addition to diagnostic criteria, the 2014 publications provide specific characterizations of how low lean mass and low strength relate to problems with mobility. This new information is expected to influence treatment decisions and help identify groups of at-risk patients who are good candidates for testing interventions. (For a list of Biomarkers Consortium—Sarcopenia initiative partners, see page 17.)
## Financial Highlights

### Revenue and Support

<table>
<thead>
<tr>
<th>Source</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contributions</td>
<td>$72,770,911</td>
<td>$57,747,975</td>
</tr>
<tr>
<td>Grants</td>
<td>634,635</td>
<td>887,026</td>
</tr>
<tr>
<td>Administrative fee</td>
<td>197,177</td>
<td>333,361</td>
</tr>
<tr>
<td>Government appropriations</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>Investment earnings</td>
<td>206,479</td>
<td>337,389</td>
</tr>
<tr>
<td>In-kind contributions</td>
<td>1,724,619</td>
<td>589,208</td>
</tr>
<tr>
<td>Donated services</td>
<td>188,637</td>
<td>43,000</td>
</tr>
<tr>
<td>Fundraising event</td>
<td>184,675</td>
<td>—</td>
</tr>
<tr>
<td>Other revenue</td>
<td>153,956</td>
<td>150,775</td>
</tr>
<tr>
<td>Reduction of future pledges</td>
<td>—</td>
<td>(214,788)</td>
</tr>
</tbody>
</table>

**Total Revenue and Support**

<table>
<thead>
<tr>
<th>Source</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$76,561,089</td>
<td>$60,373,946</td>
</tr>
</tbody>
</table>

### Expenses and Changes in Net Assets

#### Program Services

<table>
<thead>
<tr>
<th>Activity</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fellowships and training programs</td>
<td>$1,605,067</td>
<td>$1,381,328</td>
</tr>
<tr>
<td>Memorials, awards and events</td>
<td>442,058</td>
<td>1,299,278</td>
</tr>
<tr>
<td>Capital projects</td>
<td>103,421</td>
<td>38,754</td>
</tr>
<tr>
<td>Research partnerships</td>
<td>69,780,507</td>
<td>55,290,526</td>
</tr>
</tbody>
</table>

**Total Program Services**

<table>
<thead>
<tr>
<th>Source</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$71,931,053</td>
<td>$58,009,886</td>
</tr>
</tbody>
</table>

#### Supporting Services

<table>
<thead>
<tr>
<th>Activity</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management and general</td>
<td>$3,928,920</td>
<td>$3,352,175</td>
</tr>
<tr>
<td>Fundraising</td>
<td>270,153</td>
<td>104,008</td>
</tr>
</tbody>
</table>

**Total Supporting Services**

<table>
<thead>
<tr>
<th>Source</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$4,199,073</td>
<td>$3,456,183</td>
</tr>
</tbody>
</table>

**Total Expenses**

<table>
<thead>
<tr>
<th>Source</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$76,130,126</td>
<td>$61,466,069</td>
</tr>
</tbody>
</table>

**Change in Net Assets**

<table>
<thead>
<tr>
<th>Source</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$430,963</td>
<td>$(1,092,123)</td>
</tr>
</tbody>
</table>

**Net Assets Beginning of Year**

<table>
<thead>
<tr>
<th>Source</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>91,138,418</td>
<td>92,230,541</td>
</tr>
</tbody>
</table>

**Net Assets at End of Year**

<table>
<thead>
<tr>
<th>Source</th>
<th>2014</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$91,569,381</td>
<td>$91,138,418</td>
</tr>
</tbody>
</table>

*The Foundation’s audited financial statements are available on request.*
All FNIH donors play a critical role in providing the resources that are vital to our success. Unrestricted gifts allow us the flexibility to place them where they are most needed, from supporting core operations to developing new partnerships and emerging program ideas. Donors also can choose to restrict their gifts to one area of interest, such as a biomedical research program; a fellowship, lecture or symposium that trains scientists and helps them build their careers; or a specific laboratory or area of scientific research at the NIH.

We are grateful to the many individuals and organizations who made donations, gifts and pledges in 2014. Every attempt is made to list donors according to their wishes. For a more complete list of donors, funds and endowments, visit fnih.org/about/foundation/annual-reports. Please call 301.402.4976 if you have any questions.

$5,000,000+
AbbVie Inc.
Amgen, Inc. 12
AstraZeneca Pharmaceuticals, LP 13
Bill & Melinda Gates Foundation 13
Biogen 4
Eli Lilly and Company 8
Genentech, Inc. 8
GlaxoSmithKline 16
Johnson & Johnson 14
Merck Sharp & Dohme Corp. 17
National Football League
Pfizer Inc 17
Sanofi* 13

$2,500,000–$4,999,999
Bristol-Myers Squibb Company 15
Takeda Pharmaceuticals International, Inc. 6

$1,000,000–2,499,999
Doris Duke Charitable Foundation
McKnight Brain Research Foundation 9
Novartis Pharmaceuticals Corporation* 15
QuantumLeap Healthcare Collaborative
Regeneron Pharmaceuticals, Inc. 2

$500,000–$999,999
Alzheimer’s Association 10
Daichy Sankyo, Inc. 5
National Institutes of Health 19

$250,000–$499,999
Abbott 7
Astellas Pharma Inc.
Boehringer Ingelheim Pharmaceuticals, Inc.* 6
JSI Research & Training Institute, Inc.
Juvenile Diabetes Research Foundation International
The Pew Charitable Trusts
Pharmaceutical Research and Manufacturers of America 10
Mrs. Lily Safra 13

United States Agency for International Development

([x] Superscript indicates number of years of consecutive giving. * Indicates Gifts in Kind.)

OF EVERY DOLLAR SPENT, 94 CENTS ARE USED TO SUPPORT PROGRAMS AND JUST SIX CENTS FOR ADMINISTRATION AND FUNDRAISING.

For 10 years, Charity Navigator has rated FNIH as an organization that exceeds industry standards and performs as well or better than most charities.

\( \text{OF EVERY DOLLAR SPENT, 94 CENTS ARE USED TO SUPPORT PROGRAMS AND JUST SIX CENTS FOR ADMINISTRATION AND FUNDRAISING.} \)
Our Donors

$50,000–$99,999
Actelion Pharmaceuticals Ltd.
Alliance for Lupus Research
American Association for Dental Research
Bayer HealthCare Pharmaceuticals Inc.
The Coca-Cola Company
Cubist Pharmaceuticals, Inc.
James H. and Christina W. Donovan
John J. Donovan
Fujirebio
Intel Corporation
Lupus Research Institute
The Medicines Company
Merck Serono
PhRMA Foundation
Rheumatology Research Foundation
George and Trish Vradenburg, Co-Founders USAgainst Alzheimer’s

$25,000–$49,999
Biotechnology Industry Organization
Blue Cross and Blue Shield Association
Buffalo Cafritz
Colgate-Palmolive Company
John and Marcia Goldman Foundation
Grifols Therapeutics
Hogan Lovells US LLP
IXICO Ltd.
Peter and Judy Kovler in honor of Maria Freire
Freda C. Lewis-Hall, M.D., FAPA
The Lupus Foundation of America
Mr. and Mrs. Joel S. Marcus
Meso Scale Diagnostics, LLC.
Mr. and Mrs. Paul M. Montrone
Nabriva Therapeutics AG
NeuroRx
Newport Foundation, Inc.
Dame Jillian Sackler
SYNARC Inc.

$10,000–$24,999
Janet B. Abrams in memory of Bernard Abrams
Agilent Technologies, Inc.*
American Society for Bone and Mineral Research
Basilea Pharmaceutica International Ltd.
BioTeam
CereSpir, Inc.
Chiesi Farmaceutici S.p.A.
EUROIMMUN Foundation for Advanced Education in the Sciences
Matthew M. Frank and Shahin Jansepar
Friends of Cancer Research
Estate of Jack Gramlich
Steve and Sherry Mayer
Melinta Therapeutics
Mitsubishi Tanabe Pharma Corporation
Drs. Martin J. and Ann Murphy in honor of Dr. and Mrs. Charles A. Sanders
Myriad RBM
Neurotrack Technologies
Bob and Sally Newcomb
OfficeMax Incorporated
Beatrice & Reynold Paul Foundation
James and Lisa Reinish in memory of Shelby Brooke Reinish
Dr. and Mrs. Charles A. Sanders
Jane M. Sayer, Ph.D.
Dr. Ellen V. and Mr. Gerald R. Sigal
Solomon H. and Elaine B. Snyder
University of Sciences, Techniques, and Technology of Bamako

$5,000–$9,999
Anonymous
Catholic Health Initiatives
Centre for Proteomic & Genomic Research
Dairy Management Inc.
Miles Gilbrune and Nina Zolt
Carol-Ann Harris
James W. Jones in memory of Brenda Jones
Kelly and Adam Leight
Stephen and Maria Maebius in honor of Erica Maebius
Metabolon, Inc.
Profilo Holdings
Radiological Society of North America
Raycom Media, Inc. in memory of Edward Rancic
Robert E. Roberts, Ph.D.
John and Trina Rogers in memory of Brenda Jones
Matthew Scher and Barbara Lazio in memory of Barbara Lazio and Carol Scher
SOHO Publishing Company
Nina K. Solarz
Drs. Elias A. and Nadia Zerhouni

$2,500–$4,999
Ronald and Barbara Berke in memory of Jennifer Berke
The Honorable and Mrs. William McCormick-Blair, Jr.
Elsevier Life Science Team in honor of the Gallins
Joseph M. Feczko, M.D. and Leighton K. Gleicher
Fisher Foundation
Drs. Ernesto I. and Maria C. Freire
Paul J. Gattini
Chris and Laura Hazzard in memory of Richard Curtin
Conrad N. Hilton Foundation
U.S. Senator Amy Klobuchar
Dr. Mehdi Nafissi and Dr. Ann F. Welton
Dr. and Mrs. Garry A. Neil
Donna Nichols in memory of Jay Nichols
Matt and Robyn Nichols Painter in memory of Jay Nichols
Lenore R. Salzman
Simon Property Group
SunTrust Banks, Inc.
Samuel O. Thier, M.D. and Paula Thier
Ullmann Family Foundation
Steve and Chris Wilsey

$1,000–$2,499
Anonymous (6)
AcademyHealth
Affymetrix Inc.
Ronald A. and June L. Ahrens in memory of Xavier Martin
Dr. Nadarajah Balasubramanian in honor of Dr. Heiss
Raghu Bellary
Joe Bergera and Alice S. Cho
The Honorable and Mrs. Wayne Berman

[1] Superscript indicates number of years of consecutive giving.
Our Donors

Dr. Kathy and Mr. Zachary T. Bloomgarden
Ambassador and Mrs. Dwight L. Bush, Sr.
Mr. Charles Gerf and Dr. Cynthia E. Dunbar
Timothy Coyle
in honor of the Coyle Family
David Cramer
Daniel Cunningham and Mary Hennessey
Stewart Daniels, M.D.
Rob and Betsy Drucker
Marianne E. Durkin
Jack A. Elias, M.D.
Marianne E. Durkin
Eli Glatstein
Peggy J. Gerlacher
in memory of Norman Salzman
Peggy J. Gerlacher
Eli Glatstein
The Goldman Sachs Group, Inc.
Dr. and Mrs. Sam D. Graham
Margaret Grieve
in honor of Nina Solarz’s birthday
Gary and Lynn Grossman
in honor of Stephen J. Solarz’s birthday
Judy Harris
Eric and Susan Hatch
in honor of Dr. W. Marston Linehan
Harley Anderson Haynes, M.D.
Paul Herrling, Ph.D.
Arthur and Susan Horowitz
Pansy M. Howard
Jonathan Howard
IQ Solutions
Jimmy Beans Wool
Daniel Kastner, M.D., Ph.D.
Bernard H. and Georgina E. Kaufman
Paul Lam
Sherry Lansin and William Friedkin
Howard H. and Jacqueline K. Levine
in memory of Stephen J. Solarz
Jonathan D. Levine
in memory of Stephen J. Solarz
Jean Linton
Edison T. Liu, M.D., Ph.D.
James and Marie Malaro
The Honorable and Mrs. Frederic V. Malek
Merrill Lynch & Co., Inc.
Susanne N. O’Neill
Matthew W. O’Neill and Erica Joyce Lam
Amy L. Parker
Steven and Jann Paul
Joseph G. Persich, M.D., J.D. and Cathy J. Sulzberger
in honor of John Porter
Amy and John Porter
Sunny Raspet
The Essence of Red Committee
Ridley, Inc.
Charles P. Rogers Beds
Gregory and Sherry Roper
Mark Rosen
Robert and Marjorie Rosenberg
Shire Pharmaceuticals, Inc.
Albert H. and Lillian Small
Richard I. and Anastasia Smith
Russell W. Steenbank and Patricia Colbert
The Drs. Tremoulet
Marica and Jan Vlcek
Gail G. Weinmann, M.D.
Michael and Lisa Nichols Whitten
in memory of Jay Nichols
Stewart K. Wilson
in memory of Blaise Ribet
World Bank
in memory of Ewen Raballand
$500–$999
Anonymous (2)
Jeffrey and Ann Anderson
Drs. Bryan and Donna Arling
Ann Ashby and Ron Kopicki
Bruce J. Averbrook
Dan Balliet and Jan Carlson
Kathryn H. Bedell
Paula L. and William C. Bradley
Jeffrey Broome
The Honorable and Mrs. Zbigniew Brzezinski
Jan Chipman
Arthur Ciarkowski
in honor of Lois Cosner
Scot Jason Cohen Foundation Inc.
The Consortium of Multiple Sclerosis Centers Inc.
Dorothy Davies
in memory of Margaret Elkind Van Gelder
Jerry and Kathy Devore
Johanna Caramel Egan
Martin Friedlander, M.D. and Sheila F. Friedlander, M.D.
Ken and Yvette Guidry
Lindford M. Hallman
Barry and Sandy Harris
Kay A. Hart
Alison Harvey
Amy W. Hawthorne
Eva C. Holtz
in memory of Dorothy Davies
Jan Chipman
Mr. Suresh Subramani and Ms. Feroza Ardeshir
Jon and Kristin Vaver
Dr. and Mrs. Roy Weiner
David Wholley and Mary M. O’Crowley
Nicole Wolanski
Lucas Yun-Nikolac
Peter Lane
in memory of Gregory Fager
M & J Management Co., LLC
John Madden
John and Stacy Martin
Robert and Margaret McNamara Foundation
in memory of Stephen J. Solarz
Molecular Partners AG
in honor of Donald Bittaro
Jorge Morazzani
Dr. Gilbert S. Omenn and Mrs. Martha Darling
PharmAthene, Inc.
Lola Reinsch
Dr. and Mrs. Johng S. Rhim
Eric I. Richman
Richard and Jean Robbins
James and Lora Rodenberg
in memory of Dennis Rodenberg
Tali Rombro
in memory of Jane Lochary
Stanley O. Roth
Barbara Santos
Howard K. Schachman
in memory of Ethel Schachman
Laura Sergent
in memory of Kathleen C. Sergent
Charles H. & Beverly E Shaw Foundation
in memory of Margaret Elkind Van Gelder
Danny Shively
Cyrena Simons
Richard and Luan Smith
in memory of Gregory Fager
Mr. Suresh Subramani and Ms. Feroza Ardeshir
Jon and Kristin Vaver
Dr. and Mrs. Roy Weiner
David Wholley and Mary M. O’Crowley
Nicole Wolanski
Lucas Yun-Nikolac
**Our Donors**

$250–$499

Anonymous (6)

Macia Anderson  
in memory of Shelby Reinish

Jill H. Barr  
in memory of John Barr

Brenda L. Bass, Ph.D.  
in memory of Ernest Bass

Joan Beck  

Edwin D. Becker

Thomas Brunner  
in honor of Paul Sieving

Tino and Dawn Calabia

Daniel Carucci, M.D., M.Sc., Ph.D.  

Michael and Melissa Cather

Michael Cohen

Edward G. Conture, Ph.D.  

Craig Corbitt and Nancy Stoltz  

Martin J. Corso, M.D.  

Creech Family and Costello Elementary

Arlene and Richard Crowell  

Vickram and Sarah Cuttaree  
in memory of Ewen Raballand

Denise Interchangeable Knitting Needles

Garth M. Eddy

Drs. Howard J. Eisen and Judith E. Wolf

Shauna Ensrud

FS Networks

Melinda Fager

Lisa Foronda  
in memory of Judy Foronda

Arlyn Garcia-Perez

Jason and Gloria Garver  

Drs. David Golan and Laura Green  
in honor of Deborah Merke

Reina Gonzalez  
in memory of Carlos Santos

Joseph Grossman  

Parker and Kiki Gundersen

Dr. Max I. Hamburger

Joyce Harp, M.D.

James and Mary Louise Hayden

Robert Heady  

Eric Hirschhorn and Leah Wortham  

E. & A. Holtzman Foundation

Carol Horn  
in memory of Gregory Fager

I Back Jack Foundation Inc.

Stephanie L. James, Ph.D.  

Richard Jonas and Katherine Vernot-Jonas

Dr. and Mrs. Michael Kaliner  

John Kennedy  

Dr. and Mrs. David A. Kessler  
in memory of Gregory Fager

Edward Koo

Sandy Kotiah  
in memory of Jessica Payne

Beth Kramer  
in memory of Ewen Raballand

Melissa Kuskin  
in memory of Bennett Bruce Camhi

Dr. and Mrs. Theodore S. Lawrence

Thomas and Nancy Lusk

James Mahoney

David Marsden  
in honor of Abby Holtz & Lorant Szasz-Toth

Anne Alexander Marshall, Ph.D. and Davis Marshall

Cathleen Martin  

Dr. and Mrs. Henry Masur

Pedro Morazzani

Sara Morningstar  
in memory of Ewen Raballand

Eileen Murray  
in memory of Ewen Raballand

Diep Nguyen-van Houtte  
in memory of Ewen Raballand

Ingrid Ostergren

Alice Pau

Charles Payne  
in memory of Laurie Payne

Plymouth Yarn Company  

Roger Reading  
in memory of Lisa Sapak

Lawrence Rogow  
in memory of Gregory Fager

Jeffrey Rosen

Walter G. Rostykus and Catherine Elliott-Rostykus

Dr. Michael Ryan and Dr. Linda Ryan  

Nikhil Sadarangan

Michael Samelson

Cecelia Spitznas

Rainer F. Storb, M.D.

Anthony Tassone  

Ryan Temming  

Arlene Urquhart  

Eric Van Gelder  
in memory of Margaret Elkind Van Gelder

Richard and Tracy Nichols Waggner  
in memory of Jay Nichols

Michael and Marianne Walter

Paula J. Warrick, Ph.D.  

Robert C. Watson and Debra D. Petersen  

Sara Lou Whildin

Ingrid Wiley  

Peggy Williams, Jame Regam Considine, and Sarah Underhill  
in memory of Gregory Fager

John H. Wilson

Howard and Julie Wolf-Rodda  

Carol Shaw Woodard  
in memory of Margaret Elkind Van Gelder

Joyce A. Yarington  
in memory of Jan Weymouth

Joel Yesley

---

**FUNDS & ENDOWMENTS**

We are grateful to the many individuals and organizations that have established funds or endowments at the FNIH to pay tribute to people and causes that matter to them. Such gifts provide essential ongoing support for research and education, as well as events in biomedicine at the NIH. Endowment gifts at all levels help to advance the pace of discovery and generate innovations that improve lives.

**GIVING SOCIETIES**

The FNIH acknowledges individuals who have supported our programs with a major gift in 2014 as members of our Giving Societies.

For a more complete list of donors, funds and endowments, visit fnih.org/about/foundation/annual-reports. Please call 301.402.4976 if you have any questions.
Board of Directors

Charles A. Sanders, M.D. (Chairman)  
Retired Chairman and CEO, Glaxo, Inc.

Mrs. William McCormick Blair, Jr. (Secretary)  
Director Emeritus, Albert and Mary Lasker Foundation

Kathy Bloomgarden, Ph.D.  
Chief Executive Officer, Ruder Finn, Inc.

Mrs. William (Buffy) N. Cafritz  
Trustee, The John F. Kennedy Center for the Performing Arts

Mr. James H. Donovan  
Partner, Goldman Sachs & Company; Adjunct Professor, University of Virginia

Joseph Feczko, M.D.  
Retired Senior Vice President & Chief Medical Officer, Pfizer Inc.

Maria C. Freire, Ph.D.  
President and Executive Director, Foundation for the National Institutes of Health

Mr. Miles Gilburne  
Managing Member, ZG Ventures, LLC

Paul L. Herrling, Ph.D.  
Chairman, Novartis Institute for Tropical Disease

Ronald L. Krall, M.D.  
Former Senior Vice-President and Chief Medical Officer, GlaxoSmithKline

Ms. Sherry Lansing  
Chief Executive Officer, The Sherry Lansing Foundation

Freda C. Lewis-Hall, M.D.  
Chief Medical Officer, Senior Vice President, Pfizer Inc.

Edison T. Liu, M.D., Ph.D.  
President and Chief Executive Officer, The Jackson Laboratory

Ms. Ann Lurie  
Lurie Holdings, Inc., Ann & Robert H. Lurie Foundation

Mr. Joel S. Marcus  
Chairman, CEO, President and Founder, Alexandria Real Estate Equities, Inc.

Mr. Steven C. Mayer (Treasurer)  
Retired EVP & CFO, Human Genome Sciences; Retired Founder & CEO, CoGenesys, Inc.

Paul M. Montrone, Ph.D.  
Chairman, Perspecta Trust

Martin J. Murphy, Jr., Ph.D.  
Chairman & Chief Executive Officer, AlphaMed Consulting, Inc.

Garry A. Neil, M.D.  
Global Head R&D, Medgenics, Inc.

Steven M. Paul, M.D.  
President & CEO, Voyager Therapeutics, Inc.

The Honorable John Edward Porter  
(Vice Chairman for Policy)  
Hogan Lovells US, LLP

Mrs. Jillian Sackler, D.B.E.  
President and CEO, AMS Foundation for the Arts, Sciences and Humanities

Mrs. Lily Safra  
Chairwoman, The Edmond J. Safra Philanthropic Foundation

Ellen V. Sigal, Ph.D.  
Chairperson, Friends of Cancer Research

Solomon H. Snyder, M. D.  
(Vice Chairman for Science)  
Distinguished Service Professor of Neuroscience, Johns Hopkins University School of Medicine

Ms. Nina K. Solarz  
Former Executive Director of Peace Links and the Fund for Peace

Samuel O. Thier, M.D.  
Professor of Medicine and Health Care Policy, Emeritus, Harvard Medical School, Massachusetts General Hospital

Anne Wojcicki  
Chief Executive Officer and Co-Founder, 23andMe

HONORARY DIRECTORS

Luther W. Brady, M.D.  
Distinguished University Professor, Drexel University College of Medicine

Patrick C. Walsh, M.D.  
University Distinguished Service Professor of Urology, Johns Hopkins Medical Institutions

DIRECTOR EMERITUS

Paul Berg, Ph.D.  
Cahill Professor in Biochemistry (Emeritus), Stanford University School of Medicine

EX-OFFICIO

Francis S. Collins, M.D., Ph.D.  
Director, National Institutes of Health

Margaret A. Hamburg, M.D.  
Commissioner, Food and Drug Administration
Our Staff

PRESIDENT’S OFFICE

Maria C. Freire, Ph.D.
President and Executive Director

Ann Ashby, M.B.A.
Deputy Executive Director

Andrea Baruchin, Ph.D.
Senior Advisor to the President

Erika Tarver
Senior Project Manager

Felicia Gray
Executive Assistant

Elizabeth S. Johns
Executive Assistant

Kathy Peterson
Operations Officer

DEVELOPMENT

Julie Wolf-Rotdda, M.A.
Director of Development

Renée Bullion, M.P.A.
Development Officer

Meredith Donnelly
Development Officer

Emily Acland
Development Officer

Jillian Bante
Development Assistant

William Tolentino
Development Systems Administrator

ADVANCEMENT

Melissa Cather, C.F.R.E.
Director of Advancement

Rob Drucker, J.D.
Partnership Development Officer

Laren Friedman, M.F.A.
Writer/Researcher

SCIENCE ADMINISTRATION

Stephanie James, Ph.D.
Director of Science

Michael Gottlieb, Ph.D.
Deputy Director of Science

Dennis Lang, Ph.D.
Senior Program Coordinator, MAL-ED (Contractor)

Karen Tountas, Ph.D.
Scientific Program Manager, MAL-ED

Gail Levine, M.A., C.R.C.C.
Scientific Program Manager, CTC-VIMC

Susan Powell, M.T.S.
Senior Grants Manager

Susan Wiener, M.A.
Senior Project Manager, GCGH

Anna Sambor, M.S.
Program Manager

Tiffany Francis
Grants and Administrative Assistant

RESEARCH PARTNERSHIPS

David Wholley, M.Phil.
Director of Research Partnerships

Maria Vassileva, Ph.D.
Senior Scientific Program Manager, Metabolic Disorders

Sonia Pearson-White, Ph.D.
Scientific Program Manager, Cancer

Steve Hoffmann, M.S.
Scientific Program Manager, Inflammation and Immunity

Rosa Canet-Aviles, Ph.D.
Scientific Program Manager, Neuroscience

Paula Eason, Ph.D.
Scientific Program Manager, Cancer

Dorothy Jones-Davis, Ph.D.
Scientific Project Manager

Sanya Whitaker, Ph.D., P.M.P.
Scientific Project Manager

Jessica Ratay, M.S.
Clinical Project Manager

Cheryl Melencio
Executive Assistant

Jessica Jones
Administrative Assistant

COMMUNICATIONS

Richard Folkers
Director of Communications

Kai Yee
Digital Administrator

INTERNS

Emma Bradford

Amber Langway

Anisa Sanghrajka

FINANCE

Julie, Tune, C.P.A., C.F.E.
Chief Financial Officer

Eva Coyne, C.P.A.
Controller

Cathy Martin, C.P.A.
Senior Accountant

Noemi B. Rodriguez
Staff Accountant

Peggy J. Gerlacher
Operations Associate

EVENTS AND MARKETING

Jolie Mak
Events Manager

Jasmin Miles, C.M.P.
Senior Events Coordinator

Andrea Hickman
Events Coordinator

Janelle Lewis
Events Coordinator

Sarah Kay
Events Assistant
INDUSTRY AND NONPROFIT PARTNERS
for initiatives featured in this year’s annual report.

PAGES 4 & 5: ACCELERATING MEDICINES PARTNERSHIP (AMP)

Private Industry:
AbbVie
Biogen
Bristol-Myers Squibb Company
Eli Lilly and Company
GlaxoSmithKline
Janssen Research & Development, LLC
Merck Sharp & Dohme Corp.
Pfizer Inc
Sanofi
Takeda Pharmaceuticals

Not-for-Profit:
Alliance for Lupus Research
Alzheimer’s Association
Alzheimer’s Drug Discovery Foundation
American Diabetes Association
Arthritis Foundation
Geoffrey Beene Foundation
Alzheimer’s Initiative
JDRF International
The Lupus Foundation of America
Lupus Research Institute
Pharmaceutical Research and Manufacturers of America
Rheumatology Research Foundation
US Against Alzheimer’s

Page 8: LUNG-MAP
American Lung Association
Amgen, Inc.
AstraZeneca Pharmaceuticals, LP
Genentech
MedImmune
Pfizer Inc

Lung-MAP Design Phase:
Amgen, Inc.
AstraZeneca
Boehringer Ingelheim
Genentech
Janssen Research & Development, LLC
Eli Lilly and Company
Novartis Pharmaceuticals Corporation
Andrew & Lillian A. Posey Foundation
LUNGevity Foundation

PAGE 9: SARCOPENIA
Abbott Nutrition
Amgen, Inc.
Dairy Research Institute
Eli Lilly and Company
Merck Sharp & Dohme Corp.
Novartis Pharmaceuticals Corporation

ART & PHOTO CREDITS
Cover: Diabetes, Sweet
(50” x 60” oil on canvas)
Artist: Jody Rasch, www.raschart.com
Page 1: Image of Maria C. Freire, Ph.D., Richard Folkers, FNIH
Page 4: GettyImages.com
Page 5: American College of Rheumatology
Page 6: Associated Press
Page 7, left: Donald E. Hurlbert, Smithsonian Institution National Museum of Natural History
Page 7, right: Richard Folkers, FNIH
Page 8: iStockphoto.com
Page 9, left: sciencephoto.com
Page 9, right: Thinkstock.com

DESIGN
Rector Communications, Inc.,
Philadelphia, PA
www.rector.com

A New Vision for Discovery