



# THE CHARLES A. DANA FOUNDATION

2000 ANNUAL REPORT

**“...reasoned optimism, rooted in commitment to enlarge knowledge of the brain’s workings and to direct that knowledge toward new treatments and eventual cures.”**

The Charles A. Dana Foundation has principal interests in science, health, and education. Mr. Dana, a New York State legislator, industrialist, and philanthropist, was president of the Dana Foundation from 1950 to 1966 and actively shaped its programs and principles until his death in 1975. His abiding beliefs were in the capacity and responsibility of individuals to advance their lives and in the singular role of philanthropy in helping them do so.

Applications to the Charles A. Dana Foundation are reviewed in accordance with the guidelines at the end of this annual report.



# THE CHARLES A. DANA FOUNDATION

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(as of March 31, 2001)

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## CHAIRMAN'S LETTER

When this foundation launched the Dana Alliance for Brain Initiatives, it had two purposes in mind: to provide support to scientists on the brink of breakthroughs in neuroscience and, at the same time, to enhance public awareness of what brain research could bring to our lives.

Meeting in the Cold Spring Harbor laboratories of Nobel laureate James Watson, a group of farsighted scientists joined with Dana Chairman David Mahoney to identify 10 major achievable scientific goals in brain research for the Decade of the Brain.

Some of those goals have been attained; progress toward others has been significant; some remain out of reach. Meanwhile, on the public awareness front, the potential of brain research to transform the diagnosis and treatment of diseases and disorders has moved to the forefront of medical and lay attention.

In 2000, as a new decade approached, Dana board members and the scientists of the Dana Alliance decided that the time was propitious for a reexamination of specific goals and the articulation of a long-range vision for the field.

Accordingly, the Foundation brought together 35 scientists of the Alliance and its international counterpart, the European Dana Alliance for the Brain, to take a long, hard look ahead. That meeting, at the New York Academy of Sciences in Manhattan, was led by Guy M. McKhann, M.D., W. Maxwell



***William Safire, Chairman***

Cowan, M.D., Ph.D., and Zach Hall, Ph.D. I can report to you that it was both stimulating and rewarding.

The text of the new goals as well as the vision statement adopted by both Alliances can be found on our Web site, [www.dana.org](http://www.dana.org). You will find it to be a manifesto of reasoned optimism, rooted in the members' commitment to enlarge knowledge of the brain's workings and, using the latest technologies, to direct that knowledge toward new treatments and eventual cures.

That was not all; the scientists recognize that with progress comes controversy. Science does not operate independently of society. The statement reaffirms the indispensable interaction between the public and scientific community, as together we grapple with social and moral implications of advances in fields like human genetics,

biological psychiatry, and stem-cell research. To what degree should we seek to alter the mental makeup of a diverse humanity? The field of “neuro-ethics” is opening.

Even as they charted new directions, the Dana Alliance and European Dana Alliance in 2000 opened new channels of public communication. Brain Awareness Week, the flagship annual event of both Alliances, has become global, reaching out to interested publics in India and Japan as well as throughout Europe. More than 1,200 organizations—schools, academic research institutions, scientists, patient groups, and educators worldwide—took active parts in the Brain Awareness Week campaign. The Foundation’s Board of Directors, joined during the year by Edward Bleier and Hildegard Mahoney, backed the scientific community in seizing these opportunities for two-way communication.

## **Advances in Education and Health**

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Throughout its 50-year history, the Foundation has been active in promoting new ideas in education. This year the Dana Center for Educational Innovation, in Austin, Texas, explored the effectiveness of Advanced Placement (AP) courses for college-bound minority students who may no longer be able to rely on affirmative action policies and practices to offset deficiencies in their

*To provide support to scientists on the brink of breakthroughs in neuroscience and, at the same time, to enhance public awareness of what brain research could bring to our lives.*

high-school course offerings. Dana also began planning its approach to enhancing arts education by supporting groups engaged in training teachers and artists to bring performing arts into classrooms. The first grants will be made in 2001.

The Foundation continued to support medical advances with interdisciplinary research and training, as well as grants for pilot testing new ideas and approaches. A major grant to the Dana Farber Cancer Institute in Boston created the David Mahoney Center for Neuro-oncology, a research and training program with Harvard University to improve treatments for patients with brain tumors. Grants to Cold Spring Harbor Laboratory and Brown University will help train scientists for research that combines genetics, information sciences, molecular biology, and neuroscience.

Dana’s Clinical Hypotheses Program, begun six years ago, makes grants to scientists in American medical schools who want to test new ideas in specific areas of neuroscience. The initiative has stimulated

ideas in many areas of brain research. In 2000, the Foundation made 15 grants to investigators exploring ways to use existing brain imaging technologies to understand brain processes or enhance treatment. Almost two dozen other grants are making it possible to test theories about the biological mechanisms underlying interaction of the brain and central nervous system with other body systems in health and illness.

Planning was begun in 2000 to add a new round of studies to our existing investigations of the brain's interaction with heart disease, stroke, and cancer: how the brain and certain mental states affect and are affected by immune function. We intend to make grants that will foster collaboration between neurologists and immunologists in research on interaction of the brain and the immune system, as well as to consider ways to strengthen the body's innate and acquired defenses against assault from natural or man-made pathogens.

## Explaining the Brain

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Dana's expert staff continues to provide accurate, timely information about the brain and brain research. The press office responds to queries from the nation's journalists. Our Internet office made the [dana.org](http://dana.org) Web site easier to navigate and more interactive. Dana Press periodicals like *Brainwork* and *Brain in the News*, distributed free, added thousands of new readers,

including teachers and students using its classroom *Brain Science Guide*. Our annual *Progress Report* is required reading for many who want to keep abreast of developments across the neuroscience spectrum. Several Dana books progressed toward publication in 2001 and 2002. Our 120-page quarterly journal, *Cerebrum: The Dana Forum on Brain Science*, in its second year of publication, presents thought-provoking articles on topical issues and enjoyed a healthy gain in new subscribers.

## In Conclusion

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As recorded in the financial statements that begin on page 33, Dana in 2000 made appropriations for programs and grants during the year of \$20 million and payments of \$14 million. Since its formation in 1950, the Foundation has appropriated more than \$297 million for philanthropic purposes.

In 2000, the Charles A. Dana Foundation hailed the 50th anniversary of its founding but also mourned the death of its chairman and my long-time friend, David Mahoney. David's indomitable spirit and his vision for the Foundation are his legacy and Dana's blueprint for years ahead.



William Safire  
Chairman



# REPORT ON 2000

**DANA ALLIANCE  
ENVISIONS A WORLD FREE  
FROM THE BURDENS OF  
BRAIN DISEASE**

**Commitment to Global Outreach  
in A New Century**



The invitation to one Brain Awareness Week 2000 event, a lecture at Oregon Health Sciences University, came with a holograph cover and 3-D glasses.

*Imagine a world . . .*

*In which Alzheimer's, Parkinson's, and Lou Gehrig's (ALS) diseases—and retinitis pigmentosa and other causes of blindness—are commonly detected in their early stages, and are swiftly treated by medications that stop deterioration before significant damage occurs.*

*In which spinal cord injury doesn't mean a lifetime of paralysis, because the nervous system can be programmed to re-wire neural circuits and reestablish muscle movement.*

*In which drug addiction and alcoholism no longer hold people's lives hostage, because easily available treatments can interrupt the changes in neural pathways that cause withdrawal from, and drive the craving for, addictive substances.*

*In which the genetic pathways and environmental triggers that predispose people to mental illness are understood so that accurate diagnostic tests and targeted therapies—including medications, counseling, and preventive interventions—are widely available and fully employed.*

*In which new knowledge about brain development is used to enhance the benefits of the crucial early learning years and combat diseases associated with aging.*

*In which people's daily lives are not compromised by attacks of depression or anxiety because better medications are being developed to treat these conditions.*

So begins the new vision and goals statement adopted by the Dana Alliance for Brain Initiatives (DABI) and the European Dana Alliance for the Brain (EDAB) at the end of 2000. Eight years have passed since the formation of the Dana Alliance and the identification of 10 achievable research objectives for the 1990s. Since then, major advances have been made in neuroscience and public awareness of its value, but much more is needed. Understanding of how the brain works has advanced dramatically; neuroscience is on the threshold of using this knowledge to diagnose, treat, and even prevent the devastating brain diseases that burden society.

### **A New Vision for a New Century**

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In August 2000, the Dana Alliance convened a meeting to review the accomplishments of the past decade and consider how the Alliance should direct its efforts over the next five to ten years. Thirty-three members, a cross-section of the organization, attended the day-long session at the New York Academy of Sciences, where they discussed new directions and audiences and identified

new goals and themes for the Alliance. Then the members, led by executive committee members Guy McKhann, M.D., W. Maxwell Cowan, M.D., Ph.D., and Zach Hall, Ph.D., drafted a vision and goals statement for the first years of the new century.

The new document, reflecting remarkable advances made in research and technology, and a growing commitment by scientists to communicate the excitement, potential, and the benefits of brain research to the public, has five sections:

1. A vision of a future free from the burden of brain diseases and disorders;
2. A set of near-term research goals;
3. A strategy to build on basic research in genomics, brain development, and understanding of how the brain works;
4. Tools to accomplish the research goals, including cell replacement, neural repair mechanisms, advances in imaging technology, and novel methods of drug discovery;
5. A discussion of the commitment by scientists not only to communicate and translate science for the public, but to engage in candid dialogue with the public to address the social and ethical questions that arise as medical research continues to advance.

*...the commitment by scientists not only to communicate and translate science for the public, but to engage in candid dialogue with the public to address the social and ethical questions that arise.*

This document (available in full at [www.dana.org](http://www.dana.org)) will help shape the future of both DABI and EDAB and the content of their programs and publications, as well as identify new audiences who will benefit from them.

### **The Dana Alliance's Active and Distinguished Membership**

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From students in classrooms to heads of state and world business leaders at the World Economic Forum in Davos, Switzerland, audiences are hearing from DABI members about brain research and its impact on each of us. During 2000, members contributed to Dana publications and information on the Dana Web site, participated in public lectures and panel discussions, were featured on radio and television programs, and through the Dana Press Office provided expert information to the media.

DABI has grown to more than 210 members in North America, including nine Nobel laureates and other prominent researchers

and clinicians. This year two Alliance members became Nobel laureates: Paul Greengard, Ph.D. and Eric R. Kandel, M.D., shared the 2000 Nobel Prize in Medicine or Physiology with Sweden's Arvid Carlsson, M.D., for discoveries about how brain cells communicate.

The annual dinner for members of the Dana Alliance for Brain Initiatives, the European Dana Alliance for the Brain, and other invited guests was held on November 4, 2000, during the Society for Neuroscience's annual meeting. Later, at the Society's opening public lecture for an audience of more than 4000, the organization's president (and an Alliance member), Dennis Choi, M.D., Ph.D., presented the Society's 2000 Presidential Award to the Dana Foundation in memory of David Mahoney, "gratefully acknowledging his vital contributions and achievements as an advocate of neuroscience research."

### **Dialogue, Sparks, and Multilingual Activities in Europe**

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Completing its fourth year in 2000, the European Dana Alliance for the Brain has continued to gain momentum. In common with other communicators of science, EDAB recognizes that simply disseminating

scientific facts is not enough. Scientists of all disciplines must engage in dialogue with the public in order to help them understand the implications of research for our daily lives.

The London office of EDAB, in addition to spearheading Brain Awareness Week activities, developed partnerships with organizers of national science communication programs, such as the British Association for the Advancement of Science and the Science Museum in London. EDAB has also collaborated with neuroscientists through the Federation of European Neuroscience Societies and the British Neuroscience Association.

In 2000, Dana joined the Science Museum, the Wellcome Trust, the Wolfson Foundation, the Farfield-Weston Foundation, and the British Association in establishing the Dana Centre to serve as the UK's national focal point for communication and debate between the international scientific community and the public. This exciting collaboration will enable EDAB to be an active partner in the development of a strong science communications program in Europe and to provide expertise in the area of brain research.

EDAB was a leading participant in the first formal meeting of the Federation of European Neuroscience Societies (FENS). The meeting, held in Brighton, UK, at the end of June, attracted more than 5,300 delegates from around the world and established FENS as the recognized authority in European

neuroscience. EDAB ran a full-service press office and presented 12 press conferences, providing journalists with highlights of European neuroscience on topics such as learning and memory, neural stem cell transplantation, and new treatments for schizophrenia. EDAB also set up an exhibit of DABI, EDAB, and Dana Press materials in several languages and held a Brain Awareness Week reception to thank existing partners and encourage participation, particularly by the younger generation of neuroscientists eager to communicate brain research to wider audiences. At FENS, EDAB also participated in a public lecture entitled "Brain, Mind, and Society at the Millennium," which explored the implications of the neuroscience of consciousness and how society might cope with developments in technology. Colin Blakemore, chief executive of EDAB, chaired the lecture, which drew more than 2,000 people.

At the British Association's Annual Festival of Science in September, EDAB members and fellow brain researchers gave a series of talks on "The Brain and Human Experience." The theme of the Festival, "Creating Sparks," celebrated the parallel worlds of art and science.

EDAB's Lausanne, Switzerland, office is the hub where its publications are written and translated for distribution throughout Europe. *EuroBrain*, EDAB's multi-lingual newsletter for scientists, journalists, and the public, is now in its second year of providing information

***The global nature of the campaign demonstrates the strength of interest in the brain shared by the public at large, scientists and professionals, educators and students, and young and old.***

on topics such as memory, addiction, and stem cell research. *EuroBrain*, published in English, French, German, and Italian, is distributed by EDAB in Switzerland and the United Kingdom and through the national Societies of Neuroscience in France, Germany, Austria, and Italy. The Lausanne office also translated DABI's *Progress Report, Update 2000: Brain Research in the New Millennium*, adapting it to include research from the Continent of interest to its European audience. This report was sent to scientists and handed out at public events during Brain Awareness Week and year round. EDAB's Web sites offering information in English, French, German, and Italian are linked directly with the Dana site in the United States.

In 2000, also, the first annual EDAB public lecture took place in Bern, Switzerland. The lecture, on a topic of public interest, will

move from country to country each year and be featured in *EuroBrain*. The topic for 2000 was "The Brain and the Genome," from the perspective of both basic science and clinical applications. Next year's lecture will be presented in Germany.

### **Brain Awareness Week: A Global Effort**

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A record number of organizations participated in the fifth annual observance of Brain Awareness Week, the international campaign to raise public awareness of the benefits, promise, and progress of brain research. Coordinated by DABI and EDAB, the March 13-19, 2000, campaign reached an audience of millions across six continents.

Begun in 1996 as a modest effort by 160 organizations in the United States, Brain Awareness Week has become a unique international partnership of more than 1,200 scientific institutions, patient-advocacy groups, government agencies, service groups, hospitals, universities, K-12 schools, and affiliates in 41 countries. The global nature of the campaign demonstrates the strength of interest in the brain shared by the public at large, scientists and professionals, educators and students, and young and old.

During Brain Awareness Week 2000, the world of neuroscience was transformed, as universities and research centers opened their doors to the public, and brain researchers ventured beyond their laboratories to speak

to the public about the importance and excitement of brain research. Here is just a sampling:

- A Brain Park and Exhibition in China attracted 25,000 people.
- Seasoned Brain Awareness Week partners in the United Kingdom sponsored workshops on music, relaxation, and the brain.
- In Bern, Switzerland, Loeb department store created an interactive window display that people could walk through and learn about the different functions of the brain.
- India was the site of public presentations on topics such as schizophrenia, drug addiction, stroke, brain tumors, and learning disabilities.
- In Saskatchewan, Canada, the public attended "The Brain Show," featuring a "Brain Walk" with interactive exhibits, a "Brain Games" room, video presentations, highlights of current brain research, and displays by voluntary and government health agencies.

- A Neurosciences Open House in Virginia enabled visitors to experience what happens to a head or spine trauma patient, from being airlifted by helicopter to the emergency room to procedures in the operating room.
- In 48 cities and 29 states throughout the United States and Canada, the brightest teenage brains competed in the second annual National Brain Bee.
- In Houston, Texas, museum-goers entered a futuristic world and discovered medical knowledge from the past in "The Reconstructors," an interactive science game on exhibit at the Museum of Health and Science.

In addition to providing partner organizations with on-line and print resources, the Dana Alliance also coordinated Brain Awareness Week events in Washington, DC. It co-sponsored a luncheon with the Congressional Biomedical Research Caucus entitled "Brain Research: On the Road to Results" and, in conjunction with the National Institutes of Health and the National Museum of Health and Medicine, sponsored two days of programming for middle school students.

## Communicating Through the Media

The Dana Alliance produces award-winning radio and television documentaries that reach millions of listeners and viewers with information about the latest developments in brain science.

Three new programs in the *Gray Matters* radio series were produced in 2000: "Emotion and the Brain," "Sleep and the Brain," and "Surgery and the Brain," all hosted by veteran journalist Garrick Utley. DABI also completed distribution of *Gray Matters: A 13-Part Series*, comprising the three new programs and ten updated episodes from previous years. Thousands of additional listeners across the country can access the programs through public radio station Web sites and link to the Dana Web site for further information.

"The Brain-Body Connection," the final program in DABI's *Exploring Your Brain* public television series, premiered early in 2000 and explored depression and disease, sports and the brain, and chronic pain. Hundreds of requests for information on depression and chronic pain were received

*By allowing ourselves to imagine what benefits a new era in neuroscience may bring, we build support for progress.*

after the premiere. Most major markets carried the program in prime time or as part of their documentary and public affairs programming package. Thus far, 75 PBS stations have carried multiple broadcasts of the program, with a projected audience of more than 1,040,000 viewers. Rebroadcast will continue for several years.

In addition to participating in these TV and radio programs, DABI scientists provide expert information on brain topics to television, radio, and print journalists through the Dana Press Office (see page 26). Offering a broad range of information to an interested public, DABI publications produced by The Dana Press include the annual *Progress Report; Brain Connections*, a popular reference guide to organizations providing resources on specific diseases and disorders; and the quarterly *Dana Alliance Member News* for members of DABI and EDAB (see page 26).

## **An Essential Dialogue**

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Effective communication is at the heart of the Dana Alliance's mission and its many activities. Public confidence in science is essential if that mission is to succeed. To this end, dialogue between scientists and the public is essential in considering the ethical and social consequences of advances in brain research.

The neuroscientists of the Dana Alliance for Brain Initiatives and the European Dana Alliance for the Brain have been committed to ambitious goals, beginning in 1992 in Cold Spring Harbor, New York, where an American research agenda was set forth, and again in 1997, when the newly formed European group followed with its own objectives. Both groups are now setting new targets to capitalize on the progress made, specify what might be achieved in the near term, and project longer-term aims. By allowing ourselves to imagine what benefits a new era in neuroscience may bring, we build support for progress. ■

# TOUGH QUESTIONS ONLY: FOUNDATION GRANTS TARGET TOPICS FROM IMMUNE FUNCTION TO AP MATH FOR ALL

New Challenges for Foundation's 50th Year



Foundation grants are helping scientists use magnetic resonance imaging and other neuroimaging techniques to explore how the activity of the brain changes in conditions such as addiction, epilepsy, and stroke.

**W**hat is the best way to educate future scientists about the brain in health and disease, exploiting all the disciplines and tools now available, or coming soon? How do the brain and the immune system interact to defend against disease, or sometimes precipitate it? How do brain-tumor cells originate and multiply, and what does this process tell us about the genetics of brain development in general? How do Advanced Placement (AP) mathematics courses prepare the brightest from all ethnic and socioeconomic groups to excel in math and science? These are a few of the questions that the Foundation's grant-making program targeted in its 50th year, a year of continuation, exploration, and initiation of new directions in the Foundation's long-standing areas of interest, education and health.

## Education

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In 2000, the Foundation made a grant to the Dana Center for Educational Innovation in Austin, Texas, founded and directed by 1988 Dana Award winner Uri Treisman, Ph.D. The Center will explore the effectiveness of AP mathematics courses for minority students amid national changes in affirmative action policies and practices. The project advances the Center's mission to strengthen public education, particularly in poor communities, at a time of national

concern about reports of school performance in math and reading.

This year, the practice of funding dissemination of models for K-12 education selected through the Dana Awards for Pioneering Achievements was not pursued because the Awards program was suspended while the Foundation focused on 50th-anniversary events. The hiatus represented an opportunity to chart future directions in education grant-making, planning that will continue in 2001. One new direction chosen in 2000 was an invitational competition for proposals to improve the training of public school performing arts teachers. The first of these grants will be made in 2001.

Education did emerge this year as a topic in the health grants program, with projects to help graduate and undergraduate science students acquire skills from multiple disciplines that are needed to study complex brain questions.

## Health

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Continuing the Foundation's emphasis on understanding brain function in health and disease, the health grants program this year focused on promoting brain imaging and interdisciplinary research and training.

The interdisciplinary theme ran through three training and research grants made in 2000. A \$7.4-million grant to the David Mahoney Center for Neuro-oncology at the

Dana-Farber Cancer Institute, Boston, initiates a new research and training program on brain tumors in collaboration with Harvard University. Continuing a 35-year history of Foundation support for Dana-Farber, the grant lets scientists explore a fundamentally new way to treat and perhaps eventually prevent brain tumors by identifying genetic mechanisms that ordinarily give rise to a healthy brain but, when the genes mutate, create brain-tumor cells. The research may also yield clues to mutations that trigger other brain diseases such as Alzheimer's and schizophrenia. The key to both research and training will be integrating genetics, information science, and neuroscience.

Recognizing the importance of interdisciplinary training for new scientists, the Foundation gave support to Cold Spring Harbor Laboratory on Long Island, headed by Nobel laureate and Dana Alliance member James Watson, Ph.D., to create an accelerated doctoral program. Students, who will have both an academic and a research mentor, will "learn how to learn" about the rapidly developing fields of genetics, information science, and molecular biology and how to integrate knowledge from these fields. Similarly, Brown University will use Foundation funds for a new interdisciplinary research and training program that integrates basic and clinical neuroscience with areas such as computational science, genetics, and molecular biology. The goal is to understand further the complex brain processes involved in mental illnesses,

behavior, learning, memory, cognition, and perception.

Interdisciplinary research also plays a prominent role in the Clinical Hypotheses Program, described in the following section.

### **The Clinical Hypotheses Program**

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Since it began in 1994, the Clinical Hypotheses Program has been enabling investigators to test innovative ideas that, if promising, may compete for more substantial funding elsewhere. The program began by focusing on the use of imaging to explore the brain's structure and function in health and disease. The accelerated, highly competitive review process provides support within six months of the initial application.

In 1998, reflecting the Foundation's interest in determining how states of mind such as depression and stress may interact in the onset and outcome of cardiovascular disease and cancer, the Clinical Hypotheses Program added a Brain-Body Interaction component. This year the Foundation added a further emphasis on how the mind may affect immune system function.

An analysis of imaging grants made since 1994 revealed that the research has kept pace with the rapid technological advances in the field. While positron emission tomography

*The goal is to understand further the complex brain processes involved in mental illnesses, behavior, learning, memory, cognition, and perception.*

(PET) studies predominated in the program's early years, studies relying on newly developed imaging forms such as magnetic resonance imaging (MRI) predominate today. About 70 percent of imaging projects have gone on to win large-scale support from other sources, primarily the National Institutes of Health. This suggests that the program is taking important risks instead of betting on sure winners. Based upon input from its scientific advisors, the Foundation plans to continue the Imaging component in its current form.

In taking stock of the Brain-Body component, reviewers have noted a heavy emphasis by grant applicants on exploring the relationship between depression and the onset and outcomes of cardiovascular disease, a phenomenon gaining increasing attention by scientists. Reviewers are advising the Foundation how best to catalyze new approaches to identifying the mechanisms involved in this relationship.

Reviewers are also helping the Foundation to consider means to stimulate identification of

key clinical research questions that will help to reveal the basic mechanisms involved in the interaction between the brain and the immune system. Any changes in the Brain-Body components of the program will be announced on the Foundation's Web site ([www.dana.org](http://www.dana.org)) and in calls for proposals.

To date, 102 grants totaling more than \$10 million have been made under the Clinical Hypotheses Program. Summaries of them, including the 36 made in 2000, and described briefly below, may be found on the Foundation's Web site.

### **Imaging**

Clinical Hypotheses in Imaging grants (58 to date) stimulate innovations in the use of brain-imaging technologies, new approaches to understanding brain processes, and monitoring brain activities or the effects of new therapies. Following are descriptions of the 15 grants awarded in 2000.

- University of Alabama researchers are using magnetic resonance spectroscopy imaging to test the hypothesis that patients who undergo surgery for epilepsy experience improvements in certain cognitive functions, including memory, as a result of metabolic recovery and improvement in surrounding brain tissue.

- Johns Hopkins University School of Medicine researchers are using functional magnetic resonance imaging (fMRI) to examine how patients with the severe epilepsy known as Rasmussen's syndrome who have had their dominant "language hemisphere" removed reestablish language function in the non-dominant hemisphere.
- University of Pennsylvania researchers are using PET imaging to test whether the chemical messenger dopamine plays a role in cocaine craving.
- Rush-Presbyterian Medical Center researchers are exploring the use of fMRI as a non-invasive way to measure intracranial pressure in head-injured patients.
- Medical University of South Carolina researchers are using fMRI to see if depressed patients treated with Vagal Nerve Stimulation (a brain "pacemaker") exhibit brain activity changes and whether those changes are associated with alleviation of their depression.
- Vanderbilt University researchers are determining whether MRI is superior to ultrasound in showing central nervous system (CNS) anatomy in utero and in tracking the effects of prenatal surgery that is used to correct fetal CNS problems.
- Washington University researchers are asking if PET imaging can pinpoint the origin of an epileptic seizure in children who may benefit from surgery to control their seizures.
- Johns Hopkins University School of Medicine scientists are using two types of imaging—magnetic resonance perfusion imaging and diffusion weighted imaging—to see if medication that raises blood pressure effectively limits the size and impact of a stroke when the medication is given within seven hours after symptoms begin.
- Kennedy Krieger Institute researchers are using a new technique, diffusion tensor imaging, to see if they can identify the nerve pathways involved in certain types of learning impairments.
- Investigators at the University of Michigan are using PET and MRI imaging to advance understanding of mechanisms involved in alcohol addiction and in relapse following temporarily successful treatment.
- Yale University School of Medicine researchers are using fluorodeoxyglucose PET imaging to determine which areas of the brain are involved when patients with severe schizophrenia continuously hear voices (auditory hallucinations), and then to determine whether treatment using transcranial magnetic stimulation alleviates this problem.

- Scientists at Brown University are employing diffusion tensor imaging to assess the efficacy of surgery to treat obsessive-compulsive disorder in patients who do not respond to medical therapy.
- University of California Los Angeles researchers are exploring whether diffusion-weighted imaging and perfusion-weighted imaging can help to ascertain which stroke patients are likely to benefit from the use of clot-dissolving medication (tPA), which must be given within six hours of the stroke's onset.
- Columbia University researchers are using 1H Magnetic Resonance Spectroscopic Imaging to determine whether patients with essential tremor have abnormalities in their brain metabolism and, if so, whether these abnormalities worsen over time.
- Washington University scientists are using fMRI to determine whether patients found to be at risk for developing schizophrenia reveal disturbances in their prefrontal cortex during memory tasks, as an important step in determining whether these disturbances may be a prognostic sign of the disease.

### **Brain-Body Interaction**

Over three years the Foundation has made 44 grants in Clinical Hypotheses in Brain-Body Interaction, including 21 in 2000.

### **Brain-Cardiovascular Disease**

- University of California at Davis researchers are asking if breathing meditation decreases a person's risk for heart attack by reducing sympathetic nervous system activity, thereby increasing the variability of their heart rate.
- Columbia University College of Physicians and Surgeons researchers are investigating whether improved control of blood sugar in patients with diabetic neuropathy can lessen their likelihood of experiencing a disease-related, potentially fatal, abnormal heart rhythm (cardiac autonomic neuropathy).
- Researchers at Johns Hopkins University School of Medicine are investigating whether depression is associated with an increased release of stress hormones and if this may be contributing to the growing incidence of cardiac arrhythmia.
- Harvard College researchers are using imaging to determine whether hypnotic regression therapy helps stroke patients regain movement of their affected limbs by inducing a reorganization of the parts of the brain that control motor functions.

- Harvard School of Public Health researchers are exploring whether the stresses encountered by care givers leads some to develop symptomatic coronary artery disease and, if so, what mechanism may be involved.
- Rutgers University scientists are asking if heart attack patients with depression develop an inflammation of the heart muscle that puts them at greater risk of recurrent cardiac events.
- A Mount Sinai Medical Center team is investigating whether disruptions in circadian rhythm may link depression to heart disease.
- University of Michigan scientists are examining whether the fourfold increase in the risk of heart attack posed by depression may be related to a disruption in nitric oxide production, which affects the blood vessels' ability to stay strong and prevent a heart attack.
- University of Arkansas investigators are pursuing the hypothesis that some cancer patients develop neurological symptoms in response to specific proteins that are found both in their cancer cells and in their brains.
- California Institute of Technology researchers are determining whether cytokines (immune system proteins) produced in response to stress or depression may speed the progression of melanoma.
- Massachusetts General Hospital scientists are testing the hypothesis that treatment of prostate cancer with antiandrogen therapy, an experimental hormonal treatment that does not lower sex hormone levels, results in less depression and cognitive impairment than standard treatment.
- Memorial Sloan-Kettering Cancer Center researchers are determining whether drug and radiation treatment for low-grade brain tumors is associated with decreased cognitive function, and whether patients who have the "Alzheimer's gene" are predisposed to such treatment-related decline.

### **Brain-Cancer**

- Massachusetts General Hospital researchers are imaging cancer patients being treated with acupuncture to see if the treatment induces changes in regions of their brains associated with acupuncture's pain-relieving effect.

- Researchers at the University of Texas M.D. Anderson Cancer Center are studying the association between patients' religiosity/spirituality and their outcomes from treatment for metastatic renal cell carcinoma. Do those who consider themselves to be highly religious or spiritual have stronger immune functions, longer remissions, and increased survival times compared to those who do not?
- Southern California Permanente Medical Group researchers are examining the possible positive or negative effects that Raloxifene, a medication beginning to be used to treat and prevent breast cancer, may have on cognition.
- Investigators at the University of Kentucky are exploring whether care givers' attitudes (negative or positive) towards caring for a spouse with non-treatable dementia influence their own immune systems' response to threats to their health.
- State University of New York at Buffalo investigators are examining whether the body's immune cells are affected by central nervous system changes that are produced in response to pain in peripheral nerves.
- Researchers at Ohio State University are identifying ways that acute stress may redistribute immune cells from the blood to the skin to ward off wound-related and other skin infections.

### **Brain-Immune Function**

- University of California at Los Angeles researchers are studying whether immune system activation is one route by which depression and obesity in Mexican-Americans are associated with "metabolic syndrome," a condition that increases the risk of plaque build-up in arteries and contributes to coronary artery disease.
- Cornell University researchers are exploring whether acute stress enhances the immune system's "delayed-type hypersensitivity" response, which contributes to overly sensitive resistance to otherwise harmless agents (like pollen) and can contribute to development of autoimmune disease.
- Emory University researchers are investigating the possibility that the vagal nerve "transduces" chemical signals from the immune system into electrical signals that are transmitted to the brain. This should lead to better understanding of how the immune and nervous systems communicate. ■

## INFORMATION CHANNELS PROLIFERATE BUT THE GOLDEN RULE IS: CONTENT COUNTS

Publications and Media Division Uses Media Old and New  
to Inform the Public About Brain Research



One highlight of the Dana Web site redesign in 2000 is the new Brainy Kids section for children, parents, and teachers.

**A**mid the ups and downs of old media and new media, turning millennia, and glittering visions for the future of information (now coming: “experimental documents” and “reading walls”), the Foundation’s Publications and Media Division steered by the golden rule of writing and reporting: Content counts.

In 2000, a focus on excellence in content and on technical sophistication guided the division. The Foundation’s Press Office continued to enjoy the respect and confidence of the nation’s media, responding to a record number of queries from journalists nationwide. The Internet office completed an exciting upgrade of the [dana.org](http://dana.org) Web site, making it easier to navigate and more interactive and adding a fun, high-quality educational feature for children, “Brainy Kids Online.” Meanwhile, Dana Press print periodicals added readers, including thousands more educators using its classroom brain science guide. Several projects for the Dana books program moved toward completion for release in 2001 and 2002, and the Press began investigating the possibilities in e-book publishing. The new journal, *Cerebrum*, in its second year of publication, enjoyed a healthy surge in new subscribers, and the year’s end brought a burst of publicity for a powerful article in the journal describing the effects of psychological abuse on a child’s brain.

*Once again, newspapers and television stations carrying stories about Dana or Dana-related activities posted the stories on their Web sites, providing access for millions of people.*

## Press Office

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The Press Office extended its reach in 2000 to journalists in print and on the Web. Once again, newspapers and television stations carrying stories about Dana or Dana-related activities posted the stories on their Web sites, providing access for millions of people. The Press Office garnered more than 230 stories in print for the year and 57 postings on Internet sites. Major stories included Brain Awareness Week, articles in *Cerebrum*, and the new Dana Web site.

As part of its Resource Service to journalists, the Press Office publishes briefing papers and the *Brain Beat Guide*. This year, papers on “Twenty-First Century Technologies” and “Neurogenesis and the Learning Brain” were distributed to journalists nationally as part of the Brain Awareness Week effort. Both prominently featured Dana Alliance

members. *The Brain Beat Guide*, an annual topical publication, focused in 2000 on how the brain ages from adolescence to the older years, with a separate feature, "Tips for the Healthy Brain," and a series of line drawings of the brain.

Journalists continued to call for experts or background. In addition to its publications, the Press Office has 47 separate brain-related archives of material available to reporters. Inquiries came from media outlets that included *Dateline*, *Wall Street Journal*, *60 Minutes II*, *ABC Evening News*, BBC, and *Washington Post Magazine*.

## Internet

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A newly designed and augmented [www.dana.org](http://www.dana.org) came on-line in 2000. The site serves as a gateway to brain information, with an expanded BrainWeb and Brain Information section; a new Brainy Kids Online section for parents, teachers, and children; more direct access to each section; prominent "What's New" features on the home page; and a generally easier-to-use site. The Brain Web was featured in *Nature*

*Neuroscience Reviews* and the Brainy Kids section was highlighted in several columns.

A new Intranet site created this year gives Dana staff access to Foundation information and materials, including a new electronic library database that provides information about books and audio/video materials available to staff.

## The Dana Press

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All Dana Press publications—books, periodicals, and special publications—are about the brain. Although most Press publications, with the exception of books, are free of charge to the public, the quarterly journal *Cerebrum: The Dana Forum on Brain Science* is available only by subscription.

### **Cerebrum: The Dana Forum on Brain Science**

Following a pilot issue in 1998 and two regular issues in 1999, *Cerebrum* completed its first full year in 2000. Many Dana Press periodicals provide up-to-date information on brain research; *Cerebrum's* mission is to interpret, analyze, and challenge that research. As a journal of ideas in the field of brain science, *Cerebrum* invites scientists, scholars, and science writers to draw out the significance of new research, put it in the context of other disciplines, pursue its practical and policy implications, and

***Cerebrum invites scientists, scholars, and science writers to draw out the significance of new research, put it in the context of other disciplines, pursue its practical and policy implications, and explore its controversies.***

explore its controversies. This year articles, debates, and reviews looked at topics as diverse as brain disorders ("My Mind is a Web Browser: How People with Autism Think" by Temple Grandin, Ph.D.), public policy ("The Great Cerebroscope Controversy" by Richard Restak, M.D.), the brain in literature ("Madness in Good Company" by Marcia Clendenen and Dick Riley), the brain and behavior ("Our Ancient Laughing Brain" by Silvia H. Cardoso), and brain development ("Can Mother Love Grow Synapses" by Jerome Kagan, Ph.D.). Philosophy, chemistry, education, psychometrics, technology, and pharmacology

were other contexts that authors brought to bear on the brain.

As a paid subscription journal, *Cerebrum* is promoted through subscription agencies as well as by direct mail, paid and co-op advertising, Web site announcements, and booths at conventions. Inquirers are always welcome to a free sample copy of *Cerebrum*. In addition, the Press offers trial subscriptions that enable readers to receive an issue of *Cerebrum* without obligation. During 2000, subscriptions to *Cerebrum* increased from 600 paid and 1,750 trial subscriptions to 1,700 paid and 4,195 trial subscriptions.

Although *Cerebrum* is not peer-reviewed and does not solicit articles reporting original research, the new ideas, candid viewpoints, and provocative interpretations presented in pages often attract media attention. "Wounds That Time Won't Heal: The Neurobiology of Child Abuse, by Martin H. Teicher, M.D., Ph.D. (Fall 2000), led to stories in *USA Today*, the *Boston Globe*, *cnn.com*, *IntelliHealth*, Reuters, and *Health News*.

Increasingly, also, other publications are reprinting articles from *Cerebrum*. A powerful defense of animal research by Frederick K. Goodwin, M.D., and Adrian R. Morrison, Ph.D., which appeared originally in the Fall 1999 *Cerebrum*, became *Reason* magazine's cover story in October 2000.

### **The Dana Brain Science Guide: Resources for Secondary and Post-Secondary Teachers and Students**

Published for the first time only 15 months earlier, by the end of 2000, the 136-page, soft-cover classroom guide on brain science had won wide attention. Almost 20,000 copies have gone to more than 2,200 schools in 47 states and 15 foreign countries. In clear, concise language, the well-illustrated guide explains how the brain works and discusses common brain-related problems. It also steers the readers to additional resources, including recommended reading, and in compelling profiles introduces students to the lives of two professionals who study and provide care for the brain.

A survey of educators who used the book during the year brought praise specifically for up-to-date coverage of brain research and enthusiastic suggestions for enhancements such as an expanded glossary. Revision of the guide for its second edition began in the fall with a publishing date tentatively set for April 2001.

### **Free Periodicals**

More than 30,000 people have put their names on mailings lists for free periodicals from The Dana Press, while special distributions have topped 100,000 for two annual publications produced and distributed by The Dana Press for the Dana Alliance for Brain Initiatives.

In 2000, the Press released the fifth edition of *Brain Connections*, a convenient 50-page booklet listing 276 organizations that provide information and services for patients and families affected by particular brain-related disorders and problems. In the six years since the first edition was published, more than 350,000 copies of *Brain Connections* have been distributed. *Brain Connections* was developed and is sponsored by the Dana Alliance for Brain Initiatives.

The Dana Press also writes, produces, and distributes *Delivering Results*, the Dana Alliance's authoritative and highly regarded annual report on progress in brain research. After publishing *Update 2000*, the sixth edition of the report, The Dana Press began planning for a complete revision of the report's style and format to recognize the challenges that neuroscience faces in the new century and to reflect the revitalized commitment and vision of the members of the Dana Alliance. The new report, under a new series title,

***More than 30,000 people have put their names on mailings lists for free periodicals from The Dana Press, while special distributions have topped 100,000 for two annual publications.***

*Visions of the Brain*, was scheduled to be unveiled in March 2001. With an annual distribution of about 45,000 copies, the report reviews the previous year's most significant neuroscience findings for policy makers, professionals in brain research and allied fields, patients and their families and advocates, and health, science, and general media.

In the spring of 2000, The Dana Press also launched a weekly electronic newsletter, *Brain Work This Week*, featuring reports on noteworthy new studies published each week.

Two well-established periodicals—*Brain Work*, a bi-monthly newsletter with a readership of approximately 22,000, and *The Brain in the News*, a semi-monthly tabloid

with more than 15,000 readers that reprints newspaper stories about the brain—both saw their circulation increase by about six percent in 2000.

### **Books from The Dana Press**

In 2000, The Dana Press signed new publishing agreements with its long-term co-publishing partner, John Wiley & Sons, Inc., as well as with The Free Press, a division of Simon & Schuster, Inc., and Joseph Henry Press, an imprint of the National Academy Press, for a total of five books to be published in 2001 and 2002.

The largest of these projects is *The Dana Guide to Brain Health & Disorders*, with three distinguished medical editors: Floyd Bloom, M.D., chairman of neuropharmacology at the Scripps Research Institute and former editor in chief of the journal *Science*; Flint Beal, M.D., chairman and neurologist-in-chief at Weill Medical College of Cornell University; and David Kupfer, M.D., chairman of psychiatry at the University of Pittsburgh. The approximately 625-page book, coming out from The Free Press in 2002, will be a complete home health reference on the brain.

To be published with the Joseph Henry Press in fall 2001 are two other books. *The Secret Life of the Brain*, by Richard Restak, M.D., will be a fully illustrated companion book to a five-part public television series

*Some advantages of publishing brain-related books electronically are the opportunities to offer readers the latest information at prices below hardcover books, to update key findings, and to expeditiously put out new editions.*

by the same name airing in late 2001 or early 2002. The series' Emmy-award-winner producer, David Grubin, will write the book's foreword. Also with the Joseph Henry Press, The Dana Press will publish a book about the new hope for spinal cord repair, by Luba Vikhanski, winner of the American Medical Association's award for popular writing on medicine. Ms. Vikhanski shows how the stubborn dedication of, at first just a few, and recently many, talented scientists has transformed the sentence of doom for spinal injury into real hope for recovery and repair.

With John Wiley & Sons, the Press will publish two books in 2002: one on successful aging by Marilyn Albert, Ph.D., professor of psychiatry and neurology at the Harvard

Medical School, and Guy McKhann, M.D., professor of neurology and neuroscience and director of the Zanvyl Krieger Mind/Brain Institute at Johns Hopkins University; and a book on depression and manic depression by J. Raymond DePaulo, Jr., M.D., professor of psychiatry and behavioral sciences at Johns Hopkins.

The Dana Press has also begun investigating the potential of e-books, a vehicle that may be especially suitable for excellent, authoritative works about brain-related disorders and discoveries. Some advantages of publishing brain-related books electronically are the opportunities to offer readers the latest information at prices below hardcover books, to update key findings for buyers of the original books, and to expeditiously put out new editions when a fast-moving brain research field begins to date a book's information. ■

# FINANCIAL REPORT

## SUMMARY OF APPROPRIATIONS AND PAYMENTS IN 2000

	UNPAID AT BEGINNING OF YEAR	APPROPRIATED DURING YEAR	PAID DURING YEAR	UNPAID AT END OF YEAR
<b><i>University of Alabama School of Medicine Birmingham, AL</i></b>				
Clinical Hypotheses Program: Imaging	\$ 13,477	\$ 99,937	\$ 63,477	\$ 49,937
<b><i>American Association for the Advancement of Science Washington, DC</i></b>				
Electronic management of scientific information	400,000	0	400,000	0
<b><i>Barbara Bush Foundation for Family Literacy Washington, DC</i></b>				
Family literacy programs	50,000	0	50,000	0
<b><i>Baylor College of Medicine Houston, TX</i></b>				
Clinical Hypotheses Program: Imaging	60,640	(78,324)	(17,684)	0
<b><i>Betty Ford Center at Eisenhower Rancho Mirage, CA</i></b>				
Patient assistance fund	100,000	0	100,000	0
<b><i>Brown University Providence, RI</i></b>				
Interdisciplinary graduate fellowships and research in brain sciences	0	1,000,000	0	1,000,000
Clinical Hypotheses Program: Imaging	0	100,000	0	100,000
<b><i>California Institute of Technology Pasadena, CA</i></b>				
Clinical Hypotheses Program: Imaging	0	100,000	50,000	50,000
<b><i>The Carter Center Atlanta, GA</i></b>				
Mental health program	100,000	0	100,000	0

	UNPAID AT BEGINNING OF YEAR	APPROPRIATED DURING YEAR	PAID DURING YEAR	UNPAID AT END OF YEAR
<b><i>Cold Spring Harbor Laboratory</i></b>				
<b><i>Cold Spring Harbor, NY</i></b>				
Train doctoral scholars in biological sciences	\$ 0	\$ 1,000,000	\$ 334,000	\$ 666,000
<b><i>Columbia University College of Physicians &amp; Surgeons</i></b>				
<b><i>New York, NY</i></b>				
Neuroscience research program	500,000	0	500,000	0
Clinical Hypotheses Program: Imaging	33,000	100,000	83,000	50,000
Clinical Hypotheses Program: Brain-Body Interaction	50,000	100,000	100,000	50,000
<b><i>Dana Alliance for Brain Initiatives, Inc.</i></b>				
<b><i>New York, NY</i></b>				
Public education campaign on neuroscience research	0	3,534,297	3,534,297	0
<b><i>Dana Farber Cancer Institute</i></b>				
<b><i>Boston, MA</i></b>				
David Mahoney Center for Neuro-oncology	0	7,400,000	500,000	6,900,000
Clinical Hypotheses Program: Brain-Body Interaction	50,000	0	50,000	0
<b><i>Duke University School of Medicine</i></b>				
<b><i>Durham, NC</i></b>				
Clinical Hypotheses Program: Imaging	128,625	0	83,000	45,625
Clinical Hypotheses Program: Brain-Body Interaction	99,535	0	50,000	49,535
<b><i>Emory University School of Medicine</i></b>				
<b><i>Atlanta, GA</i></b>				
Clinical Hypotheses Program: Imaging	50,000	0	50,000	0
Clinical Hypotheses Program: Brain-Body Interaction	50,000	100,000	50,000	100,000
<b><i>Facing History and Ourselves</i></b>				
<b><i>Brookline, MA</i></b>				
Curriculum development and teacher training	129,801	0	129,801	0

	UNPAID AT BEGINNING OF YEAR	APPROPRIATED DURING YEAR	PAID DURING YEAR	UNPAID AT END OF YEAR
<b><i>Harvard Medical School Cambridge, MA</i></b>				
Harvard-Mahoney Neuroscience Institute	\$ 500,000	\$ 281,208	\$ 781,208	\$ 0
Molecular mechanisms of membrane functions	75,000	150,000	150,000	75,000
Clinical Hypotheses Program: Brain-Body Interaction	0	100,000	50,000	50,000
<b><i>Harvard School of Public Health Cambridge, MA</i></b>				
Emotional support and heart rate variability	101,864	0	0	101,864
Clinical Hypotheses Program: Brain-Body Interaction	0	100,000	0	100,000
<b><i>Harvard University Cambridge MA</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	0	100,000	50,000	50,000
<b><i>Johns Hopkins University Baltimore, MD</i></b>				
Clinical Hypotheses Program: Imaging	50,000	200,000	100,000	150,000
Clinical Hypotheses Program: Brain-Body Interaction	0	100,000	70,000	30,000
<b><i>Kaiser Foundation Research Institute Oakland, CA</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	0	100,000	0	100,000
<b><i>Kennedy Krieger Institute Baltimore, MD</i></b>				
Clinical Hypotheses Program: Imaging	0	100,000	50,000	50,000
<b><i>Kessler Medical Rehabilitation Research and Education Corporation West Orange, NJ</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	33,893	0	33,893	0

	UNPAID AT BEGINNING OF YEAR	APPROPRIATED DURING YEAR	PAID DURING YEAR	UNPAID AT END OF YEAR
<b><i>Lady Bird Johnson National Wildflower Center</i></b>				
<b><i>Austin, TX</i></b>				
Education programs	\$ 100,000	\$ 0	\$ 100,000	\$ 0
<b><i>Maine Medical Center</i></b>				
<b><i>Portland, ME</i></b>				
Outreach education programs	25,000	0	25,000	0
<b><i>Massachusetts General Hospital</i></b>				
<b><i>Boston, MA</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	0	96,205	50,000	46,205
<b><i>Massachusetts Institute of Technology</i></b>				
<b><i>Cambridge, MA</i></b>				
Clinical Hypotheses Program: Imaging	116,000	21,700	21,700	116,000
<b><i>Mayo Foundation</i></b>				
<b><i>Rochester, MN</i></b>				
Child development and learning disorders	25,000	0	25,000	0
<b><i>Medical College of Georgia</i></b>				
<b><i>Augusta, GA</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	49,990	0	0	49,990
<b><i>Medical College of Wisconsin</i></b>				
<b><i>Milwaukee, WI</i></b>				
Clinical Hypotheses Program: Imaging	99,924	0	50,000	49,924
<b><i>Medical University of South Carolina</i></b>				
<b><i>Charleston, SC</i></b>				
Clinical Hypotheses Program: Imaging	0	100,000	50,000	50,000
<b><i>Memorial Sloan-Kettering, Cancer Center</i></b>				
<b><i>New York, NY</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	0	100,000	50,000	50,000

	UNPAID AT BEGINNING OF YEAR	APPROPRIATED DURING YEAR	PAID DURING YEAR	UNPAID AT END OF YEAR
<b><i>Mount Sinai School of Medicine</i></b>				
<b><i>New York, NY</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	\$ 0	\$ 100,000	\$ 50,000	\$ 50,000
<b><i>Museum of Modern Art</i></b>				
<b><i>New York, NY</i></b>				
Capital campaign	0	500,000	0	500,000
Exhibition to increase interest in the Museum's permanent collection	100,000	0	0	100,000
<b><i>National Center for Family Literacy</i></b>				
<b><i>Louisville, KY</i></b>				
Family literacy program	140,900	0	140,900	0
<b><i>National Center on Addition and Substance Abuse</i></b>				
<b><i>New York, NY</i></b>				
Conference on addiction	0	50,000	50,000	0
<b><i>New York Hospital-Cornell Medical Center</i></b>				
<b><i>New York, NY</i></b>				
Clinical Hypotheses Program: Imaging	50,000	0	0	50,000
<b><i>New York University Medical Center</i></b>				
<b><i>New York, NY</i></b>				
Dana Consortium on Language-Based Learning Disabilities	200,000	0	100,000	100,000
<b><i>Ohio State University Research Foundation</i></b>				
<b><i>Columbus, OH</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	100,000	100,000	50,000	150,000
<b><i>Oregon Health Sciences University</i></b>				
<b><i>Portland, OR</i></b>				
Clinical Hypotheses Program: Imaging	99,816	0	49,816	50,000

	UNPAID AT BEGINNING OF YEAR	APPROPRIATED DURING YEAR	PAID DURING YEAR	UNPAID AT END OF YEAR
<b><i>Parents as Teachers National Center, Inc.</i></b>				
<b><i>St. Louis, MO</i></b>				
Involvement of parents in early childhood education	\$ 167,714	\$ 0	\$ 167,714	\$ 0
<b><i>Ronald Reagan Presidential Foundation</i></b>				
<b><i>Simi Valley, CA</i></b>				
Presidential Learning Center	100,000	0	100,000	0
<b><i>Rush-Presbyterian-St. Luke's</i></b>				
<b><i>Chicago, IL</i></b>				
Clinical Hypotheses Program: Imaging	0	98,580	50,000	48,580
<b><i>Rutgers University Foundation</i></b>				
<b><i>New Brunswick, NJ</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	0	100,000	50,000	50,000
<b><i>Stanford University</i></b>				
<b><i>Stanford, CA</i></b>				
Rhythmicity in breast cancer patients	80,414	0	0	80,414
Clinical Hypotheses Program: Brain-Body Interaction	50,000	0	0	50,000
<b><i>State University of New York at Buffalo</i></b>				
<b><i>Amherst, NY</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	0	100,000	0	100,000
<b><i>Thirteen/WNET</i></b>				
<b><i>New York, NY</i></b>				
Educational outreach programs	229,400	0	229,400	0
<b><i>Uniformed Services University of Health Science</i></b>				
<b><i>Bethesda, MD</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	99,950	0	50,000	49,950
<b><i>University of Texas at Austin</i></b>				
<b><i>Austin, TX</i></b>				
Charles A. Dana Center for Educational Innovation	850,000	216,000	1,066,000	0

	UNPAID AT BEGINNING OF YEAR	APPROPRIATED DURING YEAR	PAID DURING YEAR	UNPAID AT END OF YEAR
<b><i>University of Arkansas</i></b>				
<b><i>Little Rock, AK</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	\$ 0	\$ 90,460	\$ 50,000	\$ 40,460
<b><i>University of California, Davis</i></b>				
<b><i>Davis, CA</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	0	100,000	50,000	50,000
<b><i>University of California, Irvine</i></b>				
<b><i>Irvine, CA</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	100,000	0	50,000	50,000
<b><i>University of California, Los Angeles</i></b>				
<b><i>Los Angeles, CA</i></b>				
Clinical Hypotheses Program: Imaging	100,000	100,000	150,000	50,000
Clinical Hypotheses Program: Brain-Body Interaction	0	100,000	0	100,000
<b><i>University of California, San Francisco</i></b>				
<b><i>San Francisco, CA</i></b>				
Clinical Hypotheses Program: Imaging	48,484	0	0	48,484
<b><i>University of Iowa College of Medicine</i></b>				
<b><i>Iowa City, IA</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	50,000	0	0	50,000
<b><i>University of Kentucky</i></b>				
<b><i>Lexington, KY</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	0	100,000	0	100,000
<b><i>University of Michigan, Medical Center</i></b>				
<b><i>Ann Arbor, MI</i></b>				
Clinical Hypotheses Program: Imaging	49,642	100,000	50,000	99,642
Clinical Hypotheses Program: Brain-Body Interaction	0	100,000	0	100,000

	UNPAID AT BEGINNING OF YEAR	APPROPRIATED DURING YEAR	PAID DURING YEAR	UNPAID AT END OF YEAR
<b><i>University of Montreal</i></b>				
<b><i>Montreal, Quebec</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	\$ 55,000	\$ 0	\$ 55,000	\$ 0
<b><i>University of Pennsylvania</i></b>				
<b><i>Philadelphia, PA</i></b>				
Review grant program	0	56,695	56,695	0
Clinical Hypotheses Program: Imaging	100,000	99,825	100,000	99,825
<b><i>University of Rochester</i></b>				
<b><i>Rochester NY</i></b>				
Clinical Hypotheses Program: Imaging	67,000	0	67,000	0
<b><i>University of Texas Medical School at Houston</i></b>				
<b><i>Houston, TX</i></b>				
Clinical Hypotheses Program: Imaging	99,534	0	50,000	49,534
Clinical Hypotheses Program: Brain-Body Interaction	47,079	110,000	97,079	60,000
<b><i>University of Utah</i></b>				
<b><i>Salt Lake City, UT</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	100,000	0	100,000	0
<b><i>University of Washington School of Medicine</i></b>				
<b><i>Seattle, WA</i></b>				
Clinical Hypotheses Program: Imaging	33,000	0	33,000	0
Clinical Hypotheses Program: Brain-Body Interaction	50,000	0	0	50,000
<b><i>University of Wisconsin</i></b>				
<b><i>Madison, WI</i></b>				
Clinical Hypotheses Program: Brain-Body Interaction	50,000	0	0	50,000
<b><i>Vanderbilt University Medical Center</i></b>				
<b><i>Nashville, TN</i></b>				
Clinical Hypotheses Program: Imaging	0	30,000	30,000	0

	UNPAID AT BEGINNING OF YEAR	APPROPRIATED DURING YEAR	PAID DURING YEAR	UNPAID AT END OF YEAR
<b><i>Washington University School of Medicine St. Louis, MO</i></b>				
Clinical Hypotheses Program: Imaging	\$ 33,333	\$ 199,900	\$ 133,333	\$ 99,900
Clinical Hypotheses Program: Brain-Body Interaction	198,191	0	100,000	98,191
<b><i>Weill Medical College of Cornell University New York, NY</i></b>				
Fellowships in neuroscience	647,619	0	0	647,619
Clinical Hypotheses Program: Brain-Body Interaction	0	100,000	50,000	50,000
<b><i>Yale University School of Medicine New Haven, CT</i></b>				
Clinical Hypotheses Program: Imaging	146,842	100,000	100,000	146,842
Clinical Hypotheses Program: Brain-Body Interaction	92,700	0	50,000	42,700
<b><i>Other Grants</i></b>	<u>628,500</u>	<u>1,863,092</u>	<u>2,491,592</u>	<u>0</u>
<b>TOTAL GRANTS</b>	<u>\$7,956,867</u>	<u>\$19,519,575</u>	<u>\$13,884,221</u>	<u>\$13,592,221</u>

# REPORT OF INDEPENDENT AUDITORS

## **The Board of Directors The Charles A. Dana Foundation, Incorporated**

We have audited the accompanying statements of financial position of The Charles A. Dana Foundation, Incorporated (the Foundation) as of December 31, 2000 and 1999, and the related statements of activities, statements of cash flows and summary of appropriations and payments for the years then ended. These financial statements are the responsibility of the Foundation's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards 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. An

audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of The Charles A. Dana Foundation, Incorporated as of December 31, 2000 and 1999, and the changes in its net assets and its cash flows for the years then ended, in conformity with generally accepted accounting principles.

***A.J. Signorile & Co.  
New York, New York  
February 22, 2001***

# STATEMENTS OF FINANCIAL POSITION

December 31, 2000 and 1999

	2000	1999
<b>Assets:</b>		
Cash and cash equivalents (Note 7)	\$ 8,714,776	\$ 2,980,689
Accounts receivable (primarily security sales)	3,966,463	8,518,967
Accrued interest receivable	1,086,824	1,099,033
Investments (Note 1)	325,369,795	326,938,139
Fixed assets, at cost:		
Office furniture and equipment, net of accumulated depreciation:		
2000: \$760,807; 1999: \$707,280	89,903	143,430
Leasehold improvements, net of accumulated amortization:		
2000: \$645,491; 1999: \$549,135	258,579	354,935
Total Assets	<u>\$ 339,486,340</u>	<u>\$ 340,035,193</u>
<b>Liabilities and Net Assets:</b>		
Accounts payable and accrued liabilities (primarily security purchases in 2000)	\$ 4,450,103	\$ 604,896
U. S. excise tax payable (Note 2)	45,571	248,741
Deferred U. S. excise tax (Note 2)	703,651	931,243
Other deferred liabilities	261,325	395,652
Unpaid grant appropriations	13,592,221	7,956,867
Unpaid commitments for contributions of capital to limited partnerships (Note 1)	8,403,752	13,708,841
Unrestricted net assets	312,029,717	316,188,953
Total Liabilities and Net Assets	<u>\$ 339,486,340</u>	<u>\$ 340,035,193</u>

See accompanying notes.

# STATEMENTS OF ACTIVITIES

For the years ended December 31, 2000 and 1999

	2000	1999
Investment Income:		
Dividends and interest	\$ 7,803,514	\$ 8,921,720
Income from limited partnerships	12,117,575	12,549,976
Net realized gain from sales and redemptions of securities	14,137,568	7,735,489
	<u>34,058,657</u>	<u>29,207,185</u>
Less: Investment management and custodian fees	<u>(1,211,314)</u>	<u>(961,055)</u>
Net realized investment income	<u>32,847,343</u>	<u>28,246,130</u>
Expenses:		
Grant appropriations	19,519,575	9,266,297
Direct charitable activities	4,886,947	3,930,077
General administration	1,085,048	1,087,835
Provision for U. S. excise tax (Note 2)	363,000	534,000
Total expenses	<u>25,854,570</u>	<u>14,818,209</u>
Excess of net realized investment income over expenses	6,992,773	13,427,921
Increase (decrease) in unrealized appreciation of marketable securities, net of deferred U. S. excise tax, 2000: (reduction) \$(227,592); 1999: provision \$260,041	<u>(11,152,009)</u>	<u>12,741,990</u>
Increase (decrease) in unrestricted net assets	(4,159,236)	26,169,911
Unrestricted net assets at beginning of year	<u>316,188,953</u>	<u>290,019,042</u>
Unrestricted net assets at end of year	<u>\$ 312,029,717</u>	<u>\$ 316,188,953</u>

See accompanying notes.

# STATEMENTS OF CASH FLOWS

For the years ended December 31, 2000 and 1999

	2000	1999
Cash flows from operating activities:		
Increase (decrease) in unrestricted net assets	\$ (4,159,236)	\$ 26,169,911
Adjustments to reconcile change in unrestricted net assets to net cash provided (used) by operating activities:		
Depreciation and amortization	18,493	59,647
Realized (gains) on sales of investments	(14,137,568)	(7,735,489)
Unrealized (gains), losses on investments	11,379,601	(13,002,031)
Share of (income) from limited partnerships	(12,117,575)	(12,549,976)
(Increase) decrease in:		
Interest receivable	12,208	105,866
Accounts receivable	4,552,504	(7,474,024)
Increase (decrease) in:		
Accounts payable and accrued liabilities and unpaid commitments for contributions of capital to limited partnerships	(1,462,819)	3,539,258
Unpaid grant appropriations	5,635,354	3,995,340
U. S. excise tax payable	(203,169)	236,740
Deferred U. S. excise tax	(227,592)	260,041
Net cash provided (used) by operating activities	<u>(10,709,799)</u>	<u>(6,394,717)</u>
Cash flows from investing activities:		
Purchase of securities	(189,201,966)	(269,725,803)
Purchase of limited partnership interests	(10,940,361)	(13,501,601)
Proceeds from sales of securities	214,558,580	272,466,122
Proceeds from partnership distributions and withdrawal of investment in limited partnership	2,027,633	9,731,395
Net cash provided (used) by investing activities	<u>16,443,886</u>	<u>(1,029,887)</u>
Net increase (decrease) in cash	5,734,087	(7,424,604)
Cash balance at beginning of year	<u>2,980,689</u>	10,405,293
Cash balance at end of year	<u>\$ 8,714,776</u>	<u>\$ 2,980,689</u>

See accompanying notes.

# SUMMARY OF APPROPRIATIONS AND PAYMENTS

*For the years ended December 31, 2000 and 1999*

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	2000	1999
Unpaid grant appropriations at the beginning of the year	<b>\$ 7,956,867</b>	\$ 3,961,527
Grant appropriations during the year, net of grant refunds in the amount of \$48,592 for 2000 and grant cancellations in the amount of \$30,320 for 2000	<u>19,519,575</u> <b>27,476,442</b>	<u>9,266,297</u> 13,227,824
Payments:		
For grant appropriations, net of grant refunds in the amount of \$48,592 for 2000 and grant cancellations in the amount of \$30,320 for 2000	<u>13,884,221</u>	<u>5,270,957</u>
Unpaid grant appropriations at end of year	<b><u>\$ 13,592,221</u></b>	<b><u>\$ 7,956,867</u></b>

*See accompanying notes.*

# NOTES TO FINANCIAL STATEMENTS

December 31, 2000 and 1999

## NOTE 1 - INVESTMENTS

The Foundation's investment portfolio is summarized as follows:

	2000		1999	
	COST	FAIR VALUE	COST	FAIR VALUE
Fixed Income Securities:				
U.S. Government and Agency Obligations	\$ 42,280,396	\$ 43,671,830	\$ 29,598,084	\$ 28,567,013
Municipal Bonds	—	—	750,000	719,922
Foreign Government Obligations	—	—	326,216	314,607
Corporate Obligations	<u>18,851,304</u>	<u>19,306,670</u>	<u>33,755,994</u>	<u>32,902,353</u>
	<u>61,131,700</u>	<u>62,978,500</u>	<u>64,430,294</u>	<u>62,503,895</u>
Common Stock	56,707,169	67,563,207	54,797,443	60,436,377
Mutual Funds	88,419,053	110,898,760	98,249,231	141,098,842
Limited Partnerships	<u>73,348,703</u>	<u>83,929,328</u>	<u>58,090,809</u>	<u>62,899,025</u>
Total	<u>\$ 279,606,625</u>	<u>\$ 325,369,795</u>	<u>\$ 275,567,777</u>	<u>\$ 326,938,139</u>

The Foundation's investments in marketable securities are carried at fair value, which is measured by quoted market price. Realized gains and losses are computed as of trade date. Security costs are determined using the first-in first-out method. Costs of mutual fund shares are measured under the average cost method. Investments in limited partnerships are carried at fair value which is based on the Foundation's interest in the aggregate fair value of the partnerships' net assets, as estimated by the general partner

of each limited partnership. As of December 31, 2000, under the provisions of certain venture capital limited partnership agreements, the Foundation has unpaid commitments to contribute \$8,403,752 in additional capital over the next 9 years.

# NOTES TO FINANCIAL STATEMENTS *(continued)*

December 31, 2000 and 1999

## NOTE 2 - U.S. EXCISE TAX

The Foundation is a private philanthropic foundation, chartered in 1950, with principal interests in the fields of health and education. The Foundation, by reason of its classification as a private foundation, is subject to a U. S. excise tax of 2% on investment income less investment expenses, including net realized gains on sales and redemptions of securities. However, pursuant to Section 4940(e) of the Internal Revenue Code, the tax is reduced to 1% if the Foundation satisfies certain requirements, as to the level of qualifying distributions. During the year ended December 31, 2000, the Foundation satisfied this requirement and, accordingly, was subject to the 1% excise tax. However, during the year ended December 31, 1999, the Foundation did not satisfy the requirement and was, therefore, subject to the 2% excise tax.

Deferred U. S. excise tax represents the anticipated future tax consequences attributable to the difference between the tax basis and fair value of marketable securities as of the respective dates of the statements of financial position.

## NOTE 3 - LEASE COMMITMENTS

The Foundation's current lease provides for a rent-free period and contributions from the lessor intended to offset the cost of leasehold improvements. The accompanying statements of activities reflect rent expense

recognized on a straight-line basis over the term of the Foundation's lease, reflective of the concession provisions of the lease agreement.

The Foundation's obligation under the current lease expires on August 31, 2003. Under the provisions of the lease agreement, the Foundation's future minimum annual rental payments, as of December 31, 2000, are as follows:

2001	\$ 600,534
2002	617,582
January 1, 2003 through August 31, 2003	<u>423,212</u>
Total	<u>\$ 1,641,328</u>

The lease agreement requires additional payments to cover the escalation of maintenance costs and real estate taxes. Rental expense included in the statements of activities amounted to \$325,715 in 2000 and \$321,922 in 1999.

## NOTE 4 - PENSION PLAN

The Foundation has a noncontributory defined contribution retirement plan covering all regular salaried employees who are at least 21 years of age and have completed six months of service. For the year ended December 31, 2000, retirement plan expense, included in the statements of activities, amounted to \$299,422. Similarly, for the year ended December 31, 1999, retirement plan expense amounted to \$278,528.

# NOTES TO FINANCIAL STATEMENTS *(continued)*

December 31, 2000 and 1999

## **NOTE 5 - RELATED PARTY TRANSACTIONS**

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Two directors who also serve as officers of the Foundation are each associated with law firms that respectively render legal services to the Foundation.

The Dana Alliance for Brain Initiatives, Inc., an affiliate of the Foundation, received grants aggregating the amount of \$3,534,296 for the year ended December 31, 2000 and the amount of \$2,184,323 for the year ended December 31, 1999. The Foundation and the Alliance share certain expenses including administrative services and office occupancy.

The Brain-Body Institute, L.L.C., an affiliate of the Foundation, was organized in 1998 as a not-for-profit entity to advance knowledge about the relationship between physiological changes in the brain and cardiovascular disease, cancer, and immune function.

## **NOTE 6 - CONTRIBUTED SERVICES**

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Certain officers of the Foundation provide services to the organization which are valued at an amount substantially in excess of compensation received. The valuation amount is not considered material with respect to the financial statements taken as a whole. Accordingly, the fair value of these services is not recognized in the accompanying financial statements.

## **NOTE 7 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

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The significant accounting practices of the Foundation are summarized as follows: (1) Assets and liabilities and income and expenses are recorded on the accrual basis of accounting. (2) Cash and cash equivalents include money market deposits for 2000 and 1999 and also cash deposits for the purchase of limited partnership interests for 2000. (3) Expenditures for fixed assets and leasehold improvements are capitalized and depreciated using the straight-line method over the estimated useful lives of the assets or amortized over the term of the Foundation's lease. (4) Appropriations are recorded and charged to operations when approved by the Board of Directors for a specific program, program expense or grant. (5) The preparation of financial statements in accordance with generally accepted accounting principles requires management to make estimates and assumptions that affect reported amounts of 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.

# GUIDELINES

# GRANT GUIDELINES

The Charles A. Dana Foundation is a private philanthropic foundation with principal interests in health and education. It was established in 1950 by Charles A. Dana, a New York State legislator, industrialist, and philanthropist. The Foundation's current areas of emphasis in its grants program are described briefly below. Because these programs are the basis for decisions on grant applications, readers are encouraged to consult these descriptions before submitting a request. Additional information on these currently supported grant programs is available on the Foundation's Web site, [www.dana.org](http://www.dana.org).

## General Policies

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In general, the Foundation makes its grants in accordance with these policies. The Foundation:

1. Supports programs in health and education; carefully defined objectives in each field guide its grant making.
2. In many cases, requires grantee institutions to share the cost of a project or raise matching funds.
3. Makes no grants directly to individuals.

4. Does not support annual operating budgets of organizations, deficit reduction, capital campaigns, or individual sabbaticals. Requests for endowments, purchase of equipment, or support of facilities are seldom considered.
5. Does not consider unsolicited requests from organizations outside the United States.
6. Does not schedule meetings with applicants until the Foundation's staff has reviewed a written request from the applicant and determined that it relates to the Foundation's current grantmaking priorities.

## Program Guidelines

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### Health Grants

Over the years, the Foundation's health grants program has developed a focus on spearheading clinically applied brain research that has the potential to improve human health. This focus evolved in the 1990s and continues to constitute a major part of the Foundation's health grants program goal. The emphasis on supporting clinically applied brain research followed upon 30 years of providing charitable gifts to voluntary health organizations and capital grants to support new, technologically updated research laboratories, and then in the 1980s on training a new cadre of clinical research leaders in the fields of environmental health, epidemiology, aging, and neuroscience. The advances being made in neuroscience research techniques,

and the opportunities these held for improving clinical diagnosis, prevention, and treatment of brain disorders and diseases, spurred the Foundation to concentrate solely on clinical neuroscience research in the 1990s. This continues to be the grantmaking focus for the new millennium.

Grant approaches in the 1990s took two forms. One was the support of Research Consortia, collaborations of leading institutions to apply multiple approaches and techniques to studying complex human diseases and disorders, including memory loss, HIV-related dementia, language-based learning disabilities, and manic-depressive illness. Work in these consortia has been largely completed. The second grant approach involved stimulating the development and testing of new hypotheses in clinically related brain research, through the competitive Clinical Hypotheses Program. This Program includes clinical pilot studies applying rapidly evolving neuroimaging techniques to issues of brain function in health and disease; and, clinical pilot studies in a whole new field of science, understanding the relationship between the brain and cancer, immune function, and cardiovascular disease. Based on the impressive gains realized through this grantmaking mechanism, the Clinical Hypotheses Program now represents the Foundation's primary health grants program emphasis.

### **Current Program**

In 2001, grants will be awarded primarily for neuroimaging research and for exploration of the interaction between the brain and the immune system and the cardiovascular system. Grants in these areas are made principally through the Clinical Hypotheses Program. This competitive grants program supports pilot testing of experimental and innovative ideas that have the potential of advancing clinical applications of neuroscience. Requests for Proposals (RFPs) for the Program are sent to the deans of all U.S. medical schools and other invited institutions. Additional information on the Clinical Hypotheses Program and its currently funded grants is available through the Foundation's Web site ([www.dana.org](http://www.dana.org)).

A few additional grants, most of which are initiated by the Foundation, are made as Adjunct Clinical Studies to examine factors that may be associated with the brain's interrelations with the immune system as well as the cardiovascular system. Through these projects, key questions are appended to ongoing, large-scale studies. Additional information on Adjunct Clinical Studies projects is available on the Foundation's Web site ([www.dana.org](http://www.dana.org)).

Individuals proposing other opportunities for advancing clinical applications of research in neuroscience should describe their idea in a brief letter to the Foundation (see Information About Applying). Please be aware, however, that funds for projects considered outside of the Clinical Hypotheses competitive program are extremely limited.

## Education

The Dana Foundation has supported advances in education throughout its history. A continuing goal is to invest limited financial resources in ways that achieve a significant, measurable impact. The Foundation's strategy has been to spread implementation of well-tested innovations that have the potential to strengthen education in American public schools, especially for students in their early years. Most education grants have been identified through the Charles A. Dana Awards for Pioneering Achievements in Education. Through this rigorous Awards process, education leaders select pioneering innovations from among nominations. Further development and dissemination of some of these innovations is then supported through grants to increase their impact and availability. In addition, a program has begun to advance teacher training in the use of the performing arts in classrooms.

Although the education grants program is designed to benefit schools and school systems throughout the country, Foundation grants ordinarily are not made directly to individual schools.

## Dana Awards

The Foundation suspended the Dana Awards for Pioneering Achievements in Health and Education in 1999 and is not currently soliciting any Awards nominations. Plans for future Award nominations will be announced at a later date.

## Information about Applying

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Inquiries for grant support, apart from the competitive Clinical Hypotheses Program (please see Web site of medical school deans regarding how to apply), should be in the form of a two-page letter describing the following:

1. Goal(s) of the proposed project,
2. Need the project would meet and its fit with the Foundation's priorities in health or education,
3. Means to be used to achieve the project's goal(s),
4. Capabilities of the institution to undertake the project and the qualifications of the project's proposed director, and
5. Estimated cost and proposed methods of financing the project, including the institution's intended contribution.

Letters of inquiry should be mailed to the Dana Foundation. No letters submitted by fax will be accepted. If the Foundation determines that an inquiry fits its interests, a full proposal will be requested. Supporting materials should not be submitted until requested. A full proposal should be accompanied by documents establishing the applicant's tax exempt status under Section 501(c)(3) of the Internal Revenue Code.

## PUBLICATIONS AVAILABLE

### The Dana Press Publications on the Brain

The Dana Press, publisher for the Charles A. Dana Foundation and the Dana Alliance for Brain Initiatives, produces periodicals, special publications, and books in the field of health, particularly of brain research. Most publications are available free of charge and may also be read on the Dana Web site. To order, send your written request by fax to (202) 737-9204 or by mail to The Dana Press, 1001 G Street, NW, Suite 1025, Washington, DC 20001.

#### *Cerebrum: The Dana Forum on Brain Science*

Paid subscription quarterly journal of ideas, with articles, debates, and reviews from top neuroscientists and other thinkers. Written for readers both with and without a scientific background who are stimulated by the ways in which brain science is reshaping world views. Request free sample issue.

#### *BrainWork: The Neuroscience Newsletter*

(Bi-monthly) Lay-oriented articles dealing with the brain, its powers, and its problems.

*The Brain in the News* (Bi-weekly) Reprinted articles from major newspapers about the brain and new research findings.

#### *Brain Connections: Your Source Guide to Information on Brain Diseases and Disorders*

Reference guide for contacting organizations that deal with specific brain problems. More than 275 listings.

*Visions of the Brain: An Annual Progress Report on Brain Research* Highlights of the progress in all areas of brain research in the previous year. (Published every March.)

*Answering Your Questions About Brain Research* Pamphlet, written in question-and-answer format, that illustrates how discoveries in brain research are giving us new hope for happier, healthier lives.

#### *The Dana Classroom Sourcebook of Brain Science*

A basic introduction to brain science, its history, our current understanding, new developments, and future directions. Includes classroom activities, a glossary, illustrations of key concepts, a list of resources available on the Internet, an annotated bibliography, and more.

### Books From The Dana Press and John Wiley & Sons, Inc.

Available at retail and online bookstores or call (800) 225-5945, ext. 2497.

Now in Paperback

#### *The Longevity Strategy: How to Live to 100 Using the Brain-Body Connection*

By David Mahoney and Richard Restak, M.D.  
Foreword by William Safire

From the latest research about how the brain works and through the vital connection between the brain and body, here is your life plan for good health, fulfilling relationships, and financial security. \$14.95 US / \$23.50 CAN ISBN 0-471-24867-3

*States of Mind: New Discoveries About How Our Brains Make Us Who We Are*

Edited by Robert Conlan

Contributors: J. Allan Hobson, Steven Hyman, Kay Redfield Jamison, Jerome Kagan, Eric Kandel, Joseph LeDoux, Bruce McEwen, and Esther Sternberg.

Eight leading brain scientists reveal how our health, behavior, feelings, and identities are influenced by what goes on inside our brains. \$18.95 US / \$29.50 CAN ISBN 0-471-29963-4

## Internet

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Web address: [www.dana.org](http://www.dana.org)  
[www.edab.net](http://www.edab.net)

Many Dana Press publications, along with current news and information about the programs and activities of the Foundation, the Dana Alliance for Brain Initiatives may be found at the Foundation's Internet site.

While there, visit the *Dana BrainWeb: Great Sites for Information on Brain Diseases and Disorders*. A Neurosciences on the Internet "Best Bet" (1997) and a Lycos Top 5% site (1997), the Dana Brain Web offers recommendations for Internet sites with validated current information useful for the lay person. Covering 23 common brain diseases and disorders, this guide will link Internet users to sites that provide descriptions of the disease, background for talking with a physician, treatment options, support for families and care givers, and sources of more information: [www.dana.org/brainweb](http://www.dana.org/brainweb).

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