

Boston Biomedical Research Institute

1988 Annual Report

*Celebrating twenty years of research
at the frontiers of biology and medicine*

"Other desires perish in their gratification, but the desire of knowledge never: the eye is not satisfied with seeing nor the ear filled with hearing...the sum of things to be known is inexhaustible, and however long we read we shall never come to the end of our storybook."

A. E. Housman

The President's Remarks

This year marks the twentieth anniversary of the Boston Biomedical Research Institute as an independent non-profit corporation dedicated to basic biological and medical research. We see this anniversary as a milestone, a time to reflect on past efforts, to set goals for the future, and to pay tribute to some of the many individuals who make the Institute go.

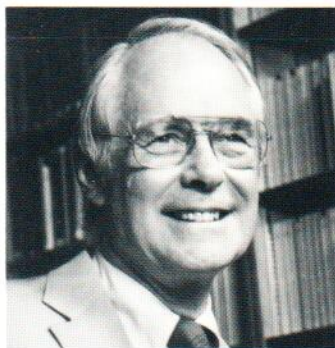
This annual report, then, looks back not over the past year, but over the two decades of BBRI's existence. It documents the Institute's beginnings. It looks at what has changed over the years, and what has remained constant.

It explores the nature of basic research, as well as the nature of the scientists who are drawn to it. It mentions some of the Institute's major areas of study and anticipates some of the challenges we will face in the 1990s.

Most importantly, this annual report introduces a few of the many individuals who have done so much over the past 20 years to make the Institute the exciting and stimulating organization it is today. Some are scientists. Some are lay supporters. Together, they have defined Boston Biomedical's unique character. They have charted its course. And they help make possible the pioneering research work that ultimately benefits all mankind. We are everlastingly grateful to all of these people for their efforts on the Institute's behalf in the past and look forward to their continued commitment and support in the future.



John B. French

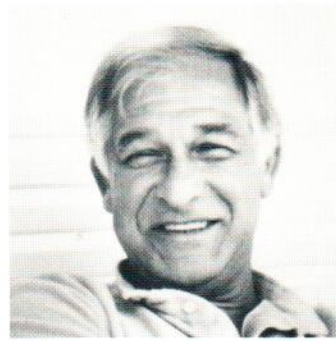


The Early Days

In the beginning, there was the Retina Foundation. This was back not 20 years ago but almost 40, when Boston ophthalmologist and researcher Charles Schepens teamed up with a young Hungarian scientist named Endre Balazs to establish a biomedical research institute.

Through the 1950s and '60s the Retina Foundation continued to expand its operation. By 1968, however, it became clear that there was, in essence, not one Institute but two. One embraced studies primarily on the eye; the other, on a whole range of basic research projects.

So they separated. Part of the building was retained by the Retina Foundation for clinically oriented eye research. The rest of the building was reorganized into the pure basic research facility that is today BBRI.



Dr. Endre Balazs

Dr. Balazs, the first Executive Director of BBRI, is an internationally known researcher who has contributed substantially to scientific understanding of the eye.

"I remember walking down the corridor of our new building and feeling like the living embodiment of the American dream. Here we were, Schepens and I—two immigrants who had come to America with an idea for an institute and had received the most amazing outpouring of help and support from the whole Boston community."



Mrs. J. Howard Means

Boston Biomedical's first President, long-time Trustee, and a dedicated supporter of a wide variety of civic and medical causes.

"In the early years, Boston Biomedical didn't have the financial or public relations support system it needed. But there was a feeling of excitement about the place, and it was a wonderful challenge helping to get things off the ground."



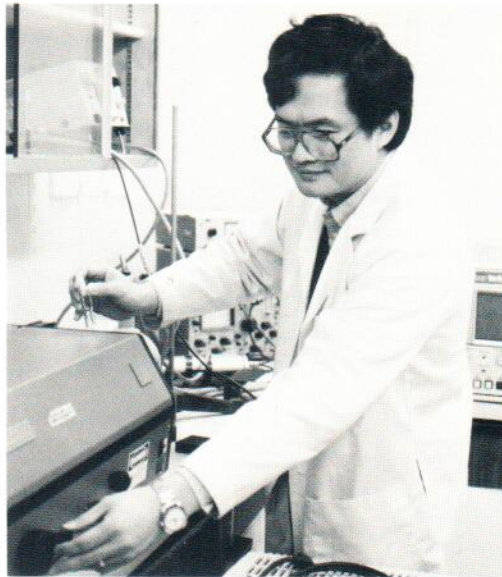
Dianne Goldrick, Cell Physiology Department: *"We're looking for mutations in the DNA sequence of a gene. It may take a week to find a single abnormal unit in a thousand units of DNA."*

The Lure of Basic Research

Basic biomedical research and applied biomedical (or clinical) research are related—but vastly different—fields. In applied research, investigators look for ways to treat and prevent specific diseases.

In basic research, investigators study the basic biological processes that underlie the diseases. They study how parts of the cell communicate with each other, and what happens when communication breaks down. They study how DNA passes on genetic messages, and what happens when the messages get scrambled, or lost, or delivered to the wrong address.

Basic researchers, in other words, provide the bank of knowledge that makes possible the treatments, the cures, and—finally—the prevention of disease.



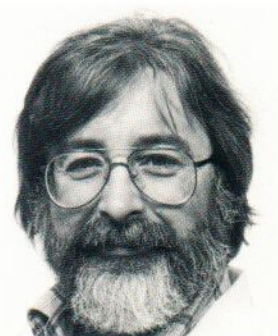
Dr. Albert Wang, Department of Muscle Research: "This tunable dye-laser equipment enables us to 'see' proteins which we have specially prepared so that they fluoresce when they're exposed to a laser of exactly the right color. Changes in the fluorescence provide information about changes in the shape of the protein."



Dr. John Gergely

A principal of the Institute since its inception, Dr. Gergely is the Director of the Department of Muscle Research, and a leading authority on the biochemistry of muscle.

"We resisted the temptation to become a single-issue institute. The original program addressed a whole range of important subjects—connective tissue, muscle, bioenergetics, developmental biology, and fine structure. We have always felt that a broad approach was the right one for us."



Dr. Paul Leavis

A Senior Scientist in the Department of Muscle Research, Dr. Leavis has worked at BBRI since 1971. His principal field of interest is the regulation of muscle contraction.

"I play jazz guitar, and I think that for me, playing jazz and doing basic research both have the same appeal. It's satisfying to have a finished product, but the real excitement comes from making the product. It's the creative process that inspires me."

The Basic Researcher

The successful basic researcher is a rare breed, a combination of realist and dreamer. He lives by his wits, scrambling for grants in a highly competitive arena.

He is a pioneer, pushing into uncharted realms, finding answers to questions no one has asked yet, solving problems that may have no clinical application for 15 or 50 years.

He is a sleuth, driven by his curiosity, questioning, probing, and doubting every observation and challenging every assumption.

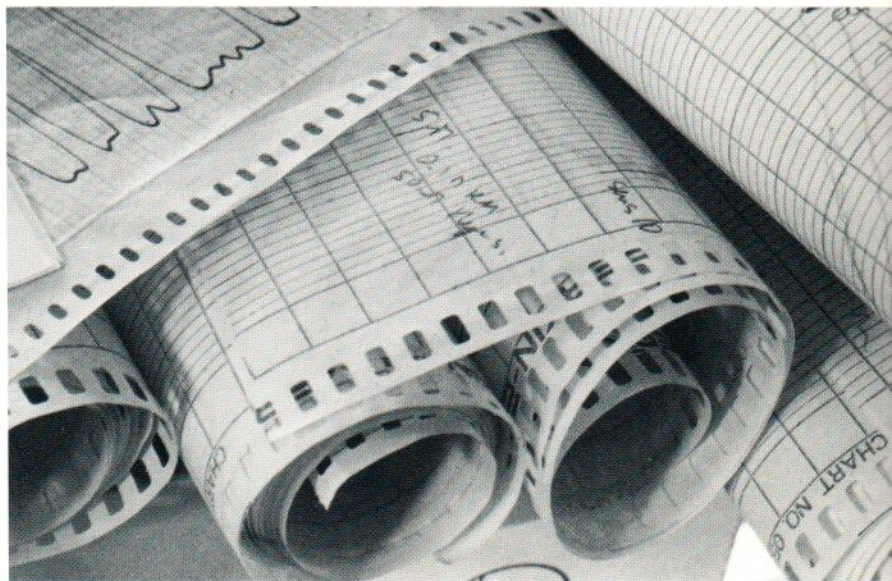
He is a visionary, limited only by his imagination, working on a high theoretical plane, at the very edge of the known world.



Mrs. Anne Stone

Mrs. Stone is a Vice President of BBRI, and the Director for Special Events. Her volunteer activities reveal a particular interest in health care.

"I feel that basic scientists are the most altruistic of all medical researchers. They strive—too often, it seems—without feedback, without the plain personal satisfaction of seeing their work actually benefit people."



Dr. Terry Scott: *"To do science you need the naivete of a child: the ability to look at data and see something fresh and new that no one else has noticed."*

Boston Biomedical is one of about 60 basic research institutes in the country, one of only a handful in New England. It is currently organized into four departments: Muscle Research, Fine Structure, Metabolic Regulation, and Cell Physiology.

Within these departments investigators pursue a wide range of research programs that have already contributed to scientific understanding of cancer, heart disease, and diseases of the muscles, the liver, and the eye.

Probably the single most important feature of the Institute, however, is its complete and wholehearted devotion to research. That's why 95% of the usable floor space is used for labs and conference rooms, and only 5% for administrative offices.

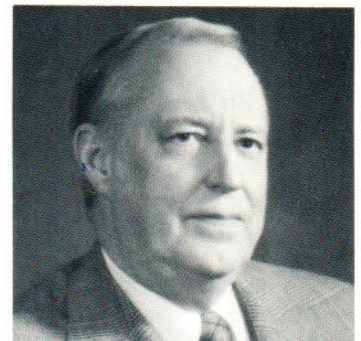
That's why it's run so lean, with a full-time administrative staff of only seven for an institute of around 100 people. And that's why it's organized so democratically, with an elected research committee and an executive directorship that has been held by each of the four department heads.



Mr. Ernest Henderson, III

Entrepreneur and supporter of a wide range of civic causes, Mr. Henderson serves as BBRI's Treasurer, and the Chairman of the Investment Committee.

"I am impressed with the financial operation of the Institute. The vast bulk of their budget goes directly into research; only a small part supports their administration and fund-raising efforts."



Mr. John Taplin

A member of the Board of Trustees and Chairman of Boston Biomedical's Technology Transfer Committee, Mr. Taplin is the President of the National Health Research Foundation and a consultant to Harvard Medical School.

"One attraction of working with BBRI is that the level of bureaucracy is very low. You work directly with the scientists, and as the scientists are also the decision-makers, your efforts can really help make things happen."



Mr. William Tyler

Chairman of BBRI, Mr. Tyler is a Boston lawyer and foundation trustee. He is actively involved on a pro bono basis with numerous health care, educational, and legal service organizations.

"What I think is noteworthy about the Institute is its leanness, its agility. It is able to adapt to constantly changing circumstances, and to do so in such a way as to not only survive from year to year, but to produce scientific research of surpassing excellence."

The Basic Researcher at BBRI

For a scientist, BBRI's constant focus on research rather than administration represents a major attraction. So does its proximity to—and ties with—some of the finest scientific and medical facilities in the world—Harvard, MIT, Tufts, Massachusetts General Hospital, the Massachusetts Eye and Ear Infirmary.

For these reasons and more, BBRI has always attracted a bright and productive group of investigators. Investigators who, in the rough-and-tumble competition for grant support, thrive—securing grants at a rate greater than the national average.

Investigators who, in the publish-or-perish climate of academia, publish quality—a total of 40 or 50 articles a year in top-ranking scientific journals like *Science*, *Biochemistry*, *Nature*, and *Cancer Research*.

Investigators who, in a field that requires collaboration and the open exchange of ideas, collaborate—both within BBRI, and by teaching, lecturing, and working with associates all over the US, Europe, Australia, and Asia.



Dr. Irwin Sizer

Dr. Sizer, a founding member of the BBRI Corporation and a member of the Development Committee, is the President of the Whitaker Health Sciences Fund, a former Dean of the Graduate School at MIT, and an MIT Professor of Biology Emeritus.

"One of the few objective ways to judge the quality of BBRI's investigators is to measure their level of Federal grant funding. And in fact their success in securing grants through the current peer review system offers conclusive proof of the outstanding calibre of BBRI's scientists."



Dr. Renne Lu

Dr. Lu is a Senior Scientist at BBRI, where she has worked since 1971 on aspects of the structure/function relationship of muscle proteins.

"When I came to BBRI I was an unsure post-doc. Now I'm an independent, self-confident investigator. What BBRI gives you is freedom to pursue the research areas that interest you, and the sense of family that comes from a small, close-knit group of scientists working together and helping each other."



Drs. Qilong Wu and Satyapriya Sarkar discussing experimental data. Colleague Dr. Philip Graceffa: *"Science without collaboration is like the six blind men describing the elephant. It takes more than one frame of reference to get the whole picture of anything."*

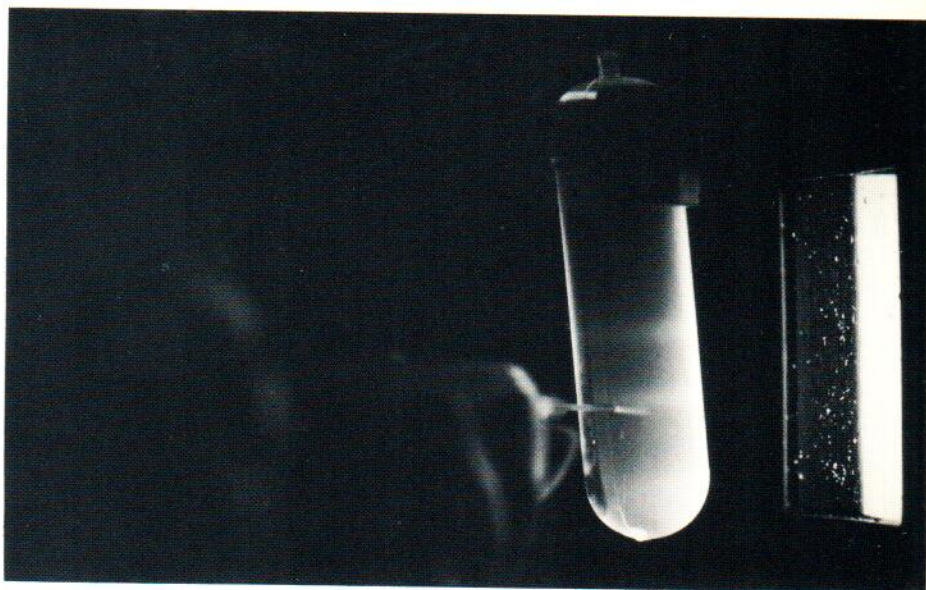
Following Leads

Although he may travel widely, the BBRI researcher, a sort of Sherlock Holmes in a lab coat, spends the bulk of his time in the laboratory investigating the mysterious activities of microscopic quarry.

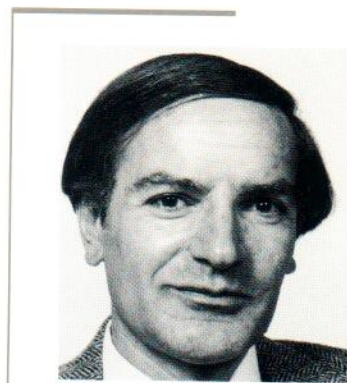
Dr. Vic Raso, for instance, is investigating the nature and behavior of two deadly toxins. (One, ricin, is extracted from the humble castor bean. In a recent international incident it was used to deadly effect by a secret agent, who dipped his umbrella tip in the stuff and discreetly stabbed his victim in the leg.)

Could either of these toxins, wonders Dr. Raso, be fashioned into a so-called “magic bullet” that will kill cancer cells without harming healthy cells—and that has eluded cancer researchers for so many years?

The answer is that no one knows. No one knows which of the promising leads currently being explored by Boston Biomedical researchers will eventually pan out. All that can be said for certain is that the research going on at BBRI will influence scientists all over the world, and help lead to clinical applications that no one could have imagined at the beginning.



After being spun in a centrifuge, DNA molecules separate like layers in a jello dessert. Dr. Jim Fandl of the Metabolic Regulation Department: *“This is a quick and easy way to isolate human DNA so you can look for genes associated with disorders like muscular dystrophy or Parkinson’s disease.”*



Dr. Vic Raso

Dr. Raso is a Visiting Scientist in the Department of Fine Structure. His major areas of expertise are cell biology and immunology.

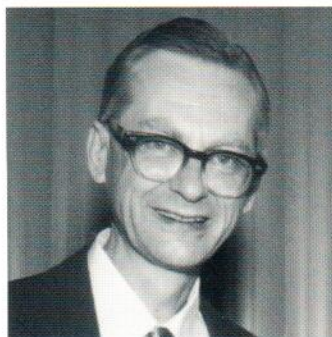
“In the past I’ve always worked on things that were really esoteric. This project is exciting both on a fundamental level and because I’m collaborating with MDs and can actually see how my work could benefit people.”

BBRI and the Future

In the past 20 years, BBRI has become a well-established and innovative institute. Over this period each member of the staff has contributed original discoveries, theories, explanations, or techniques to the field of biomedical research.

Boston Biomedical has also enjoyed the support of an invaluable network of corporations, foundations, and individuals. These supporters share in the excitement of research through a program of open houses, luncheons, forums, and special events. They also provide a good deal of the unrestricted funds that allow BBRI scientists to pursue new, exploratory avenues of research not covered by their grants.

The challenges facing Boston Biomedical at the start of its next 20 years are formidable and many. The importance of basic biomedical research is not yet fully understood by the general public. The fiscal climate for research work continues to be constraining.



Dr. Henry Paulus

The Director of the Department of Metabolic Regulation, Dr. Paulus has worked at the Institute since 1975.

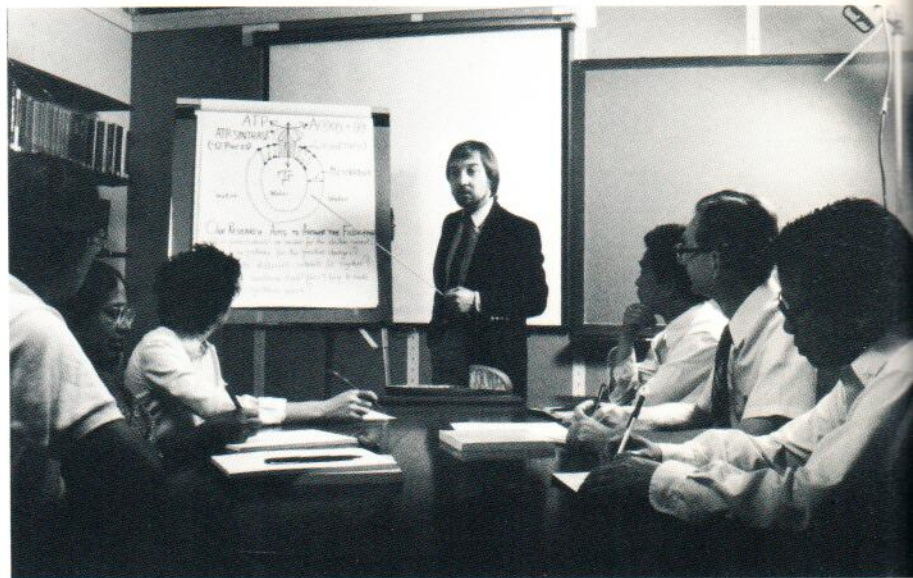
"One rather unusual feature of BBRI is the atmosphere of partnership between the scientists and the lay supporters, whose interest represents for us a great source of inspiration and encouragement."



Mr. John Shane

President of Palmer Service Corporation, a venture capital management company, Mr. Shane is also a past President and current Trustee of BBRI.

"Why do I enjoy working with BBRI? I'd have to say that their primary attraction is their great luncheons. Just kidding. I enjoy working with the people. They're a tremendous group, knowledgeable, articulate, and extremely dedicated to their work."



Dr. Michael Pringle of the Department of Cell Physiology solicits feedback on experimental findings. Department Director Dr. Rao Sanadi: *"Meetings of this kind result in valuable input from associates and foster a more rapid advancement of research."*

An anonymous corporate donation received by BBRI this year, however, enables the Institute to recruit several talented, new investigators. BBRI hopes to secure additional major donations that will make it possible to strengthen its research efforts in areas such as neurobiology and immunology.

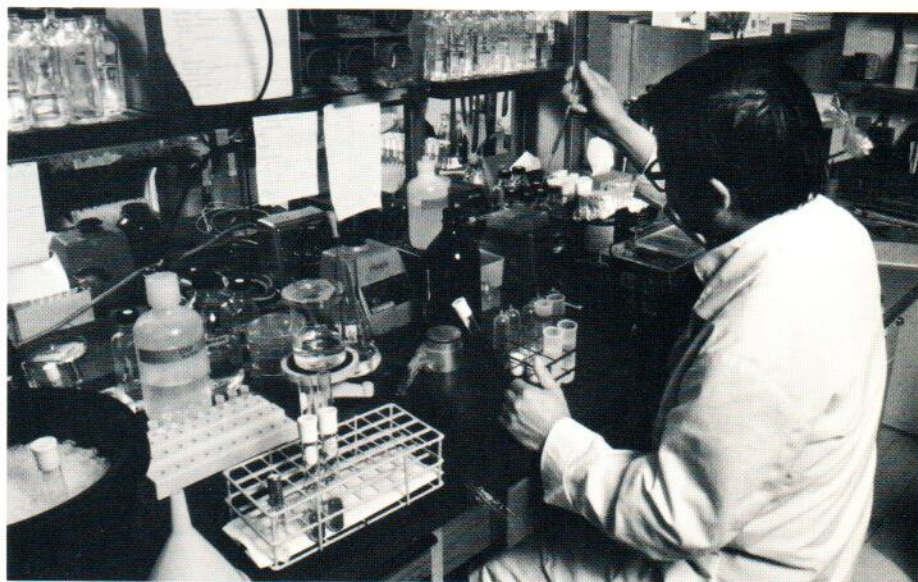
And with the continued commitment and curiosity of its scientists and the ongoing help and encouragement of its many supporters, Boston Biomedical is confident that it will continue in the next twenty years—and beyond—to further the sum of biomedical knowledge, and ultimately to improve the quality of life for all of mankind.



Mr. David Crockett

A founding Member of BBRI's Board of Trustees and BBRI's Chairman until 1980, Mr. Crockett is a veteran medical fund-raiser and life-long contributor to scientific and artistic organizations.

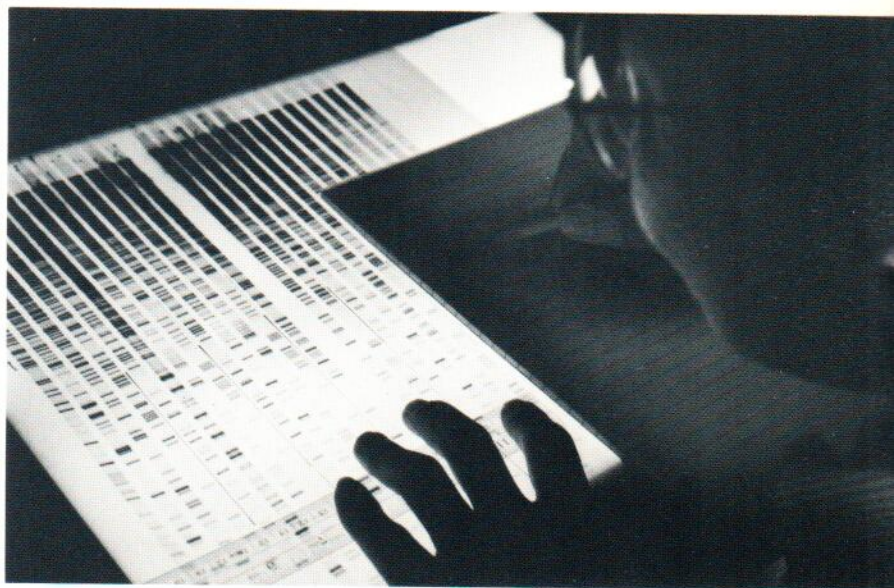
"BBRI supporters have enquiring minds. They're fascinated by what might come of basic research, and they're moved by their intellectual curiosity. These are some of the most generous people in the city."



Dr. Guan-Chiao Yu setting up a DNA separation experiment. Associate Dr. Jing-Lun Wu: "BBRI is well known for its work in recombinant DNA. Dr. Yu and I came here from Shanghai specifically to train under BBRI scientists."



Dr. Jack Seidel, analyzing the interaction of smooth muscle proteins during contraction and relaxation of a muscle: *"This computerized spectrometer was purchased through a shared instrumentation grant from the Division of Research Resources of NIH. It gives us a convenient way to study magnetic probes attached to the proteins that produce muscle contraction."*



Dr. Jen-Shiang Hong: *"Whenever you get to the end of one project, you have ideas for ten more. Every answer leads you to a new question, or a new avenue you want to explore. That's the way research is."*

Remarks of the Executive Director

Without scientific research the future of our world looks bleak. Malnutrition, disease, and the depletion and poisoning of our natural resources are worsening rather than improving with the decades. In one generation we have seen changes throughout the world whose effects are irreversible and which will challenge man's philosophical, political, and scientific ingenuity.

In the field of health care, there is desperate need for a greater commitment to research if we are to maintain—let alone better—our quality of life into the 21st century.

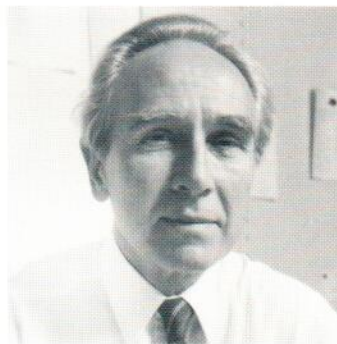
Right now, staggering costs are engendered by “incomplete technologies” —that simply prolong lives without improving them and treat diseases without curing them. Added to that there is in the Western world the problem of an increasingly aged population, whose health care costs must be borne by an ever-smaller proportion of wage-earners.

Considered in this light I hope that Congress will realize that a strong commitment to improve the medical research capability of this country is not philanthropy but a necessary and vital investment.

For our part, the Institute is committed to attracting and retaining the best investigators and will support their work in an environment dedicated to research at the frontiers of biology and medicine.



Peter F. Davison



Thank You

Without the generous donations from so many individuals, foundations, and corporations, many of our triumphs over the past 20 years would have been impossible, and many of our hopes for the next 20 years would be unattainable.

This year the generosity of BBRI's many friends put our Annual Research Fund over the top of its \$200,000 goal. This gave the Institute the fiscal flexibility it needed in fiscal 1988.

In addition to this we received two extraordinary "New Frontiers" gifts. A corporation which chooses anonymity gave us our first-ever gift of \$250,000. This enabled us to add to our fine scientific staff several investigators who bring new areas of expertise. Then the Trustees of the Amelia Peabody Charitable Fund voted \$250,000 to establish our first-ever named faculty position—the Amelia Peabody Senior Scientist, which recognizes an ongoing career of distinguished research at BBRI.

Your partnership with BBRI makes a difference in scientific and medical progress. Thank you!

William B. Tyler
Chairman of the Corporation and
Chairman of the Development Committee.

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Bernard J. Jacobson, Ph.D.
Sherwin S. Lehrer, Ph.D.
Paul C. Leavis, Ph.D.
Renne C. Lu, Ph.D.
Nilima Sarkar, Ph.D.
John C. Seidel, Ph.D.
Frank A. Sreter, M.D., D.V.M., Ph.D.
Phang C. Tai, Ph.D.
Terence Tao, Ph.D.
Hartmut Wohlrab, Ph.D.

Principal Scientists

Philip J. Graceffa, Ph.D.
Saroj Joshi, Ph.D.
Terrence L. Scott, Ph.D.
Vladimir Z. Volloch, Ph.D.
Chih-Lueh Albert Wang, Ph.D.

Staff Scientists

Maureen Brennan, Ph.D.
Cecilia Hidalgo, Ph.D.
Michael J. Pringle, Ph.D.
Walter F. Stafford, III, Ph.D.

Research Associates

Alexey G. Basnakyan, M.D.
Zenon Grabarek, Ph.D.
Rebecca B. Kucera, M.A.
Katsuhide Mabuchi, Ph.D.
Sumitra Nag, Ph.D.
Guo-Ling Tian, B.S.
Suh-Der Tsen, Ph.D.
Li-Wen C. Wang, Ph.D.

Staff Fellows

Cuneyt Bukusoglu, Ph.D.
Ling-Ling Chen, Ph.D.
Mercy Deh, Ph.D.
James Fandl, Ph.D.
Robert Ganson, Ph.D.
Yoshiharu Ishii, Ph.D.
Agnes Jancso, Ph.D.
Ali Javed, Ph.D.
Lan King, Ph.D.
Magotoshi Morii, Ph.D.
Janusz Popowski, Ph.D.
Michel Ronjat, Ph.D.
Christian Schobert, Ph.D.
Bruce Schweitzer, Ph.D.
Janos Taljanidisz, D.D.M.
Jing-Lun Wu, Ph.D.
Haoda Xu
Xun Zhang

Research Fellows

Mark Dershwitz, M.D., Ph.D.
Sharon Gross, M.D., Ph.D.
Svein Haavik, Ph.D.
Laszlo Meszaros, Ph.D.
Kathleen Ogata, Ph.D.
Hye-Shin Park, Ph.D.

Research Assistants

Ghazala Ali, M.S.
Adelaida D. Carlos, B.S.
M. Eugenia Cifuentes, M.S.
Dianne Goldrick, B.A.
Bang-Jian Gong, B.M.
Elizabeth Gowell, B.S.
Valerie L. Heemstra, M.S.
Margaretha Jacobson, C.T.
Mary Kenneally, B.S.
Michaela Lerner, M.S.
John McGrath, B.S.
Radha Narayana, B.S.
Simin Niu
Eileen O'Leary, M.S.
John Rice, B.S.
Sophia Rits-Volloch, M.S.
Adel Taresfalvi
Zhiyan Wang, B.S.
Zilong Wen
Anna G. Wong, B.A.
Yu-jing Yang, M.S.
Nian-jun Yu
Qian Zhan, B.M.

Distinguished Visiting Scientist

San-Chiun Shen, Ph.D.
*Professor of Molecular Genetics
Shanghai Institute of Plant Physiology
Academia Sinica*

Visiting Scientists

Gaspar Banfalvi, Ph.D.
Gong-jie Cao
Nai-Yong Chen
Su-hua Hsu
Fu-Mei Hu
Shu-Qin Jiang
Zhi-Gang Li
Yude Qian
Victor A. Raso, Ph.D.
Toshiaki Sagesaka, M.D., Ph.D.
Satyapriya Sarkar, Ph.D.
Bing-Fu Shen
Ping Shen
Kai Tao
Jing-juan Zhang
Nan-ming Zhao

Administration

Vincent F. Raso, C.P.A.
Assistant Executive Director/Controller

Patricia Brouillette
Administrative Assistant

Helene Clinton
Administrative Assistant

Virginia Cahill
Financial Assistant/Bookkeeper

Computer Services

Walter F. Stafford, III, Ph.D.
Director of Computer Science

Development

Jacquelyn MacL. Findlay
Director of Development

Departmental Administration

Carol G. Burke
Mary Caulfield
Arlene Clark
Angela DiPerri
Dorothy Syrigos

Housekeeping

Maria Bozzella
Constance Giangregorio
Phuong Ngoc Huynh
Lucille Konjoian

BOSTON BIOMEDICAL RESEARCH INSTITUTE
BALANCE SHEETS
AUGUST 31, 1988 AND 1987

ASSETS	<u>1988</u>	<u>1987</u>
CURRENT ASSETS		
Cash	\$ 1,382,135	\$ 1,157,814
Grants receivable	3,741,309	3,999,958
Pledges receivable	255,000	
Prepayments, deposits and other receivables (note 7)	183,447	176,520
Investments, at market value (cost 1988—\$3,128,890 1987—\$2,871,030) (note 6)	<u>3,092,120</u>	<u>3,373,969</u>
Total current assets	<u>8,654,011</u>	<u>8,708,261</u>
FIXED ASSETS (notes 1 and 2)		
Leasehold improvements	1,935,632	1,935,632
Research equipment	4,067,344	3,971,086
Furniture and fixtures	<u>48,799</u>	<u>48,799</u>
Total	6,051,775	5,955,517
Less accumulated depreciation and amortization	<u>4,272,502</u>	<u>3,934,164</u>
	<u>1,779,273</u>	<u>2,021,353</u>
	<u>\$10,433,284</u>	<u>\$10,729,614</u>
LIABILITIES AND FUND BALANCES		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	\$ 65,678	\$ 80,855
Overhead and fringe benefit adjustment payable	82,842	218,403
Deferred grant income (note 5)	4,236,585	4,417,742
Deferred fund (building) (note 5)	<u>115,702</u>	<u>115,702</u>
Total current liabilities	<u>4,500,807</u>	<u>4,832,702</u>
FUND BALANCES (note 1)		
Operating	810,284	1,003,961
Plant and equipment	2,362,784	2,364,028
Permanent research	485,584	507,570
Fixed assets (notes 1 and 2)	1,779,273	2,021,353
Support of staff members	244,552	
Amelia Peabody staff scientist	<u>250,000</u>	
Total fund balances	<u>5,932,477</u>	<u>5,896,912</u>
	<u>\$10,433,284</u>	<u>\$10,729,614</u>

See accompanying notes to financial statements.

BOSTON BIOMEDICAL RESEARCH INSTITUTE
STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN FUND BALANCES
FOR THE YEARS ENDED AUGUST 31, 1988 AND 1987

	<u>1988</u>	<u>1987</u>
REVENUES		
Grants	\$5,375,636	\$5,702,938
Equipment replacement	106,358	99,425
Contributions and pledges	204,185	222,599
Property and equipment purchased (notes 1 and 2)	96,258	404,033
Investment income (loss)	(177,649)	467,821
Total	<u>5,604,788</u>	<u>6,896,816</u>
EXPENSES (by department)		
Muscle Research	2,250,804	2,647,692
Cell Physiology	1,093,592	1,110,908
Fine Structure	579,298	544,010
Metabolic Regulation	1,243,141	1,146,687
General Research	218,246	247,370
Fund Raising	43,759	47,357
Purchase of fixed assets (note 1)	42,045	43,538
Depreciation and amortization (note 2)	338,338	289,486
Total	<u>5,809,223</u>	<u>6,077,048</u>
NET ADDITION (REDUCTION) TO FUNDS	(204,435)	819,768
Restricted fund donation	240,000	
FUND BALANCES, BEGINNING OF YEAR (note 1)	<u>5,896,912</u>	<u>5,077,144</u>
FUND BALANCES, END OF YEAR (note 1)	<u>\$5,932,477</u>	<u>\$5,896,912</u>

See accompanying notes to financial statements.

BOSTON BIOMEDICAL RESEARCH INSTITUTE
NOTES TO FINANCIAL STATEMENTS
AUGUST 31, 1988 AND 1987

(1) - SIGNIFICANT ACCOUNTING POLICIES

Fund Accounting

The accounts are maintained on the accrual basis and in accordance with the principles of fund accounting. Funds that have similar characteristics have been combined into the following fund groups:

- Unrestricted funds include two groups representing the portion of expendable funds available for support of operations: a) The operating fund includes unrestricted contributions and investment income less the cost of grants not reimbursed in full by granting agencies, and further reduced by transfers to other funds; b) Other unrestricted funds represent amounts segregated from the operating fund for specific purposes, such as a building program fund, staff support and permanent research funds. These funds are designated for specific purposes by internal direction of the trustees.
- Restricted funds represent resources restricted for research grants or building additions. These funds are deemed to be earned and reported as revenues when the Institute has incurred expenditures in compliance with the specific restrictions. Amounts received but not yet earned are reported as restricted deferred amounts (see note 5).
- Fixed assets fund represents the undepreciated cost of leasehold improvements, equipment and furniture and fixtures.

Other Matters

All income, gains, and losses arising from the sale, collection, or valuation at market of investments are allocated to the fund owning the assets.

A portion of the overhead chargeable to research grants is deemed to be reimbursement for equipment and is shown as an addition to the Equipment Replacement Fund. This amounted to \$106,358 in 1988 and \$99,425 in 1987. In addition, \$42,045 of equipment was charged to the operating fund in the year ended August 31, 1988, \$43,538 in 1987 and added to the plant fund.

(2) - PLANT ASSETS AND DEPRECIATION

The Institute, under an agreement dated June 16, 1970, shares with Retina Foundation the use of research facilities for fifty years at 20 Staniford Street, Boston, and of a research farm in Townsend, Massachusetts.

The leasehold improvement asset category represents the cost of the Institute's long-term leasehold in the building and improvements, and is being amortized over the 50 year lease term. The research equipment and furniture categories represent, at cost, acquisitions from operating funds and restricted research grant awards. Depreciation is primarily on the straight-line basis over the estimated ten year useful life of the assets. All depreciation and amortization is charged to the plant fund.

(3) - GOVERNMENT GRANTS

All grant costs to the U.S. government and most private grants are subject to audit by the granting agency.

(4) - DEFERRED COMPENSATION PLAN

The Institute has a fully funded deferred compensation plan, with funds held by an insurance company as custodian. The assets of the fund and the related deferred compensation liability are not included in the financial statements as they are not intended to be available for operations, but as a segregated retirement fund.

(5) - CHANGES IN DEFERRED RESTRICTED AMOUNTS

	1988		1987	
	Building Fund	Grants & Contracts	Total	Total
Balance, beginning of year	\$115,702	\$4,417,742	\$4,533,444	\$4,878,673
Additions:				
New grants awarded		4,916,619	4,916,619	5,275,403
Contributions and pledges		252,225	252,225	6,495
Investment income (loss)	(5,059)	(7,267)	(12,326)	69,365
	110,643	9,579,319	9,689,962	10,229,936
Deductions:				
Funds expended for designated purposes		5,342,734	5,342,734	5,680,846
Transfer of investment income (loss) from Building Fund	(5,059)		(5,059)	15,646
Balance, end of the year	<u>\$115,702</u>	<u>\$4,236,585</u>	<u>\$4,352,287</u>	<u>\$4,533,444</u>

(6) - INVESTMENTS

Investments consist of corporate and government bonds and listed stocks. Also included is an \$800 investment made in 1982 in Boston Biotechnology Corporation. This Company was formed to utilize and commercialize certain technical processes originated at Boston Biomedical Research Institute and elsewhere.

The investment holding represents the entire outstanding stock of Boston Biotechnology Corporation and is shown at cost.

(7) - BOSTON BIOTECHNOLOGY CORPORATION

The Institute has advanced \$129,804 to Boston Biotechnology Corporation (see note 6). This amount is included in the category Prepayments, deposits and other receivables. At August 31, 1988, Boston Biotechnology Corporation was still in the development stage and had no significant liquid assets.

AUDITOR'S REPORT

Board of Trustees
 Boston Biomedical Research Institute
 Boston, Massachusetts

I have examined the balance sheets of Boston Biomedical Research Institute as of August 31, 1988 and 1987, and the related statements of revenues, expenses and changes in fund balances for the years then ended. My examinations were made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as I considered necessary in the circumstances.

In my opinion, the aforementioned financial statements present fairly the financial position of Boston Biomedical Research Institute as of August 31, 1988 and 1987, and the results of its operations and changes in fund balances for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

John Vecchi/Certified Public Accountant
 124 Crescent Road, Needham, Massachusetts 02194
 (617) 449-5545

September 23, 1988

Credits

*Creative concept and writing,
Gail Davison*

*Design and production,
Furtado Communication Design*

*Photography,
John Ganson: pages 3,
4 bottom, 5 bottom left, 6 bottom,
8 bottom, 9 top, 10 bottom,
11 bottom, 12, 13.*

*ERI Photo Services: pages 4 top
right, 5 top.*

*Fay Foto: pages 5 bottom right,
6 top, 7 top left and bottom, 8 top
left and right, 9 bottom, 10 top
left, 14.*

Fabian Bachrach: page 7 top right.

*Stephen T. Sherman: page 10
top right.*

MGH News Office: page 11 top.

*Again this year, BBRI wants to
thank John Ganson, photographer,
for the continuing generous
donation of his talents.*

Boston Biomedical Research Institute is an independent, non-profit organization with a staff of M.D. and Ph.D. investigators who carry out a broad program of basic research in biology and medicine, and provide highly specialized training for future physicians and scientists. For two decades the Institute has maintained its position among the leaders in the world-wide effort to prevent and cure disease. Areas currently under investigation range from the study of birth defects to the biology of aging. The findings of Institute scientists are used by others in clinical projects including those aimed at helping people suffering from cancer and diseases of the heart, muscles, liver, and eye. The Institute's research programs will ultimately bring lasting benefits to the future well-being of mankind.

Boston Biomedical Research Institute

20 Staniford Street, Boston MA 02114
(617) 742-2010