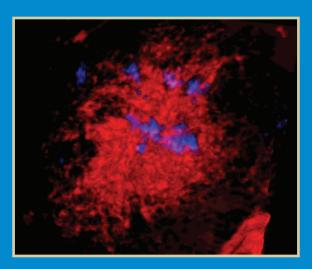
Massachusetts Alzheimer's Disease Research Center's

30th

Anniversary Symposium Friday, September 19, 2014

Richard B. Simches Research Center
Room 3.110
Massachusetts General Hospital
185 Cambridge Street
Boston MA 02114



Accreditation

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A Short History of the Massachusetts ADRC

The Massachusetts ADRC was established in 1984 in response to a Request for Applications ('RFA-84-AG-01') from the National Institute on Aging to establish research centers of excellence devoted to Alzheimer's disease (AD). The Massachusetts ADRC was one of five centers originally funded, and has remained in continual operation for the past 30 years. The broad goals of the Massachusetts ADRC have evolved since 1984, but remain constant in the mission to treat, cure, and if possible, prevent AD. At its inception, the Massachusetts ADRC was a multi-institutional consortium composed of Harvardaffiliated units, including the Massachusetts General Hospital, the Brigham and Women's Hospital, the Beth Israel Hospital (now known as the Beth-Israel Deaconess Medical Center), McLean Hospital, the Harvard Division on Aging, and the Hebrew Rehabilitation Center for Aged (now known as the Hebrew SeniorLife); the Massachusetts Institute of Technology, and the University of Massachusetts Medical Center at Worcester. A satellite diagnostic clinic was established between 1991 and 1997 at the Southwestern Vermont Medical Center in Bennington, VT. Dr. John H. Growdon served as Program Director and Dr. David A. Drachman as Associate Program Director during the first 20 years; Drs Joseph B. Martin, M. Flint Beal, M. Marsel Mesulam, Dennis J. Selkoe, Suzanne Corkin, James F. Gusella, E. Tessa Hedley-Whyte, Charles A. Marotta, John W. Rowe, T. John Rosen and Ralph A. Nixon were all involved in the early years. Dr. Bradley T. Hyman became Associate Director in 2004, and Director in 2006.

During the past 30 years, we have created an environment that contributes to the ADRC's success in meeting its goals of supporting research in neuroscience directed towards uncovering the etiology and pathogenic mechanisms of AD and related dementias, and catalyzing education, training, and information transfer related to AD and related dementias. We are proud of having trained fellows and junior faculty who have gone on to lead important AD-related programs throughout the United States and indeed, throughout the world. This is one of the reasons why we are especially delighted to be able to announce the John H. Growdon Fellowship at this 30th anniversary symposium, both to honor our founding director, and to look to the future of continuing to build on our strengths, and train the next generation of physicians and scientists who will contribute to the understanding and cure of Alzheimer's disease and related dementias.

Looking to the future, we hope to contribute to understanding these devastating diseases, to learn more about their diagnoses and clinical manifestations, to move towards therapeutic interventions that impact the symptoms, and ultimately, to prevent their occurrences.

Bradley T. Hyman, MD PhD Program Director



September 19, 2014

Opening Remarks

8:45 am to 9:15 am Bradley T. Hyman, MD, PhD

Joseph B. Martin, MD, PhD Creighton H. Phelps, PhD

Imaging

Chairs: Clifford R. Jack, Jr., MD and Bruce R. Rosen, MD, PhD

9:15 to 9:40 am In vivo Imaging of Tau Deposition

Keith A. Johnson, MD

9:40 to 10:05 am **Brain Networks and Neurodegeneration**

Randy L. Buckner, PhD

10:05 to 10:30 am **How Do Imaging Studies Inform On**

Relationships Between AD and Other

Age-Associated Processes
That Lead to Cognitive Decline

Clifford R. Jack, Jr. MD

10:30 to 11:00 am Coffee Break

Genetics

Chairs: Peter St. George-Hyslop, MD, FRS, FRSC, FRCPC and Joseph B. Martin, MD, PhD

11:00 to 11:30 am Alzheimer's Disease: From Genes to

Therapies in the Whole Genome Era

Rudolph E. Tanzi, PhD

11:30 to Noon Functional Genetics of Alzheimer's Disease

Peter St George-Hyslop, MD, FRS, FRSC, FRCPC

Noon to 1:30 pm Luncheon



Chair:	Dennis,	J. Selkoe.	MD
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Roger M. Nitsch, MD

1:55 to 2:20 pm Loss of Function of TREM2, a Common

Mechanism of Neurodegeneration

Christian Haass, PhD

2:20 to 2:45 pm Can We Detect and Treat Alzheimer's

Disease a Decade Before Dementia?

Reisa A. Sperling, MD, MMSc

2:45 pm to 3:15pm Coffee Break

Future Directions in Alzheimer's Research

Chairs: Zaven S. Khachaturia	າ. PhD	and Anne	B.	Young.	MD.	. PhD
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3:15 to 3:40 pm Understanding Human Brain Resilience to

Alzheimer's Pathology

M. Teresa Gomez-Isla, MD, PhD

3:40 to 4:00 pm **The Nose Knows:**

Early Events in Alzheimer's Disease

Mark W. Albers, MD, PhD

4:00 to 4:20 pm **Apolipoprotein E, a Factor of Brain**

Resilience and Susceptibility in Alzheimer's

Eloise Hudry, PhD

4:20 to 4:40 pm **Network Dysfunction in Dominantly**

Inherited and Sporadic, Late Onset AD

Jasmeer Chhatwal, MD, PhD

4:40 to 5:00 pm APP and PSEN1 Mutations Induce ?-Amyloid

and Tau Pathologies in a 3D Human Neural Cell

Culture System: A Late-Stage Alzheimer's

Disease Model in a Dish

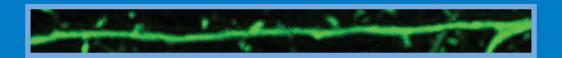
Doo Yeon Kim, PhD

Concluding Remarks: Looking Ahead

5:00 to 5:30 pm	Bradlev	' T. H\	man.	MD.	PhD

John H. Growdon, MD

5:30 pm Symposium Adjournment



FACULTY

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Massachusetts General Hospital

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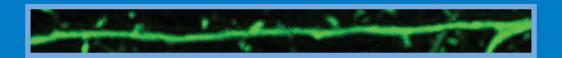
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FACULTY

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President & Chairman, The Campaign to Prevent Alzheimer's Disease by 2020

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Interim Director

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Former Chancellor

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Professor of Experimental Neuroscience Cambridge Institute for Medical Research University of Cambridge

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Creighton H. Phelps, PhD

Director

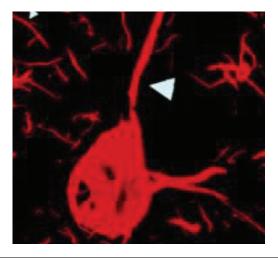
Alzheimer's Disease Centers Program

Deputy Director

Division of Neuroscience

National Institute on Aging

National Institutes of Health



The Massachusetts Alzheimer's Disease Research Center's 30th Anniversary Symposium has received support from the following companies for this symposium:

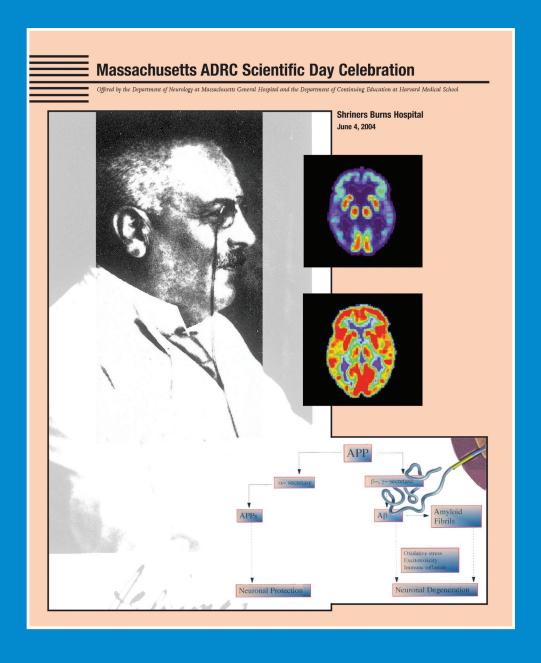
Lilly USA, LLC FORUM Pharmaceuticals, Inc. Novartis

We also want to thank the non-profit

CURE Alzheimer's Fund

for its support of our 30th anniversary celebrations.

Remembering our 20th anniversary celebrations on June 4, 2004 ...



A look back at "RFA-84-AG-01" ...

NIH GUIDE FOR GRANTS AND CONTRACTS

Vol. 12, No. 12 December 9 1983

ANNOUNCEMENT

AVAILABILITY OF REQUEST FOR APPLICATION: RFA

ALZHEIMER DISEASE RESEARCH CENTERS

84-AG-01

NATIONAL INSTITUTE ON AGING

Application Receipt Date: March 20, 1984 Letter of Intent Receipt Date: February 15, 1984

I. BACKGROUND

Of the many disabling conditions of the aged, one of the most serious is Alzheimer disease, a progressive degenerative disease of the brain. Alzheimer disease affects approximately five to six percent of the United States population over age 65. This disease is the most frequent cause of institutionalization of the aged in long-term-care facilities. In 1983 the United States will spend more than \$27 billion for the care of patients with Alzheimer disease. In developing specific initiatives in the 1984 appropriation, the Congress provided \$3.5 million to the National Institute on Aging (NIA) for the development of a multi-Institute collaborative effort to establish specialized research centers on Alzheimer disease. Under the leadership of the NIA, this effort involves the programmatic contributions and collaboration of the National Institute of Mental Health (NIMH), the National Institute of Neurological and Communicative Disorders and Stroke (NINCDS) and the National Institute of Allergy and Infectious Diseases (NIAID) to establish up to five specialized centers of excellence for research on Alzheimer disease and related disorders.

II. PROGRAM OBJECTIVES AND SCOPE

The National Institute on Aging is inviting grant applications from interested institutions to establish centers of excellence devoted to the study of Alzheimer disease and related disorders. This type of solicitation (the RFA) is issued to encourage coordinated multidisciplinary research in an area of special importance to the NIA, NINCDS, NIMH, and NIAID. An Alzheimer Disease Research Center (ADRC) will be an identifiable organizational unit formed by a

This program is described in the Catalog of Federal Domestic Assistance, No. 13.866, Aging Research. Awards will be made under the authority of the Public Health Service Act, Title III, Section 301 (Public Law 78-410, as amended; 42 USC 241) and administered under PHS grant policies and Federal Regulations 42 CFR Part 52 and 45 CFR Part 74. This program is not subject to Health Systems Agency Review.

single university medical center or a consortium of cooperating institutions, including the university affiliated centers. The general purpose of the ADRC is to support new research and to enhance ongoing research by providing core support to bring together behavioral, biomedical, and clinical science investigators in a manner that will enrich the effectiveness of Alzheimer disease research and ultimately improve health care delivery. An ADRC will be expected to foster three related functions: conducting multidisciplinary research; training scientists and clinicians (Ph.D., M.D., D.V.M., D.O., D.D.S., R.N.); and teaching and/or transferring new information concerning Alzheimer disease and related disorders.

To be eligible for a center grant under this program, the potential applicant institution must have ongoing, independently supported research and must propose new research in the area of Alzheimer disease and related dementing disorders of the aged. Relevant research projects supported by a DHHS agency, the VA or a foundation can become affiliated with a Center. The specific elements of an ADRC for which funds will be available in addition to core functions are: (a) new fully conceptualized research projects, (b) pilot or feasibility studies (new initiatives) in biomedical, epidemiological, behavioral and social research, and (c) core administrative activities fostering training of investigators and clinicians, information transfer, and program enrichment activities. The overall intent is to provide new support for an added dimension, capability, or potential for accomplishments greater than that possible by the present ongoing support at the The major source of research support sought by the applicant institution. investigators associated with the Center must be through independently funded projects of the participants. Stipends for trainees will not be available through ADRC funding; they must be sought through separate avenues of funding, e.g., individual fellowship and/or institutional training grant awards.

The core concept will be applicable to all of the ADRC activities--research, training and information transfer. Core facilities (shared resources) may be proposed which will enhance productivity or in other ways benefit a group of investigators to accomplish the stated goals of the ADRC. Three types of core units will be mandatory of all ADRCs:

- (a) an administrative unit to manage the overall activities of the Center,
- (b) a research support unit which serves the functions of patient registry, coordination, and evaluation; and clinical, pathological, social, behavioral and epidemiological data gathering, storage, coordination and analysis, and
- (c) an autopsy unit, either on site or available through specified contractual arrangment, which serves the functions of collecting, storing and distributing brain tissue, and provides routine services for biochemical, histological and neuropathological studies.

In addition to the above, each ADRC may propose other types of cores. These may include specific common facilities for activities which will be utilized and shared by at least two or more components of the Center. If exceptional concentration of resources, investigators and research are present in one or more ADRC center that focuses in a particular area such as neuropathology and brain banking, patient diagnosis and evaluation, or data registry and epidemiology, it is possible that such

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a center may be designated as a National Coordinating Center in this field. Applicants interested in developing a center with an added specific focus in one of these areas may contact the program administrator for further details.

III. MECHANISM OF SUPPORT

The support mechanism for this program will be the traditional NIH grant-in-aid. Applicants will plan and execute their own programs. Approximately \$3.5 million will be set aside to fund applications which are submitted in response to the RFA. It is anticipated that approximately five grants will be awarded under this program. This specific amount will, however, depend on the merit and scope of the applications received. These applications will not compete for funding within the general pool of dollars available for other investigator- initiated research proposals. Only applications of sufficiently high scientific merit will be funded. The expected starting date is September 30, 1984. The current policies and requirements that govern the research grant programs of the NIH will prevail. No more than one ADRC Grant will be made to any one institution (or, for multicampus institutions, no more than one to each campus). Applications may also be submitted for consortium arrangements among investigators at separate but neighboring institutions who demonstrate a high degree of multidisciplinary collaboration.

IV. REVIEW PROCEDURES AND CRITERIA

- A. Review Method: All applications responding to the RFA will be reviewed for scientific and technical merit by an initial review group which will be convened by the Scientific Review Office of the NIA solely to review these applications. Upon receipt, applications will be reviewed for their responsiveness to the objectives of this RFA. If an application is judged nonresponsive, the applicant will be contacted and given an opportunity to submit supplemental information. Although a site visit may be made, each proposal should be complete in itself, and should be prepared as if no visit is expected.
- B. Review Criteria: The factors to be considered in the evaluation of the scientific merit of each application will be those used in the review of traditional research-project grant applications, including the novelty, originality, and feasibility of the approach; the training, experience, and research competence of the investigator; the adequacy of the research design; the suitability of the facilities; scientific and administrative leadership of the applicant; institutional commitment; academic environment; and the appropriateness of the requested budget to the work proposed. As with any award of this nature, the scientific qualifications, demonstrated administrative ability, and total commitment of the principal investigator and institution to the proposal will be important factors in judging the overall merit of the application. An additional criterion will be the importance of the proposed research to the objectives of this RFA.

V. METHOD OF APPLYING

A. Format for Application: Submit the application on form PHS 398, the application form for the traditional research-project grant. This form is available in an applicant institution's office of sponsored research or business office, or from the Division of Research Grants (DRG) of the NIH. Use the

conventional format for a research-project grant application (please observe page limitations) and ensure that the points identified in the section on review procedure and criteria are fulfilled. To identify these applications as being in response to the RFA, check "yes" on item 2 of page 1 of the application and enter the title: "ALZHEIMER DISEASE RESEARCH CENTERS" and the RFA number 84-AG-01. Guidelines for ADRC Applicants are available from NIA. See section on "Inquiries."

B. Application Procedure: Although not a prerequisite for applying, potential applicants are encouraged to submit to the program administrator indicated below a non-binding letter of intent to apply, post-marked no later than February 15, 1984. The letter of intent does not influence review or funding decisions, but it will enable the NIA to plan the review, and will ensure that each potential applicant receives relevant program information prior to expending considerable effort in application preparation.

Send or deliver the completed application and four (4) signed, exact photocopies of it to:

Division of Research Grants National Institutes of Health Westwood Building - Room 240 Bethesda, Maryland 20205

In addition, at the same time two informational copies should be sent under separate cover to:

Chief, Scientific Review Office
Office of Planning and Extramural Affairs
National Institute on Aging
National Institutes of Health
Building 31 - Room 5C-l2
Bethesda, Maryland 20205

The deadline for receipt of applications by the NIH Division of Research Grants is March 20, 1984. Applications after this date will not be considered. Logistics and managerial practicality necessitate that only applicant institutions in the United States will be eligible. Additional information and copies of more detailed guidelines which outline the ADRC requirements and the method of applying can be obtained from NIA.

C. Inquiries

Inquiries regarding this announcement or requests for guidelines may be directed to the program administrator:

Zaven S. Khachaturian, Ph.D.
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Biomedical Research and Clinical Medicine Program
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National Institutes of Health
Building 3IC - Room 5C-27
Bethesda, Maryland 20205

Telephone: (301) 496-9350







Five Alzheimer's Research Centers Designated

Dr. John Growdon to Direct Massachusetts Center



Sec'y Heckler, Dr. Growdon

y ecretary of Health and Human Services Margaret Heckler Scame to Harvard Medical School this week to announce a new, multi-million dollar federal research initiative on Alzheimer's disease. One of five national Alzheimer's Disease Research Centers funded by Congress this year will be a consortium of Massachusetts institutions led by Harvard Medical School and the Massachusetts General Hospital. Dr. John Growdon, Associate Professor of Neurology at HMS and head of the Memory Disorders Unit at the MGH, is the Program Director; Dr. David Drachman, Professor and Chairman of Neurology at the University of Massachusetts Medical Center, is the Co-director. Other participating institutions are Harvard's Division on Aging and Beth Israel and McLean Hospitals; University of Massachusetts Medical Center; and the Massachusetts Institute of Technology. The Center is funded for five years with a grant of nearly \$4 million from the National Institutes on Aging of the National Institutes of Health. The other centers are in Baltimore, San Diego, New York City, and Los Angeles.

Continued on page 4





