BRAIN TRUST

Published to Promote Awareness of the University of Miami Brain Endowment Bank

Volume 1 Number 1

UM School of Medicine

A Greeting from THE DIRECTOR

1995 is a year that holds great potential for the work of the Brain Endowment Bank. We are on the threshold of important advances in the prevention, alleviation and cure of brain disorders. However, in order to maintain the forward momentum in neuroscience research, our Brain Bank needs more depositors, financial gift donors as well as brain donors.

One of our goals for 1995 is to advance our assault on Schizophrenia. The Estonia Project, initially launched with a $10,000 gift from Together We Care, a north Palm Beach volunteer group that raises money for research and aid to the developmentally disabled and the mentally ill, is currently on hold due to lack of additional funds. Estonians have a high incidence of Schizophrenia. Doctors there could provide the Brain Bank with twenty brains each year, which in turn could supply dozens of U.S. laboratories with tissue for research. Monies are needed for the removal services, for the special containers which hold the frozen brain tissue, and for transporting the tissue half way around the world. Great advances in the past ten years in understanding Alzheimer's and Parkinson's diseases are due to studies of afflicted brain tissue. In the case of Schizophrenia and Depression, there is a severe shortage of available brain tissue. The Estonia Project would ensure that enough brain tissue would be available to support research efforts aimed at serious mental illnesses. We hope that you will read this message about this important effort. We have to move fast before the window of opportunity in Estonia closes.

During the past few weeks, we have been contacting our brain donors to schedule you for your annual neuropsychological assessments. This testing allows us to track your brain power. We need to show that you are aging well, with a "razor sharp" intellect, into your 8th, 9th, and 10th decades. We are very proud of our group, because our studies show that brain donors age very well! Some of you have traveled to our medical center for this study. We had been conducting our studies previously via home visits. While this arrangement is more comfortable for you, we are able to do much more complete assessments on site at the Medical School. We are attempting to evaluate your general health status as well as the aging of your brain. Please let us know how this plan is working. We appreciate your patience and we need your suggestions on how to make this work.

For those people who live outside of the Dade and Broward county areas, we will be calling you to conduct a short telephone interview. This information will help us learn about your brain aging, too. Thank you for helping us to learn more about that which makes us uniquely human – our brain.

We appeal to our donors and their families to spread the word in support of the Brain Endowment Bank. Our research also requires healthy donors representative of the numerous ethnic groups that make up our community. We encourage you to refer your friends, neighbors and co-workers. Our success in 1995 depends on your generosity. Help us in our quest to understand the causes, develop new treatments, and to find the cures for the devastating disorders that affect so many in our community.

With best wishes,
Deborah C. Mash, Ph.D.

RESEARCH TAKES BRAINS

Established in 1986 at the University of Miami School of Medicine, the Brain Bank has successfully implemented an efficient statewide network to encourage and accept brain endowments. Now, at the midpoint of this "Decade of the Brain", the mission of the Brain Bank becomes more urgent. More than 50 million Americans are affected by brain disorders. A commitment to neuroscience research depends on the availability of both healthy and diseased brain tissue.

Through its endowments, the Brain Bank supports basic and clinical research on Schizophrenia, Depression, Alzheimer's Disease, Parkinson's Disease, and other disorders including Tourette's Syndrome, Huntington's Disease, Multiple Sclerosis, Down's Syndrome and Shy-Drager Syndrome.

Since its inception, the Brain Bank has received over 1000 endowments. Donating one's brain is different from donating other organs. Even if it's noted on a driver's license that you are an organ donor, the brain is not included. A donor must be registered with the Brain Bank and carry a separate wallet card. Extensive initial medical information is gathered on the donor. Thereafter, annual evaluations and tests are conducted so that researchers will have as complete a medical profile as possible. All this takes place at no expense to the donor. Similar to the donation of other organs, a brain bequest does not interfere with the family's plans for funeral, burial, or cremation, and no additional costs are incurred by the donor's family.

Timing is crucial. The brain must be removed and preserved within twelve hours of death. When death is imminent or at the time of death, the Brain Bank is quickly notified.

The bank provides brain tissue to researchers whose requests are approved by an advisory board of University of Miami Medical School clinicians and scientists. Requests are evaluated, ranked and met as best as the then available

continued next page

Research *continued*

supply of brain tissue. The Brain Bank also conducts its own research.

The UM Brain Bank is one of three major brain banks in the country. The others are located in Cambridge, Massachusetts and Los Angeles, California. All three are funded by the National Institutes of Health and by private foundations and donors. The grants cover the technical aspects of the Brain Bank's work, such as the removal, transportation and processing of the brain tissue. This budget limits the number of brains the bank is able to process. Efforts to solicit endowments and to create public awareness are not financed by these grants, but must come from private sources. Additional resources are also needed to expand the geographic area served by the bank, currently limited to Florida, and to extend on-site donor testing and evaluation throughout the state.

The toughest job facing the Brain Bank today is its effort to increase its endowment and its funding across a broad base of the community. Through education and raising public awareness, the Brain Bank hopes to insure that brain donation becomes a permanent research resource.

TO DONATE

We wish that money would just fly in to us on wings, but it's a rare occasion! Your donation will ensure that the Brain Bank continues to grow. If you are able to assit us, please use the enclosed envelope. Your donations are tax deductible. All checks should be made payable to: Brain Research Fund

THE ROLE OF LEVODOPA IN THE TREATMENT OF PARKINSON'S DISEASE

by Mark Stacey, M.D.
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Parkinson's Disease (PD) is characterized by bradykinesia, resting tremor, postural instability, and rigidity. Brain autopsy reveals loss of dopamine producing cells in the substantia nigra. Levodopa is an amino acid that is converted to dopamine in the brain, and when combined with carbidopa (to reduce nausea and vomiting) is highly effective in relieving PD symptoms.

Optimization of anti-PD therapy requires an understanding of patient response to each levodopa dose. Patients treated with standard carbidopa 25 mgs/levodopa 100 mgs (or Sinemet @ 25/100) often will notice improvement of symptoms within 30 minutes of dosing, and experience improved mobility for 2 to 4 hours. However, over 50% of patients will develop off-periods and increased motor activity (dyskenisias) within 5 years of levodopa initiation. Most off-periods occur at low levels of levodopa, and may respond to increased carbidopa/levodopa or reduced time between dosing. Dyskenisias are present at high drug levels and treatment requires both dose and interval reduction. Controlled-release carbidopa 50 mgs/levodopa 200 mgs (or Sinemet CR @ 50/200), because of prolonged and more constant rates of absorption, may improve these motor fluctuations. This preparation may also be less likely to cause levodopa related dyskenisias. Patients report symptom improvement within 45 minutes of dosing and benefit for 5 hours. Other drugs used in PD include amantadine, trihexyphenidyl, selgeline, dopamine agonists, and baclofen.

BRAIN BANK WELCOMES NEW STAFF

I would like to introduce myself as the new Program Coordinator for the Brain Bank. I took over one year ago, from Trudy Skoke, who many of you knew very well. I worked under Trudy as her assistant and learned many valuable skills from her. I am enjoying the challenge in this new position.

During the past few weeks I have had the wonderful opportunity to speak to many of you as I attempt to schedule your appointments for the annual neuropsychological assessment. We have a new neuropsychometrician, Lilia Arvizu, M.A. Our goal is to incorporate neurological evaluations in addition to the CERAD evaluation. For this type of testing, it is necessary for the donors to come in to the center once a year. We realize that this is a burden for many of you, and we want to extend a special "Thank you" to all of the donors who have made the great effort to drive in for their test. In the past year, we have been visited by donors from many parts of Florida, including Venice, the Keys, Delray Beach, Pompano Beach, and Palm Beach Gardens. Your understanding during this time of transition in our program is greatly appreciated.

We would like to make sure that all of you have updated "Donor Cards," which were included in the Brain Bank Holiday Greeting Card. In addition, please make note of the correct address and telephone number for the Brain Bank listed on the last page of this newsletter.

Your participation in this program makes research possible for treatments and cures for neurological disorders that affect so many people in our society. As donors, you are very special to us and we always welcome your suggestions for improvements in the operation of the Brain Bank.

I look forward to working with you in the future.

With best wishes,
Lilian A. Dominkovics

NEWS FROM OUR DONORS

"BRAIN DONORS SOUGHT FOR RESEARCH PROJECT"

Sarasota Herald-Tribune 8/3/92

This item in the paper caught my attention. It mentioned that researchers studying the aging process want active elderly people to donate their brains to the University of Miami Brain Endowment Bank.

Scientists at the UM School of Medicine want to learn why some people remain sharp and active while others decline. As an example, they plan to compare the brain tissue of Alzheimer's Disease sufferers with those of active people.

This and the remainder of this very informative article "rang a bell" for me. A good friend of mine had developed Parkinson's Disease a few years ago. He had been a very successful writer for movie and TV scripts, editor with several nationally published magazines as well as initiating and continuing for 25 years, the script of the Flash Gordon comic strip. I watched him deteriorate from a vibrant, active man to a person hardly able to use his hands, walk or even speak clearly at the time of his death in 1986 at age 81.

After reading about the appeal for brain donors, my wife Helen and I immediately contacted the UM Brain Endowment Bank and offered to become involved in this most worthy research program. Our spirits will live on through Brain Research.

George H. Wayne

When my husband, George, read the article "BRAIN DONORS SOUGHT FOR RESEARCH PROJECT" in the Sarasota Herald-Tribune, we talked about it and decided to find out what was involved. After talking to the staff in Miami, we offered our brains, if acceptable for this worthwhile project.

We had previously donated our bodies in Chicago, before we moved to Florida 25 years ago. Of course, we transferred our donation to the University of Miami and also donated our eyes to the Lion's club Eye Bank, here in Venice, FL, so this is not an unusual project for us and we are happy to do it.

I often think how sad it is that so many bodies go into the ground or are cremated, when a simple call for information could help so many people.

Helen E. Wayne

Wayne and Helen George. (Picture taken last summer when they drove down for their annual CERADS.)

Hi! My name is Ada Gantz and I'm 71 years young and live in Melbourne.

Approximately a year ago I learned of the Brain Donor Program via a "spot" on T.V. and immediately dialed 1-800-UM BRAIN for more information. I liked what I learned.

Since I was already registered as an Organ Donor with the Living Bank it seemed only logical to become a registered Brain Donor also, especially after learning of the dire need for healthy donors to be used in comparison with diseased donors.

Extensive research is so very vital in order to find a cure, or to learn more about such debilitating diseases such as Alzheimer's, Parkinson's, Schizophrenia and even Depression. Our researchers are so close and yet still so very far away from fully understanding these ailments.

As an Avon representative I've made many friends. When I deliver an order I also discuss the Donor Program. My Avon customers are wonderful people and even request forms for close family members.

People ask, "Why do you do this?" Perhaps it's because I'm in contact with so many people and I witness the ravages of Alzheimers and like diseases more than others do. Or, maybe it's due to an inherited, inbred compulsion to, in some small way, reach out and help someone less fortunate. Maybe even to be instrumental, even in a small way, in helping to save a mind or a life. After all, the only thing this is costing me is a little of my time - and I have plenty of that.

Ada

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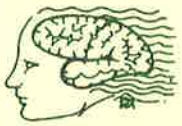
156604



In Memory

The Brain Bank gratefully acknowledges the special people who have endowed their brain for the benefit of future generations. Their spirits live on through Brain Research.

Perry Atkins
Vincent Contrino
Charles Hood
Karolyn Thomas
Therese Whipple
Erkki Malin
Thomas Hughes
Wilson Jones
Hugo Litersky
Roy Plowman
Joseph Skrobiak
Gisella Kozian
Myrtie Hendricks
Kate Hackmeyer
Frank Richardson
Grace Horton
Walter Bickerton
Ruby Wilkins
Richard Brasgalla
Rosetta Bell
Vergil Hammond
Margaret Cox
Edwin Lanceit
LeMoine Wheeler
Curtis Mullinix
Ariel Lausche

To the people listed above and to all of you that have generously endowed brain tissue and/or donated funds so that the Brain Bank may continue its work, we dedicate this poem.

What Is Love?

A spiritual and instinctive feeling of caring and sharing
To see - talk and listen attentively
Minds sharing thoughts and actions
Joys and sorrows will come our way
The joys are two-fold - the sorrows are lessened
People who do not experience Love live in a void
Love is the joy and essence of life
Love is more precious than riches
An outstretched hand is more powerful than a clenched fist
The sun is our greatest source of energy
Love is the Life Line of Humanity

This poem was written by Alex Vernon, a 92 year old gentleman registered with our Bank. He wrote this poem in 1989 and sent it to Dr. Mash and the Brain Bank August of 1994.

BRAIN BANK HOSTS RECEPTION FOR THE ANNUAL NEUROSCIENCE CONVENTION

The staff at the Brain Endowment Bank would like to take this opportunity to thank all the people that helped to make this reception a success. The reception introduced the Brain Bank and its Tissue Resource Program to the many neuroscientists from throughout the country who attended the convention. Special guests were all the investigators currently involved with the resources offered by the bank. Although at the time South Florida was experiencing a terrible storm, the evening was a great success and we thank all of the individuals who were present. The Brain Bank extends a personal thank you to the following for financial support:

National Parkinson Foundation
Baxter Company ***Dupont Pharma***
Sigma Chemical Co. ***E.I. Dupont de Nemours***

BRAIN TRUST
is published by the UM Brain Endowment Bank.
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