# SUNTRUST

Date:

October 10, 2013

To:

McKnight Brain Research Foundation Trustees

Henry H. Raattama, Jr. Legal Counsel

From:

Melanie Cianciotto

Subject:

MBRF Meeting: October 22 – 24, 2013 (Tucson, AZ)

Enclosed you will find the meeting package for the October Trustees meeting to be held in Tucson, AZ. Included in this package for your review are the following items: the agenda, final draft of the minutes for the July 31, 2013 board meeting, grant commitment schedule, minimum distribution calculation and other supporting material for the agenda items.

The meeting on October 23, 2013 will start at 8:00 a.m. in the Executive Board Room of the hotel.

The investment book will be sent separately.

Reservations have been made at Tucson Marriott University Park. Following are room confirmation numbers:

Dr. J. Lee Dockery	82600909
Dr. Michael Dockery	82600909
Dr. Gene Ryerson	82601155
Dr. Robert Wah	82601294
Mr. Hank Raattama	82601436

I look forward to seeing everyone in Tucson!

MC/nd

cc: Mike Hill

**Enclosures** 

# **Master Schedule and Itinerary**

For

# McKnight Brain Research Foundation Site Visit Evelyn F. McKnight Brain Institute at the University of Arizona October 22 – October 24, 2013

# Tuesday, October 22, 2013

Afternoon Trustee's arrive - limo transport to hotel, Tucson Marriott University Park, 880 East 2<sup>nd</sup> Street,

520-792-4100. (Driver will have a sign with your name as you come down the stairs at baggage

claim – contact George at 520-702-1240 in case of emergency or delays)

Dr. Lee Dockery

12:00pm - Delta Flight #825

Dr. Michael Dockery

3:57pm - U.S. Airways Flight #2935

Dr. Gene Ryerson

12:00pm - Delta Flight #825

Dr. Robert Wah

Ms. Melanie Cianciotto

11:00am - American Airlines Flight #1055

Mr. Hank Raattama

3:25pm - American Airlines Flight #1404

5:30pm

Van transport to Carol Barnes residence (meet in front of Marriott)

6:00pm

**Appetizers** 

6:30pm

Working Dinner

~ 7:30pm

Van transport to Marriott

# Wednesday, October 23, 2013

8:00am - 12:00pm Trustee Board Meeting (Executive Board Room, Marriott Hotel; separate agenda attached)

12:45pm

Van transport to Keating (meet in front of Marriott)

1:00pm

Registration, Keating Lobby

1:15pm - 5:00pm

Scientific Program, Keating 103

5:00pm - 7:00pm

Reception, Keating Lobby

7:00pm

Van transport to Marriott Hotel (meet van in lot west of Keating)

# Thursday, October 24, 2013

8:45am Van transport to "Swede" Johnson Building (meet in front of Marriott)

9:00am - 10:00am

Trustees meet with University of Arizona, UA Foundation and UA EMBI Administration ("Swede"

Johnson Building, room 303) Andrew Comrie, Ph.D., Provost

Jennifer Barton, Ph.D., Interim VP for Research

Jim Moore, President, UA Foundation

Jenny Flynn, Associate Vice President, Gift Center, UA Foundation

Carol Barnes, Ph.D., Director, UA EMBI

10:00am - 11:00am

Trustees meet with Carol Barnes ("Swede" Johnson Building, room 303)

10:30am

Airport transport for Dr. M. Dockery (US Airways 2883 @ 12:05)

11:00am

Transport to airport or to hotel for check-out

Airport: Dr. Ryerson (Delta 2420 @ 12:50pm)

Hotel: Ms. Cianciotto

Airport: Dr. L. Dockery (Delta 2420 @ 12:50pm)

Mr. Raattama

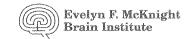
11:45am Limo transport from hotel to airport

Ms. Melanie Cianciotto

(American Airlines 1295 @ 1:20pm)

Mr. Hank Raattama

(American Airlines 1295 @ 1:20pm)



### MCKNIGHT BRAIN RESEARCH FOUNDATION

Trustees' Meeting

October 23, 2013

Executive Board Room Tucson Marriott University Park 880 East 2<sup>nd</sup> Street Tucson, AZ

# **AGENDA**

Wednesday, October 23, 2013 8:00 a.m. - 8:30 a.m. 1. Breakfast / Call to Order Melanie Cianciotto 2. Approval of Minutes from Board Meeting Melanie Cianciotto July 31, 2013 Investment Review Michael Hill Minimum Distribution Calculation Melanie Cianciotto Travel Award Program Update Bio-informatics Core 6. Institute of Medicine (IOM) Study 7. Research Partnership in Cognitive Aging 8. University of Arizona EMBI Business Plan 9. University of Miami Update 10. Electronic Records 11. Upcoming Dates & Events Society for Neuroscience MBRF Poster Session/Reception November 10, 2013 San Diego, CA

- Trustee's Meeting February 12, 2014 Orlando, FL
- Seventh Inter-Institutional Meeting April 23-25, 2014 University of Florida Gainesville, FL

12:00 p.m.

Lunch

12:30 p.m.

Adjournment

# MINUTES MCKNIGHT BRAIN RESEARCH FOUNDATION BOARD OF TRUSTEES MEETING July 31, 2013

The Trustee's meeting of the McKnight Brain Research Foundation (MBRF) was called to order at 8:15 a.m. on July 31, in Orlando, FL in the Seminole Room of the Park Building.

The following members were present:

- Dr. J. Lee Dockery, Trustee
- Dr. Michael Dockery, Trustee
- Dr. Nina Ellenbogen Raim, Trustee
- Dr. Gene G. Ryerson, Trustee
- Dr. Robert M. Wah, Trustee
- Ms. Melanie Cianciotto, Corporate Trustee

SunTrust Bank Institutional Investment Solutions

# Others attending:

- Mr. Henry H. Raattama, Jr., Legal Counsel
- Mr. Michael Hill, Managing Director, SunTrust Institutional Investment Solutions (via conference call)
- Ms. Shelly Simpson, Senior Portfolio Specialist, SunTrust Banks, Inc. (via conference call)

# 1. Minutes

The minutes of the April 24, 2013 meeting of the McKnight Brain Research Foundation were reviewed. The minutes were approved as presented (Attachment 1).

Action Item 1: The trustees approved the minutes of the April 24, 2013 meeting as presented (Attachment 1).

# 2. Minimum Distribution Calculation

The trustees reviewed the projected minimum distribution calculation for information (Attachment 2).

Action Item 2: The trustees reviewed the projected minimum distribution calculation for information (Attachment 2).

# 3. Travel Award Program

The trustees reviewed the travel award program budget for information (Attachment 3).

Action Item 3: The trustees reviewed the travel award program budget for information.

# 8. Electronic Records

Ms. Cianciotto provided the trustees with an update on what content has been uploaded to the secure website hosted by Foundation Center.

# 9. Upcoming Dates & Events

# A. October 2013 Board of Trustees Meeting

The trustees have agreed to hold the October 2013 meeting of the MBRF in Arizona. The trustees will arrive the morning of October 22, 2013 and meet from 12:00 noon - 5:00 p.m. The scientific program will be held October 23 - 24, 2013 adjourning at noon on October 24, 2013.

# **B. Society for Neuroscience 2013 McKnight Poster Session**

The poster/reception is an MBRF sponsored and hosted event for graduate students and faculty who will be attending the meeting from each of the four institutions to which the MBRF provides funding. The reception will feature scientific poster displays from each of the four McKnight Brain Institutes. The trustees are invited to attend the event, which will be held on Sunday, November 10, 2013 at a SfN assigned hotel in San Diego, CA.

# C. February 2014 Board of Trustees Meeting

The trustees have agreed to hold the February 2014 meeting of the MBRF in Orlando. The trustees will arrive the evening of February 11, 2014. The trustees meeting will be held February 12, 2014 beginning at 8:00 a.m. with breakfast in order to facilitate adjourning at 3:00 p.m. No social activities will be planned on the evening of the arrival.

# D. Seventh Inter-Institutional Meeting

The seventh annual McKnight Brain Research Foundation Inter-Institutional Meeting will be hosted by the Evelyn F. McKnight Brain Institute at the University of Florida April 23 – 25, 2014. The trustees will arrive the morning of April 23, 2014 and meet in the afternoon beginning at 12:00 noon. The Inter-Institutional meeting will begin with a reception on the evening of April 23, 2014 followed by the scientific sessions on April 24-25, adjourning at noon on April 25, 2014.

10. Evelyn F. McKnight Brain Institutes: Inter-Institutional Bioinformatics Core

The trustees discussed the proposal to establish an Inter-Institutional Bioinformatics Core between the four McKnight Brain Institutes (Attachment 8). After discussion, the trustees approved a block grant in the amount of \$300,000 annually for two years with the requirement for the submission of annual reports at the end of each year. An Inter-Institutional Bioinformatics Account will be established. The senior scientists will be required to notify the corporate trustee of the MBRF who among them has the authority to receive funds to be disbursed from the Inter-Institutional Bioinformatics Account. In addition, the epigenetics working group will be required to submit a written project proposal with a business plan identifying how the funds will be spent, by and through, each McKnight Brain Institute.

After review and discussion, a motion was made to accept the McKnight proposed mix as presented in the asset allocation study with a targeted return of 7.11%. The motion passed unanimously. The corporate trustee in consultation with Mr. Hill and legal counsel recommended that Appendix A and B of the Investment Policy Statement be revised to be compatible with the recommendations and the current 2.7% inflation rate. The motion passed unanimously. A third motion was made to date the amendments to the Investment Policy Statement as of July 31, 2013. The motion passed unanimously.

Action Item 10: The trustees approved the Efficient Frontier Analysis with the mix of asset classes to produce and anticipated yield of 7.11%.

Action Item 11: The corporate trustee in consultation with Mr. Hill and legal counsel recommended that Appendix A and B of the Investment Policy Statement be revised to be compatible with the recommendations and the current 2.7% inflation rate.

Action Item 12: The trustees approved the amendments to the Investment Policy Statement to be dated July 31, 2013.

There being no further business, the meeting adjourned at 12:25 p.m.

# **Summary of Action Items:**

Respectfully Submitted,

Melanie A. Cianciotto SunTrust Bank, Corporate Trustee

# McKnight Brain Research Foundation <u>Historical Gifts</u>

Fiscal years 2000 - 2018

		r iocai yearo			
	University of Alabama	University of Arizona	University of Florida	University of Miami	FNIH
Commitments	\$5,000,000 (5/15/2004) \$1,000,000 (10/19/2005) \$6,000,000 (8/3/2009)	\$5,000,000 (10/17/2006) \$300,000 (7/10/2008)	\$15,000,000	\$5,000,000	\$5,000,000 (5/6/2008) \$5,000,000 (10/2013)
7/1/99 -6/30/00			\$15,000,000		
7/1/00 -06/30/01					
7/1/01 - 06/30/02					
7/1/02 - 6/30/03					
7/1/03 - 6/30/04				\$1,500,000	
7/1/04 - 6/30/05	\$2,000,000	emercens and the death the operation of the property of the property of the second of		\$875,000	
7/1/05 - 6/30/06	\$1,000,000			\$875,000	
7/1/06 - 6/30/07	\$1,000,000	\$1,000,000		\$875,000	
7/1/07 - 6/30/08	\$1,000,000	\$1,000,000		\$875,000	
7/1/08-6/30/09	\$1,000,000	\$1,300,000			
7/1/09-6/30/10	\$1,500,000	\$1,000,000			\$1,000,000
7/1/10-6/30/11	\$1,500,000	\$1,000,000			\$1,000,000
7/1/11-6/30/12	\$1,000,000				\$1,000,000
7/1/12-6/30/13	\$1,000,000				\$1,000,000
7/1/13-6/30/14	\$1,000,000	Contract and a supplication of the supplicatio			\$1,000,000
7/1/14-6/30/15					
7/1/15-6/30/16			Досень правила была у сахоля этом римска у мероного орган приходого до простору и при при при при при при при при при п		
7/1/16-6/30/17		Committee that the first of the committee of the committe	жинового и менериобительного и и необщего в село по продости и по		
7/1/17-6/30/18			and deliberation and the control of		
7/1/18-6/30/19					
Total Balance	\$12,000,000 \$0	\$5,300,000 \$0	\$15,000,000 \$0	\$5,000,000 \$0	\$5,000,000 \$5,000,000

Total Gift Payments\* \$42,300,000

Remaining Balance of Commitments\*
\$5,000,000

<sup>\*</sup> through October 8, 2013

# McKnight Brain Research Foundation

# **Projected Minimum Investment Return Calculations**

(As of 10/8/2013 for fiscal year ending 6/30/2014)

Average F	air Market Value	\$44,756,764.99
Less:	Cash held for charitable purposes (1 1/2 %)	(\$671,351.47)
Net value	of non-charitable use assets	\$44,085,413.51
Minimum	Investment Return (5%)	\$2,204,270.68
	imum Investment Return Calculation: investment return	\$2,204,270.68
Less:  ** sub total	Grant Payments Qualifying Distributions	(\$2,000,000.00) (\$2,535,053.79) (\$330,783.11)
	Excess distribution carryover (actual for '09, '10,'11)	\$4,404,115.00
	(estimate for '12 & '13)	\$812,982.00 \$5,217,097.00

# McKnight Brain Research Foundation Minimum Distribution Calculation Fiscal years 2000 - 2013

	Tax Year	Distributable Amount	Qualifying	Excess Distributions	Undistributed Income
7/1/03 - 6/30/04		\$2,352,435	\$1,665,404	\$5,266,241 (last year we could carryover gift to UF	\$0.00
7/1/04 - 6/30/05	00000000000000000000000000000000000000	\$2,450,345	\$3,026,049	\$575,704	\$0.00
7/1/05 - 6/30/06		\$2,620,008	\$2,036,659	0\$	\$7,645.00
7/1/06 - 6/30/07		\$2,843,725	\$3,299,931	\$448,561	\$0.00
7/1/07 - 6/30/08		\$2,817,569	\$3,110,508	\$292,939	\$0.00
7/1/08-6/30/09		\$2,016,762	\$2,517,340	\$500,578	\$0.00
7/1/09-6/30/10	·	\$1,952,550	\$3,789,616	\$1,837,066	\$0.00
7/1/10-6/30/11		\$2,058,313	\$3,983,492	\$1,925,179	\$0.00
7/1/11-6/30/12		\$1,973,938	\$2,615,808	\$641,870	\$0.00
7/1/12 -6/30/13		\$2,140,027	\$2,662,226 (estimate)	\$482,199 (estimate)	\$0.00
7/1/13-6/30/14		\$2,204,270	\$2,535,053 (estimate)	\$330,783 (estimate)	\$0.00
			\$46,612,425	\$5,217,097	(estimated total excess carryover)

# The McKnight Brain Research Foundation Grant Commitments Schedule

10/23/2013 Weeting

Remaining Balance	85,000,000.00
	1
Scheduled	51,000,000.00
Scheduled Scheduled	\$1,000,000.00 \$1,000,000.00
Scheduled	81,000,000.00
Scheduled	\$1,000,000.00
Scheduled	\$1,000,000.00
Grant Total	\$5,000,000.00
	2013  Foundation for the National Institutes of Health

\$1,000,000.00 \$1,000,000.00 \$1,000,000.00 \$1,000,000.00 \$1,000,000.00

Total for Year

# Cianciotto.Melanie

From:

J. Lee Dockery [ild007@cox.net]

Sent:

Friday, September 27, 2013 6:40 PM

To:

Carol A. Barnes

Cc:

Luann Snyder; Robert Wah, MD; Gene Ryerson, MD; Michael L. Dockery, MD;

Cianciotto Melanie; Nina Elenbogen Raim, MD, JD; Foster Thomas C; J. David Sweatt.

Ph.D.; DAlessandro.Nicole; Henry H. Raattama, Esq.

Subject:

Re: Bio-informatics Core

Thanks, Carol! We know you share the same goals and objectives as the trustees and will want to solve any legal issues advance to avoid jeopardizing or compromising the outcome.

We look forward to reviewing the recommendations of the UA legal representatives regarding our expressed concerns.

With appreciation for your efforts and best wishes, Lee

---- Original Message ----

From: Carol A. Barnes

To: J. Lee Dockery

Cc: Luann Snyder; Robert Wah, MD; Gene Ryerson, MD; Michael L. Dockery, MD; Melanie Cianciotto; Nina

Elenbogen Raim, MD, JD; Foster, Thomas C; J. David Sweatt, Ph.D.; Nicole D'Alessandro; Henry H. Raattama, Esq.

Sent: Friday, September 27, 2013 9:38 AM

Subject: RE: Bio-informatics Core

Thanks for your response Lee - I will see what I can discover about this 'legal question', and attempt to answer it as well as I can (while at the same time, asking for your patience, as I will need to have someone help me with the legal aspects).

I'll respond as soon as I believe I understand what an accurate response would be.

all my best,

Carol

Carol A. Barnes, Ph.D.

Regents' Professor, Psychology, Neurology and Neuroscience

Evelyn F. McKnight Chair for Learning and Memory in Aging

Director, Evelyn F. McKnight Brain Institute

Director, ARL Division of Neural Systems, Memory and Aging

Associate Director, BIO5

Life Sciences North Building, room 355

PO Box 245115

University of Arizona

Tucson, AZ 85724-5115

From: J. Lee Dockery [ild007@cox.net] Sent: Friday, September 27, 2013 6:30 AM

To: Carol A. Barnes

Cc: Luann Snyder; Robert Wah, MD; Gene Ryerson, MD; Michael L. Dockery, MD; Melanie Cianciotto; Nina Elenbogen

Raim, MD, JD; Foster, Thomas C; J. David Sweatt, Ph.D.; Nicole D'Alessandro; Henry H. Raattama, Esq.

Subject: Re: Bio-informatics Core

Dear Carol,



Office of Finance and Administration

September 13, 2013

Ms. Melanie Cianciotto Trustee McKnight Brain Research Foundation SunTrust Bank Post Office Box 620005 Orlando, FL 32862-0005

Dear Ms. Cianciotto:

Please note the enclosed final financial report for McKnight Brain Research Foundation's sponsorship of the Cognitive Aging: Translating Science into Prevention and Care Planning Meeting covering the period from July 1, 2012 through March 31, 2013.

The Institute of Medicine greatly appreciates the support of the McKnight Brain Research Foundation for this planning meeting and its ongoing support of the study, The Public Health Dimensions of Cognitive Health and

Please do not hesitate to contact me should you have any questions regarding the contents of this final financial report.

Sincerely,

Lora Taylor

Financial Associate

Office of Finance and Administration

Enclosure: Final Financial Report for the Cognitive Aging: Translating Science into Prevention and Care Planning Meeting



April 15, 2008

Established by Evelyn F. McKnight to Alleviate Memory Loss in the Aging. Charles A. Sanders, M.D.
Chairman
Foundation for the National Institutes of Health
9650 Rockville Pike
Bethesda, MD 20814

Dear Dr. Sanders.

### Trustees

John G. Clarkson, M.D. Miami, FL

J. Lee Dockery, M.D. Gainesville, FL

Michael L. Dockery, M.D. Charlotte. NC

Nina Ellenbogen Raim, M.D., J D Miami Beach, FL

SunTrust Bank Orlando, FL This letter of agreement ("Agreement") sets forth the terms under which the McKnight Brain Research Foundation ("MBRF") will provide funding in support of a Research Partnership in Cognitive Aging ("Partnership"), a research grant-making program to be conducted with the National Institute on Aging ("NIA"), through a public-private partnership coordinated by the Foundation for the National Institutes of Health, Inc. ("FNIH"). The two areas of research are described in attachment A.

The MBRF is aware that the purpose of FNIH, pursuant to 42 U.S.C. § 290b, is to support the NIH in its mission and advance collaboration among universities, industry, and other non-profit organizations. Collaboration through FNIH will allow MBRF to build on the outcomes of the October 2007 Cognitive Aging Summit by committing financial resources to the Partnership in support of peer-reviewed research grants in two of the areas identified as an outcome of the Summit: 1) Interventions to Remediate Age-Related Cognitive Decline (as described in Attachment A), and 2) Neural and Behavioral Profiles of Cognitive Function in Aging (as described in attachment A). As outlined below and in attachments A and B, NIA will establish and coordinate the grant-making program and will match the MBRF's contribution, investing a total of at least \$5 million in grant funding over the five-year period.

MBRF desires to support the Partnership by providing funding to FNIH as set forth below, under the following terms.

# 1. Funding:

a. Payments – MBRF agrees to provide \$5,000,000, payable in equal annual installments over five years. MBRF's funding is conditioned upon NIA's investment of at least \$5 million in grant funding in this research partnership over the five-year period. The installments from MBRF shall be payable on the following schedule:

- 4. Cognitive Aging Summit II: MBRF agrees to jointly support, subject to agreement with NIA, a second Cognitive Aging Summit, to be held in 2010.
- 5. Responsible Personnel: Teresa W. Borcheck, Corporate Trustee, will represent the MBRF as the primary contact and can be reached at (407) 237-5907or teresa.borcheck@suntrust.com.

Julie Wolf-Rodda, Director, Partnership Development, will serve as the primary FNIH contact and can be reached at 301.402.6027 or jwolf-rodda@fnih.org. Other relevant FNIH contacts are:

Julie Tune, Chief Financial Officer, jtune@fnih.org, 301-435-6246 Charles Pucie, Communications Director, cpucie@fnih.org. 301-435-6248 Shawn Neil, Development Systems Manager, sneil@fnih.org, 301-594-9865

- 6. **Disposition of Unused Funds:** Should the Partnership terminate prematurely, FNIH shall return to MBRF all uncommitted funds or in keeping with MBRF wishes and at the discretion of the FNIH Board of Directors, redirect them to another FNIH project Or purpose.
- 7. <u>Disclosures:</u> MBRF's support and participation in the Partnership may be disclosed at any time by FNIH subject to prior approval of the MBRF.
- 8. Donor's Business: MBRF's funding of the Partnership is not in any way conditioned upon any present or future business relationship between MBRF and FNIH.
- 9. Entire Agreement: The terms of this Agreement shall be construed according to the laws of the State of Maryland. This Agreement shall supersede any previous understandings or agreement, written or otherwise. This Agreement may only be amended by a written instrument signed by both parties.

Please indicate acceptance of this grant and certification that these funds will be used in support of the indicated Partnership by having an authorized representative of FNIH sign the duplicate originals of this letter. After the letter has been signed, please return one original to MBRF for our files.

Sincerely,

J. Lee Dockery, M.D.

Trustee. McKnight Brain Research Foundation

sa Dakery/

# ATTACHMENT A:

# Research Partnership in Cognitive Aging Grant Making Program Overview

### Introduction

The Cognitive Aging Summit, held in Washington D.C. in October 2007, showcased the cutting edge research into the understanding and treatment of age-related declines in cognitive function, highlighting the importance to society of maintaining healthy brain function into older age. Two days of scientific presentations attended by 250 participants were followed by a half day Executive Session to further discuss scientific opportunities and needs. The primary objective of the Executive Session was to develop recommendations for future research directions. The recommendations can be distilled into some major themes:

- Acceleration of the development and testing of interventions
- Movement toward personalized interventions, "personalized medicine," for maintenance of cognitive health
- Investigation of ways to enhance adherence to interventions
- Characterization of behavioral and neural aging to create a taxonomy or "gold standard" for both behavioral and neural profiles of successful aging. Such characterizations will be important for designing and assessing interventions.
- Encouragement of multidisciplinary training programs
- Encouragement of multidisciplinary and interdisciplinary research teams. Idea of having a network or consortium of investigators across university settings
- Development and/or expansion of methodologies for data analytic approaches, including dynamic modeling

Promising areas that could be developed with most expediency and that would incorporate all four themes include (1) preliminary research on promising interventions, particularly ones that incorporate a multi-faceted, or combinatorial approach and (2) the development of gold standards for behavioral and neural profiles of healthy aging. Both of these research directions will necessitate multidisciplinary approaches in order to be successful. It is anticipated that a secondary benefit of pursuing these research directions will be the development or expansion of dynamic modeling and data analytic approaches in order to appropriately interpret the data generated.

ATTACHMENT A: Page 1 of 3

challenges and gaps was the stated need to develop "gold standard" profiles for brain health and cognitive function across the lifespan.

We know surprisingly little about what the longitudinal pattern of brain health and cognitive function should look like. It seems reasonable to assume that a healthy older brain should look like a younger brain, but existing research indicates that maintenance of brain health and cognitive function with age may require adaptive processes that differ from those seen in younger individuals, at least for certain cognitive domains and the brain regions that support them. It is not clear, however, if these changes truly represent positive compensatory mechanisms or whether they simply reflect the aging process. We have made progress in our goal to distinguish healthy from unhealthy cognitive aging, but the data has largely been generated by looking at the extremes of the continuum. For example, we are not yet able to distinguish individuals who may be developing Alzheimer's disease but are presymptomatic from those who will not go on to develop the disease. Postmortem examination of the brain for diverse pathologies remains the gold standard for diagnosis of Alzheimer's disease and other neurodegenerative diseases. Better differentiation of these individuals while living and a better understanding of how different pathologies and age-related changes contribute to decline in specific behavioral functions are crucially important for rational development of therapeutics. Further research at all relevant levels, including molecular, cellular, neuroanatomical, physiological, and behavioral, would help define profiles that characterize healthy cognitive aging. For example, exploitation of molecular tools using animal models to differentiate components of cognitive processes, such as encoding, consolidation and retrieval in memory. would allow the interrogation of where age-related changes occur. Another important goal would be the identification of specific types of brain cells and their molecular profiles that are vulnerable to the aging process. All of these approaches will increase our understanding of brain aging and aid in the identification of targets for future therapeutics. Research in this area also could lead to the development of biomarkers that could be included in a wide variety of research projects, including large scale longitudinal studies, which would further advance our understanding of the causes of age-related cognitive change and help guide treatment of cognitive decline or maintenance of cognitive function with increasing age. In addition to longitudinal approaches, studying the brain health and behavioral profiles of the oldest old who have successfully lived past 90 without developing dementia may provide an especially useful opportunity to test some of the theories of adaptation, compensation, and cognitive reserve.

# Attachment C Research Partnership in Cognitive Aging

# Mechanisms of Cognitive Remediation in Older Adults

The following is a summary of the program concept, which was presented to and approved by the National Institute on Aging Advisory Council at its January 29-30, 2013 meeting.

## Overview

Although only 13% of adults over the age of 65 have Alzheimer's disease (Alzheimer's Association, 2012), the vast majority of older adults will experience some deterioration in cognitive function as they age. Following up on recommendations generated by the 2007 Cognitive Aging Summit, in 2009, the NIA, in collaboration with the McKnight Brain Research Foundation (MBRF) and FNIH, released two RFAs: "Interventions to remediate age-related cognitive decline" (RFA-AG-09-009) and "Neural and Behavioral Profiles of Cognitive Aging" (RFA-AG-09-010). The RFAs drew a strong response. The eleven awards funded from the Profiles RFA have yielded new and exciting information about the plasticity of the aging brain. The six awards funded from the Interventions RFA implemented pilot-scale randomized clinical trials that capitalized on advances in cognitive aging interventions. Crucially, many of these trials also collected imaging and biomarker data that would potentially allow a much closer examination of the mechanism of action of the tested interventions. The promise of this approach was underlined by some of the recommendations from the 2010 Cognitive Aging Summit (Wagster et al., 2012) which pointed in particular to "increasing opportunities at the interface of basic and clinical science to enhance the clinical trial enterprise," "encouraging more integrative models of mechanisms for age-related decline/maintenance/adaptation," and "use of a uniform set of measures of cognition in both animal and human studies." The agenda and audio/video of the presentations are available at: http://www.nia.nih.gov/about/events/2011/cognitive-aging-summi-ii.

Stemming from these recommendations, the proposed initiative consists of an RFA soliciting one or possibly two well powered intervention trials to remediate or prevent age-related cognitive decline. In particular, investigators will be strongly encouraged to pursue therapeutic approaches that aim to drive beneficial plasticity of the aging brain and require the monitoring of plastic changes through behavioral and biological markers.

Applicants will be required to use state-of-the-art outcome measures including behavioral and biological markers and perform pre-/post-/maintenance structural and functional imaging. Three important reasons for the use of biomarkers and imaging are (1) to investigate the mechanism of action, (2) to monitor plastic changes in the CNS caused by the intervention, and (3) to identify subgroups of participants who differ in their response to the intervention. Furthermore, major trans-NIH efforts in measurement and instrument development recently have come to fruition, yielding products including the NIH Toolbox (Gershon et al., 2010) and PROMIS (Cella et al., 2010) that promise valid, state-of-the-art measures to increase the data yield from longitudinal studies and clinical trials. One other point that speaks to timeliness of this proposal is the possibility that FNIH can identify substantial cofounding for this initiative that would be available in FY2014. Overall, a far richer assortment of potential cognitive interventions and much improved instruments and measures to monitor cognitive maintenance or improvement, as well as improved tools to investigate their brain substrates are in place.

# ATTACHMENT D:

# Research Partnership in Cognitive Aging

# Opportunities for MBRF Involvement and Recognition

As a partner in the Project, MBRF will be involved with and acknowledged for its partnership with NIA and the FNIH in a number of ways, including:

- MBRF will be broadly and publicly acknowledged as a partner with NIA in making these grant awards on materials, both print and electronic, in much the same way as was done with MBRF's support of the October 2007 and 2010 Cognitive Aging Summits, and the previously funded research grants.
- NIA provided MBRF with the proposed concept clearance form and invited MBRF to participate in the January 29-30, 2013, NIA Advisory Council meeting.
- MBRF Trustees or other representatives will be invited to attend and participate in the public session at future NIA Advisory Council meetings.
- When it is possible for NIA to make information about the awards public, MBRF will be notified simultaneously with the public announcement of the award recipients.
- FNIH will submit a copy of the grantee(s) research summary, which includes the abstract and public health relevance statement, provided by the grantees to NIA, to MBRF.
- Grantees will be asked to report on progress of their work; MBRF will be invited to attend these meetings.

ATTACHMENT D: Page 1 of 1

# ADDENDUM TO THE MAY 2008 LETTER OF AGREEMENT BETWEEN

# THE FOUNDATION FOR THE NATIONAL INSTITUTES OF HEALTH, INC. AND

# THE MCKNIGHT BRAIN RESEARCH FOUNDATION

This Addendum is effective as of the last date of signature and supplements and amends the terms of the Letter of Agreement ("Agreement") that was fully executed on May 6, 2008, between the Foundation for the National Institutes of Health, Inc., a tax-exempt, not-for-profit Maryland corporation located at 9650 Rockville Pike, Bethesda, MD 20814 ("FNIH") and The McKnight Bram Research Foundation ("Donor").

The Agreement is supplemented to include the following language in addition to the Agreement's existing language:

Donor desires to extend its partnership with FNIH and the National Institutes on Aging (NIA) for the Research Partnership in Cognitive Aging for an additional five years, to support a new research initiative tentatively entitled, "Mechanisms of Cognitive Remediation in Older Adults" ("Program").

The goal of the Program (as described in Attachment C) is to develop biological and behavioral intentions for maintaining and enhancing cognitive function that are based on evidence of their ability to harness beneficial plastic changes in the aging brain, including intervention trials to remediate or prevent age- related decline.

The research areas to be funded through the Program are well-powered intervention trials to remediate or prevent age-related cognitive decline. Of particular interest are therapeutic approaches that aim to drive beneficial plasticity of the aging brain and require investigators to monitor plastic changes through behavioral and biological markers. The funded studies will use behavioral and biological markers and structural and functional imaging to investigate the mechanism of action, monitor plastic changes in the central nervous system caused by the intervention, and identify subgroups of participants who differ in their response to the intervention. Designed to advance the understanding of normal cognition and brain health m aging, this initiative will help to pave the way for development of definitive therapeutics that could be implemented in older adults. As outlined below and in Attachments C and D, the NIA will establish and coordinate the grant making program and will match the Donor's contribution, investing a total of at least \$5 million in grant funds over the five year period

Subject to the terms of the Agreement, Donor will provide funding to FNIH to support the Program as set forth below, under the following terms:

a) Payments —Donor agrees to provide \$5,000,000, payable in equal annual installments over five years according to the following schedule. The Donor's funding is conditioned upon NIA's investment of at least \$5 million in grant funding in the research partnership over the five year period. Payment 1 is guaranteed. Subsequent payments will be forthcoming unless, no later than January 1 of the funding year, Donor advises FNIH that it has elected not to continue such funding:

Payment 1: \$1,000,000 due on or before July 1, 2014 Payment 2: \$1,000,000 due on or before July 1, 2015

Payment 3: \$1,000,000 due on or before July 1, 2016

Payment 4: \$1,000,000 due on or before July 1, 2017

Payment 5: \$1,000,000 due on or before July 1, 2018

b) Use of funds - FNIH shall use the funding provided by Donor solely for the purpose of funding the Partnership, except that the FNIH shall retain a fee of five percent (5%) of each payment, plus direct costs incurred for performing its services in connection with the Project.

Lee Dockery, M.D.  Trustee, McKnight Brain Research Foundation	Date
Michael L. Dockery, M.D.  Trustee, McKnight Brain Research Foundation	Date
Jina Ellenbogen Raim, M.D., J.D. rustee, McKnight Brain Research Foundation	Date
Gene G. Ryerson, M.D.  Frustee, McKnight Brain Research Foundation	Date
Robert M. Wah, M.D.  Trustee, McKnight Brain Research Foundation	Date
Melanie A. Cianciotto Corporate Trustee, McKnight Brain Research Foundation	Date
Approved and Accepted for the Foundation for the National Ins	stitutes of Health, Inc.
Charles A. Sanders, M.D.	Date

Approved and Accepted for the McKnight Brain Research Foundation

# Cianciotto.Melanie

From:

Carol A. Barnes [carol@nsma.arizona.edu]

Sent:

Monday, August 05, 2013 10:26 PM

To:

J. Lee Dockery

Cc:

Cianciotto.Melanie; Nina Ellenbogen Raim, MD, JD; Mike Dockery; Gene Ryerson, MD;

Robert Wah, MD; DAlessandro Nicole; Henry H. Raattama, Esq.; Dr. Leslie Tolbert;

barton@email.arizona.edu; comrie@email.arizona.edu; Luann Snyder

Subject:

RE: Evelyn F. McKnight Brain Institute Institute, University of Arizona

Lee,

Thanks so much for sending me the summary of the Trustees review of my proposal, and for scheduling a site visit at the University of Arizona in October. I look forward to working with you to plan the timing and the agenda for your visit to facilitate your decision on moving forward with plans for planning a permanent endowment. I have been away all day today in Phoenix to review a progam at the Barrow Neurological Institute, and I hope to respond in more detail in the next days, but I want to thank you for the news of your review, and to your upcoming visit.

all my best, Carol

Carol A. Barnes, Ph.D.

Regents' Professor, Psychology, Neurology and Neuroscience

Evelyn F. McKnight Chair for Learning and Memory in Aging

Director, Evelyn F. McKnight Brain Institute

Director, ARL Division of Neural Systems, Memory and Aging

Associate Director, BIO5

Life Sciences North Building, room 355

PO Box 245115

University of Arizona

Tucson, AZ 85724-5115

From: J. Lee Dockery [jld007@cox.net]
Sent: Monday, August 05, 2013 6:46 AM

To: Carol A. Barnes

Cc: Melanie Cianciotto; Nina Ellenbogen Raim, MD,JD; Mike Dockery; Gene Ryerson, MD; Robert Wah, MD; Nicole D'Alessandro; Henry H. Raattama, Esq.; Dr. Leslie Tolbert; <a href="mailto:barton@email.arizona.edu">barton@email.arizona.edu</a>; <a href="mailto:comrie@email.arizona.edu">comrie@email.arizona.edu</a>; Luann Spyder

Subject: Evelyn F. McKnight Brain Institute Institute, University of Arizona

Dear Carol.





Life Sciences North Building P.O. Box 245115 Tucson, AZ 85724-5115 Tel: (520) 626-2312 Fax: (520) 626-2618

To: Trustees

McKnight Brain Research Foundation

From: Carol A. Barnes, Ph.D.

Director, Evelyn F. McKnight Brain Institute

University of Arizona, Tucson

**Date:** July 18, 2013

Re: McKnight Brain Institute Endowment

University of Arizona, Evelyn F. McKnight Brain Institute

# **Executive Summary**

The Evelyn F. McKnight Brain Institute (EMBI) at the University of Arizona in Tucson is proud to be one of four McKnight Institutes devoted to Evelyn McKnight's vision of understanding and alleviating age-related memory loss. With the critical investment of the McKnight Brain Research Foundation (MBRF), the hard work of our EMBI colleagues and others in the field, the significant scientific progress we have made here in Tucson, and the momentum around the federal government's new BRAIN Initiative. the Tucson EMBI is poised to take our efforts to the next level of innovation and discovery. Building on previous investments of time and research, we will focus on three critical goals (novel cognitive tests, work on basic neural mechanisms, and efforts towards preclinical treatment strategies). To meet these shared goals, we respectfully request a Permanent Endowment to be held at the University of Arizona Foundation for the benefit of the Tucson EMBI in the amount of \$5M with a goal of matching the MBRF's investment with additional endowed funds to create a \$10M McKnight Brain Institute Endowment. The McKnight Brain Institute Endowment will create a high-level scientific engine of discovery that we believe is a fitting legacy to Mrs. McKnight's vision of optimizing cognition for life.

# **Background to the Present Document**

To introduce the present document, I would like to review a series of events that preceded the current submission.

- **April 13, 2012**: At the private meeting with Barnes at the 5<sup>th</sup> Inter-institutional meeting in Tucson, she outlined her vision for the Tucson EMBI for the next 5 years. The Trustees of the MBRF indicated that a business plan to support these goals would be considered.
- July 23, 2012: The Tucson EMBI submitted a business plan to the MBRF proposing an additional gift.
- **September 3, 2012**: The Trustees of the MBRF requested additional information for clarification.
- October 22, 2012: The Tucson EMBI submitted the additional information requested by the MBRF.
- January 31, 2013: The VPR of the University of Arizona (UA) Dr. Leslie Tolbert, President of the UA Foundation Mr. James Moore, and Director of the EMBI Tucson



- Dr. Carol Barnes met with MBRF Trustees Dr. Lee Dockery and Dr. Gene Ryerson in Gainesville concerning the gift agreement.
- March 1, 2013: MBRF Trustees invited the University of Arizona to submit a proposal to establish an Endowment Fund within the EMBI in Tucson.
- **April 16, 2013**: Dr. Tolbert accepted the invitation to submit a proposal to the MBRF with a target date of July 15, 2013.
- **July 1, 2013**: Dr. Jennifer Barton was named Interim Vice President for Research at the University of Arizona.
- **July 18, 2013:** The Tucson EMBI submitted a proposal to establish the McKnight Brain Institute Endowment (the present document).

# **Scientific Progress**

Over the past several years the Tucson EMBI has made strong progress in the development of the tools necessary to better understand the dynamic changes in cellular circuits, molecular circuits and genetic markers that underlie memory loss in aging — in rats, in monkeys and in humans. This has been documented in the progress reports generated by this Institute, which have been reviewed annually by the Trustees of the MBRF. The present request is to build on and to continue to expand these achievements through efforts within the EMBI in Tucson and through collaborative interactions with the other McKnight Brain Institutes.

Notable examples of accomplishments over the past few years include the creation of the Tucson Evelyn F. McKnight Memory and Cognitive Assessment Clinic designed for cognitive testing of normal aged individuals, and recruitment of two faculty: Gene Alexander, who is an expert in human brain imaging and analytic methods as applied to brain aging and cognition; Stephen Cowen, who is an expert in high-density recording technologies in animal models of aging cognition. Within this time frame, Tucson EMBI members organized a symposium and published a series of papers (in an entire issue of the journal *Hippocampus*) on a relatively understudied region of the temporal lobe. called the perirhinal cortex. Together, these manuscripts revealed the distinct contribution the perirhinal cortex makes to cognition, how this structure is impacted by aging, and how it contributes significantly to age-related changes observed in episodic memory during normal aging across species (rat, monkey and human). Barnes also organized a Cognitive Test Battery working group, with participants from all four McKnight Institutes. Several meetings of this group were supported by the MBRF Travel Award Program. State-of-the-art human and animal cognitive tests sensitive to normal aging were evaluated, new testing methods proposed, and these discussions resulted in a 7 paper volume of the journal Frontiers in Aging Neuroscience. We believe this effort is already having an important impact in setting standards for defining the cognitive domains and test instruments that will be most powerful for detecting agerelated change, and most sensitive for the assessment of treatment strategies developed to reduce cognitive decline in aging.

The overall goal for all McKnight Brain Institutes, of course, is to develop a deeper understanding of the neural basis of memory so that we can facilitate the translation of our work into treatments that alleviate age-related memory loss. I believe that the Tucson EMBI has contributed substantively to fundamental discoveries in the field of brain aging and memory during the period of the quasi-endowment provided by the

original Gift from the MBRF. As stated in Dr. Leslie Tolbert's April 16, 2013 letter to the Trustees, and as affirmed by the new Vice President for Research Dr. Jennifer Barton, and the Provost, Dr. Andrew Comrie, the University of Arizona is ready to take up this fund raising challenge in order to meet our mutual vision for the future of the Arizona EMBI (see letter at the end of this document). This involves the UA seeking to match the MBRF's \$5M gift to the McKnight Brain Institute Endowment to sustain this Institute in perpetuity, as well as to use this gift to leverage grant awards and to stimulate donor interest.

Ongoing Institute Projects

The original MBRF gift allowed the Tucson EMBI to acquire a precious population of young and old bonnet macaques. Over the period of the original gift, we have established this colony and have conducted extensive behavioral, imaging and sensory experiments with these animals. Within the upcoming 4 years, high-density multineuron recordings will be instituted and completed. The large, integrated set of aging experiments conducted in this population of animals has required substantial support from Institute funds, as originally approved by the Trustees of the MBRF. These experiments are unique - no one has a colony like this of young and old primates with extensive cognitive and sensory testing, MRI analyses, genetic samples, and now ensemble electrophysiological recordings. As we finish these high-density recordings, the animals' brains will be removed and the entire brain will be serial sectioned. This enables histological reconstruction of the electrode tracks and an atlas to be made for each animal. The brain tissue collected also provides the opportunity to conduct molecular and biochemical experiments on all animals. This will allow targeted brain regions to be examined in relation to various domains of cognitive competence. These data are simply groundbreaking – and are certainly a major strength of this Institute.

The other main stated goal of the Institute has been to develop novel single cell imaging methods for detecting the participating elements of circuits responsible for instantaneous behavioral experience. As we have documented in our progress reports. manuscripts describing our new approach for analyzing these circuits across the brain have been published, and we continue to make inroads into the next levels of automation for the "catFISH" imaging method for whole brain network analysis. We are also excited about incorporating the conceptual basis of the catFISH method into a new brain clarification technique, which was developed by a colleague at Stanford (the CLARITY method), published in April this year. We are working to improve the CLARITY method here in Tucson in the hope that this will give us even faster access to whole brain reconstruction. The Tucson EMBI is certainly in a strong position to compete for funds for these kinds of efforts from the new B.R.A.I.N. initiative announced by President Obama. This Institute has been working towards understanding behaviordriven circuits across the brain for some years, both by using our multi-electrode arrays in awake, behaving animals (hyperdrives and tetrode probes), and by implementing our single cell imaging methods that can identify the individual cells and circuits involved in unique behavioral experiences (catFISH).

# Advancing the Field of the Biology of Cognitive Aging

As previously discussed with the Trustees, the Director of the Tucson EMBI believes that there are at least three layers of innovation and discovery necessary to move the field forward. The first is the development of behavioral tools sensitive to age-related

change and the function of different memory systems in the brain. The second is the development of sensitive biological tools to test the function of individual neural systems. We are now confident that different brain regions "age at different rates", which is reflected in unique cognitive aging trajectories. Thus, to be effective, the final step must involve tailoring treatment strategies to be selective to the pattern of brain and cognitive change that occurs in individual older adults. The McKnight Brain Institute Endowment will allow the Tucson EMBI to contribute to the next breakthroughs in alleviating age-related memory impairment through its scientific contributions in the following areas:

- work on development and validation of cognitive tests sensitive to different neural systems – tests sensitive to selective cognitive domains are fundamental for evaluation of effective treatment approaches;
- work on basic neural mechanisms of memory across species and across the brain, which allow in depth biological analysis relevant for application to human cognitive processes;
- work on preclinical treatment strategies for optimizing cognition, with initial tests focusing on nonhuman models, transitioning to tests in humans as swiftly as possible.

Finally, in the next years the Director of the Tucson EMBI will continue to work to maintain and strengthen our inter-institutional collaborations so that the productivity among us continues to build. This will contribute substantively to realizing our collective goals to develop methods to treat and optimize the functional status of the 86% of those individuals over 70 years of age who are not destined to incur a dementing illness. Moreover, there are multiple long-range benefits of establishing the McKnight Brain Institute Endowment proposed for the EMBI in Arizona. Among these include a stream of revenue that can be used to generate preliminary data to obtain additional grants. The EMBI in Tucson will also continue to participate in activities at the University that promote translational faculty with interests in the aging brain. The previous University Administration gave the BIO5 Institute the mandate to lead recruitment efforts for such individuals, which has resulted in the hiring of two translational neuroscientists (with MDs) who have research interests in aging and are faculty affiliates of the Tucson EMBI (Dr. Latlitha Madahavan and Dr. Anita Koshy). With the full support of our current UA President, Dr. Hart, Barnes heads an ongoing search committee, who has identified another promising Neuroscience/ Neurology candidate that we are negotiating with currently (Dr. Keith Vossel). Taken together, all these factors should provide a solid foundation for carrying this Institute and the McKnight legacy well into the future. Moreover, if we are able to stimulate donor excitement through the receipt of an additional gift from the MBRF, it may be possible to grow the McKnight Brain Institute Endowment even further.

The Director of the Tucson EMBI is grateful for the opportunity that the Trustees of the MBRF have afforded in considering this proposal, and looks forward to the continuation of our partnership in translating our basic discoveries into effective treatments for cognitive dysfunction in normal aging.

# Projections / Illustrations of the **McKnight Brain Institute Endowment**

University of Arizona Foundation for the benefit of the University of Arizona Evelyn F. McKnight Brain Institute

6.5% Total Return

	yr 1	yr 2	yr 3	yr 4	yr 5	yr 6	yr 7	yr 8	yr 9	yr 10
	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
			Perma	nent Endo	owment					
Beginning Balance	\$0	\$1,903,500	\$3,830,794	\$5,782,179	\$7,757,956	\$9,758,430	\$9,880,411	\$10,003,916	\$10,128,965	\$10,255,577
McKnight Contribution	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$0	\$0	\$0	\$0	\$0
Match Contribution	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$0	\$0	\$0	\$0-	\$0
6% University Development Fund fee	-\$120,000	-\$120,000	-\$120,000	-\$120,000	-\$120,000	\$0	\$0	\$0	\$0	\$0
Balance after Gift / Match	\$1,880,000	\$3,783,500	\$5,710,794	\$7,662,179	\$9,637,956	\$9,758,430	\$9,880,411	\$10,003,916	\$10,128,965	\$10,255,577
Net Projected Investment Growth (5.25%)*	\$98,700	\$198,634	\$299,817	\$402,264	\$505,993	\$512,318	\$518,722	\$525,206	\$531,771	\$538,418
Distributions to the Institute (4%)	-\$75,200	-\$151,340	-\$228,432	-\$306,487	-\$385,518	-\$390,337	-\$395,216	-\$400,157	-\$405,159	-\$410,223
Year End Balance	\$1,903,500	\$3,830,794	\$5,782,179	\$7,757,956	\$9,758,430	\$9,880,411	\$10,003,916	\$10,128,965	\$10,255,577	\$10,383,772

5.25% Total Return

O.A.O /O I O COI I NO COI I I										
	yr 1	yr 2	yr 3	yr 4	yr 5	yr 6	yr 7	yr 8	yr 9	yr 10
	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024
			Perma	nent Endo	wment					
Beginning Balance	\$0	\$1,880,000	\$3,760,000	\$5,640,000	\$7,520,000	\$9,400,000	\$9,400,000	\$9,400,000	\$9,400,000	\$9,400,000
McKnight Contribution	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$0	\$0	\$0	\$0	\$0
Match Contribution	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$0	\$0	\$0	\$0	\$0
6% University Development Fund fee	-\$120,000	-\$120,000	-\$120,000	-\$120,000	-\$120,000	\$0	\$0	\$0	\$0	\$0
Balance after Gift / Match	\$1,880,000	\$3,760,000	\$5,640,000	\$7,520,000	\$9,400,000	\$9,400,000	\$9,400,000	\$9,400,000	\$9,400,000	\$9,400,000
Net Projected Investment Growth (4%)*	\$75,200	\$150,400	\$225,600	\$300,800	\$376,000	\$376,000	\$376,000	\$376,000	\$376,000	\$376,000
Distributions to the Institute (4%)	-\$75,200	-\$150,400	-\$225,600	-\$300,800	-\$376,000	-\$376,000	-\$376,000	-\$376,000	-\$376,000	-\$376,000
Year End Balance	\$1,880,000	\$3,760,000	\$5,640,000	\$7,520,000	\$9,400,000	\$9,400,000	\$9,400,000	\$9,400,000	\$9,400,000	\$9,400,000

Projections / Illustrations are not a statement of nor a guarantee of future performance. Endowment funds bear investment market risks. Actual performance may be significantly less than projected/illustrated.

The illustration above outlines some possible scenarios (considering two different potential rates of return) for the long-term earnings and long-term research funding available to the UA EMBI with the establishment of this Permanent Endowment, during the 5 years of the Gift and Match contributions, and five years beyond. The distribution to the Institute under these conditions ranges from ~\$75,000 per year in the first year, to ~\$400,000/year in the 10<sup>th</sup> year.

<sup>\*</sup>Net projected investment growth reflected is after reduction for annual endowment cost recovery fee of 1.25%.



1401 E. University Blvd, PO Box 210066 Tucson, AZ 85721-0066 (520) 621-1856

July 17, 2013

Trustees McKnight Brain Research Foundation P.O. Box 620005 Orlando, FL 32862-0005

Dear Trustees:

It is with great pleasure that we write in support of Dr. Carol Barnes's proposal to establish a permanent endowment for the University of Arizona Evelyn F. McKnight Brain Institute. As you are keenly aware, Evelyn F. McKnight's interest in advancing our understanding of normal cognitive aging was prescient. Through the vision and strategic investments of thought leaders like the McKnight Brain Research Foundation, and in the context of tremendous scientific interest and advancements over the last decade, we are on the brink of a revolution in brain science.

As President Obama recently stated in his call for a new BRAIN Initiative in the "grand challenge" tradition of the Human Genome Project, "[T]here's this enormous mystery waiting to be unlocked, and the BRAIN Initiative will change that by giving scientists the tools they need to get a dynamic picture of the brain in action, and better understand how we think and how we learn and how we remember. And that knowledge could be - will be - transformative."

The University of Arizona is extremely grateful for the McKnight Brain Research Foundation's long history of investment in Dr. Barnes's work, which lines up squarely with the goals of the BRAIN Initiative. Based on our campus here in Tucson, the Evelyn F. McKnight Brain Institute has served as a catalyst for interdisciplinary research efforts on normal brain aging and memory across Arizona and well beyond, with numerous important discoveries, publications and grants generated from its affiliated faculty.

The University of Arizona shares the McKnight Brain Research Foundation's faith in Dr. Barnes and the program she has created. That faith has taken the concrete form of strategic investments in the Institute over the years. For example, in 2006, the University of Arizona made a commitment to allocate the 3<sup>rd</sup> floor of the Life Sciences North Building (23,531 GSF) for occupancy by faculty of the newly established Evelyn F. McKnight Brain Institute. The current market value for rental of this space is \$494,000/year with annual maintenance costs of \$143,000/year.

Over the past 7 years, the University has maintained that commitment with sole occupancy on the floor by McKnight Affiliated faculty (Barnes, Cowen, Fuglevand, Gothard, Hay, Madhavan, Restifo). Additionally, the University of Arizona administration strongly supports the ongoing search for an additional neuroscience clinical translational faculty line (committee chaired by Barnes), who will occupy the remaining office and laboratory space in the UA Evelyn F. McKnight Brain Institute. The faculty residing in the UA EMBI space have multiple collaborations in work related to memory and aging and provide an ideal environment for both scientific interactions as well as training up and coming scientists in the field of memory and aging. Over the past several years, the University of Arizona has also invested over \$5 million dollars in recruitment packages for new faculty affiliated with the UA EMBI (Alexander, Cowen, Madhavan, Koshy), and we have earmarked over \$2 million for the current neuroscience clinical translational recruitment.



Additionally, we have a continued commitment of \$930,000 annually to support the faculty lines for Barnes and the faculty recruits.

We want you to know that the University of Arizona is committed to facilitating the continued growth and development of the Evelyn F. McKnight Brain Institute in Tucson. Thank you for your willingness to consider a proposal for an additional gift to the Institute to strengthen the legacy of Evelyn F. McKnight. We are delighted to champion the efforts to match the proposed additional gift.

With a shared passion, our two organizations have moved forward on this grand challenge long before the recent national call. We believe our partnership has the potential to have a transformative impact on the field of normal cognitive aging, with the ultimate goal of maximizing cognition across the entire human lifespan. We look forward to working together to achieve these important goals.

Sincerely,

Andrew C. Comrie, Ph.D.

Senior Vice President for Academic Affairs & Provost

Jennifer Barton, Ph.D.

Interim Vice President for Research

ACC/am

To: Trustees,

McKnight Brain Research Foundation (MBRF)

From: Carol A. Barnes, Ph.D.

Director, Evelyn F. McKnight Brain Institute (EMBI)

University of Arizona, Tucson

Date: July 23, 2012

Re: Additional Funding Allotment for EMBI, Tucson

5-page Business Plan Summary

# Scientific Progress, Evelyn F. McKnight Brain Institute, University of Arizona

Over the past several years the Tucson EMBI has made strong progress in the development of the tools necessary to better understand the dynamic changes in cellular circuits, molecular circuits and genetic markers that underlie memory loss in aging — in rats, in monkeys and in humans. This has been documented in the progress reports generated by this Institute. These reports have been reviewed annually by the Trustees of the MBRF. The present request is to build on and expand these achievements and to implement additional avenues of investigation. I outlined these ideas briefly at our private discussion at the fifth Inter-institutional Meeting held in Tucson this past April. At that time, the Trustees indicated that a business plan to support these goals would be considered, which has encouraged me to develop my vision further, and to provide concrete estimates of the funding that would be required to generate the desired deliverables.

# Why Might the Trustees Consider an Additional Request from EMBI, Tucson?

Among the examples that I might offer as evidence that this may be a productive investment. I choose two to discuss here. The overarching goal of the MBRF and of each of its Institutes is to understand why memory changes across the lifespan - even in the highest functioning individuals - and to understand its biological basis well enough to devise ways to optimize it. A strength of the Tucson EMBI is that its Director has been interested in this very topic for ~ 40 years, has followed the field of gerontology broadly (and with great interest) over this time period, and has been active in all levels of review in the area of the biology of aging cognition. from Study Section member to member of NIA's Council. This has provided ample exposure to avenues of investigation in the field that have been fruitful, those that have not, and those that are exciting, but unlikely to be funded (because of some risk) by past and certainly current federal agency review panels. Another pertinent observation about the Director of the Tucson EMBI is that she (for reasons I cannot explain) is rather effective at getting people to work together towards common goals that result in dissemination of the targeted objectives. Two examples of this can be given from 2012. The first is the 7-manuscript issue that is almost complete for publication in Frontiers in Aging Neuroscience that arose out of the MBRFsupported Cognitive Test Battery working group meetings in 2011. The second is the 12manuscript, entire volume, of the journal Hippocampus, on the temporal lobe region known as "perirhinal cortex". This volume will be published in time for the Neuroscience meeting this year. and provides data from humans, monkeys and rats suggesting a similar role across species for this structure in cognition. Several of these papers demonstrate the neural vulnerability and cognitive consequences of changes in the perirhinal cortex during aging in animals, including

innovating at all levels of analysis, so that tests (both neural and behavioral) can be rapidly adjusted and improved. This flexibility in basic scientific strategy will facilitate identification of those cognitive modification approaches that are not effective, enabling us to focus on and develop only the most promising strategies.

# What types of projects could be supported with an additional investment in EMBI, Tucson?

Beginning with the admission that none of us are privileged in advance to know what experimental discoveries may change the course of our translational efforts, the target and immutable goal remains the same - to discover effective methods to optimize individual cognitive aging trajectories. At this point in time, I see several lines of investigation that, either with a line of stable support, or a strategic influx of support, is likely to contribute substantively to our shared goals. These experimental efforts fall into several categories:

- 1) Work on basic neural mechanisms of memory across species, which have potential for in depth biological analysis relevant for application to human cognitive processes;
- Work on human populations, particularly those studied over significant time periods, that can enable deeper understanding of the range of cognitive and biological trajectories that emerge during the aging process;
- 3) Work on treatment strategies for optimizing cognition, with initial tests focusing on nonhuman models, transitioning to tests in humans as swiftly as possible.

Below I discuss the types of experiments that would be facilitated by an additional investment from the MBRF into the Tucson EMBI, that fall into each of the three categories listed above. I have discussed the ideas contained in the lists created below with each of the investigators named, without reference to how the experiments might procure funding. I feel confident that in each case, interesting projects with potential for important discoveries exist. As I do not know the outcome of your assessment of my proposal, this is as far as I felt comfortable in allowing the discussions with these individuals to go. But rest assured that, if given the 'green light', and with the time frame of fund availability known, I would be able to prioritize funding streams over what I imagine would be a five year period. Some of the work proposed is collaborative with my laboratory, building on or extending the ongoing efforts (and this is reflected in a stable funding stream to me for that purpose), but much of the work proposed must be driven by the expertise and creativity of the colleagues that will participate. The names mentioned reflect initial group composition, which can be expanded or contracted to include relevant experts as necessary to the problem at hand.

# **Basic Biological Mechanisms**

Sweatt/Foster/ Barnes/others from epigenetic working group: Each of us has a different skill set for contributing to a deeper understanding of the dynamic changes in histone modifications critical for optimal cognition. This is an area of great importance with respect to therapeutic development, and there will certainly be a need for extensive animal testing at multiple levels. The McKnight group can lead the world in this pursuit if we pool our strengths. Coleman/ Mitchell/Trouard/Barnes: Transgenic rat models of slowly developing hypertension that mimic human cardiovascular conditions have to date only been investigated with respect to effects on peripheral organs. Mitchell has transferred hypertension-inducible transgenic rats to

Wright/Alexander/Huentelman/Coleman/Roher/Reiman: It is clear that differential aging of the cardiovascular system can contribute to the variability in cognitive outcomes experienced in aging. We have significant expertise in cognitive testing, cardiovascular function, neuroimaging, and genetic and epigenetic analysis. Working together, this team can pinpoint cardiovascular variables (biomarkers) that most critically impact cognitive aging, suggesting therapeutic targets.

### **Translational Efforts**

Gallagher/Barnes: The Barnes laboratory has identified a possible electrophysiological signature of behavioral slowing with age, and Gallagher's company may have a compound that can modify this neurobiological change. In the end, a combination of compounds may be most effective, but we have begun to explore this experimentally. If preliminary results look promising I would like to accelerate the numbers of animals for preclinical testing studies in my lab.

Gazzaley/Arnsten: Gazzaley has developed an interesting behavioral test for humans that we are adapting to the bonnet macaques in the lab in Tucson. Arnsten has experience with administering pharmacological agents to nonhuman primates. Working together, we will apply newly developed cognitive tests for monkeys, similar to those used to test memory in older humans, and will attempt to ameliorate the negative effects of interference on memory in these older animals with a variety of pharmacological manipulations.

Madhavan: Madhavan has a very interesting pluripotent stem cell model in which she can explore how "brain environment" promotes survival of these cells. The idea is to manipulate the external brain cell environment in old rats to see whether stem cells and neurons benefit, using a variety of behavioral tests as outcome measures for assessing good cognitive health. Hecht/Reiman/Barnes: Hecht has discovered a class of molecules known as "multifunctional radical quenchers" (MRQs) that have free radical self-propagation properties that are antioxidant in nature and increase ATP production. I would like to extend these tests to live animals, with tests of cognition in aging. Reiman is very interested in these compounds with respect to human testing in disease, and in assisting with human clinical trials for such compounds. Whiteman: Whiteman studies the detoxification effects of plant-based chemicals known as "mustard oils", and has a test system in flies that is extremely promising. After further development of the behavior screening fly model system, a number of the compounds that are particularly successful in this model can be tested in cognitive aging rat models for efficacy. Hruby/Restifo: Hruby is a well-known medicinal chemist, with particular talents in synthesis methods development, for which he has won numerous awards. We have begun discussing targets for compound creation that we can test in Restifo's high throughput fly memory screening tool, with a goal of testing promising compounds in cognitive aging rat models. Mehl/Glisky: These investigators are conducting a social media study in the elderly that should provide helpful practical solutions for social isolation that sometimes occurs in older individuals. Optimization and development of these tools could result in cognitive aids for at risk elderly. Kaszniak: A completely different approach may also be fruitful to explore with respect to cognitive wellbeing in older adults - namely the potential benefits of meditation practice. Kaszniak is an expert in program evaluation of different forms of these practices and, combined with other approaches, may also become an important component for use in a "cognitive health tool kit" that we are all interested in developing for the elderly.

# Additional Information on Endowed Chair and MBRF Gift Accounts University of Arizona Evelyn F. McKnight Brain Institute

2011/2012 Final Figures for Endowed Chair and MBRF Gift Accounts
The final figures are available now for the 2011/2012 fiscal accounting year, and
the investment report for that time period is given below in Table 1.

able 1					

Endowed Chair		
Summary for 12 months ending June 30, 2012		
Account Name: Evelyn F. McKnight Chair for Learning and Memory in Aging	•	t de la companya de
A. Beginning Balance on July 1, 2011	\$	866,326.00
B. Investment Growth	\$	(13,173.65)
C. Distributions (to Endowed Chair Expendible)	\$	(32,548.00)
D. Additional Contributions	\$	-
E. Ending Balance on June 30, 2012	\$	820,604,35
이 그는 생활을 가는 것이 되는 것이 되는 것이 없는 것이 없다.		
Institute	***********	
Summary for 12 months ending June 30, 2012		
Account Name: Evelyn F. McKnight Brain Institute		
A. Beginning Balance on July 1, 2011	•	4,136,487.00
B. Investment Growth	<b>.</b>	(65,865.89
C. Distributions (to institute expendable account)	Ψ •	(743,518.96
D. Additional Contributions	φ	(140,010.96
E. Ending Balance on June 30, 2012	:	2 227 400 4
L. LINNING DAIGHTOC ON JUNE 30, AU 12	<u> </u>	3,327,102.15

# **Endowed Chair Account**

For the Endowed Chair Account, the initial 2006/2007 Endowment was \$1,000,000. Because of losses in the investments (change in market value), the beginning Endowment balance for 2012/2013 is \$820,604 (**Table 2**). Naturally the hope is that the market will turn around, and we'll have more "positive" outcome years in the future. Regardless, some distributions will be made yearly to the Chair, and over the next decade it will likely be ~\$30,000.

Table 2. Evelyn F. McKnight Endowed Chair for Learning and Memory in Aging from 2006 to 2012

Year 1 Year 2 Year 3 Year 4 Year 5 Year 6 Year 7 2006/2007 2007/2008 2008/2009 2009/2010 2010/2011 2011/2012 2012/2013 McKnight Contribution \$1,000,000 Change in Market Value 58,618 \$ (108,259) \$ (203,434) \$ 42,840 \$ 76,560 \$ (45,722)

proposal to be carried out, and it would potentially extend significant funding of the Institute through at least 2022. An intermediate option that could be considered is another gift from the MBRF that would be placed into an endowment that would be matched (Option 3). All indications from those I have spoken to at the University of Arizona are that there is little opportunity for matching funds to go into a permanent endowment. Thus the match would be used to support the research mission of the Institute, with the endowment used as leverage to acquire these additional funds. With this scenario, significant expenditures for my laboratory and a reduced number (compared to the second option) of other projects would continue until 2021, and the interest on the investment would continue in perpetuity. The first option is outlined in Table 3. Option 2 is estimated in Table 4 and Option 3 is estimated in Table 5. The options outlined in Tables 4 and 5 depend on the decision of the MBRF on my proposal, and my ability to raise the relevant matching funds. Admittedly, I cannot predict either with certainty.

Table 4. Estimated Account in Future Years if a \$5 Million Gift is Expendable and Matched

		***************************************	Λ	ani End.				<del></del>		*************************************	***************************************
		Marin B	Wu	asi Ende	owment				in the second	en a e	
[ 마루티 프로그램 프로그램 (1988 - 1987)	yr7	yr8	yr 9	yr 10	yr 11	yr 12	yr 13	yr 14	yr 15	Уг 16	47
	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	A 44 A 44 A 45 A 45 A	2021/2022	уг 17 2022/2023
McKnight Contribution				•			<del></del>			112022	202212020
	ing salah	POR CONTRACTOR DE CONTRACTOR D	cifeetakud famoran asaacoo	rossianon de la compania del compania del compania de la compania del compania del compania de la compania del c	energy and an energy and a series	a alt da salin Utras and Suines.	(Employ I NA to comprosit the for	native/based: brokenskerster	aran ar san	Marian	
Beginning Balance 6% development fund	\$3,627,103	\$2,496,879	\$2,122,766	\$1769,026	\$1,436(391	\$1,125,621	\$837,503	\$536,853	8225380	80	1 50
Long-term growth (3.6%)	\$119,776	\$89,888	\$76,420	\$63,685	\$51,710	\$40,522	<b>ሰ</b> ማስ 4 <b>E</b> 0	በላበ ዓባማ	\$8,114		*
Withdraw als to expendable account	Ψ113,770	φυσ,σσσ	• φ/0,420	φυυίσου	\$01,710	\$40,5ZZ	\$30,150	\$19,327	φο, 114	\$0	\$0
Withdraw als to Barnes Projects	-\$950,000	-\$89,888	-\$76,420	-\$63,685	-\$51,710	-\$40,522	-\$330,800	-\$330,800	-\$233,494	\$0	.\$0
Withdraw als to Additional McKnight Projects	\$0	-\$374,112	-\$353,740	-\$332,635	-\$310,770	-\$288,118	\$0		\$0	\$0	\$0
Year End Balance	\$2,496,879	\$2,122,766	81,769,026	\$1,436,391	31/125/621	\$887,503	\$596 853	\$225,380	\$0	80	\$0
·			Perm	anant E	ndowm	ent					٠.
McKnight Contribution		\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000					
			na escentia de la composición de la co		NEDECKO PORTEGORISMOS		Merendamien anderen	oconelius societis se		N. S.	
Beginning Balance 6% development fund		\$1,000,000 -\$60,000	the manufacture of the Property of Section 1978	AT A CHARLES AND A SHOP OF THE PARTY OF THE	\$9,620,000	CONTRACTOR STREET	\$4,760,000	\$4,700,000	\$4,700,000	\$4,700,000	\$4 700 000
Long-term growth (3.6%)		\$36,000	-\$60,000 \$69,840	-\$60,000 \$103,680	-\$60,000 \$137,520	-\$60,000 \$171,360		\$169,200	\$169,200		
Income to the Endowment (Barnes)		-\$36,000	-\$69,840		-\$137,520	-\$171,360		-		\$169,200 -\$169,200	\$169,200
Year Chu Eslança	80	\$940,000				STANSON TO THE PROPERTY	ACCRESS NAMED AND DESCRIPTION OF THE PARTY O	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER, AND THE OWNER, AN	Anna termina de la compansión de la comp	94700,000	-\$169,200 \$4,700,000
	the state of the s						NAMES OF TAXABLE PARTY.		************		S. CANADA SANCES
				Mate	ch						
Match		\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	)				
POO FRANCISIANNETTSAUCTSBORKETONETATONETATSBORKETONESSENDOSEDONALESSAUCTSBORGETONES		FEEGUNG PROPERTY AND ADDRESS OF THE PERSON A									-
Beginring Balance	30	-\$1,000,000	91 00 <b>0</b> 000	SECTION AND RELEASE			AND DESCRIPTION OF THE PARTY OF	) 51	80	30	50
Institute Support (Barnes Projects)		-\$624,112	-\$603,740								NEW PROPERTY.
Institute Support (Additional McKnight Projects		-\$375,888 -\$375,888	-\$396,260	-\$417,365	-\$439,230	curativation (automotion) and universe	recommendation Assessment and recommendation of the commendation o	0.4	S.O.	SSEES ON STREET STREET	ing and a second se
		NV.			**************************************	,	2		,	30	50
			Ta	tal Nicto	ibution		•				
Total Support to Barnes Projects		5760 GCG			10001011 875009			0 4500.00		TO THE REAL PROPERTY AND ADDRESS OF THE PARTY	
(Rota) Support to Additional (MCK) ight holes is	100	\$750,000		750.00	CHARLES AND			0 1000		\$169,200	\$169.200
								MOVEMENT OF THE PARTY OF THE PA	enderstein in	W	
tiong-Term Growth estimated at 3.6%											
income to institute estimated at 3.6%			***************************************		***************************************						
* .											

# Cianciotto.Melanie

From: Sent: Sacco, Ralph [RSacco@med.miami.edu] Wednesday, October 09, 2013 1:12 PM

To:

J. Lee Dockery

Cc:

Wright, Clinton; Cianciotto Melanie; Nina Ellenbogen Raim, MD, JD; Mike Dockery; Gene

Ryerson, MD; Robert Wah, MD; DAlessandro Nicole; Henry H. Raattama, Esq.

Subject:

RE: October Update

Lee,

I wanted to provide another update on the Schoninger Foundation dissolution in anticipation of your October Board meeting. Progress continues, albeit at a slower pace than we all would like, but the end is in sight. I have received word that all family members agree with the dissolution of the Foundation and the attorneys are petitioning the court for the termination. [See an email correspondence copied below.] The attorneys state they should have a hearing sometime in November. I continue to be very optimistic that we should have a final resolution of the original match as well as incremental support before the end of 2013.

We continue to work hard and make strides in all our efforts as an Evelyn McKnight Brain Institute. Thanks to you and the entire Board for your support, patience and understanding.

Hope all is well with you.

Best regards, Ralph

Ralph L. Sacco MD MS FAHA FAAN

Professor and Olemberg Chair of Neurology Executive Director, McKnight Brain Institute Chief of Neurology, Jackson Memorial Hospital Miller School of Medicine University of Miami

Office: 305-243-7519

For NEUROLOGY Patient Appointments: (305) 243-3100

From: Castro, Maria Victoria

Sent: Wednesday, September 25, 2013 4:01 PM

To: 'Don Paul'

Cc: 'fhsandstrom@gmail.com'; Fogel, Bernard

Subject: RE: Schoninger Foundation

Dear Don,

I could not be more pleased for you, Fred and myself that we have received the consent of all of the parties that will allow us to go forth and ask for final resolution by the courts.

I would like to briefly give you my understanding from the records that we have in my office and the medical school as to how these dollars will be distributed to programs already agreed to by Jane and I believe the family. We are presently supporting a professor of Neuropsychology whose emphasis is on memory disorders in the elderly, named the Alexandria



RALPH L. SACCO, MD, MS, FAHA, FAAN
Chairman, Department of Neurology
Olemberg Family Chair in Neurological Disorders
Miller Professor of Neurology, Epidemiology, & Human Genetics
Leonard M. Miller School of Medicine
University of Miami
Executive Director, Evelyn F. McKnight Brain Institute
Chief of Neurology Service, Jackson Memorial Hospital

October 8, 2013

J. Lee Dockery, M.D.
Michael L. Dockery, M.D.
Nina Ellenbogen Raim, M.D., J.D.
Gene G. Ryerson, M.D.
Robert M. Wah, M.D.
Ms. Melanie A. Cianciotto
Henry H. Raatama, Jr., J.D.
The Evelyn F. McKnight Brain Research Foundation
SunTrust Bank
Post Office Box 620005
Orlando, Florida 32862-0005

# Dear Trustees:

On behalf of the University of Miami Leonard M. Miller School of Medicine, please find enclosed the growth pool annual investment report for the fiscal year ending May 31, 2013 prepared by Colonial Consulting. Per the terms of our endowment agreement (section 5.3) the University of Miami forwards this report to you annually. I have also included the market value analysis for the endowment for the same fiscal period.

Should you have any questions, please feel free to contact Marsha Kegley at (305) 243-2290.

Thank you for your continued support and collaboration in our efforts.

Warmest regards,

Ralph Sacco, M.D., M.S.

Enclosures

cc:

Clinton Wright, M.D.

Ms. Ileana Nunez

Ms. Rebecca Lee, MA, BS

Ms. Karen Wilkening

Ms. Marsha Kegley

# Evelyn F. McKnight Center for Age-Related Memory Loss at the Miller School of Medicine Market Value Analysis May 31, 2013

Unmatched Balance	\$2,469,136
5/31/13 Endowment Balance	\$8,650,860
Distributions for Spending	(2,925,948)
Investment Return	2,935,642
Transfers from Other University Funds	1,110,302
UM Match	2,530,864
McKnight Contribution	\$5,000,000

McKnight053113 Spdg Unmatched Bal

### Notional UM Match:

Unmatched notional balance at 6/1/13

Endowment investment return rate for the 3 years ended 5/31/13

Endowment spending policy rate 13-14

Difference (investment return rate less spending rate)

Rate difference (if positive) applied to unmatched balance and to be added to actual endowment

Spending distribution 13-14 on unmatched balace

Total to be funded from other UM sources 13-14

2,469,136

10.20000000%

4.45845745%

5.74154255%

141,766

110,085

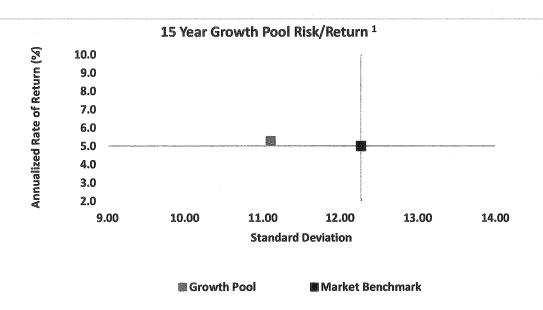
# Actual endowment:

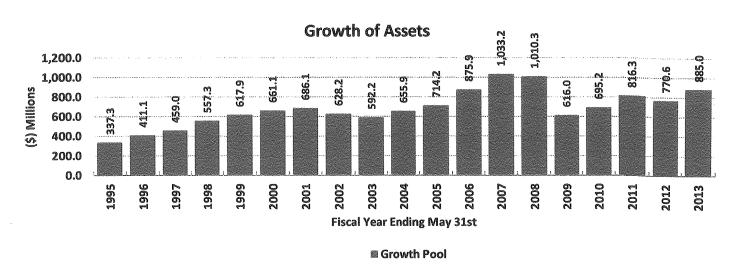
 Market value at 6/1/13
 8,650,860

 Spending distribution 13-14
 385,695

# **University of Miami - All Managed Assets Performance Periods Ending: May 31, 2013**

Growth Pool	Inception	1 yr	3 yr	5 yr	7 yr	10 yr
Growth Pool Total Composite	12/31/1990	16.7	10.2	3.3	4.8	6.9
Growth Pool Market Benchmark <sup>1</sup>	12/31/1990	19.7	11.6	2.9	4.4	6.6





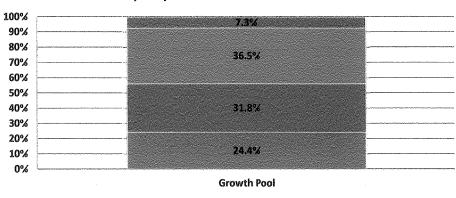
1. The Market Benchmark is a weighted average of market indices reflecting the Growth Pool's strategic allocation through time.

# University of Miami Manager Structure - Market Values and Allocations As of May 31, 2013

		Grow	th Pool
Manager	Asset Class	\$Mil	%
Parmenter Realty III	Real Estate	3.2	0.4%
WCP Real Estate Fund I	Real Estate	2.0	0.2%
WCP Real Estate Fund II	Real Estate	6.4	0.7%
SRI Nine REIT	Real Estate	5.9	0.7%
Metropolitan Real Estate	Real Estate	1.7	0.2%
LBA Realty	Real Estate	6.6	0.8%
Colchester Global Bonds	Global Bonds	44.6	5.0%
Vanguard Inflation Protected <sup>1</sup>	US TIPS	27.8	3.1%
Cash Clearing Account		3.2	0.4%
Total Managed Assets	ими министический в сербия в провеждория и постору по постору по постору по постору по постору по постору по п Постору по постору по п	885.0	100.0%

Allocation to Index or Enhanced Index Strategies	
	Growth Pool
% of Total:	9.7%
% of Domestic Equity:	11.7%

# Portfolio Liquidity Restrictions: Based on Market Value



# **University of Miami Growth Pool**

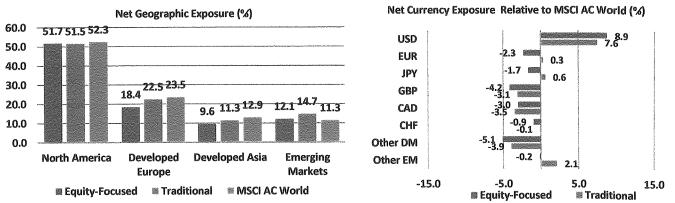
# **Equity Portfolio Exposures** 1,2

Data as of June 30, 2013<sup>3</sup>

Global Industrial Sector Exposure	[	iquity-Focus	ed Portfolio		TE)	aditional Eq	uity Portfolio	
	Long (%)	Short (%)	Gross (%)	Net (%)	Long (%)	Short (%)	Gross (%)	Net (%)
Consumer Discretionary	16.4	-3.1	19.5	13.3	16.1	-1.0	17.1	15.0
Consumer Staples	9.1	-1.6	10.7	7.4	11.7	-0.9	12.6	10.8
Energy	10.3	-0.8	11.0	9.5	8.8	-0.8	9.6	8.1
Financials	17.0	-1.1	18.1	15.9	18.2	-0.6	18.8	17.7
Health Care	10.8	-0.6	11.4	10.2	11.9	-1.3	13.2	10.6
Industrials	12.5	-1.5	14.1	11.0	15.5	-1.6	17.0	13.9
Information Technology	12.7	-0.3	12.9	12.4	14.1	-0.5	14.6	13.6
Materials	6.9	-0.9	7.9	6.0	6.4	-1.2	7.6	5.2
Telecom Services	2.4	-0.1	2.5	2.3	3.1	-0.1	3.2	3.0
Utilities	2.4	-0.5	2.9	1.9	2.5	-0.7	3.2	1.8
ETF/Other	0.8	-0.4	1.1	0.4	0.8	-0.5	1.3	0.3
Total Portfolio	101.2	-10.9	112.1	90.3	109.1	-9.1	118.1	100.0

Geographic Exposure	Ē	quity-Focus	ed Portfolio		Tra	iditional Eq	uity Portfolio	
	Long (%)	Short (%)	Gross (%)	Net (%)	Long (%)	Short (%)	Gross (%)	Net (%)
North America	60.9	-9.2	70.1	51.7	59.2	-7.7	66.8	51.5
Developed Europe	20.1	-1.7	21.8	18.4	23.7	-1.2	24.9	22.5
Developed Asia	9.7	-0.1	9.7	9.6	11.4	0.0	11.4	11.3
Emerging Markets	11.9	0.2	11.8	12.1	14.9	-0.1	15.0	14.7





- 1. Nominal and delta-adjusted exposures are used where possible to reflect non-linearity in portfolio positioning.
- 2. Equity-Focused includes long-only, beta-one, and long/short equity portfolios where applicable. Traditional includes long-only and beta-one equity portfolios where applicable.
- 3. Date of Exposure Data as a % of Portfolio Carve Out
  Equity-Focused Portfolio: Jun-13 (100.0%); Mar-13 (0.0%) | Traditional Equity Portfolio: Jun-13 (100.0%); Mar-13 (0.0%)

# **University of Miami - Growth Pool**

# Inception to Date Performance vs. Relevant Benchmark(s)

# Periods Ending - May 31, 2013 Net of Fees

Barclays Capital US TIPS  1. NA: Not Applicable	6.7			3.
Vanguard Inflation Protected Securities (03/31/10)	6.7	0.0	NA	3.
Citigroup World Government Bond	2.2			3.
Colchester Global Bond (12/31/09)	5.4	3.2	NA	3.4
Fixed Income				
HFRI Equity Hedged	6.5			1.
S&P 500	16.0			1.
Lansdowne Global Financials (3/31/12)	10.0	-6.0	3.5	1
HFRI Equity Hedged	2.4			5
S&P 500	6.5			5
Addison Clark (03/31/08)	6.0	-0.5	3.6	5
HFRI Equity Hedged	3.3			7
S&P 500	5.6			7
Figer Consumer (02/28/06)	6.0	0.4	2.7	7
HFRI Equity Hedged	4.7			ŧ
S&P 500	6.1			(
Wellington Archipelago (11/30/04)	8.0	1.8	3.3	
HFRI Equity Hedged	3.5			
S&P 500	16.3	~~. <b>~</b> Potential properties and the state of	<b>9.</b> <i>J</i>	1
ong/Short Equity /iking Global Equities III (11/30/10)	12.0	-4.2	8.5	á
Merrill Lynch High Yield	8.9			
egiment Capital (06/30/07)	5.8	-3.1	NA	a Military Robertson (1966) 
Merrill Lynch High Yield	7.5			1
Dak Tree (12/31/98)	7.2	-0.3	NA	1
ligh Yield Bonds				
DJ UBS Commodity	-4.1			
ambrian CamCap Resources (9/30/11)	-0.9	3.2	NA	
DJ UBS Commodity	-2.7	<b>7.</b> A		
Real Assets  Vellington Diversified Inflation Hedges (08/31/06)	2.3	5.1	NA	
HFRI Event Driven	3.9			
Watershed Capital (12/31/07)	3.6	-0.3	NA	in Modern constitution
HFRI Event Driven	10.5			1
Davidson Kempner (10/01/93)	9.9	-0.6	NA	19
vent Arbitrage	ROR	Primary Se	condary <sup>1</sup>	Ye

# Memorandum of Understanding

# McKnight Brain Research Foundation Gift agreement University of Miami Medical School

The purpose of this memorandum is to clarify the intent and understanding of the trustees of the Evelyn F. McKnight Brain Research Foundation ("Trustees") and the Evelyn McKnight Center for Age Related Memory Loss ("Center") at the University of Miami Miller School of Medicine ("UM") which has been fully operational since June, 2008.

The goal of the first amendment to the Gift Agreement dated July 29, 2008 was two-fold, 1. Insure that the unfunded portion of the endowment continued to grow at the same rate as the funded balance; 2. The Center will receive spendable income at the same rate of return on the unfunded balance as the rate received on the funded balance.

To implement the intent and understanding the Trustees and UM agree as follows:

Commencing for UM Fiscal Year 2010 and each fiscal year thereafter:

- 1. UM will distribute to the Center an amount equal to the "unmatched balance" multiplied by the UM Endowment Spending Policy Rate for the fiscal year in question and
- If the average of the Endowment Investment Rate of Return for the fiscal year in question
  and the 2 immediately preceding years exceeds the UM Endowment Spending Policy
  Rate, an amount equal to the excess rate multiplied by the "unmatched balance" will be
  added to the MBRF Endowment.

UM shall pay amounts from sources other than the MBRF Endowment. The "unmatched balance" at 6/1/2010 is agreed to be \$3,177,215.

Attached is a computation for the UM Fiscal Year 2010. It is agreed this computation accurately applies the above understanding and will be followed in future years.

Signatures: John J. Clarkson

J. Fre Jakon W. Jahren Dan

Jan Sono

Date: October 3, 2010

# McKnight Brain Research Foundation Upcoming Dates/Events (2013-2014)

2013

MBRF Board of Trustees Meeting

San Diego, CA Poster Session/Reception November 10, 2013 6:30 - 8:30 p.m. Hilton San Diego Bayfront Indigo Ballrooms D-H

2044

February 2014 MBRF Board of Trustees Meeting	April 2014 MBRF Board of Trustees Meeting	July 2014 MBRF Board of Trustees Meeting	October 2014 MBRF Board of Trustees Meeting
		To determined	To be determined
Orlando, FL February 12, 2014	University of Florida April 23 - 25, 2014		
	Hilton University of Florida Conference Center		