

# SUNTRUST

Date: February 4, 2022

To: McKnight Brain Research Foundation Trustees  
Amy Porter, Executive Director  
Henry H. Raattama, Jr. Legal Counsel

From: Melanie Cianciotto

Subject: MBRF Meeting: February 9, 2022

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Enclosed you will find the meeting package for the February 9, 2022 Trustee's meeting to be held via WebEx. Included in this package for your review are the following items: the agenda, final draft of the minutes of the October 28<sup>th</sup> and December 7<sup>th</sup> Trustees' meetings, minimum distribution calculation and other supporting material for the agenda items.

/mc

cc: Mike Hill

Enclosures

**MCKNIGHT BRAIN RESEARCH FOUNDATION (MBRF)**  
**Meeting of the Board of Trustees**  
**Wednesday, February 9, 2022**  
**11:00 am EST – 4:00 pm EST**  
**Via WebEx**

11:00 am	1. Call to Order	Dr. Mike Dockery
<b><u>ACTION</u></b>	2. Roll Call/Approval of October 28, 2021 Minutes and December 7, 2021 Minutes	Dr. Mike Dockery
11:15 am	3. Investment Review	Mr. Mike Hill
11:45 am	4. Chair's Report a. Leadership Council Meeting January 31	Dr. Mike Dockery
12:00 pm	5. Executive Director's Report a. Updated Orientation Manual b. Presentation by Dr. Molly Wagster at March 23 meeting c. Annual Evaluation Timeline	Ms. Amy Porter
12:10 pm	6. Corporate Trustee's Report a. Minimum Distribution Report b. Gifts and Grants Report c. Travel Award Report d. Operating Expense Report	Ms. Melanie Cianciotto
12:30 pm	7. Committee Reports a. Membership and Governance <ul style="list-style-type: none"><li>• Updated Committee Activity Timeline</li><li>• Trustee Self-Assessment</li></ul> b. Finance Committee <ul style="list-style-type: none"><li>• January 19, 2022 Meeting</li><li>• Updated Committee Activity Timeline</li><li>• Review of Financial Information in MBI Annual Reports</li></ul>	Dr. Mike Dockery Dr. Sue Pekarske  Dr. Mike Dockery  Dr. Allison Brashear
1:00 – 1:20 pm	<i>LUNCH BREAK</i>	
1:20 pm	c. Communications Committee <ul style="list-style-type: none"><li>• January 20, 2022 CWG Meeting</li><li>• Updated Committee Activity Timeline</li></ul> d. Education Committee <ul style="list-style-type: none"><li>• Updated Committee Activity Timeline</li><li>• Program for Inter-Institutional Meeting</li></ul>	Dr. Richard Isaacson  Dr. Allison Brashear

	e. Research Committee	Dr. Madhav Thambisetty
	<ul style="list-style-type: none"><li>• Updated Committee Activity Timeline</li><li>• Research Partnership with FNIH/NIA</li><li>• MBRF Scholars Final Reports</li><li>• Pilot Grant Draft RFA</li></ul>	ACTION
2:00 pm	8. Review of the Annual Reports of the McKnight Brain Institutes (12 - 15 minutes each)	Dr. Mike Dockery
	a. University of Alabama at Birmingham	Drs. Boyle/Isaacson
	b. University of Arizona	Drs. Isaacson/Brady
3:00 – 3:10 pm	<i>BREAK</i>	
3:10 pm	c. University of Florida	Drs. Thambisetty/Brashear
	d. University of Miami	Drs. Pekarske/Boyle
	9. Future Meetings and Events (Attachment 1)	Dr. Mike Dockery
	10. Other Business	Dr. Mike Dockery
4:00 pm		
<u><b>ACTION</b></u>	11. Adjournment	Dr. Mike Dockery

## **Attachment 1**

### **MCKNIGHT BRAIN RESEARCH FOUNDATION (MBRF) FUTURE MEETINGS AND EVENTS**

#### **Meetings**

**March 23 – 25, 2022**      **Trustees' Meeting & Inter-Institutional Meeting hosted by UA**

March 23, 2022      12:00 PM – 5:00 PM MBRF Trustees' Meeting  
5:30 PM – 8:00 PM Open Reception & Dinner

March 24, 2022      8:45 AM – 5:00 PM Program  
5:30 PM – 7:30 PM Casual Reception & Dinner

March 25, 2022      8:40 AM – 11:15 AM Program

**July 2022**      **Trustees' Meeting – to be determined**

**October 2022**      **Trustees' Meeting – to be determined**

#### **Events**

**MINUTES**  
**MCKNIGHT BRAIN RESEARCH FOUNDATION**  
**BOARD OF TRUSTEES MEETING**  
**via WebEx**  
**October 28, 2021**

The Trustees' meeting of the McKnight Brain Research Foundation (MBRF) was called to order at 11:00 a.m. EDT on October 28, 2021.

The following members were present:

Dr. Michael Dockery, Chair  
Dr. Madhav Thambisetty, Vice Chair  
Dr. Patricia A. Boyle, Trustee  
Dr. Allison Brashear, Trustee  
Dr. Richard Isaacson, Trustee  
Dr. J. Lee Dockery, Chair Emeritus  
Ms. Melanie Cianciotto, Corporate Trustee,  
Truist Foundations and Endowments Specialty Practice

The following members were absent:

Dr. Susan Pekarske, Trustee

Others attending:

Mr. Henry H. Raattama, Legal Counsel  
Mr. Mike Hill, Truist Foundations and Endowments Specialty Practice  
Ms. Amy Porter, Executive Director  
Ms. Valerie Patmintra, Senior Communications Advisor

**1. Approval of Minutes**

The minutes of the July 28, 2021, Board of Trustees WebEx Meeting of the McKnight Brain Research Foundation were reviewed and approved as amended (Attachment 1). The changes are:

Action Item #20 on page 9 change "the MBRF would like Dr. Lee Dockery and Ms. Amy Porter" to "the MBRF requested Dr. Lee Dockery and Ms. Amy Porter."

**Action Item 1: The minutes of the July 28, 2021, Board of Trustees WebEx Meeting were approved as amended (Attachment 1).**

**2. Investment Review**

Mr. Hill presented the investment review and commented on key economic and investment factors through September 30 (Attachment 2).

## **A. Market Environment**

- The strongest stage is behind us but the market still has upside. The next phase will be characterized by positive but moderating returns. We continue to maintain a U.S. bias over international developed and emerging markets due to stronger domestic earnings growth.
- We believe Fixed income returns will remain well below historical levels as Central Banks keep rates lower for longer at the short end of the yield curve. Due to the economic disruption from COVID and the supply chain disruptions, Central Bank tapering of bonds may be delayed.

## **B. Portfolio Review**

**Asset Allocation:** The asset classes of the investments within the portfolio of the MBRF remain within the guidelines established by the trustees in the Investment Policy Statement of the Foundation. Mr. Hill recommended the addition of an allocation of \$1,000,000 to Generation Investment Management Sustainable Solutions Fund IV. After discussion, the trustees voted to move forward with making a \$1,000,000 investment in the Generation Investment Management Sustainable Solutions Fund IV.

**Portfolio Performance:** For the one-year period ending September 30, 2021, the total return for the portfolio was up 28.41% versus 26.37% for the Investment Policy Statement Index.

**Action Item 2: The trustees received the investment review for information (Attachment 2).**

**Action Item 3: The trustees voted to move forward with making a \$1,000,000 investment in the Generation Investment Management Sustainable Solutions Fund IV.**

## **3. Chair's Report**

Dr. Mike Dockery provided an overview of the day's meeting which is being held virtually rather than in person.

### **Leadership Council**

Dr. Dockery shared the minutes of the September 14, 2021, Leadership Council with the trustees. The minutes outlined the process for identifying recommendations for changes to the annual report template, the submission of the preliminary program for the Inter-Institutional Meeting March 23 – 25, and an invitation to MBRF Leadership to participate in the next Leadership Council meeting to discuss the new research award, among other items.

## **Annual Report Template**

Dr. Dockery shared that there have been ongoing conversations about the Annual Report Template and shared the latest version of the Annual Report and Financial templates (Attachment 3). Several suggestions to the form were made by the trustees including that the report should be posted on each MBI's website, the word "relevant" needed to be specific and refer to the MBRF's mission, and that a letter from the Chair(s) should be required as well as the letter from the Director. The trustees approved the Annual Report and Financial templates as amended. Dr. Dockery will share the revised templates with Dr. Carol Barnes.

## **Action Item 4: The trustees approved the Annual Report and Financial templates (Attachment 3) as amended.**

### **4. Executive Director's Report**

Ms. Porter provided the trustees with an update of her activities.

- ABF/AFAR – She worked with our contacts on the process for applications and review.
- FNIH – She and Dr. Lee Dockery attended the 25<sup>th</sup> anniversary virtual event.
- Reserve/Resilience Workshop –She was in contact with the organizers of the workshop to ascertain whether there would be a need for on-site food. They had enough attendance that food was needed and appreciated.
- UM – She and Dr. Lee Dockery worked with UM to revise their proposal to the Trustees. See Item #7.

### **Unsolicited Proposal Statement**

Ms. Porter shared the Options for Wording of Unsolicited Proposal Statement (Attachment 4). The Grantmaking and Sponsorship Support should include a hyperlink to the Funding Priorities section of the MBRF website. The wording should be revised to say "at periodic times, the trustees will release Requests for Proposals ..." The trustees voted to accept these two pages as amended. Once revised, they will be added to the MBRF website.

## **Action Item 5: The trustees voted to accept the Options for Wording of Unsolicited Proposals Statement (Attachment 4) as amended.**

### **5. Corporate Trustee's Report**

**A.** The trustees reviewed the projected minimum distribution calculation for information (Attachment 5).

**B.** The trustees reviewed the Gift & Grants Report for information (Attachment 6).

**C.** The trustees reviewed the Travel Award Report for information (Attachment 7).

**D.** Ms. Cianciotto shared the 2020 year-to-date Operating Expenses Report with the trustees (Attachment 8).

**Action Item 6: The trustees reviewed, for information, the projected minimum distribution calculation (Attachment 5).**

**Action Item 7: The trustees reviewed, for information, the Gifts and Grants Report (Attachment 6).**

**Action Item 8: The trustees reviewed, for information, the Travel Award Report (Attachment 7)**

**Action Item 9: The trustees reviewed, for information, the Operating Expenses Report (Attachment 8).**

## **7. University of Miami Proposal**

The University of Miami submitted a proposal “Investing in Our Future – The Evelyn F. McKnight Neurocognitive Training Fund in Brain Health and Aging” which was reviewed and declined at the July 28, 2021, Trustees’ Meeting. The MBRF requested Dr. Lee Dockery and Ms. Amy Porter work with the University of Miami to define goals and objectives to reach common ground to develop McKnight Scholars.

A new proposal “Investing in Our Future – The Evelyn F. McKnight Neurocognitive Clinical Scholar in Brain Health and Aging” (Attachment 9) was submitted for consideration at today’s meeting. Ms. Susan Fox-Rosellini joined the meeting to answer questions from the trustees regarding the updated proposal.

After discussion, a motion was made and approved to fund the *Evelyn F. McKnight Neurocognitive Clinical Scholar in Brain Health and Aging* postdoctoral training program in the amount of \$250,000 to be matched by the University of Miami. The MBRF will provide \$50,000 annually for a period of five years. The first payment will be made upon notification to the Corporate Trustee by the University of Miami that the first clinical scholar has successfully been recruited.

**Action Item 10: The trustees approved funding in the amount of \$250,000 for the *Evelyn F. McKnight Neurocognitive Clinical Scholar in Brain Health and Aging* postdoctoral training program to be paid in installments of \$50,000 per year for five years.**



## **8. Committee Reports**

### **A. Membership and Governance Committee**

Dr. Mike Dockery provided the trustees with the updated Membership and Governance Committee Activity Timeline (Attachment 10).

Dr. Dockery provided an update on the recruitment of Dr. John Brady and Dr. Victor Hirth. Both are primary care physicians, an area of expertise lacking on the Board. A motion was made and approved to invite both Dr. Brady and Dr. Hirth to interview with the MBRF. Dr. Lee Dockery will reach out to Dr. Brady and Dr. Hirth to confirm they are still interested. Interviews will be held virtually in December or January.

Dr. Dockery informed the trustees that the category of Honorary or Advisory Trustees has not been discussed and he welcomes all of the trustees to share their suggestions and/or comments. The feeling of the group seemed to be that it is important that the MBRF concentrate on building a strong, collegial board before adding Honorary or Advisory Trustees.

**Action Item 11: Dr. Lee Dockery will reach out to Dr. Brady and Dr. Hirth to confirm they are still interested in joining the MBRF Board.**

**Action Item 12: Virtual interviews will be scheduled with Dr. Brady and Dr. Hirth in December 2021 or January 2022.**

### **B. Finance Committee**

Dr. Brashear provided the trustees with the updated Finance Committee Activity Timeline (Attachment 11). Dr. Brashear shared that the Finance Committee will need to meet prior to the February Trustees' Meeting to review the financial reports submitted with the MBI's Annual Reports.

**Action Item : Ms. Cianciotto will schedule a Finance Committee Meeting to be held prior to the February Trustees' Meeting.**

### **C. Communications Committee**

Dr. Isaacson provided the trustees with the updated Communications Activity Timeline (Attachment 12) and noted that the majority of the items in the timeline are now complete.

Ms. Patmintra shared the revised Communications Plan and Budget (Attachment 13) with the Trustees. When the trustees requested additional details about the communications activities that would be conducted starting in the summer of 2022, Dr. Isaacson noted that the 2022-2023 budget needs to be established before Ms. Patmintra can map out a more concrete plan. After discussion, the trustees approved

the \$270,000 Year Two Budget – Option B. In addition, a discretionary communications budget of \$40,000 for eighteen months starting January 1, 2022 was approved. With the new budget approved, Ms. Patmintra will work with Dr. Isaacson and Look Think to map out a more detailed plan of activities for the 2022-2023 fiscal year.

Dr. Isaacson addressed the concerns that have been raised about the font size and amount of white space on the website. He noted that the website is designed according to industry best practices and is responsive to the type of device people use to view the site, which ensures the font size is appropriate whether you're accessing the site from a mobile device or computer. He said he doesn't have concerns with the overall site design and is very happy with the look and functionality of the website. While the communications committee agreed that a redesign of the site isn't warranted at this point, Dr. Isaacson asked Ms. Patmintra to work with Look Think to examine the font size used throughout the site to make sure it all aligns with industry best practices.

**Action Item 13: The trustees approved the Year Two Budget Option B in the amount of \$270,000.**

**Action Item 14: The trustees approved a discretionary communications budget of \$40,000 for eighteen months starting January 1, 2022.**

**Action Item 15: Ms. Patmintra will work with Look Think to examine the font size used throughout the website to make sure it all aligns with industry best practices.**

#### **D. Education Committee**

Dr. Brashear will spearhead the Education Committee for the interim and then it is hoped one of the new trustees will chair the committee. Dr. Brashear suggested the use of sub-committees that would include non-Board members. This will help broaden the reputation of the MBRF, create a pipeline for future trustees, and broadens the band with for emerging educators in medicine, assistant or associate professors with education in their portfolio and an interest in cognitive aging. Ms. Porter has experience working with sub-committee and will draft a sample sub-committee structure for Advisors to share at the February Trustees' Meeting.

**Action Item 16: Ms. Porter will draft a sample sub-committee structure Advisors to share at the February Trustee's Meeting.**

#### **E. Research Committee**

Dr. Thambisetty provided the trustees with the updated Research Committee Timeline (Attachment 14). Dr. Thambisetty also provided the trustees with an update of the recent meeting of the Research Committee.

### **MBRF Innovators Awards in Cognitive Aging and Memory Loss**

Dr. Thambisetty shared that good progress is being made. The AFAR Review Committee has been formed. 9 applications were received and 7 applicants were invited to submit a full application.

### **MBRF Clinical Translational Research Scholarship in Cognitive Aging and Age-Related Memory Loss**

Dr. Boyle, Dr. Isaacson and Dr. Thambisetty will participate in the review committee. A meeting has been scheduled for December 2, 2021, to review this year's applications.

### **Inter-Institutional Meeting Draft Program**

Dr. Thambisetty shared that the Research committee reviewed the Inter-Institutional Meeting Draft Program (Attachment 15) and provided feedback. Farah Lubin's name is spelled incorrectly on the program. It was noted that no update on the Brain Aging Registry is scheduled. Dr. Ron Cohen and Dr. Adam Woods are not on the program. The committee feels Dr. Woods' study of the impact of COVID-19, social isolation on cognitive, mental health of seniors is timely and consideration may be given to including it in the program. There is also no update from Dr. Bonnie Levin on the funded pilot grant on "Uncovering Risk Profiles of Deception and Mitigating Susceptibility to Scamming in Midlife and Older Age: A Novel Intervention Tool." Dr. Mike Dockery will reach out to Dr. Carol Barnes to share the feedback regarding the draft Inter-Institutional Meeting Program.

**Action Item 17: Dr. Mike Dockery will reach out to Dr. Carol Barnes to share the feedback regarding the draft Inter-Institutional Meeting Program.**

## **9. Future Meetings and Events**

### **February 8 -9, 2022 Trustees' Meeting**

The trustees have agreed to hold the February 2022 meeting of the MBRF in person. The location has not yet been decided upon. The Trustees' dinner will be held the evening of February 8, 2022. The trustees will meet on February 9, 2022, beginning at 8:00 a.m. and concluding no later than 3:00 p.m. local time.

### **2022 Inter-Institutional Meeting**

The 13<sup>th</sup> McKnight Brain Research Foundation Inter-Institutional Meeting will be hosted by the Evelyn F. McKnight Brain Institute at the University of Arizona March 23 – 25, 2022. The trustees will arrive the morning of March 23, 2022, and the Trustee meeting will begin at 12:00 noon. The Inter-Institutional meeting will begin with a reception on the evening of March 23, 2022, followed by the scientific sessions on March 24 - 25, adjourning at noon on March 25, 2022.

## **10. Adjournment**

There being no further business, the meeting was adjourned at 4:00 p.m. EDT.

### **Summary of Action Items:**

Respectfully submitted,

Melanie A. Cianciotto  
Truist Bank, Corporate Trustee

**MINUTES**  
**MCKNIGHT BRAIN RESEARCH FOUNDATION**  
**BOARD OF TRUSTEES**  
**Via WebEx**  
**December 7, 2021**

The Trustees' Meeting of the McKnight Brain Research Foundation (MBRF) was called to order at 7:15 p.m. EDT on December 7, 2021.

The following members were present:

Dr. Michael Dockery, Chair

Dr. Madhav Thambisetty, Vice Chair

Dr. J. Lee Dockery, Chair Emeritus

Dr. Allison Brashear, Trustee

Dr. Patricia Boyle, Trustee

Dr. Richard Isaacson, Trustee

Dr. Sue Pekarske, Trustee

Ms. Melanie Cianciotto, Trustee

Truist Foundations and Endowments Specialty Practice

Others Attending:

Ms. Amy Porter, Executive Director

**1. Dr. John E. Brady Interview Debrief**

The trustees discussed the interview with Dr. John Brady that was held earlier this evening. After discussion, a motion was made to extend an offer to Dr. John Brady to join the MBRF Board of Trustees. The motion passed unanimously. Dr. Michael Dockery will inform Dr. Brady of the trustees' decision.

**Action Item 1: Dr. Michael Dockery will inform Dr. Brady that the trustees' voted unanimously to invite him to accept a three-year term as a Trustee of the MBRF.**

**2. Further Trustee Recruitment**

After discussion, it was decided to put the recruitment process with Dr. Hirth on hold at this time.

**3. Innovator Awards in Cognitive Aging and Memory Loss**

Dr. Thambisetty provided an overview of the Innovator Awards Review. Six applications were received and the recommendation by the committee is to offer the award to two of the applicants; Dr. Lindsay De Biase, PhD, Assistant Professor, David Geffen School of Medicine at UCLA and Dr. Saul Villeda, PhD, Associate Professor, University of California, San Francisco. No applications were received from a clinician

12.7.2021

First Draft 12.15.2021

Second Draft 1.13.2022

Third Draft 1.30.2022

scientist and the review committee discussed how to attract applications from them in the future. The review committee would also like to see a larger pool of applicants and more clinically qualified applicants. Dr. Thambisetty spoke very highly of AFAR and the review process. A motion was made to approve the nomination of Dr. Lindsay De Biase, PhD and Dr. Saul Villeda, PhD as recipients of the Mid-Career Innovator Awards. The motion passed unanimously.

**Action Item 2: The trustees approved nomination of Dr. Lindsay De Biase, PhD and Dr. Saul Villeda, PhD as recipients of the Innovator Awards.**

### **3. Scholarship Awards**

Dr. Boyle provided an overview of the AAN review process. Eight applications were reviewed by the committee and the recommendation by the committee is to fund the applications from Dr. Sarah Szymkowicz, PhD and Dr. Michael J. Kleiman, PhD. A motion was made to accept the recommendation to fund the applications from Dr. Sarah Szymkowicz, PhD and Dr. Michael J. Kleiman, PhD. The motion passed unanimously.

**Action Item 3: The trustees approved the recommendation to fund the applications from Dr. Sarah Szymkowicz, PhD and Dr. Michael J. Kleiman, PhD.**

There being no further business, the conference call was adjourned at 8:30 p.m. EDT.

Respectfully submitted,

Melanie A. Cianciotto  
Truist Bank, Corporate Trustee

# McKnight Brain Research Foundation

Period Ending December 31, 2021

Michael T. Hill  
Managing Director  
Truist Financial  
Foundations and Endowments Specialty Practice  
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# Executive Summary

# Executive Summary

## Asset Allocation

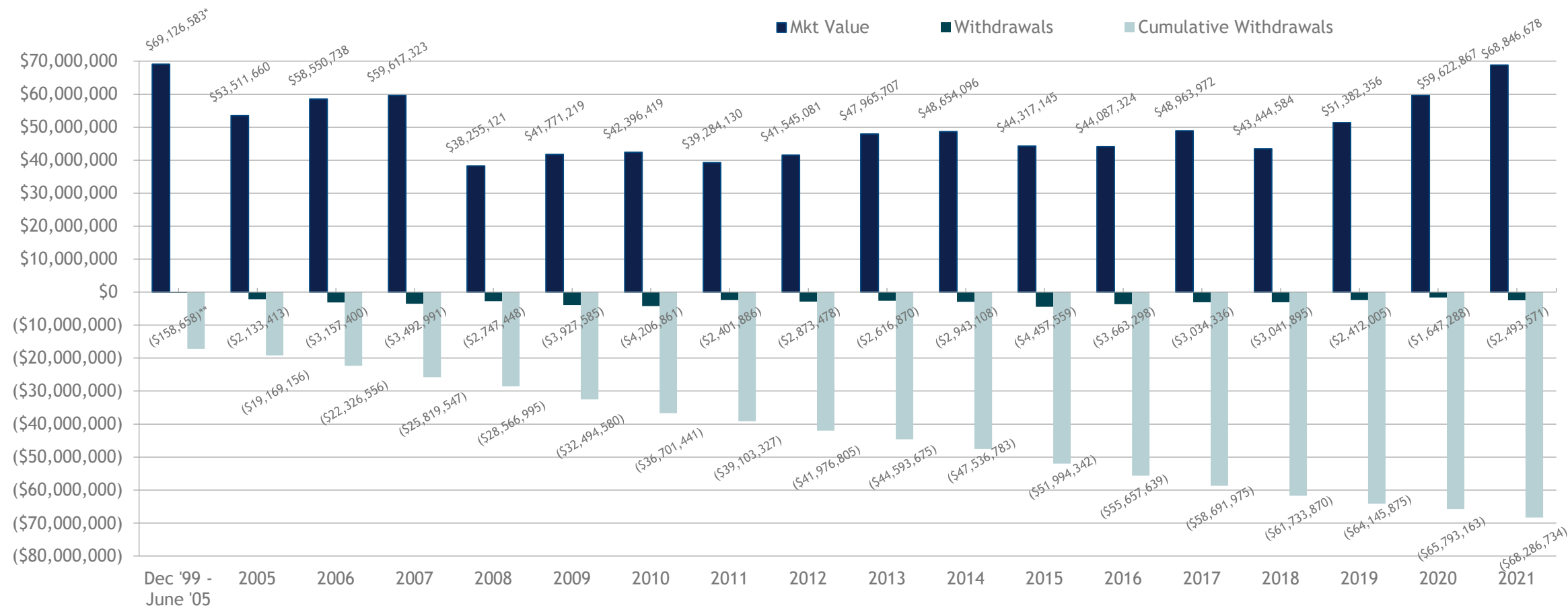
- The Foundation has a 75.0% target to public equity, a 5.0% target to fixed income (including cash) and a 20.0% target allocation to alternative assets (including a 8.0% allocation to private equity).
- As of quarter end, the public equity allocation was 77.6%, the allocation to fixed income (including cash) was 5.1% and the allocation to alternative investments was 17.3%.

## Portfolio Performance

- For the quarter period ending December 31, 2021 the total return for the portfolio was 6.24% versus 7.21% for the Investment Policy Statement Index.
- For the year period ending December 31, 2021 the total return for the portfolio was 20.49% versus 20.08% for the Investment Policy Statement Index.

# Investment Review

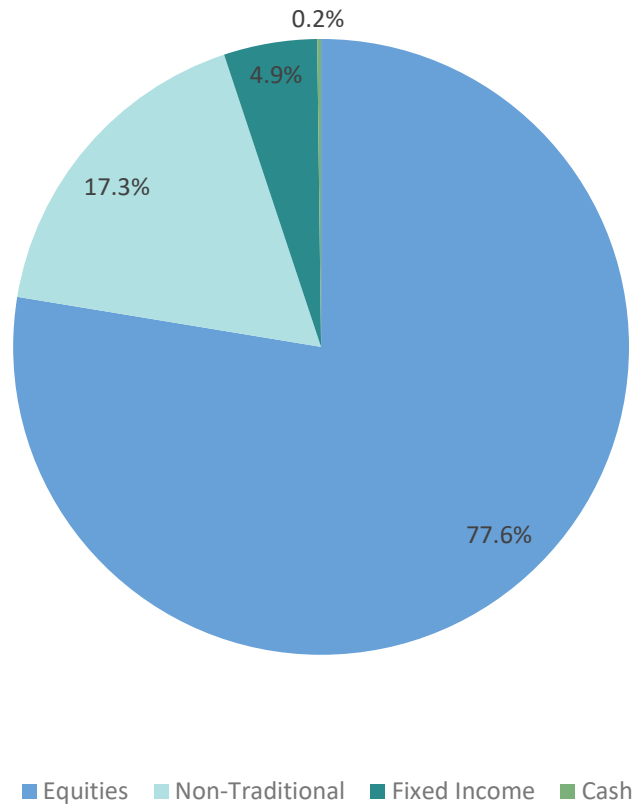
# Historical Market Values and Distributions



Source: First Rate Advisor  
\* As of December 1999  
\*\* From December 2004 - June 2005

# Portfolio Composition

## McKnight Brain Research Foundation



Period Ending December 31, 2021							
Assets	Current Market Value	Current Allocation	Prior Qtr Allocation	Δ in Allocation	Target Allocation	Range	Variance from Target
<b>Total Portfolio</b>	<b>\$68,846,678</b>	<b>100.0%</b>	<b>100.0%</b>		<b>100.0%</b>		
<b>Total Equities</b>	<b>\$53,422,009</b>	<b>77.6%</b>	<b>77.0%</b>	<b>0.6%</b>	<b>74.0%</b>		<b>3.6%</b>
<b>Large Cap Equities</b>	<b>\$40,954,932</b>	<b>59.5%</b>	<b>58.2%</b>	<b>1.3%</b>	<b>55.0%</b>	30-60%	<b>4.5%</b>
T. Rowe Price Large Cap Growth	\$6,621,328	9.6%	9.6%	0.0%			
Edgewood Growth Instl	\$6,666,094	9.7%	10.0%	(0.3%)			
Hartford Dvnd & Grwth-F	\$4,936,922	7.2%	6.8%	0.3%			
Vanguard Russell 1000 Value Index I	\$3,816,974	5.5%	5.4%	0.1%			
Vanguard Value ETF	\$7,223,542	10.5%	10.2%	0.3%			
Vanguard Russell 1000 Growth Index I	\$3,413,036	5.0%	4.7%	0.3%			
Vanguard Institutional Index	\$8,277,036	12.0%	11.5%	0.6%			
<b>Mid Cap Equities</b>	<b>\$1,233,909</b>	<b>1.8%</b>	<b>1.8%</b>	<b>0.0%</b>	<b>5.0%</b>	5-14%	<b>-3.2%</b>
Vanguard Mid-Cap Value ETF	\$1,233,909	1.8%	1.8%	0.0%			
<b>Smid Cap Equities</b>	<b>\$2,380,220</b>	<b>3.5%</b>	<b>3.3%</b>	<b>0.2%</b>			
Eaton Vance Atlanta Capital SMID-Cap R6	\$2,380,220	3.5%	3.3%	0.1%			
<b>Small Cap Equities</b>	<b>\$4,585,690</b>	<b>6.7%</b>	<b>7.1%</b>	<b>(0.4%)</b>	<b>7.0%</b>	0-15%	<b>-0.3%</b>
iShares S&P Small-Cap 600 Value ETF	\$2,403,479	3.5%	3.6%	(0.1%)			
Vanguard Small-Cap Growth ETF	\$1,155,057	1.7%	1.8%	(0.1%)			
Alger Small Cap Focus Z	\$1,027,154	1.5%	1.8%	(0.3%)			
<b>International Developed Equities</b>	<b>\$3,146,954</b>	<b>4.6%</b>	<b>4.8%</b>	<b>(0.2%)</b>	<b>5.0%</b>	5-15%	<b>-0.4%</b>
Artisan International Value Instl	\$1,628,770	2.4%	2.4%	(0.0%)			
Vanguard International Growth Adm	\$1,518,184	2.2%	2.4%	(0.2%)			
<b>International Emerging</b>	<b>\$1,120,303</b>	<b>1.6%</b>	<b>1.8%</b>	<b>(0.2%)</b>	<b>2.0%</b>	2-10%	<b>-0.4%</b>
iShares Core MSCI Emerging Markets ETF	\$568,670	0.8%	0.9%	(0.1%)			
Calvert Emerging Markets Equity-R6	\$551,633	0.8%	0.9%	(0.1%)			
<b>Total Fixed Income</b>	<b>\$3,380,257</b>	<b>4.9%</b>	<b>5.4%</b>	<b>(0.5%)</b>	<b>5.0%</b>	0-20%	<b>-0.1%</b>
Dodge & Cox Income	\$874,696	1.3%	1.4%	(0.1%)			
Vanguard Total Bond Market	\$0	0.0%	1.4%	(1.4%)			
Western Asset Core Plus Bond IS	\$2,505,561	3.6%	4.0%	(0.4%)			
<b>Total Non-Traditional</b>	<b>\$11,889,692</b>	<b>17.3%</b>	<b>17.3%</b>	<b>0.0%</b>	<b>21.0%</b>	10-30%	<b>-3.7%</b>
<b>Real Estate</b>	<b>\$0</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>3.0%</b>	0-10%	<b>-3.0%</b>
<b>Hedge</b>	<b>\$7,512,937</b>	<b>10.9%</b>	<b>11.1%</b>	<b>(0.2%)</b>	<b>10.0%</b>	10-30%	<b>0.9%</b>
Lighthouse Global Long/Short	\$2,996,303	4.4%	4.6%	(0.2%)			
Lighthouse Diversified	\$2,548,836	3.7%	3.8%	(0.1%)			
Lighthouse Credit Opportunities	\$1,967,798	2.9%	2.8%	0.1%			
<b>Private Equity</b>	<b>\$4,376,755</b>	<b>6.4%</b>	<b>6.2%</b>	<b>0.2%</b>	<b>8.0%</b>	0-10%	<b>-1.6%</b>
Svb Cap Strategic Investo	\$234,269	0.3%	0.3%	0.1%			
Hcp Private Equity Master	\$1,169,220	1.7%	1.8%	(0.1%)			
Spring Harbour 2013	\$496,346	0.7%	0.7%	0.0%			
HarbourVest 2015	\$483,322	0.7%	0.7%	(0.0%)			
HarbourVest 2016	\$513,532	0.7%	0.8%	(0.0%)			
HarbourVest 2017	\$480,476	0.7%	0.7%	(0.0%)			
HarbourVest 2018	\$420,169	0.6%	0.6%	0.0%			
HarbourVest 2019	\$305,528	0.4%	0.4%	0.0%			
HarbourVest 2020	\$236,393	0.3%	0.2%	0.1%			
HarbourVest 2021	\$37,500	0.1%	0.2%	(0.2%)			
<b>Total Cash</b>	<b>\$154,720</b>	<b>0.2%</b>	<b>0.3%</b>	<b>(0.1%)</b>			

# Investment Performance

Period Ending December 31, 2021						
Assets	QTD	1 Year	3 Years	5 Years	7 Years	10 Years
<b>Total Portfolio</b>	<b>6.24%</b>	<b>20.49%</b>	<b>20.82%</b>	<b>14.63%</b>	<b>11.54%</b>	<b>12.36%</b>
2021 Efficient Frontier Target <sup>(1)</sup>	7.21%	20.08%	19.56%	13.45%	10.54%	11.53%
Spending Policy Benchmark	--	7.63%	8.05%	8.20%	8.16%	8.12%
65% Russell 3000 / 35% Barclays Agg	6.03%	16.14%	18.44%	12.93%	10.51%	11.61%
<b>Total Equities</b>	<b>6.72%</b>	<b>21.10%</b>	<b>24.60%</b>	<b>16.88%</b>	<b>13.22%</b>	<b>14.52%</b>
Domestic Equities	7.33%	22.97%	24.49%	17.47%	14.02%	15.65%
International Equities – Developed	0.84%	5.80%	26.00%	16.09%	11.97%	11.73%
International Equities – Emerging	-1.84%	-4.00%	12.05%	9.63%	5.52%	6.24%
<b>Total Fixed Income</b>	<b>-0.07%</b>	<b>-1.84%</b>	<b>4.58%</b>	<b>3.68%</b>	<b>3.00%</b>	<b>3.67%</b>
<b>Total Non-Traditional</b>	<b>6.18%</b>	<b>27.07%</b>	<b>14.99%</b>	<b>11.47%</b>	<b>9.30%</b>	<b>9.18%</b>
Private Equity (As of 9/30/2021)	--	50.57%	25.07%	23.01%	--	--

(1) 2021 Efficient Frontier Target consists of: 55% S&P 500 / 5% Russell MidCap / 7% Russell 2000 / 5% MSCI EAFE / 2% MSCI Emerging Markets / 5% Bloomberg Barclays US Aggregate TR / 18% HFRI Fund of Funds Composite Index / 3% FTSE NAREIT All Equity

\*Efficient Frontier Returns prior to July 1, 2021 correspond to previous efficient frontier targets

(1) Average 1 Year BRDPI Inflation of 1.6% + 5% Distribution + 1% Expenses = 7.6%

(2) Average 3 Year BRDPI Inflation of 2.1% + 5% Distribution + 1% Expenses = 8.1%

(3) Average 5 Year BRDPI Inflation of 2.2% + 5% Distribution + 1% Expenses = 8.2%

(4) Average 7 Year BRDPI Inflation of 2.2% + 5% Distribution + 1% Expenses = 8.2%

(5) Average 10 Year BRDPI Inflation of 2.1% + 5% Distribution + 1% Expenses = 8.1%

BRDPI Inflation index last updated Mar 2021

Source: First Rate Advisor and Morningstar. Returns greater than one year are annualized

# Manager Performance

Period Ending December 31, 2021						
Assets	Ticker Symbol	Allocation	QTD	1 Year	3 Years	5 Years
<b>Large Cap Equity</b>		<b>59.5%</b>				
T. Rowe Price Large Cap Growth	TRLGX	9.6%	6.14%	23.18%	30.24%	26.00%
Edgewood Growth Instl	EGFIX	9.7%	2.29%	23.63%	33.12%	26.61%
Vanguard Russell 1000 Growth Index I	VRGWX	5.0%	11.62%	27.52%	33.98%	25.23%
<i>Russell 1000 Growth</i>			11.64%	27.60%	34.08%	25.32%
Vanguard Institutional Index	VINIX	12.0%	11.02%	28.67%	26.05%	18.44%
<i>S&amp;P 500</i>			11.03%	28.71%	26.07%	18.47%
Vanguard Value ETF	VTV	10.5%	9.34%	26.51%	17.58%	12.48%
<i>CRSP US Large Cap Value</i>			9.33%	26.51%	17.65%	12.53%
Vanguard Russell 1000 Value Index I	VRVIX	5.5%	7.75%	25.07%	17.59%	11.11%
Hartford Dividend and Growth F	HDBGFX	7.2%	10.76%	31.38%	22.10%	15.33%
<i>Russell 1000 Value</i>			7.77%	25.16%	17.64%	11.16%
<b>Mid Cap Equity</b>		<b>1.8%</b>				
Vanguard Mid-Cap Value ETF	VOE	1.8%	8.30%	28.76%	19.09%	11.60%
<i>CRSP US Mid Cap Value</i>			8.23%	28.83%	19.14%	11.64%
<b>Small Cap Equity</b>		<b>6.7%</b>				
iShares S&P Small-Cap 600 Value ETF	IJS	3.5%	4.30%	30.53%	18.47%	10.04%
<i>S&amp;P 600 Value</i>			4.47%	30.95%	18.69%	10.25%
Vanguard Small-Cap Growth ETF	VBK	1.7%	0.71%	5.66%	23.84%	16.90%
<i>CRSP US Small Cap Growth</i>			0.61%	5.71%	23.84%	16.91%
Alger Small Cap Focus Z	AGOZX	1.5%	-12.54%	-13.92%	18.12%	19.53%
<i>Russell 2000 Growth</i>			0.01%	2.83%	21.17%	14.53%
<b>Smid Cap Equity</b>		<b>3.5%</b>				
Eaton Vance Atlanta Capital SMID-Cap R6	ERASX	3.5%	9.75%	22.33%	22.38%	16.73%
<i>Russell 2500</i>			3.82%	18.18%	21.91%	13.75%

# Manager Performance

Period Ending December 31, 2021						
Assets	Ticker Symbol	Allocation	QTD	1 Year	3 Years	5 Years
<b>International Equity</b>		<b>6.2%</b>				
Vanguard International Growth Adm	VWILX	2.2%	-2.76%	-0.74%	27.75%	21.14%
MSCI ACWI ex US			1.82%	7.82%	13.18%	9.61%
Artisan International Value Instl	APHKX	2.4%	4.45%	16.97%	16.49%	10.65%
MSCI EAFE			2.69%	11.26%	13.54%	9.55%
Calvert Emerging Markets Equity R6	CVMRX	0.8%	-2.87%	-7.38%	12.43%	11.72%
iShares Core MSCI Emerging Markets ETF	IEMG	0.8%	-0.85%	-0.61%	11.34%	10.04%
MSCI EM			-1.31%	-2.54%	10.94%	9.87%
<b>Fixed Income</b>		<b>4.9%</b>				
Dodge & Cox Income	DODIX	1.3%	-0.43%	-0.91%	5.97%	4.37%
Western Asset Core Plus Bond IS	WAPSX	3.6%	-0.03%	-1.85%	6.48%	4.94%
Bloomberg Barclays US Aggregate Bond			0.01%	-1.54%	4.79%	3.57%
<b>Non-Traditional</b>		<b>17.3%</b>				
Lighthouse Global Long/Short LTD		4.4%	-2.04%	-3.06%	10.32%	5.97%
Standard Deviation			--	7.41%	7.75%	7.11%
Lighthouse Credit Opportunities LTD		2.9%	7.52%	19.44%	11.95%	8.80%
Standard Deviation			--	10.11%	13.60%	10.75%
Lighthouse Diversified LTD		3.7%	1.73%	12.50%	6.33%	4.25%
Standard Deviation			--	4.93%	12.05%	9.47%
MSCI ACWI			6.68%	18.54%	20.38%	14.40%
Standard Deviation			--	9.46%	17.08%	14.84%
Bloomberg Barclays US Aggregate Bond			0.01%	-1.54%	4.79%	3.57%
Standard Deviation			--	2.84%	3.40%	3.06%



# Private Equity Summary

Period Ending September 30, 2021											
Account	Commit.	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commit	DPI (dist /takedowns)	RVPI (RV/takedowns)	TVPI (TV / takedown)	Takedown (takedowns/commit)	IRR
Private Equity	\$5,000,000	\$3,278,429	\$2,307,145	\$4,581,904	\$6,889,049	\$1,721,571	70.37%	139.76%	210.13%	65.57%	20.04
Hall Capital 2011	\$1,000,000	\$900,000	\$1,115,007	\$1,250,039	\$2,365,046	\$100,000	123.89%	138.89%	262.78%	90.00%	16.65
SpringHarbour 2013	\$500,000	\$432,500	\$500,443	\$537,044	\$1,037,487	\$67,500	115.71%	124.17%	239.88%	86.50%	20.48
HarbourVest 2015	\$500,000	\$425,000	\$319,712	\$584,713	\$904,425	\$75,000	75.23%	137.58%	212.81%	85.00%	24.18
HarbourVest 2016	\$500,000	\$360,000	\$200,383	\$527,084	\$727,467	\$140,000	55.66%	146.41%	202.07%	72.00%	27.36
HarbourVest 2017	\$500,000	\$327,500	\$129,740	\$497,142	\$626,882	\$172,500	39.62%	151.80%	191.41%	65.50%	29.98
HarbourVest 2018	\$500,000	\$290,000	\$21,189	\$463,039	\$484,228	\$210,000	7.31%	159.67%	166.98%	58.00%	36.69
HarbourVest 2019	\$500,000	\$230,000	\$15,619	\$351,461	\$367,080	\$270,000	6.79%	152.81%	159.60%	46.00%	62.36
HarbourVest 2020	\$500,000	\$147,500	\$5,052	\$194,813	\$199,865	\$352,500	3.43%	132.08%	135.50%	29.50%	77.35
SVB Capital	\$500,000	\$165,929	\$0	\$176,569	\$176,569	\$334,071	0.00%	106.41%	106.41%	33.19%	13.58

Period Ending December 31, 2021											
Account	Commit.	Cumulative Takedown	Cumulative Distributions	Value (RV)	Total Value (RV + Dist)	Unfunded Commit	DPI (dist /takedowns)	RVPI (RV/takedowns)	TVPI (TV / takedown)	Takedown (takedowns / commit)	IRR
Private Equity	\$5,500,000	\$3,493,477	\$2,583,641	--	--	\$2,006,523	73.96%	--	--	69.87%	--
Hall Capital 2011	\$1,000,000	\$900,000	\$1,200,007	--	--	\$100,000	133.33%	--	--	90.00%	--
SpringHarbour 2013	\$500,000	\$432,500	\$500,443	--	--	\$67,500	115.71%	--	--	86.50%	--
HarbourVest 2015	\$500,000	\$425,000	\$378,599	--	--	\$75,000	89.08%	--	--	85.00%	--
HarbourVest 2016	\$500,000	\$375,000	\$229,854	--	--	\$125,000	61.29%	--	--	75.00%	--
HarbourVest 2017	\$500,000	\$357,500	\$176,406	--	--	\$142,500	49.34%	--	--	71.50%	--
HarbourVest 2018	\$500,000	\$325,000	\$56,189	--	--	\$175,000	17.29%	--	--	65.00%	--
HarbourVest 2019	\$500,000	\$219,848	\$28,671	--	--	\$280,152	13.04%	--	--	43.97%	--
HarbourVest 2020	\$500,000	\$197,500	\$13,472	--	--	\$302,500	6.82%	--	--	39.50%	--
HarbourVest 2021	\$500,000	\$37,500	\$0	--	--	\$462,500	0.00%	--	--	7.50%	--
SVB Capital	\$500,000	\$223,629	\$0	--	--	\$276,371	0.00%	--	--	44.73%	--

Total Value = Residual Value + Distributions

Distributed to Paid in (DPI) = Distributions / Takedowns

Residual Value to Paid in (RVPI) = Residual Value / Takedowns

Total Value to Paid in (TVPI) = Total Value / Takedowns

% Funded = Takedowns / Commitment



This report contains information from manager supplied financial reports (audited or unaudited). Content is subject to change without notice. Information obtained from the manager is believed to be reliable; however, accuracy of the data is not guaranteed and has not been independently verified by Truist Financial, Inc.

# Active Manager Peer Group Comparison

Period Ending December 31, 2021					
Assets	Ticker	Morningstar Category	Benchmark		
				3 Year	5 Year
Large Cap Growth					
T. Rowe Price Large Cap Growth	TRLGX	Large Cap Growth	Russell 1000 Growth - Total Return	47	16
Edgewood Large Cap Growth	EGFIX	Large Cap Growth	Russell 1000 Growth - Total Return	19	12
Russell 1000 Growth - Total Return		Large Cap Growth		13	21
Large Cap Value					
Hartford Dividend and Growth	HDGFX	Large Cap Value	Russell 1000 Value - Total Return	7	5
Russell 1000 Value - Total Return		Large Cap Value		49	57
SMID Cap Core					
Eaton Vance Atlanta Capital SMID	ERASX	SMID Cap Core	Russell 2500 - Total Return	13	11
Russell 2500 - Total Return		SMID Cap Core		22	16
Small Cap Growth					
Alger Small Cap Focus Z	AGOZX	Small Cap Growth	Russell 2000 Growth - Total Return	93	38
Russell 2000 Growth - Total Return		Small Cap Growth		80	79
Large Cap International Growth					
Vanguard International Growth	VWILX	International Large Cap Growth	MSCI ACWI Ex USA Growth	4	4
MSCI ACWI Ex USA Growth		International Large Cap Growth		67	63
Large Cap International Value					
Artisan International Value Instl	APHKX	International Large Cap Value	MSCI ACWI Ex USA Value	1	1
MSCI ACWI Ex USA Value		International Large Cap Value		88	73
Emerging Markets					
Calvert Emerging Markets Equity R6	CVMRX	Emerging Markets	MSCI Emerging Markets - Gross Return	45	29
MSCI Emerging Markets - Gross Return		Emerging Markets		64	48
Intermediate-Term Bond					
Western Asset Core Plus Bond	WAPSX	Intermediate-Term Bond	Bloomberg Barclays US Aggregate	2	2
Dodge and Cox Income Fund	DODIX	Intermediate-Term Bond	Bloomberg Barclays US Aggregate	7	6
Bloomberg Barclays US Aggregate		Intermediate-Term Bond		56	50

# Attribution Analysis

Period Ending December 31, 2021										
Assets	Benchmark	Weights (%)		Asset Quarterly Returns			Weight vs. Target	Allocation	Style Allocation	Selection
		Target	Active <sup>(1)</sup>	Index	Style Index <sup>(3)</sup>	Portfolio				
<b>Large Cap Equities</b>	<b>S&amp;P 500 Index</b>	<b>55.0</b>	<b>59.0</b>	<b>11.0</b>	<b>10.3</b>	<b>8.2</b>	<b>4.00</b>	<b>0.15</b>	<b>-0.43</b>	<b>-1.66</b>
T. Rowe Price Large Cap Growth	Russell 1000 Growth Index		9.7	11.6		6.1			0.06	-0.53
Edgewood Growth Instl	Russell 1000 Growth Index		9.8	11.6		2.3			0.06	-0.91
Vanguard Russell 1000 Growth	Russell 1000 Growth Index		4.9	11.6		11.6			0.03	0.00
Vanguard Institutional Index	S&P 500 Index		11.9	11.0		11.0			0.00	0.00
Vanguard Value	CRSP US Large Value Index		10.2	9.3		9.3			-0.17	0.00
Hartford Dividend and Growth	Russell 1000 Value Index		7.0	7.8		10.8			-0.22	0.21
Vanguard Russell 1000 Value	Russell 1000 Value Index		5.5	7.8		7.8			-0.18	0.00
<b>Mid Cap Equities</b>	<b>Russell MidCap Index</b>	<b>5.0</b>	<b>5.2</b>	<b>6.4</b>	<b>2.7</b>	<b>9.3</b>	<b>0.20</b>	<b>0.00</b>	<b>-0.19</b>	<b>0.15</b>
Vanguard Mid Cap Value	CRSP US Mid Value Index		1.8	8.2		8.3			0.03	0.00
Eaton Vance Atlanta Capital SMID	Russell 2500 Index		3.4	3.8		9.8			-0.09	0.20
<b>Small Cap Equities</b>	<b>Russell 2000 Index</b>	<b>7.0</b>	<b>6.8</b>	<b>2.1</b>	<b>2.5</b>	<b>-0.6</b>	<b>(0.20)</b>	<b>0.01</b>	<b>0.02</b>	<b>-0.18</b>
Alger Small Cap Focus	Russell 2000 Growth Index		1.6	0.0		-12.5			-0.03	-0.20
iShares S&P 600 Value	S&P 600 Value		3.5	4.5		4.3			0.08	-0.01
Vanguard Small Cap Growth	CRSP US Small Cap Growth		1.7	0.6		0.7			-0.03	0.00
<b>International Equities</b>	<b>International Blend<sup>(6)</sup></b>	<b>7.0</b>	<b>6.3</b>	<b>1.5</b>	<b>1.4</b>	<b>0.2</b>	<b>(0.70)</b>	<b>0.04</b>	<b>-0.01</b>	<b>-0.08</b>
Artisan International Value	MSCI EAFE		2.4	2.7		4.5			0.03	0.04
Vanguard International Growth Adm	MSCI ACWI ex US		2.3	1.8		-2.8			0.01	-0.11
Calvert Emerging Markets Equity I	MSCI Emerging Mkts Index		0.8	-1.3		-2.9			-0.02	-0.01
iShares MSCI Emerging Markets	MSCI Emerging Mkts Index		0.8	-1.3		-0.9			-0.02	0.00
<b>Non-Traditional</b>	<b>HFRI FoF Composite</b>	<b>18.0</b>	<b>17.3</b>	<b>0.4</b>	<b>1.4</b>	<b>1.7</b>	<b>(0.70)</b>	<b>0.05</b>	<b>0.17</b>	<b>0.22</b>
Lighthouse Global Long/Short	HFRX Equity Hedge		4.4	2.7		-2.0			0.10	-0.21
Lighthouse Credit Opportunities	HFRI Distressed Restructuring Index		2.8	0.7		7.5			0.01	0.19
Lighthouse Diversified	HFRI FoF Diversified		3.7	0.4		1.7			0.00	0.05
Hall Capital			1.7							
Spring Harbour			0.7							
HarbourVest 2015			0.8							
HarbourVest 2016			0.7							
HarbourVest 2017			0.7							
HarbourVest 2018			0.6							
HarbourVest 2019			0.5							
HarbourVest 2020			0.3							
HarbourVest 2021			0.1							
SVB Capital			0.3							
<b>Real Estate</b>	<b>FTSE NAREIT All Equity</b>	<b>3.0</b>	<b>0.0</b>	<b>16.2</b>	<b>0.0</b>	<b>0.0</b>	<b>(3.00)</b>	<b>-0.27</b>	<b>0.00</b>	<b>0.00</b>
<b>Fixed Income (including cash)</b>	<b>Barclays Aggregate</b>	<b>5.0</b>	<b>5.4</b>	<b>0.1</b>	<b>0.0</b>	<b>-0.1</b>	<b>0.40</b>	<b>-0.03</b>	<b>-0.01</b>	<b>-0.01</b>
Dodge & Cox Income	Barclays Aggregate		1.3	0.0		-0.4			0.00	-0.01
Western Asset Core Plus Bd IS	Barclays Aggregate		3.8	0.0		0.0			0.00	0.00
Cash Equivalent	91 Day T-Bill		0.3	0.0		0.0			0.00	0.00
<b>Period End Static Return<sup>(4)</sup></b>		<b>100.0</b>	<b>100.0</b>	<b>7.2</b>		<b>5.6<sup>(2)</sup></b>		<b>-0.05</b>	<b>-0.43</b>	<b>-1.56</b>
<b>Total Return<sup>(5)</sup></b>				<b>7.2</b>		<b>6.2</b>				

# Economic Overview

# Performance summary as of December 31, 2021

Truist Advisory Services, Inc.

Index % Total Return	MTD	QTD	YTD	1 Yr
MSCI ACWI (net)	4.00	6.68	18.46	18.46
S&P 500	4.48	11.03	28.58	28.58
MSCI EAFE (net)	5.12	2.69	11.22	11.22
MSCI Emerging Markets (net)	1.88	-1.31	-2.53	-2.53
Dow Jones Industrials	5.53	7.87	20.86	20.86
NASDAQ Composite	0.69	8.28	21.30	21.30
S&P United States REITs	8.77	16.41	42.86	42.86
Bloomberg Commodity Index	3.53	-1.56	26.99	26.99
Bloomberg Aggregate	-0.26	0.01	-1.54	-1.54
ICE BofA US High Yield	1.88	0.66	5.34	5.34
Bloomberg Municipal Bond Blend 1-15 Year	0.14	0.38	0.86	0.86
ICE BofA Global Government xUS (USD Unhedged)	-0.78	-1.92	-9.63	-9.63
ICE BofA Global Government xUS (USD Hedged)	-0.95	0.18	-1.81	-1.81
JP Morgan EMBI Global Diversified	1.40	-0.44	-1.79	-1.79

Rates (%)	12/31/21	9/30/21	6/30/21	3/31/21	12/31/20
Fed Funds Target	0.25	0.25	0.25	0.25	0.25
Libor, 3-Month	0.20	0.13	0.14	0.19	0.23
T-Bill, 3-Month	0.05	0.03	0.05	0.02	0.07
2-Year Treasury	0.72	0.28	0.25	0.16	0.11
5-Year Treasury	1.26	0.99	0.87	0.93	0.36
10-Year Treasury	1.51	1.52	1.44	1.73	0.91
30-Year Treasury	1.90	2.09	2.06	2.42	1.64
Bloomberg Aggregate (YTW)	1.75	1.56	1.50	1.61	1.12
Bloomberg Municipal Bond Blend 1-15 Year	0.87	0.84	0.76	0.87	0.77
ICE BofA US High Yield	4.31	4.08	3.85	4.27	4.24
Currencies	12/31/21	9/30/21	6/30/21	3/31/21	12/31/20
Euro (\$/€)	1.14	1.16	1.19	1.18	1.22
Yen (¥/\$)	115.16	111.57	110.99	110.50	103.25
Pound (£/€)	1.35	1.35	1.38	1.38	1.37
Commodities	12/31/21	9/30/21	6/30/21	3/31/21	12/31/20
Crude Oil (WTI)	75.21	75.03	73.47	59.16	48.52
Gold	1,829	1,757	1,772	1,716	1,895
Volatility	12/31/21	9/30/21	6/30/21	3/31/21	12/31/20
CBOE VIX	17.22	23.14	15.83	19.40	22.75

U.S. style % total returns (S&P indexes)					
Month			YTD		
Value	Core	Growth	Value	Core	Growth
7.04	4.48	2.48	24.79	28.58	31.87
5.91	5.08	4.12	30.52	24.65	18.82
4.21	4.53	4.77	30.81	26.70	22.53
Large					
Mid					
Small					



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## Looking back and looking forward

After ending a second year with COVID-19 as the dominant headline, the stock market powered higher in the final month of the year to cap off a stellar 2021.

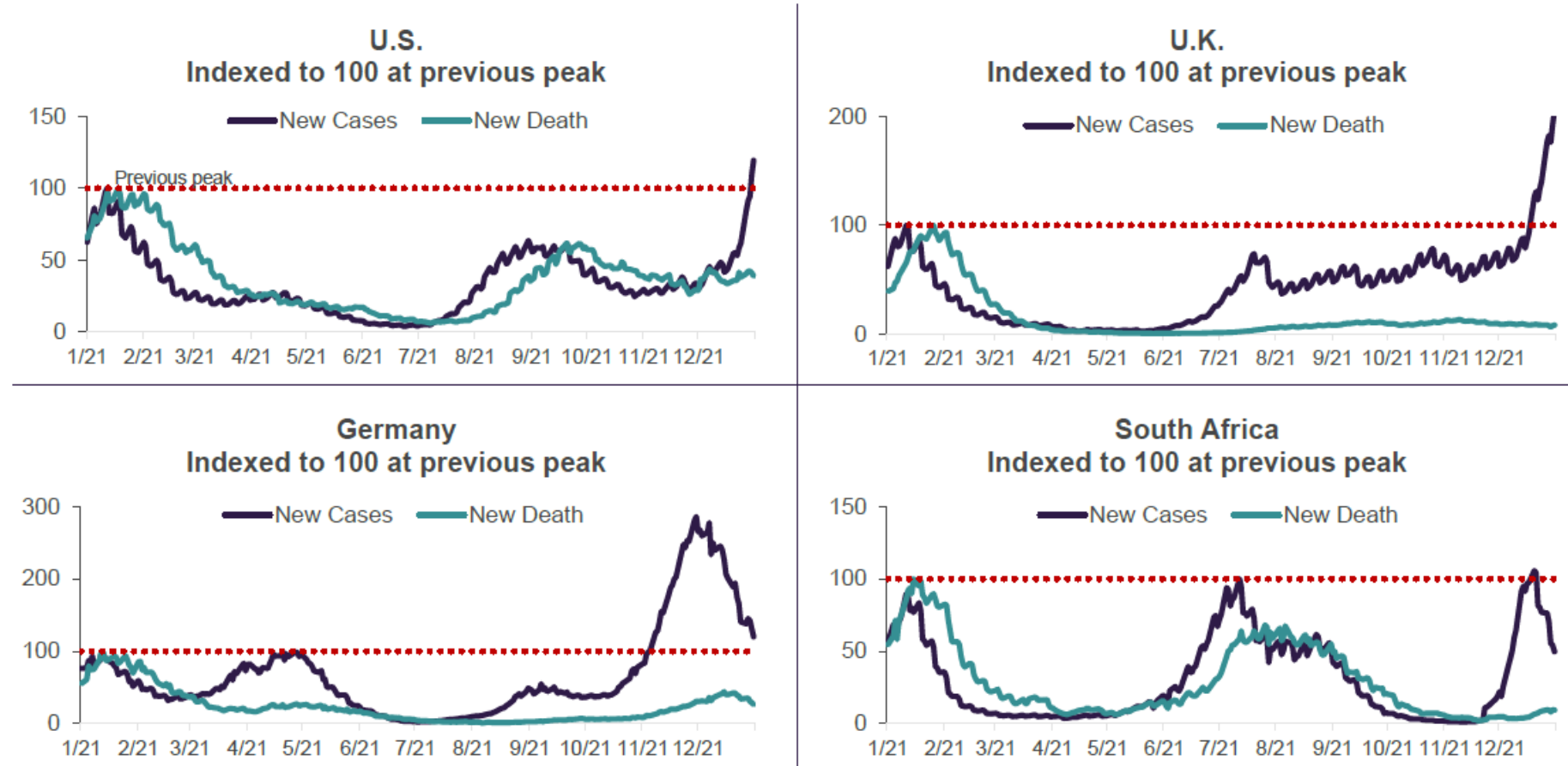
With each subsequent COVID-19 surge there was a lower economic and market impact. Medical care has vastly improved, and unlike when the pandemic originally hit, businesses and consumers have adapted and now have a pandemic playbook.

During the year, our investment process led us to take advantage of many key market divergences:

- ❑ **Global stocks which were up 18.5%, outperformed bonds by almost 20% in 2021, benefitting our overweight to equities. We expect equities to continue to outperform bonds as Central Banks taper and the global recovery continues.**
- ❑ **Our overweight to domestic equities positively impacted portfolio performance for the year as broad U.S. equities were up 25.6%, beating international developed markets which were only up 11.2%, and emerging markets which were down -2.5%. We expect this divergence to continue as U.S. earnings outpace earnings abroad and the dollar stays firm.**
- ❑ **Our neutral Growth Style vs Value Style positioning worked out well as the Russell 3000 Growth and Value Styles ended the year with virtually the same gains. We expect this to continue as growth moderates and stimulus fades.**

As we look forward, we are anticipating another solid year for the economy and markets while recognizing the potential for higher volatility due to moderating global growth and stimulus.

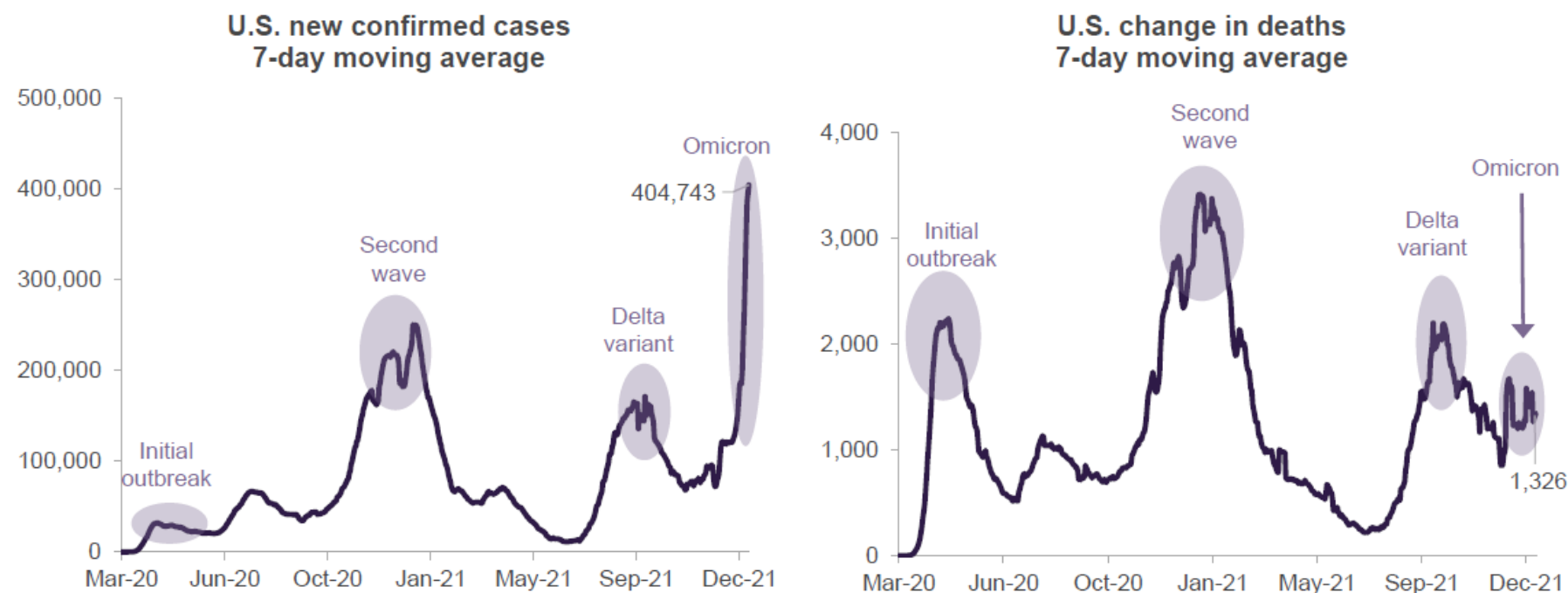
## New COVID-19 cases well above prior peak but related deaths well below



Data Source: Truist IAG, Bloomberg, New Cases and Deaths (7-day average).

## After the second wave, the pandemic has been less deadly thanks to vaccines and better treatments

While the omicron variant has spiked infections, the COVID-19 pandemic has become less deadly. Some epidemiologists theorize that—between infections and vaccines—the virus is running out of unexposed people to infect. Additionally, with the proliferation of at-home tests, it's also likely that millions of new cases are underreported, suggesting severe outcomes (hospitalizations/death) are becoming less prevalent. All of this means the virus is becoming more manageable.

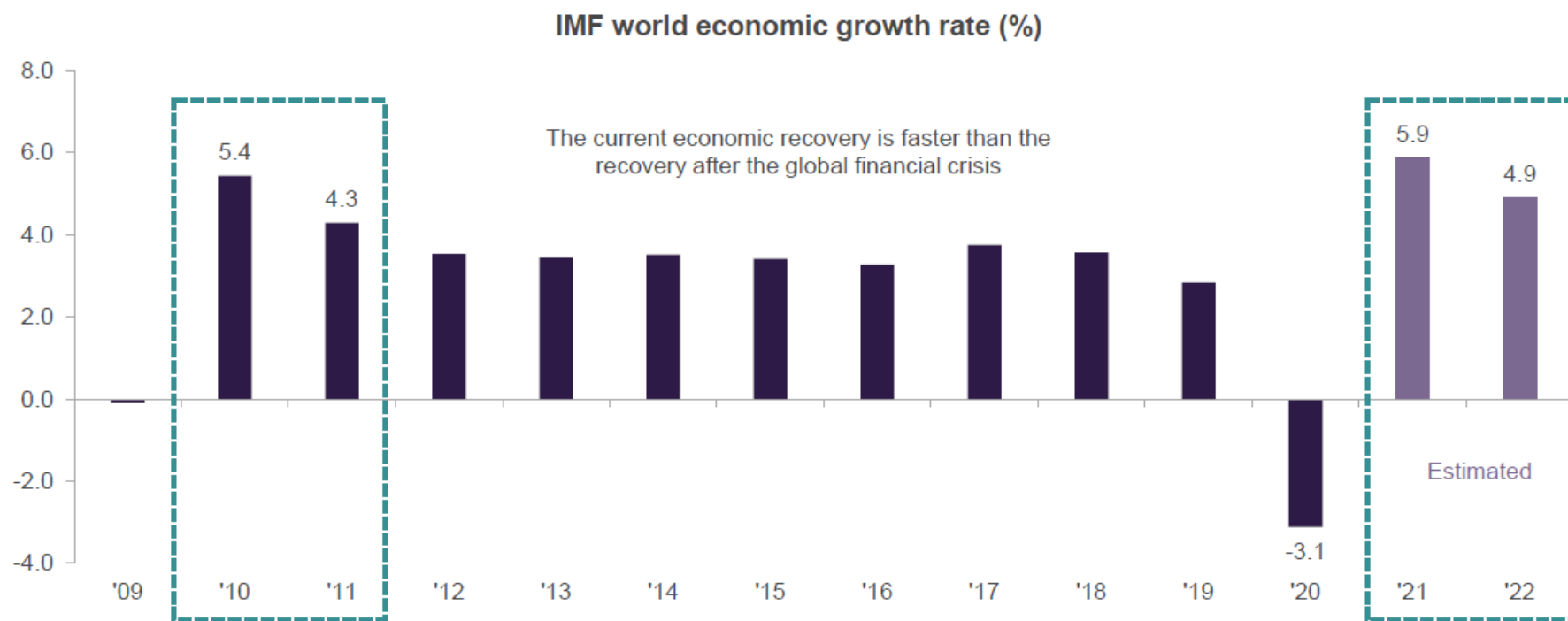


Data Source: Truist IAG, Bloomberg, Johns Hopkins University through January 2, 2022. Data for 50 U.S. states plus American Samoa, Washington D.C., Guam, Northern Mariana Islands, Puerto Rico, and U.S. Virgin Islands. 7-day moving average (DMA).



# The world economy is projected to grow faster than post-GFC

- ❑ The world economy is projected to grow 4.9% in 2022, according to estimates from the International Monetary Fund (IMF)
- ❑ This is slightly stronger than the rebound coming out of the Global Financial Crisis in 2010

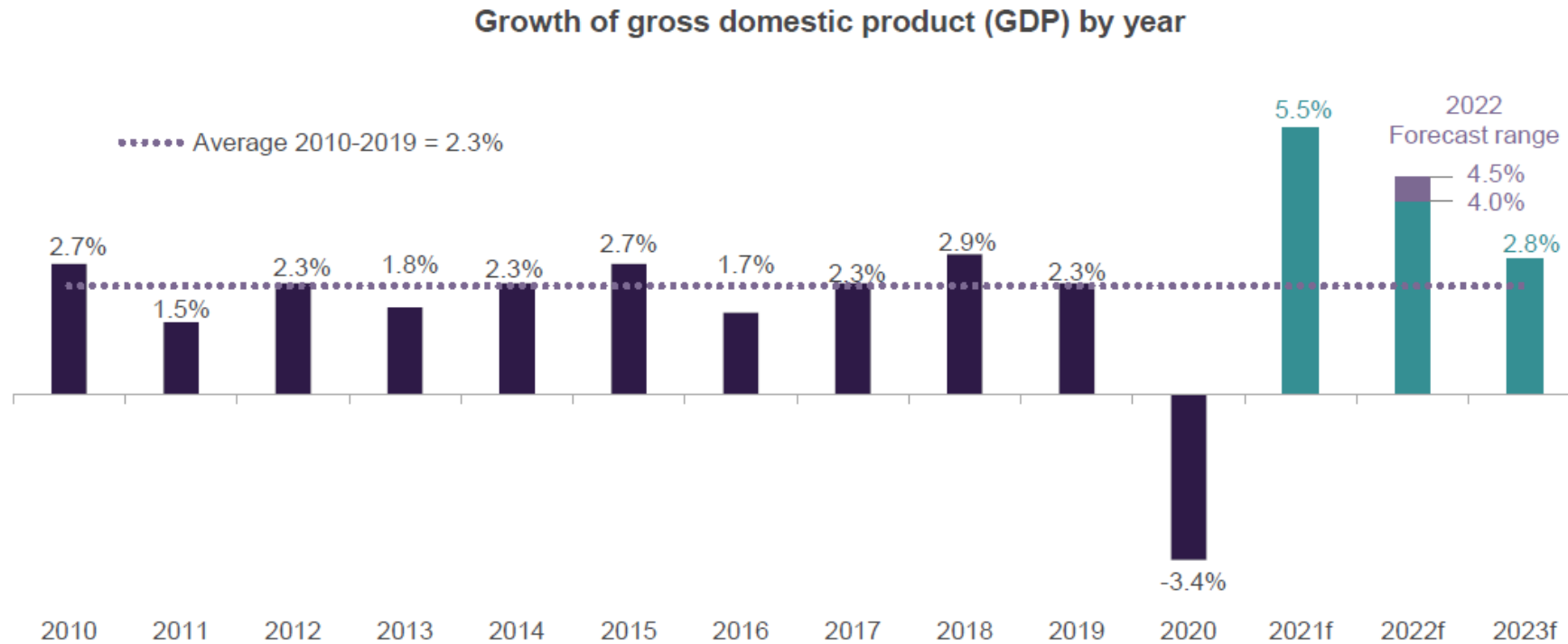


Sources: Truist IAG, Bloomberg, IMF

## U.S. growth well above pre-pandemic trend through at least 2023

While growth will step down in 2022 as many pandemic assistance programs end, US economic growth should remain well above the pre-pandemic pace through at least 2023

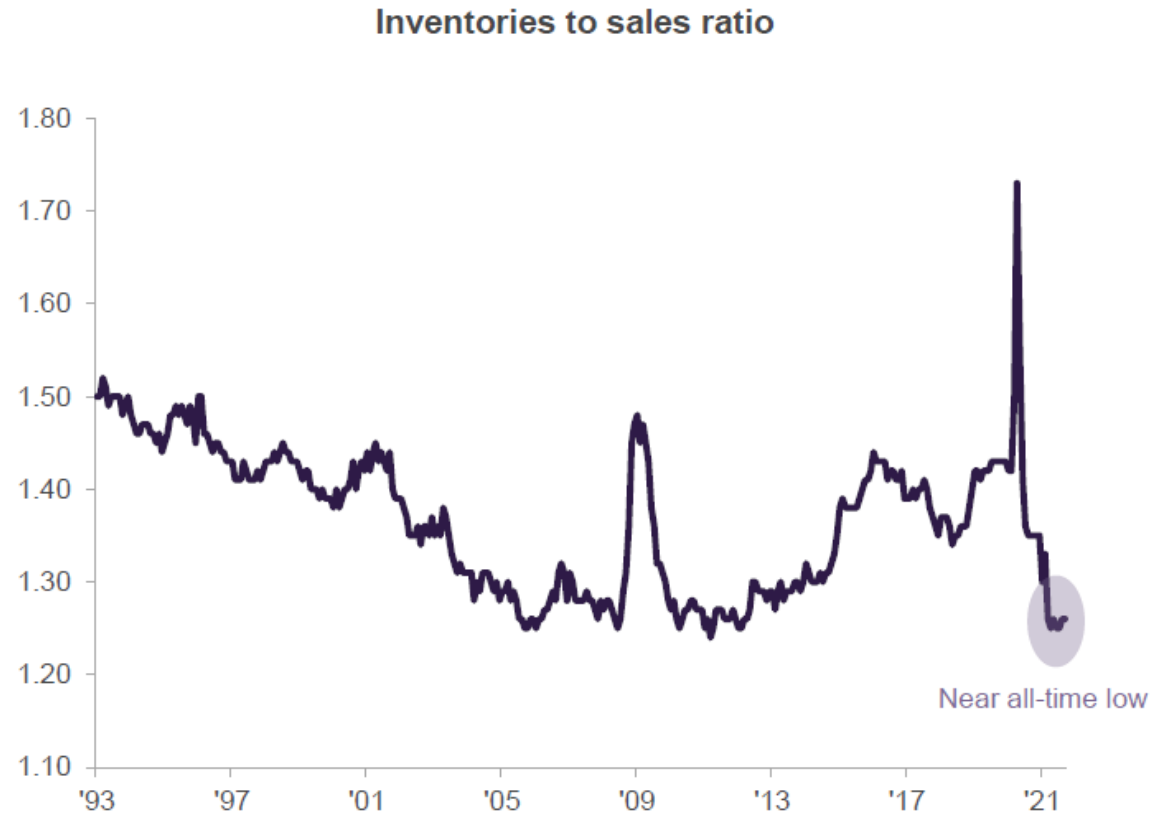
**OUR TAKE:** *The economic backdrop continues to be supportive of equities*



Sources: Truist IAG, Bureau of Economic Analysis, IHS Markit. Real GDP, actual for 2010 through 3Q2021. (f) = Truist IAG forecast for 4Q2021 through 2023

# Rebuilding of depleted inventories and massive order backlogs are tailwinds for economic growth in 2022

- ❑ Business inventories, which ballooned during the 2020 lockdown, quickly plunged as demand came roaring back
- ❑ Inventories remain depleted 18 months later by nearly any measure and are hovering near 30-year lows

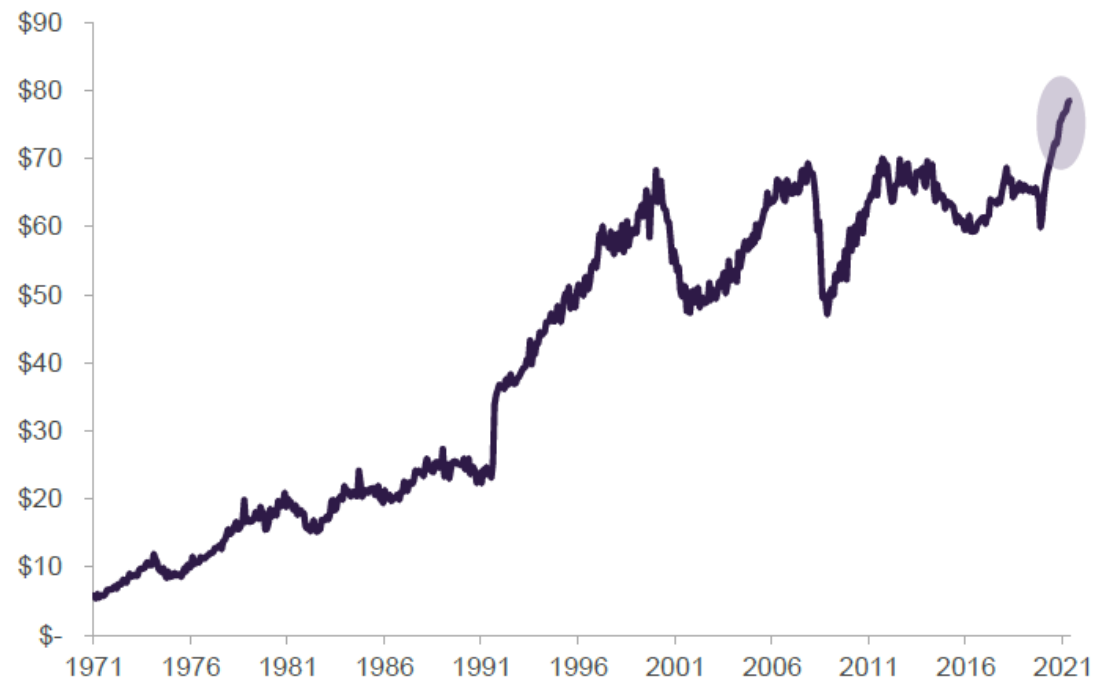


Source: Truist IAG, U.S. Census Bureau, monthly data through September 2021

## Surging business spending is another support for growth in 2022

- ❑ New orders for core capital goods (buildings, equipment, furniture, machines) have surged to new highs
- ❑ These goods are used by businesses to produce other goods
- ❑ Record corporate profits and cash levels offer continued support

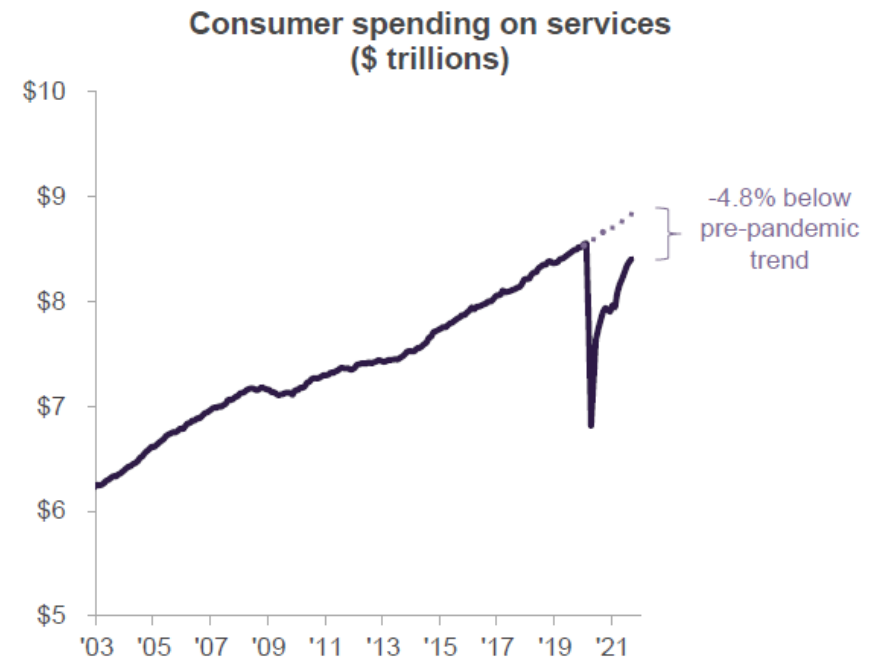
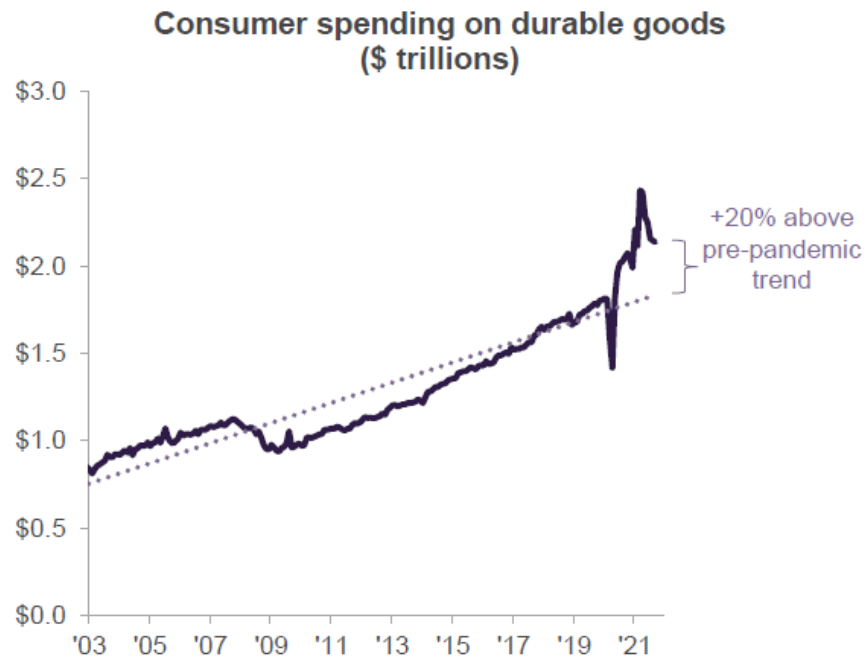
**New orders for core capital goods  
(excludes aircraft & defense, in \$ billions)**



Source: Truist IAG, Bloomberg; monthly data through October 2021

## We expect consumer spending to shift back toward services from goods, helping ease supply chain issues and cool inflation

- ❑ Spending on big-ticket items such as appliances, furniture, vehicles is roughly 20% above pre-pandemic trend
- ❑ While still strong, these big-ticket purchases have declined in recent months from their peak, which should gradually ease supply chain challenges and inflationary pressures

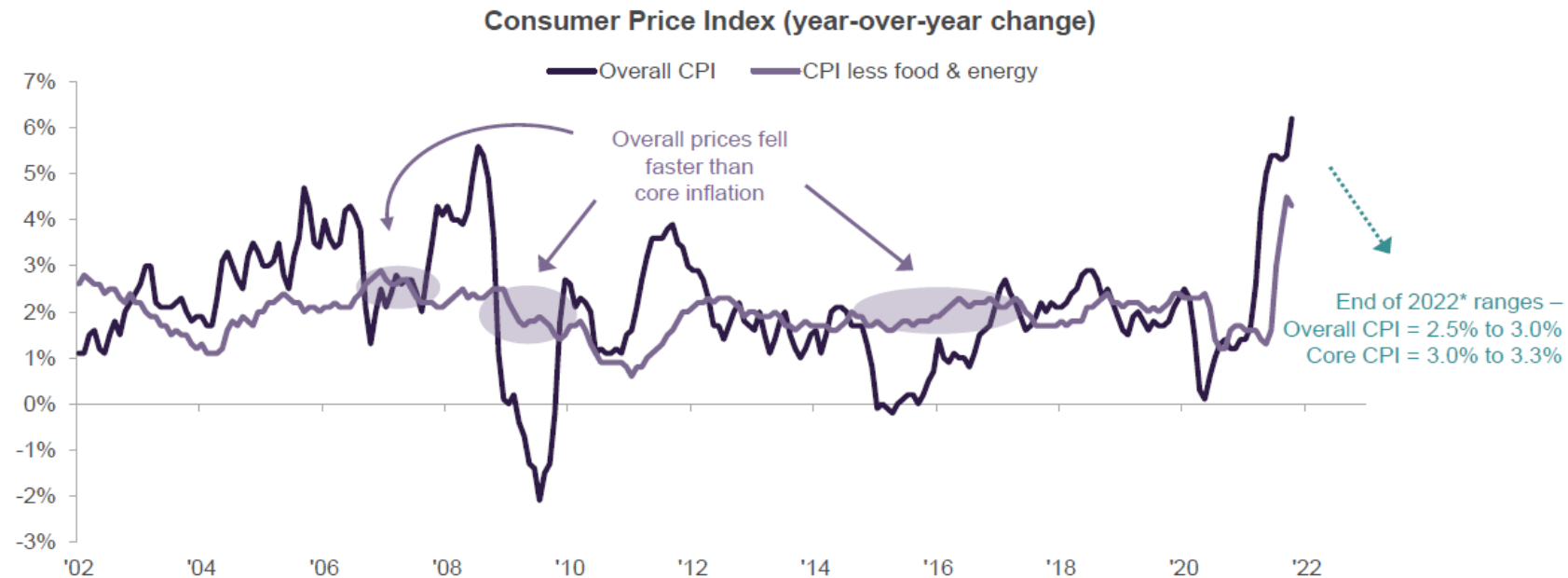


Source: Truist IAG, Bloomberg, Bureau of Economic Analysis; monthly data through October 2021

## Shifting inflation dynamics – Overall inflation will fall faster than Core in 2022

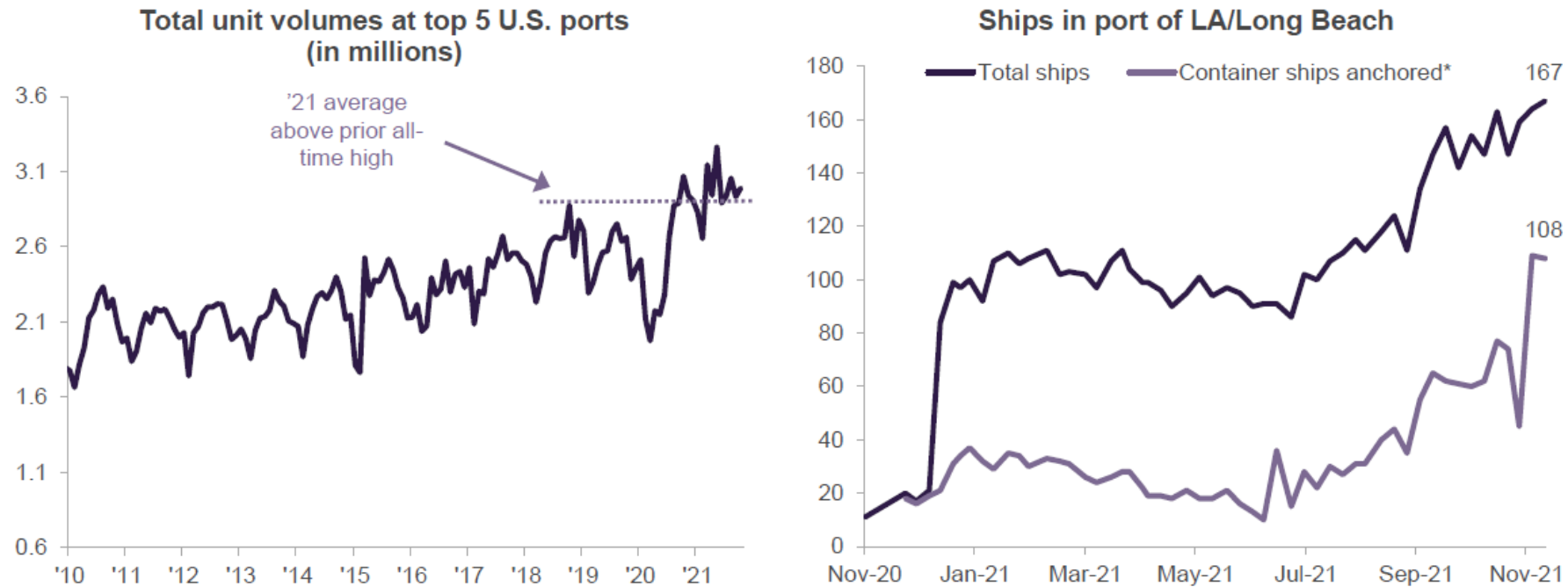
We expect overall inflationary pressures to ease as production and supply chains recover and consumer spending shifts back toward services. Pandemic induced inflation is the result of temporary global supply shutdowns and unprecedented government stimulus unleashed during the first few waves of COVID. This is very different from the persistent inflation of the 1970's driven primarily by two major enduring developments: 1) currency devaluation as the gold standard constraint was removed from the global monetary system, and 2) energy shocks as OPEC exerted its influence on energy markets.

- ❑ Housing prices within CPI, which have an outsized weight in the Core CPI reading, are not expected to fall as quickly. Also, services represent an outsized weight in Core CPI.
- ❑ Accordingly, we expect the pace of *overall* inflation will likely fall faster than *core* prices going forward as stimulus fades as it did after the Global Financial Crisis fiscal stimulus ended in 2012 and monetary tapering began in 2014.
- ❑ Equities have historically been a better inflation hedge than fixed income and our overweight to equities and underweight to fixed income should provide protection from the current elevated level of inflation while we wait for prices to cool.



## Port bottlenecks were partly caused by huge stimulus-induced demand and *Just in Time* inventory systems, but constraints should subside during 2022

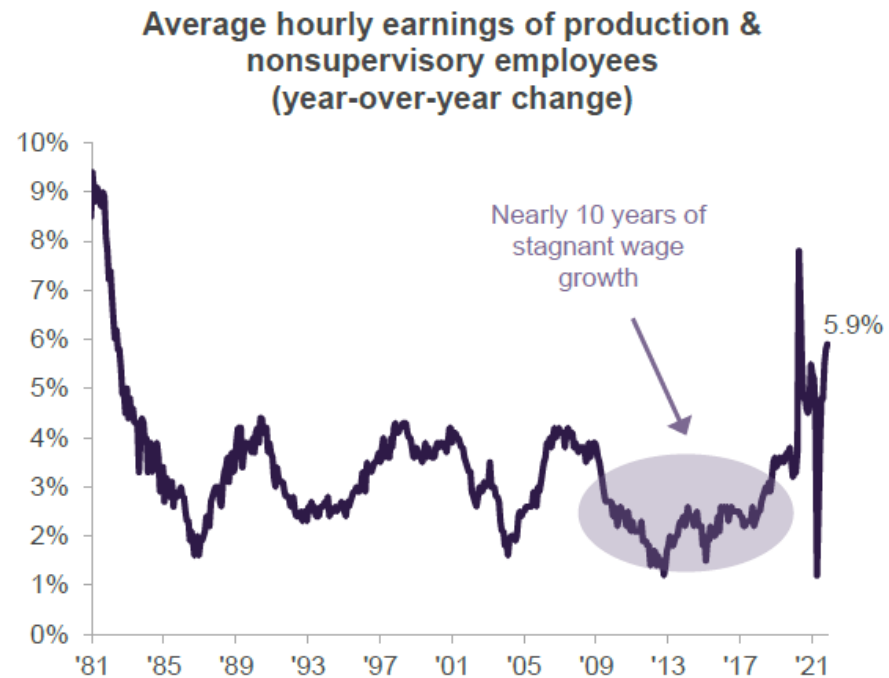
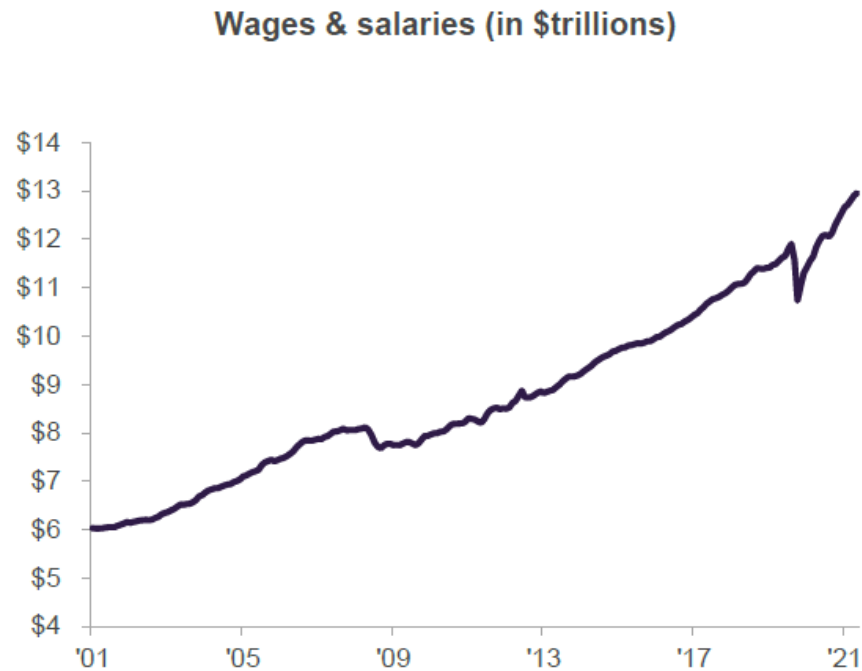
Huge demand is one of the underappreciated reasons behind the supply chain challenges, but this should ease as consumer spending shifts more toward the services sector in 2022 and as unprecedented levels of COVID fiscal stimulus fade.



Source: Truist IAG, Bloomberg, monthly data through October 2021. \*Container ships anchored includes anchoring, loitering, or in designated drift areas.

## Rising wages are a double-edged sword – pushing inflation, but also driving economic growth

Rising wages are inflationary. Yet, wages are also income for workers and are eventually spent on goods and services. Further, wages are rising for rank and file workers, catching up after a decade of stagnant wage growth following the global financial crisis.

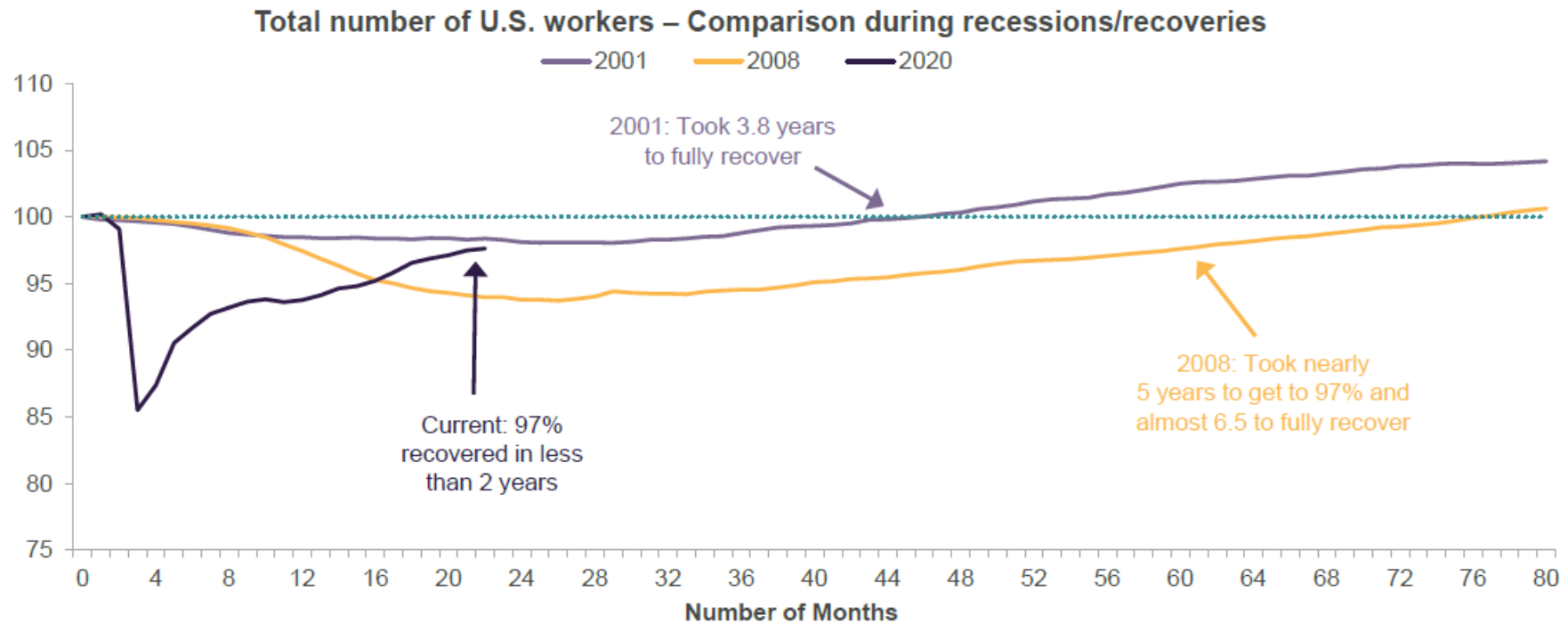


Data Source: Truist IAG, Bloomberg, Bureau of Economic Analysis, Bureau of Labor Statistics; monthly data through November 2021.



# U.S. recovering jobs much faster than the prior two recoveries

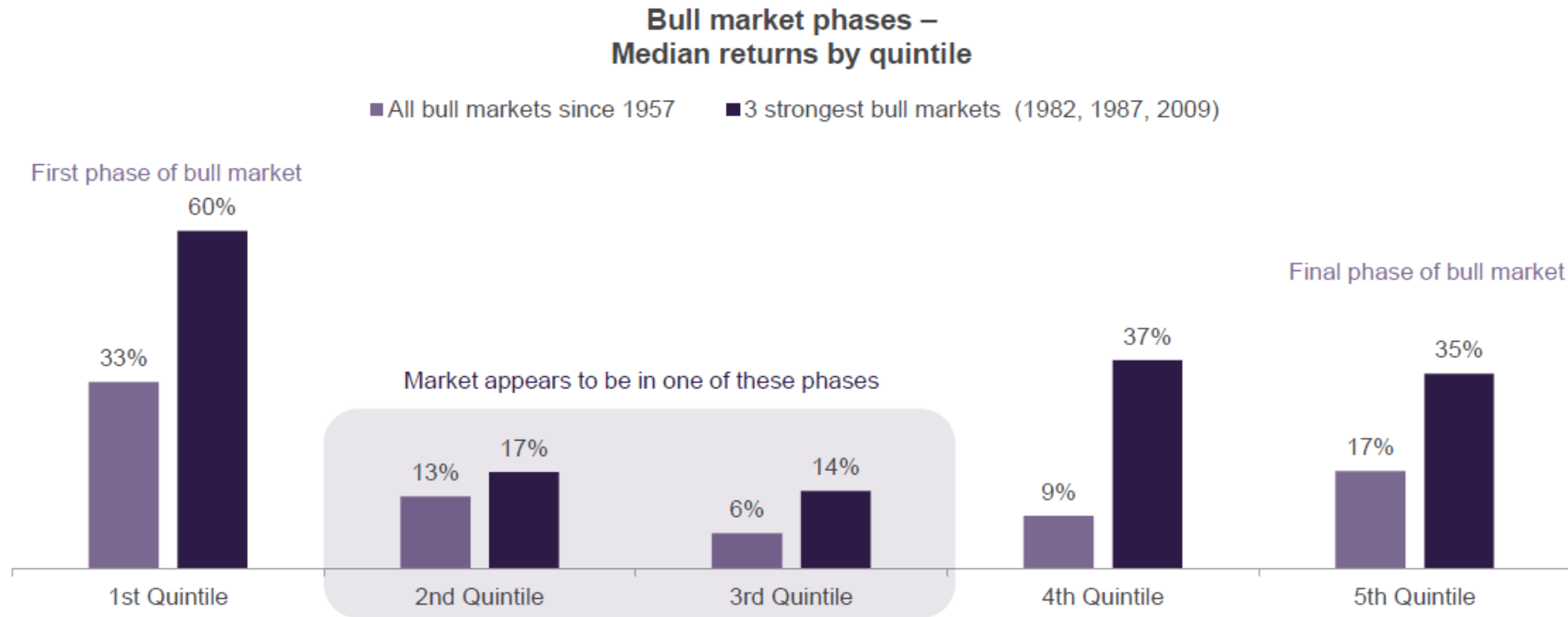
Although not fully recovered and starting from a much deeper hole, the rebound in jobs has been dramatically faster than the last two recoveries.



Data Source: Truist IAG, Haver, Bureau of Labor Statistics. Monthly data through November 2021.

## Moderating phase of equity market

- ❑ The first phase of an equity market uptrend tends to see the strongest gains
- ❑ In the current phase, we expect positive but moderating returns, sustained by solid fundamentals and earnings

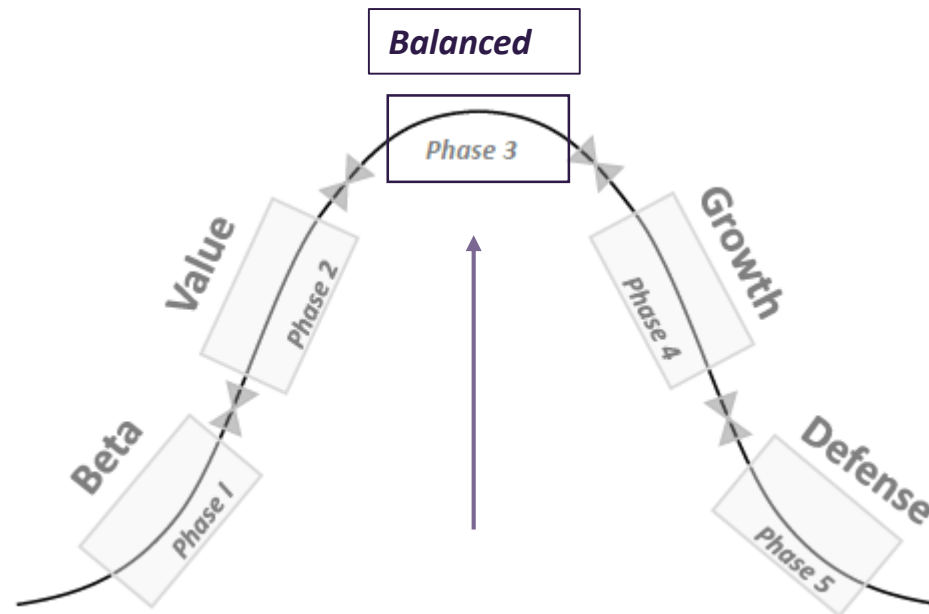


Sources: Truist IAG, Bloomberg. Past performance does not guarantee future results.

# The current environment supports a balanced risk profile for equities

- ❑ Although acceleration in growth is behind us, neither do we expect a sustained economic slowdown
- ❑ We anticipate a push and pull pattern between risk and reward, where quality is likely to be rewarded regardless of Growth/Value style

**OUR TAKE :** Phase 3 – the Balanced Phase – tends to favor companies with positive earnings momentum



Sources: Truist IAG, Cornerstone Macro

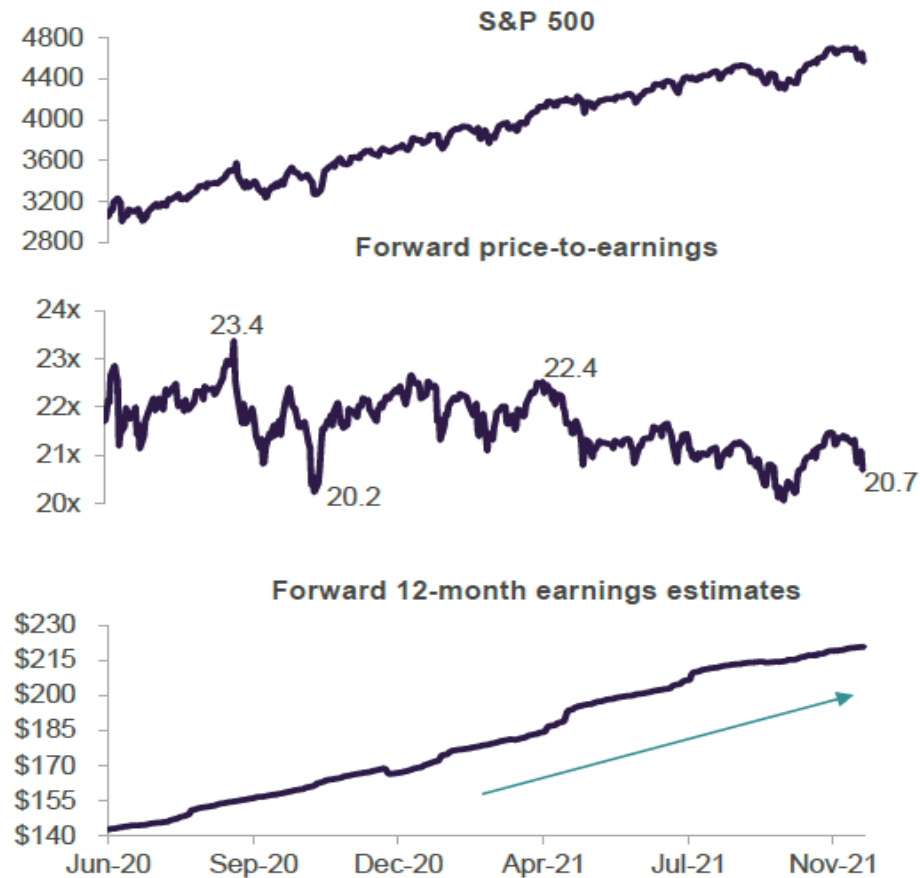
# Earnings to remain a key driver of returns, while P/E stays range bound

- ❑ One of our key themes was that earnings and the adaptability of corporate America were underappreciated
- ❑ Market gains of the past year were earnings driven
- ❑ A still-resilient economy should buffer the downside

## OUR TAKE:

*We expect valuations to remain range bound in 2022. We have seen significant upward earnings revisions as the economy recovers. This bodes well for higher-quality companies in our portfolio.*

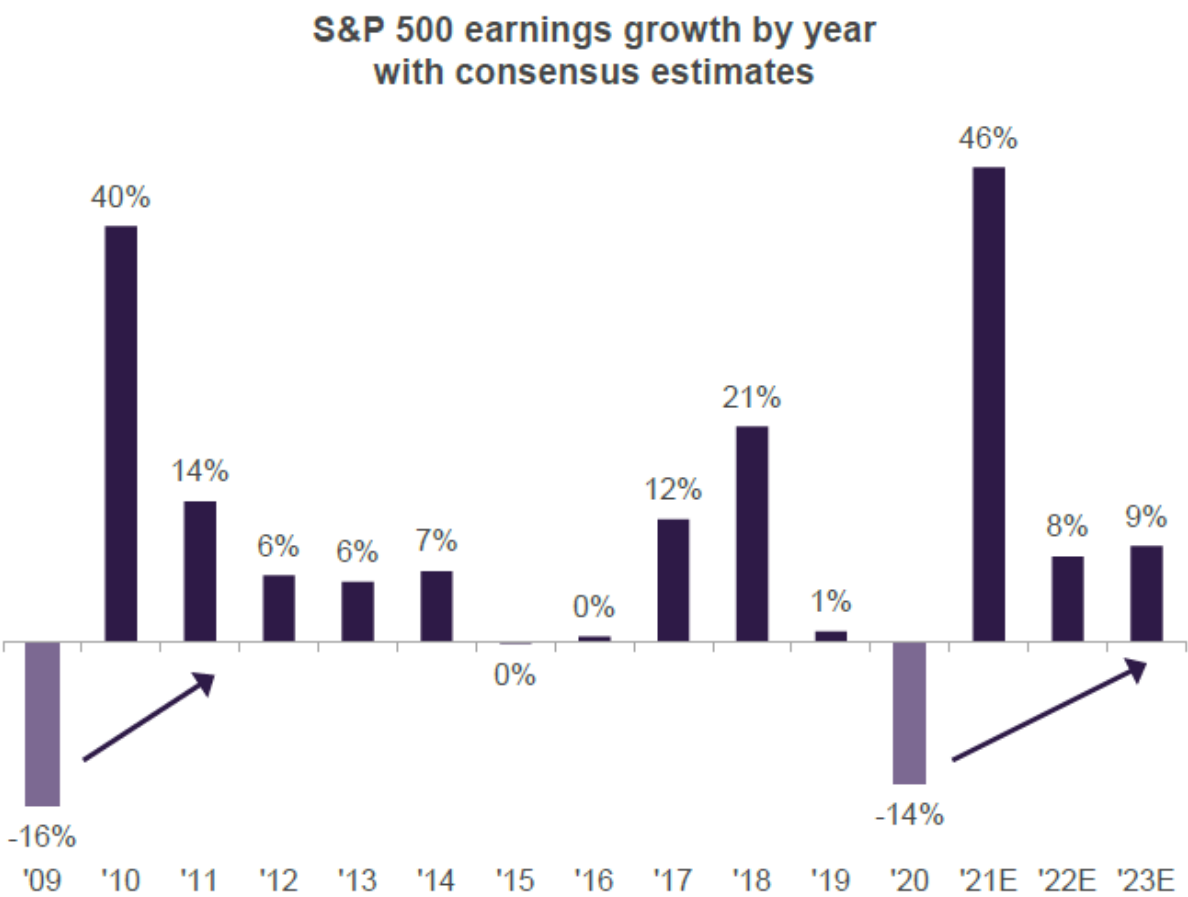
Sources: Truist IAG, FactSet. Past performance does not guarantee future results.



# Earnings growth trajectory closely tracking the recovery from last recession

- ❑ After a steep decline during the first year of the pandemic, corporate profits have rebounded swiftly
- ❑ Consensus is estimating between 8% and 9% earnings growth over the next two years

**OUR TAKE:**  
*We see upside potential for earnings growth in 2022 given our above-consensus economic outlook*



Sources: Truist IAG, FactSet

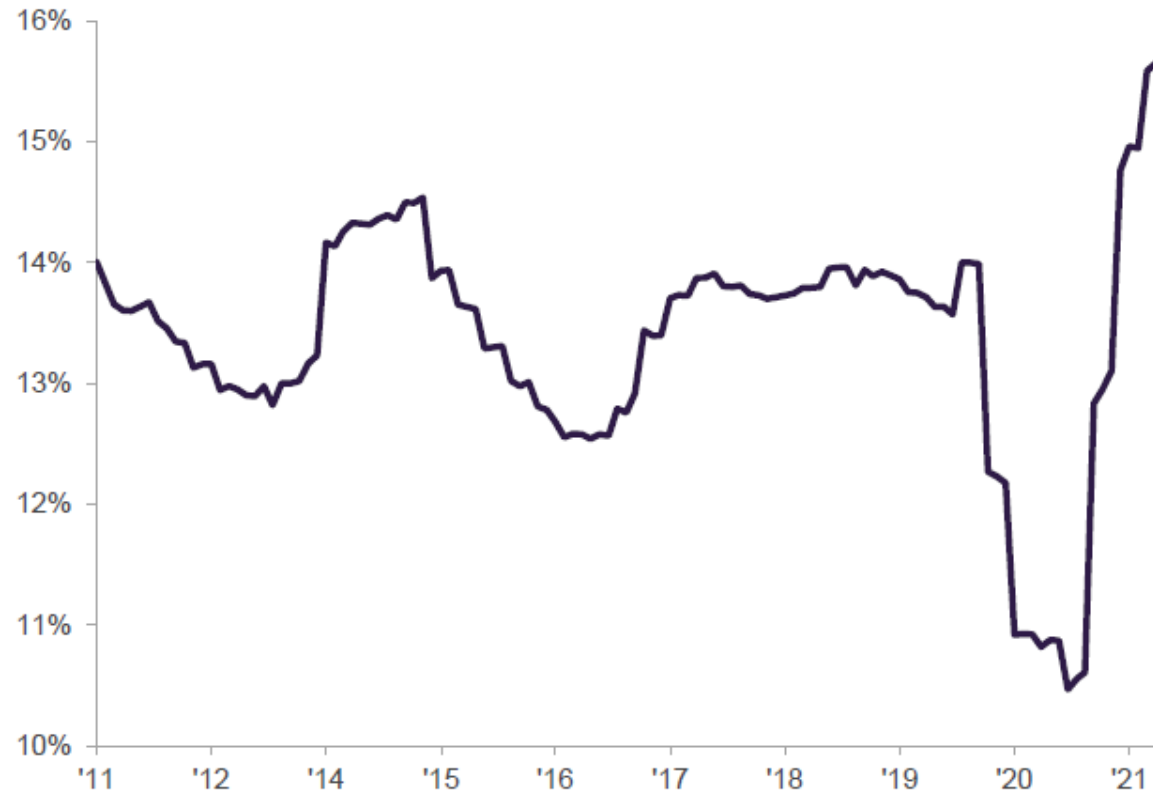
# Corporate margins set to remain strong despite challenges

- ❑ Companies have been able to maintain high profit margins despite challenges from supply chain disruptions, wage increases, and commodity inflation
- ❑ This has been aided by pricing power and companies' ability to adapt and become more efficient and productive through the pandemic

**OUR TAKE:**

*High margins resulting from increased productivity can support higher earnings growth and may also help companies mitigate the effects of higher input costs.*

**S&P 500 trailing 12-month operating margin**



Sources: Truist IAG, Strategas

# Higher quality stocks currently trading at a discount to the broader market

- ❑ Higher quality domestic stocks are currently trading at the largest discount to the broad market since the dotcom bubble of the early 2000's and the March 2009 trough of the Great Financial Crisis
- ❑ Quality stocks are those firms that have reasonable PE ratios, quality earnings, pricing power, a track record of returning capital to shareholders in a disciplined manner, accounting integrity, and strong cash flows and balance sheets
- ❑ Lower quality also outperformed in midcaps and small caps last year as Meme stocks were included in benchmarks

## **OUR TAKE:**

*This should eventually favor active equity managers in our portfolio who have a strong quality bias in stock selection.*



Gray bars represent recessions

Sources: Truist IAG, FactSet. Quality stocks – Invesco S&P 500 Quality ETF; Broader market = S&P 500

## Narrow market leadership is challenging domestic equity managers

- ❑ 5 mega cap US stocks, Microsoft, Google, Apple, Nvidia and Tesla are driving the market higher and accounted for close to 1/3 of the S&P500's gain last year.
- ❑ Active managers will probably not own Tesla with it's high 300+ PE level and will be more diversified compared to the index holding percentages for these popular mega cap stocks.
- ❑ These periods of narrow market leadership typically do not persist, but can create challenges for active equity managers who follow a disciplined, diversified approach and select securities with more reasonable valuations.



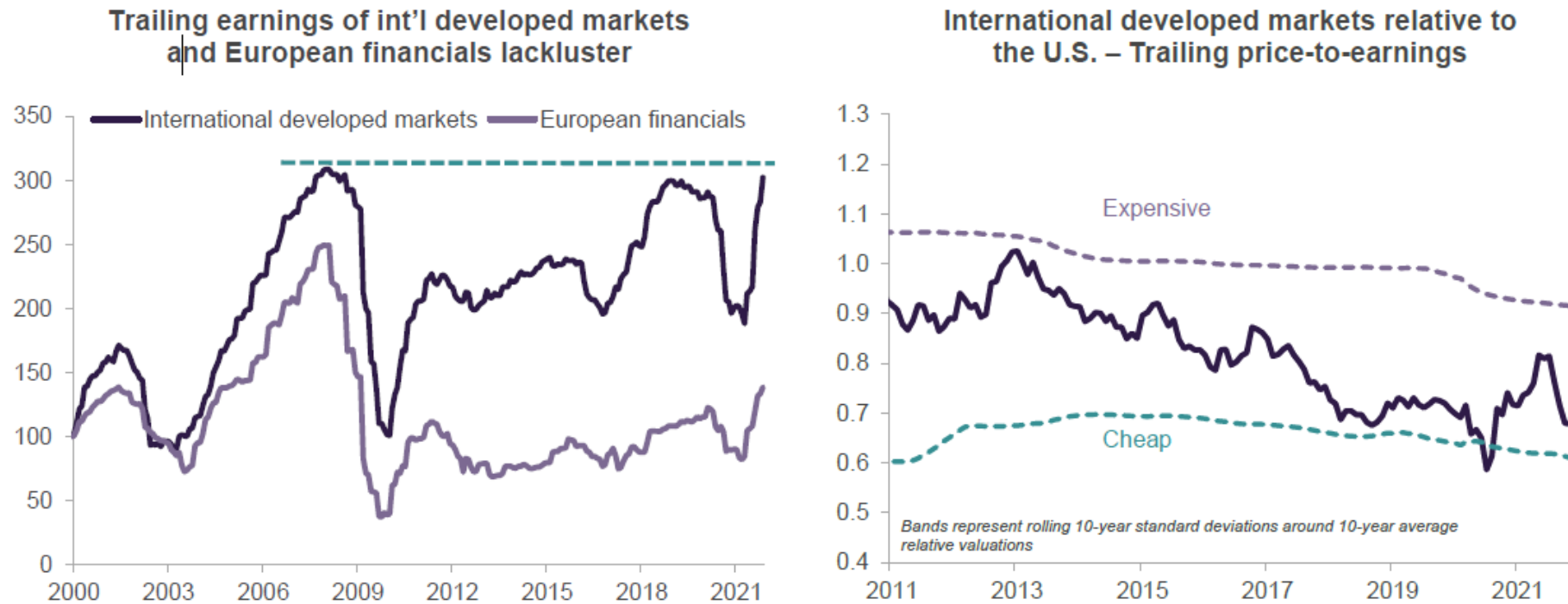
Source: Cornerstone Macro Research LLC. Past performance does not guarantee future results.



## Stay underweight international development equities until profit trends show improvement relative to the U.S.

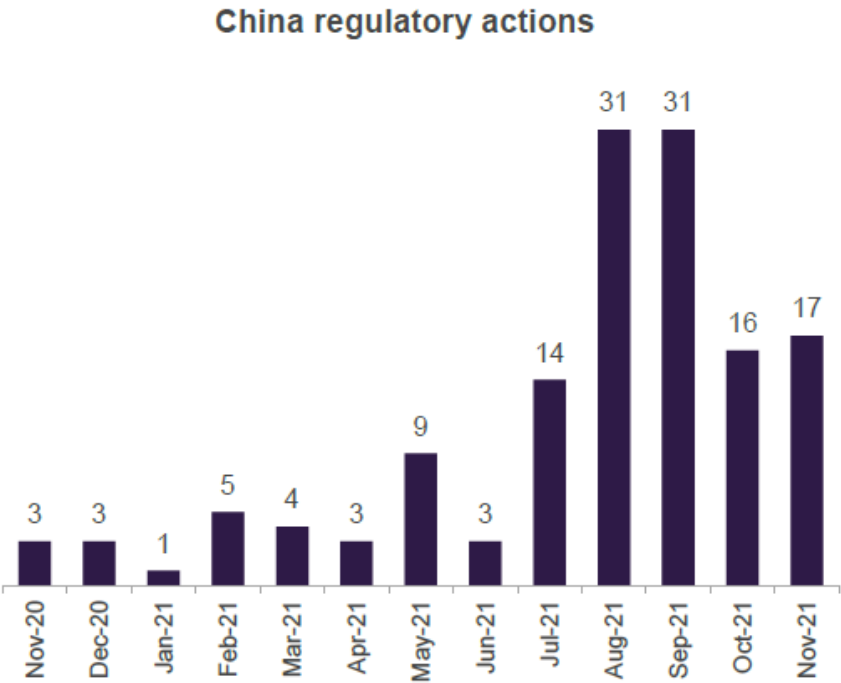
- ❑ International developed markets' earnings are still below where they were prior to the financial crisis
- ❑ European banks are one cause of this
- ❑ Although valuations are cheap, we expect valuations to remain in a lower range given structural headwinds

**OUR TAKE:** *We await better relative earnings and price trends before increasing our exposure*

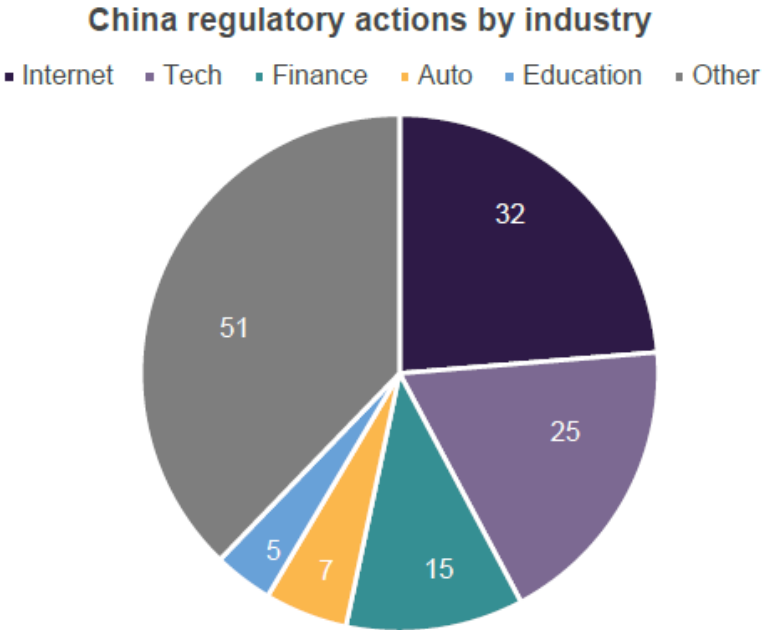


# China's Regulatory Actions Against Companies Persist

Part of the reason for our heightened concerns about the Chinese government's crackdown against companies is that it has become more frequent as well as wider in scope, and other industries are likely to be in the crosshairs.



Sources: Truist IAG, Cornerstone Macro



## Fed rate hikes likely to inject volatility into the market, but stocks tend to outperform fixed income during tightening cycles

Equities have generally had positive performance during periods where the Fed funds rate is rising because this is normally paired with a healthy economy. The one exception was the 1972-1974 period, which coincided with the 1973-1975 recession.

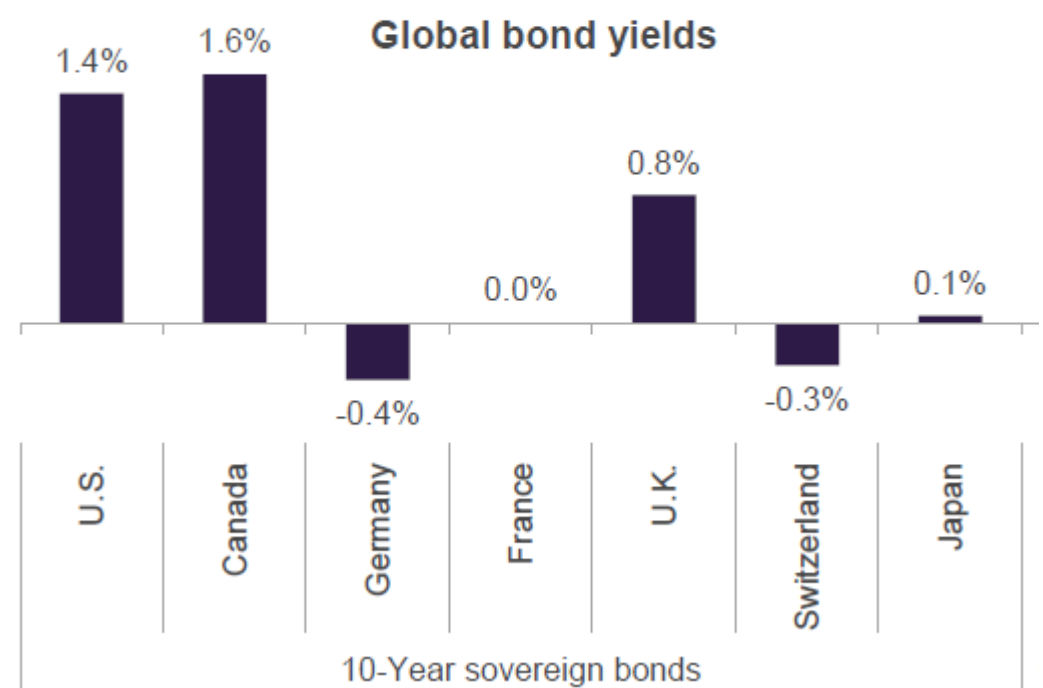
Annualized returns for periods greater than 12 months						
Periods of rising Fed funds rate		U.S. large cap equity (%)	U.S. small cap equity (%)	U.S. intermediate-term government bonds (%)	U.S. long-term government bonds (%)	Core taxable bonds (%)
8/1954	10/1957	13.7	10.9	0.1	-2.5	
6/1958	11/1959	24.5	31.6	-3.2	-6.4	
8/1961	11/1966	7.0	12.7	2.9	2.2	
8/1967	8/1969	3.7	12.4	2.7	-2.6	
3/1972	7/1974	-8.6	-19.4	2.3	-0.4	
2/1977	6/1981	11.5	34.9	3.7	-1.4	2.5
3/1983	8/1984	13.2	12.3	5.9	1.7	6.5
1/1987	5/1989	16.2	11.1	6.1	5.7	6.9
2/1994	2/1995	4.1	2.2	-2.3	-4.6	0.0
6/1999	5/2000	10.5	20.7	3.1	3.7	2.1
6/2004	6/2006	8.2	13.5	1.8	5.4	3.1
12/2015	12/2018	8.4	5.4	1.5	2.3	1.9
Average		9.4	12.4	2.1	0.3	3.3

Data Source: Truist IAG, Morningstar, Haver. Core taxable bonds = Bloomberg U.S. Aggregate, U.S. large cap = S&P 500, U.S. small cap = IA SBBI U.S. Small Stock, U.S. intermediate-term government bonds = IA SBBI U.S. IT Govt, U.S. long-term government bonds = IA SBBI U.S. LT Govt.

Rising Fed rate periods constructed using the Federal funds effective monthly average rate from 1954 – 1981; thereafter, the Fed funds target rate is used.

# Lower foreign yields have supported attractiveness of U.S. fixed income

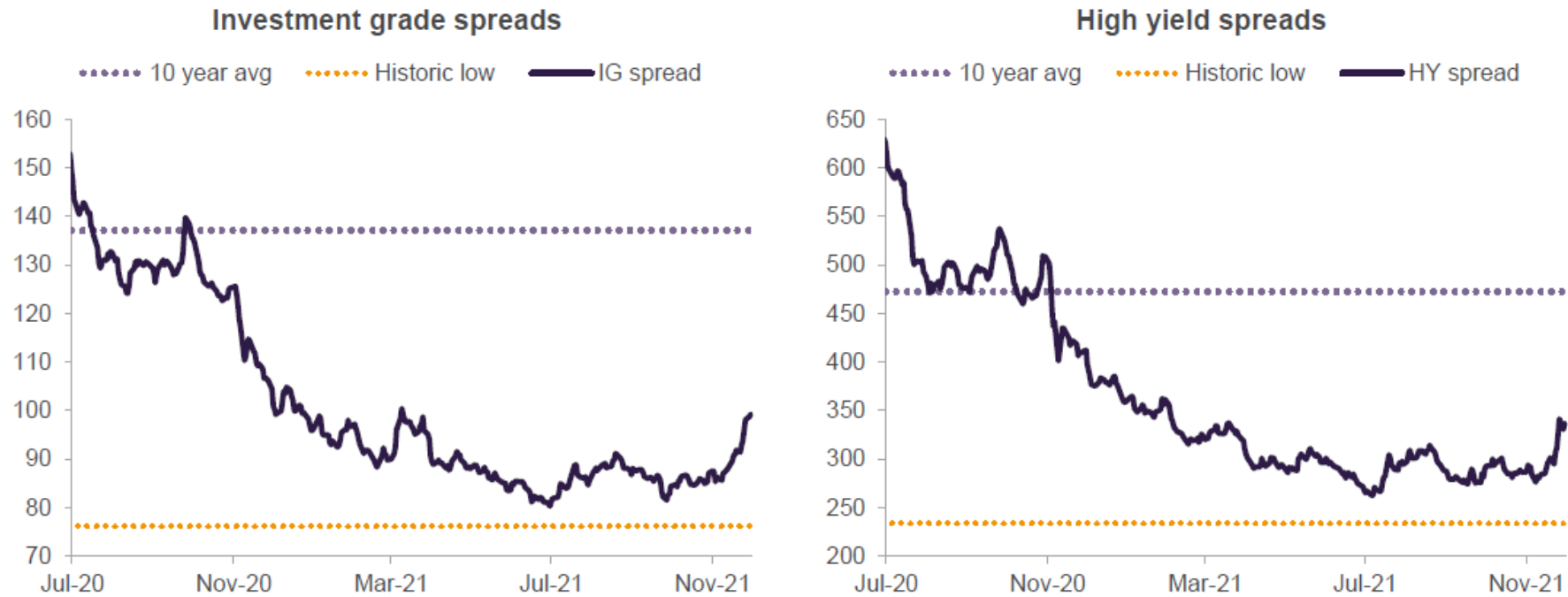
- ❑ International investors have provided a powerful source of demand for U.S. debt given its relatively high yields
- ❑ The high demand for US debt has suppressed yields and may continue to do so going forward



Sources: Truist IAG, Bloomberg. Data as of 9/30/21

## U.S. credit spreads stable but remain historically tight

- ❑ Credit spreads between investment grade and high yield corporate bonds versus U.S. Treasury yields are trading near historically tight levels
- ❑ Firm credit spreads are a positive signal of overall economic health
- ❑ Corporate bonds continue to attract investors for their incremental yield advantage



Sources: Truist IAG, Bloomberg. Bond sectors are represented by Bloomberg Barclays indices for Investment Grade and High Yield Corporate bonds.

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**McKnight Leadership Council  
Conference Zoom Minutes**

**Monday, January 31, 2022  
10:00pm MST; 11:00am CST; 12:00pm EST**

**Those in Attendance:**

**Arizona:** Carol A Barnes, Lee Ryan

**Florida:** Jennifer Bizon, Ron Cohen

**Alabama:** Ronald M. Lazar, Erik D. Roberson

**Miami:** Ralph Sacco, Tatjana Rundek, Bonnie E. Levin

**Trustees, Executive Director, MBRF:** Mike Dockery, Madhav Thambisetty, Amy Porter

- *Farewell to Luann Snyder.*

This is Luann's last day at the Tucson EMBI, after 31 years as Carol's Administrative Associate. Luann introduced Peggy Nolt, who will be the Executive Assistant and Administrator for the Tucson EMBI, and Nathalie Zepeda, who will serve as the Financial Administrator for the Tucson EMBI. Peggy described her 10 years at the University of Arizona – first as an administrator in the Department of Neuroscience, and then as the manager of the Department of Neurology's residency program. Nathalie then described her past experience in Sponsored Projects at the University of Arizona, and her experience with handling grants and general accounting.

- *Discussion of the new format for the McKnight Brain Research Foundation Yearly Report*  
Each of the Institutes expressed similar praise for the new format of the yearly report. While it still takes significant time to compile, it was much easier both for the Institute Directors and hopefully will be easier for the Trustees to read.

The Trustees said that they look forward to discussing the new format amongst themselves at their next meeting on February 9. While the 'report part' will probably be an improvement from their perspective, the financial reporting was not 'quite where they would like it to be'. They were attempting to 'harmonize' the way that all the Institutes reported certain things – and this aspect did not work. Dr. Dockery said that the Financial Sections were sent back to each Institute for additional information, and hopefully this 'second round' will be easier for the Trustees to read and understand.

- *Updates on the recent and new MBRF initiatives, Trustees, McKnight Brain Research Foundation.*

The Trustees updated us on the McKnight Brain Research Foundation Innovator Awards in Cognitive Aging and Memory Loss. They explained that this is an award for mid-career scientists who could benefit from funding outside of the typical federal grant channels, and who can use the data collected to leverage future NIH grants. The idea is that this career stage is where you 'want to keep' investigators interested in the aging brain and cognition, and where there is often attrition. The award is for three years, for \$750,000, and there is an institutional 'match requirement' that is reasonably flexible in the way the match is met (but it cannot be with federal funds). One basic and one clinical grant has been announced to the inaugural recipients, and the yearly call for proposals is scheduled to continue for 5 years.

The Trustees asked about how the McKnight Pilot Intervention project solicitation and submission process was going. Ron Lazar and Bonnie Levin run this program for the Leadership Council, and reported that they only had one submission this year. Ron and Bonnie offered a couple of explanations of why this might be. First, there is the difficulty of conducting face-to-face experiments required for many intervention studies during this period where covid is not yet at low enough levels for many study participants to feel safe to come into labs. One potential solution that they articulated is if the wording in the RFA was altered a bit to expand the scope of the research that could be conducted. If science was supported that will eventually lead to an intervention, but involves a necessary step before a novel intervention is possible, this change in scope would likely be attractive to more scientists, especially in these pandemic times. Another potential issue is the amount of funding offered in this RFA, and the actual costs of doing interventions – especially since the funding needs to be split across multiple Institutions. This may have deterred applicants who did not believe they could do a meaningful intervention with the funding offered.

Ron and Bonnie offered to prepare a document that would modify the current RFA slightly, so that potentially more scientists would apply in the future. They will send this to the Trustees so that they can consider it at their next meeting. Both Trustees in the zoom meeting indicated that they would relay our discussion to the other Trustees next week. If changes to the RFA are approved, Ron and Bonnie will send out another call for proposals.

- *Updates on the 13<sup>th</sup> Annual McKnight Inter-Institutional Meeting in Tucson March 23-25, Tucson, AZ in person meeting – final speakers, will the meeting 'go on'?*  
All is set for the meeting in Tucson except for one slot in the Genetic and Epigenetic Session. Carol will send around reminders to Directors of the other Institutes to see if they have ideas for who in their Institutions may be appropriate to fill the slot.

A 'bigger issue' is whether people from Birmingham, Miami and Gainesville will still travel to Tucson, given the state of the covid pandemic. This was discussed, and it was the general feeling that the situation is getting better at present, and while none of us have a crystal ball, many are planning to come. We have until February 23 to modify the numbers of attendees at the event. Carol will monitor this via Directors in each Institute.

- *Update on Panel Discussion plans for the Inter-Institutional meeting.*  
There was nothing to update today, as Peggy still has a doodle poll for the Panel Participants that has not been closed yet.
- *Any new business or old business anyone would like to discuss?*  
None.



## RESEARCH PARTNERSHIP IN COGNITIVE AGING BETWEEN THE MBRF AND NIA THROUGH THE FNIH

"Network for Identification, Evaluation and Tracking of Older Persons with Superior Cognitive Performance for their Chronological Age"

----- Forwarded message -----

From: **Wolf-Rodda, Julie (FNIH) [T]** <jwolf-rodde@fnihi.org>

Date: Thu, Jan 13, 2022 at 5:45 PM

Subject: MBRF Trustee update/manual and NEWS on Cognitive Super Agers

To: Amy Porter <aporter@mcknightbrf.org>

Dear Amy,

*(a personal greeting in this email has been removed)*

The NIA has made not one but two awards under the RFA jointly funded with the MBRF. They are:

- PERLS, THOMAS T (contact), Boston University Medical Campus; ANDERSEN, STACY, Boston University Medical Campus; BOOKHEIMER, SUSAN Y, UCLA

**1U19AG073172-01 Resilience/Resistance to Alzheimer's Disease in Centenarians and Offspring (RADCO)**

- PI: ROGALSKI, EMILY J (contact), Northwestern University at Chicago; GEULA, CHANGIZ, Northwestern University at Chicago; MESULAM, MAREK-MARSEL M, Northwestern University at Chicago

**1U19AG073153-01 Study to Uncover Pathways to Exceptional Cognitive Resilience in Aging (SUPERAgging)**

These teams will be exploring complementary hypotheses and NIA hopes there will be synergies established. Both of these grants are still in the structural stages, getting things coordinated and set up. Data collection has not commenced. However, both projects stem from ongoing studies – Centenarian studies at BU, and Cognitive SuperAger studies at Northwestern. Abstracts for both studies are attached for your information.

Here, also, is the update on the MEDEX study, funded through our prior research collaboration: Following a no-cost extension, the "Cognitive Decline: Mindfulness-based Stress Reduction and Exercise" (MEDEX) study is complete and data are being

analyzed and papers written. According to the PI, Eric Lenze, at Washington University School of Medicine:

- a paper on the neuroimaging results of the trial should be published in about 5 weeks in the journal *Frontiers in Neuroscience*.
- the neuropsychological, or cognition results, of the trial are supposed to be submitted for publication in January. It is estimated that once the paper is submitted, it will be about 6 weeks until it is accepted and online. (Molly suspects review and publication may take longer than 6 weeks.)
- Dr. Lenze also plans to submit these results to *JAMA*.

Again, my apologies for the delay in sharing this great news with you and the MBRF Trustees. Please let me know what questions you or they may have, and whether you plan a press release or other communication with which we can be helpful.

Best regards,

Julie

*PIs: PERLS, THOMAS T (contact), Boston University Medical Campus; ANDERSEN, STACY, Boston University Medical Campus; BOOKHEIMER, SUSAN Y, UCLA*

1U19AG073172-01

## Resilience/Resistance to Alzheimer's Disease in Centenarians and Offspring (RADCO)

### Abstract

Centenarians delay age-related diseases and disabilities into their mid-nineties. Some remain cognitively intact despite extreme exposure to the strongest risk factor for cognitive impairment and AD, aging. The overall hypothesis of this study, titled "Resilience/Resistance to AD in Centenarians and Offspring" (RADCO), is: centenarian cognitive superagers and some of their offspring have protective factors that confer such resilience or in some cases, even resistance against cognitive decline and dementia. RADCO assembles an unprecedentedly large sample of prospectively studied centenarian cognitive superagers (n=495, essentially, centenarians with cognitive function that falls within the norms of septuagenarians) along with offspring (n=600) and offspring spouses (n=120), who, via RADCO cores, undergo careful, comprehensive and cutting edge neuropsychological, biomarker, neuroimaging and neuropathological phenotyping. These data are used by two projects with the overall scientific objective of gauging cognitive resilience in this sample, understanding the underlying protective biology and translating that into therapeutic targets. The Cognitive Resilience and Resistance Phenotypes Project (Project 1) gauges resilience by neuroimaging, plasma AD biomarkers risk and neuropathology and therefore generates a range of resilience endophenotypes. The Protective Factors and Mechanisms Project (Project 2) is the translation arm of RADCO; it discovers genes, candidate biological pathways and sets of mi-RNA regulators associated with the resilience endophenotypes characterized in Project 1. In-vitro models of AD incorporate cortical neurons, microglial cells and astrocytes created from centenarian cognitive superager induced pluripotent stem cell (iPSC) lines are used to test the candidate pathways for how they cause resilience against AD. PUBLIC HEALTH RELEVANCE: Centenarian cognitive superagers have exceptional cognitive function despite extreme exposure to the strongest risk factor for cognitive impairment and Alzheimer's disease, aging. The "Resilience/Resistance to AD in Centenarians and Offspring" (RADCO) Study gauges cognitive resilience among centenarian cognitive superagers and their offspring using cognitive testing, neuroimaging, blood biomarkers, and neuropathology and translational studies will identify protective factors and underlying mechanisms that confer resilience or in some cases, even resistance against cognitive decline and dementia.

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**1U19AG073153-01**

## **Study to Uncover Pathways to Exceptional Cognitive Resilience in Aging (SUPERAgIng)**

### **Abstract**

The primary goal is to establish a multicenter SuperAgIng Consortium to identify behavioral, health, biologic, genetic, environmental, socioeconomic, psychosocial, anatomic and neuropathologic factors associated with SuperAgIng. These goals will be achieved through an organizational structure with 3 Cores (Administrative/Biostatistics, Clinical/Imaging, and Biospecimen/Neuropathology) and 2 Research Projects. The Consortium will enroll 500 participants across 4 US Sites located in Illinois, Wisconsin, Michigan and Georgia, and the Canadian Site in Southwest, Ontario, with a focus on the enrollment of Black SuperAgers and Cognitively Average Elderly Controls with similar demographics (Controls). The Administrative/Biostatistics Core will provide governance and fiscal oversight, maintain scientific integrity, and create a centralized biostatistics and database infrastructure to harmonize the goals and activities of the Cores, Sites, and Projects, with each other, with the NIA and with extramural collaborators. The Clinical/Imaging Core will standardize criteria for the uniform cross-site and multidisciplinary characterization of SuperAgers, streamline recruitment including that of Black participants, enter relevant information in the comprehensive database, support co-enrollment into Project 1, and encourage collaborative ventures aiming to understand the factors that promote SuperAgIng. The Biospecimen/Neuropathology Core will collect and bank brain tissue and blood products from SuperAgIng and Control cases, according to optimized procedures. It will render pathological diagnoses, quantitate selected markers of neurodegeneration and neuronal structure, coordinate the analyses of plasma biomarkers for Alzheimer's disease, and make specimens available for collaborative investigations. Project 1 will use state-of-the-art wearable technology to obtain real-time measurements in the course of everyday life to characterize quantitative parameters related to sleep, physical activity, autonomic responsivity, and social engagement to determine whether SuperAgers have relatively preserved and quantitatively determined physiologic and behavioral 'complexity' compared to Controls. Project 2 will use transcriptomic, genetic, and protein profiling approaches to test the hypothesis that SuperAgers will demonstrate significant molecular differences in their central and peripheral immune and inflammatory system parameters compared to matched Control and Alzheimer's disease participants. By identifying neurobiologic features that contribute to superior memory performance in old age, outcomes from this Consortium will help isolate factors that promote successful cognitive aging and perhaps also prevent age-related brain diseases such as Alzheimer's disease. PUBLIC HEALTH RELEVANCE: : The proposed Consortium offers optimal organization for the accelerated recruitment of a racially diverse cohort of SuperAgers so that they can be more fully characterized neuropsychologically, neuropathologically, psychophysiology, and molecularly. The planned activities of the Consortium will help isolate factors important for promoting successful cognitive aging and potentially also for avoiding age-related brain diseases such as Alzheimer's disease.

**McKnight Brain Research Foundation (MBRF)**  
**Executive Director (ED) Performance Evaluation Form**

**Timeline for the Period April 2021 – March 23, 2022**

Activity	Date	Notes
<b><u>Tracking Progress</u></b> toward 2021 – 2022 goals took place by review of committee activity timelines at each board meeting and by the Chair's conversations with individual trustees	July 2021 October 2021 February 2022	
<b><u>ED Self Evaluation Process:</u></b> The ED drafts her self-evaluation for 2021 – 2022 using attached form, and proposes next year's goals for 2022 – 2023. She submits both to the MBRF Chair (Note: in addition to the goals detailed in the self-assessment document, all goals included in the Committee Activity Timelines are also considered goals to be met by the Executive Director and the trustees)	Feb 18, 2022	Each year the ED and the trustees review the progress made toward the current goals and establish goals for the following year. The ED's performance evaluation is based on activities related to achieving each of the current goals. It is expected that meeting the goals outlined in this document will have a significant impact on the continued progress of the MBRF.
The Chair and Executive Committee consider the information, review current goals and results achieved, and identify activities which require greater emphasis, time, or attention by the ED. The Executive Committee makes a recommendation regarding performance and tenure of the ED. In addition, the Executive Committee reviews goals proposed by ED for next year and suggests additional goals if needed	March 2022	
The Chair provides the trustees with a summary of the Executive Committee's review of the ED's performance and asks for their feedback. (The self-assessment portion of the document	March 2022	

should be held confidential between the ED, Chair, and Executive Committee)		
The Chair notifies the ED of the feedback and informs the Corporate Trustee and legal counsel that the contract with the ED may be renewed or he issues a 30-day termination notification to the ED. Should the ED not wish to renew, she is obligated to provide a 30-day notice to the MBRF	March 2022	
The Goals for 2022-23 with edits and additions from the Executive Committee will be included as an item in the March 23, 2022, meeting	March 23, 2022	

## McKnight Brain Research Foundation

### Projected Minimum Investment Return Calculations

(As of 1/31/2022 for fiscal year ending 6/30/2022)

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Average Fair Market Value	\$65,393,766.58
Less:	
Cash held for charitable purposes (1 1/2 %)	<u>(\$980,906.50)</u>
Net value of non-charitable use assets	\$64,412,860.08
Minimum Investment Return (5%)	\$3,220,643.00

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#### Net Minimum Investment Return Calculation:

Minimum investment return	\$3,220,643.00
Less:	
sub total   Qualifying Distributions	<u>(\$2,018,715.00)</u>
	<u>\$1,201,928.00</u>
Excess distribution carryover (actual for '17, '18, '19, '20)	(\$500,342.00)
(estimate for '21)	<u>\$1,201,928.00</u>

McKnight Brain Research Foundation

Minimum Distribution Calculation

Fiscal years 2000 - 2021

<u>Market Value</u> <u>Dec 1999 -\$69,126,583</u>	<u>Tax Year</u>	<u>Distributable Amount</u>	<u>Qualifying</u> <u>Distributions</u>	<u>Excess Distributions</u> <u>Carryover</u>	<u>Undistributed Income</u>
\$51,867,213	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
\$51,898,266	7/1/04 - 6/30/05	\$2,450,345	\$3,026,049	\$575,704	\$0.00
\$55,777,369	7/1/05 - 6/30/06	\$2,620,008	\$2,036,659	\$0	\$7,645.00
\$62,782,831	7/1/06 - 6/30/07	\$2,843,725	\$3,299,931	\$448,561	\$0.00
\$54,753,484	7/1/07 - 6/30/08	\$2,817,569	\$3,110,508	\$292,939	\$0.00
\$39,447,094	7/1/08-6/30/09	\$2,016,762	\$2,517,340	\$500,578	\$0.00
\$39,991,364	7/1/09-6/30/10	\$1,952,550	\$3,789,616	\$1,837,066	\$0.00
\$44,648,921	7/1/10-6/30/11	\$2,058,313	\$3,983,492	\$1,925,179	\$0.00
\$41,206,393	7/1/11-6/30/12	\$1,973,938	\$2,615,808	\$641,870	\$0.00
\$43,820,218	7/1/12 -6/30/13	\$2,020,034	\$2,434,496	\$414,462	\$0.00
\$50,408,385	7/1/13-6/30/14	\$2,246,743	\$2,298,603	\$51,860	\$0.00
\$50,025,982	7/1/14 - 6/30/15	\$2,309,295	\$3,190,468	\$753,267	\$0.00



<u>Market Value</u> <u>Dec 1999 - \$69,126,583</u>	<u>Tax Year</u>	<u>Distributable Amount</u>	<u>Qualifying</u> <u>Distributions</u>	<u>Excess Distributions</u> <u>Carryover</u>	<u>Undistributed Income</u>
\$43,374,433	7/1/15 - 6/30/16	\$2,156,876	\$4,896,096	\$2,739,220	\$0.00
\$45,020,486	7/1/16 - 6/30/17	\$2,197,291	\$3,463,554	\$1,266,263	\$0.00
\$48,399,735	7/1/17 - 6/30/18	\$2,290,460	\$2,662,616	\$372,156	\$0.00
\$46,247,121	7/1/18 - 6/30/19	\$2,308,639	\$2,028,707	\$0	\$0.00
\$49,211,422	7/1/19 - 6/30/2020	\$2,393,971	\$2,522,157	\$128,186	\$0.00
\$65,427,203	7/1/20 - 6/30/2021	\$2,728,732	\$2,018,715	\$0	
\$65,517,222	7/1/2021 - 6/1/2022	\$3,220,643 (estimate)	\$2,728,732 (estimate)		
			\$68,972,001.13	\$500,342	(estimated total excess carryover)

**Part XIII** Undistributed Income (see instructions)

	(a) Corpus	(b) Years prior to 2019	(c) 2019	(d) 2020
<b>1</b> Distributable amount for 2020 from Part XI, line 7 .....				2,728,732.
<b>2</b> Undistributed income, if any, as of the end of 2020:				
<b>a</b> Enter amount for 2019 only .....			0.	
<b>b</b> Total for prior years:		0.		
<b>3</b> Excess distributions carryover, if any, to 2020:				
<b>a</b> From 2015 ..... 2,739,220.				
<b>b</b> From 2016 ..... 1,266,263.				
<b>c</b> From 2017 ..... 372,156.				
<b>d</b> From 2018 .....				
<b>e</b> From 2019 ..... 128,186.				
<b>f</b> Total of lines 3a through e .....	4,505,825.			
<b>4</b> Qualifying distributions for 2020 from Part XII, line 4: ▶ \$ 2,018,715.				
<b>a</b> Applied to 2019, but not more than line 2a ...			0.	
<b>b</b> Applied to undistributed income of prior years (Election required - see instructions) ...		0.		
<b>c</b> Treated as distributions out of corpus (Election required - see instructions) .....	0.			
<b>d</b> Applied to 2020 distributable amount .....				2,018,715.
<b>e</b> Remaining amount distributed out of corpus .....	0.			
<b>5</b> Excess distributions carryover applied to 2020 (If an amount appears in column (d), the same amount must be shown in column (a).) .....	710,017.			710,017.
<b>6</b> Enter the net total of each column as indicated below:				
<b>a</b> Corpus. Add lines 3f, 4c, and 4e. Subtract line 5 .....	3,795,808.			
<b>b</b> Prior years' undistributed income. Subtract line 4b from line 2b .....		0.		
<b>c</b> Enter the amount of prior years' undistributed income for which a notice of deficiency has been issued, or on which the section 4942(a) tax has been previously assessed .....		0.		
<b>d</b> Subtract line 6c from line 6b. Taxable amount - see instructions .....		0.		
<b>e</b> Undistributed income for 2019. Subtract line 4a from line 2a. Taxable amount - see instr. ...			0.	
<b>f</b> Undistributed income for 2020. Subtract lines 4d and 5 from line 1. This amount must be distributed in 2021 .....				0.
<b>7</b> Amounts treated as distributions out of corpus to satisfy requirements imposed by section 170(b)(1)(F) or 4942(g)(3) (Election may be required - see instructions) .....	0.			
<b>8</b> Excess distributions carryover from 2015 not applied on line 5 or line 7 .....	2,029,203.			
<b>9</b> Excess distributions carryover to 2021. Subtract lines 7 and 8 from line 6a .....	1,766,605.			
<b>10</b> Analysis of line 9:				
<b>a</b> Excess from 2016 ... 1,266,263.				
<b>b</b> Excess from 2017 ... 372,156.				
<b>c</b> Excess from 2018 ...				
<b>d</b> Excess from 2019 ... 128,186.				
<b>e</b> Excess from 2020 ...				

McKnight Brain Research Foundation  
Gifts, Grants and Pilot Grants Summary  
Fiscal years 2000 - 2029

<b>GIFTS</b>	<i>University of Alabama</i>	<i>University of Arizona</i>	<i>University of Florida</i>	<i>University of Miami</i>	<i>FNIH</i>	<i>American Brain Foundation</i>
	\$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) \$5,600,000 (5/1/2014)	\$15,000,000	\$5,000,000 (7/3/2003) \$2,000,000 (date tbd)**	\$5,000,000 (5/6/2008) \$5,000,000 (10/2013) \$5,000,000 (6/2018)	\$1,650,000 (6/1/2017) \$1,650,000 (3/9/2021)
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			\$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				\$1,000,000	
7/1/14-6/30/15		\$200,000		\$1,000,000	\$1,000,000	
7/1/15-6/30/16		\$1,200,000		\$500,000	\$2,000,000 **	
7/1/16-6/30/17		\$1,200,000		\$500,000	\$1,000,000	
7/1/17-6/30/18		\$1,000,000			\$1,000,000	
7/1/18-6/30/19		\$1,000,000				\$165,000
7/1/19-6/30/20		\$1,000,000				\$330,000
7/1/20-6/30/21					\$1,000,000	\$330,000
7/1/21-6/30/22					\$1,000,000	\$330,000
7/1/22-6/30/23					\$1,000,000	\$330,000
7/1/23-6/30/24					\$1,000,000	\$330,000
7/1/24-6/30/25					\$1,000,000	\$330,000
7/1/25-6/30/26						\$330,000
7/1/26-6/30/27						\$330,000
7/1/27-6/30/28						\$330,000
7/1/28-6/30/29						\$165,000
7/1/29-6/30/30						
Total	\$12,000,000	\$10,900,000	\$15,000,000	\$7,000,000	\$15,000,000	\$3,300,000
Balance	\$0	\$0	\$0	\$0	\$4,000,000	\$2,288,000

Total Gift

\$63,200,000

Remaining Balance of Gifts

\$6,288,000

**McKnight Brain Research Foundation**  
**Gifts, Grants and Pilot Grants Summary**  
**Fiscal years 2000 - 2029**

[illegible]**Total Grants**

**\$8,086,049.82**

### Remaining Balance of Grants

**\$4,783,807.91**

**McKnight Brain Research Foundation**  
**Gifts , Grants and Pilot Grants Summary**  
**Fiscal years 2000 - 2029**

<b>PILOT GRANTS</b>	<b>A Novel Invention Tool (Levin)</b>	<b>Revitalizing Cognition in Older Adults (Bowers)</b>	<b>Transcutaneous Vagal Nerve Stimulation (Williamson)</b>	<b>Improving Age Related Cognitive Decline with Exercise in Hypertensive Older Adults(Lazar)</b>	<b>Reuniting the Brain and Body to Understand Cognitive Aging (Hernandez)</b>	<b>Evelyn F. McKnight Neurocognitive Post-Doctoral Fellowship (UM)</b>
	\$60,000 (5/1/2018) \$60,000 (5/1/2019)	\$60,000 (5/1/2018) \$60,000 (5/1/2019)	\$60,000 (10/1/2019) \$60,000 (10/1/2020)	\$56,144 (5/1/2021) \$56,144 (5/1/2022)	\$23,600 (5/1/2021) \$36,800 (5/1/2022)	\$100,000 (6/30/2020) \$100,000 (6/30/2021)
7/1/99 - 6/30/00						
7/1/00 - 6/30/01						
7/1/01 - 6/30/02						
7/1/02 - 6/30/03						
7/1/03 - 6/30/04						
7/1/04 - 6/30/05						
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7/1/10 - 6/30/11						
7/1/11 - 6/30/12						
7/1/12 - 6/30/13						
7/1/13 - 6/30/14						
7/1/14 - 6/30/15						
7/1/15 - 6/30/16						
7/1/16 - 6/30/17						
7/1/17 - 6/30/18						
7/1/18 - 6/30/19	\$11,256.57 UF \$6,895.45 UA	\$6,799.94 UF				
7/1/19 - 6/30/20	\$33,845.70 UF \$40,000 UM	\$14,581.29 UF	\$9,881.16 UF			\$100,000.00
7/1/20 - 6/30/21	\$830.52 UF \$21,604.96 UA	\$1,694.96 UF \$18,363,11 UA	\$12,500.21 UF			
7/1/21 - 6/30/22		\$13,200.97UF	\$1,231.60 UA		\$447.81 UF	\$100,000.00
7/1/22 - 6/30/23						
7/1/23 - 6/30/24						
7/1/24 - 6/30/25						
Total	\$120,000.00	\$120,000.00	\$120,000.00	\$112,288.00	\$60,400.00	\$200,000.00
Balance	\$5,566.80	\$65,359.73	\$96,387.03	\$112,288.00	\$59,952.19	\$0.00

**Total Pilot Grants**

**\$732,688.00**

**Remaining Balance of Pilot Grants**

**\$339,553.75**

### Travel Award Program

Date	Name	School	Amount
5/6/2009	Marsha Penner	University of Alabama	\$1,305.43
11/4/2010	Clinton Wright	University of Miami	\$1,005.26
11/20/2010	Gene Alexander	University of Arizona	\$354.39
7/26/2011	Gene Alexander	University of Arizona	\$1,006.74
8/3/2011 - 8/4/2011	Cognitive Test Battery Working Group - Retreat #1	University of Alabama, University of Arizona, University of Florida, University of Miami	\$7,505.06
12/1/2011 - 12/2/2011	Cognitive Test Battery Working Group - Retreat #2	University of Alabama, University of Arizona, University of Florida, University of Miami	\$10,971.11
4/10/2012 - 4/11/2012	Cognitive Test Battery Working Group - Meeting #3	University of Alabama, University of Arizona, University of Florida, University of Miami	\$4,280.42
8/1/2012 - 8/3/2012	MRI Standardization Working Group Meeting	University of Alabama, University of Arizona, University of Florida, University of Miami	\$10,540.91
8/8/2012 - 8/9/2012	Cognitive Test Battery Working Group - Meeting #4	University of Alabama, University of Arizona, University of Florida, University of Miami	\$4,273.80
8/13/2012 - 8/14/2012	Epigenetics Planning Meeting	University of Alabama, University of Arizona, University of Florida, University of Miami	\$7,122.85
1/8/2013 - 1/9/2013	Epigenetics Planning Meeting	University of Alabama, University of Arizona, University of Florida, University of Miami	\$10,684.25
	MRI Standardization - Scanning Project	University of Alabama, University of Arizona, University of Florida, University of Miami	\$1,735.38
4/8/2013 - 4/10/2013	MRI Standardization Working Group Meeting #2	University of Alabama, University of Arizona, University of Florida, University of Miami	\$7,851.43
12/6/2013	MRI Standardization	University of Florida & University of Miami	\$1,094.90
8/2016	Brain and Cognitive Health Working Group	University of Alabama, University of Arizona, University of Florida, University of Miami	\$10,454.20
		<b>Total Spent</b>	<b>\$80,186.13</b>

**MBRF Operating & Communications Budget  
7/1/2021 - 6/30/2022**

Operating Expenses			Communications Expenses		
<b>Board of Trustee Fees</b>	\$240,000.00	\$130,000.00	<b>LookThink</b>	\$55,000.00	\$24,500.00
<b>Legal Fees</b>	\$24,000.00	\$6,978.50	<b>Moonlight Media</b>	\$5,000.00	
<b>CPA Fees</b>	\$20,000.00	\$16,895.00	<b>Neurology Ads</b>	\$5,000.00	\$5,000.00
<b>Consulting Fees*</b>	\$110,000.00	\$64,910.04	<b>Consulting Fees*</b>	\$75,000.00	\$46,287.90
<b>SunTrust Bank Fees</b>	\$170,539.60	\$49,808.28	<b>Total Communications Expenses</b>	\$140,000.00	\$75,787.90
<b>Taxes</b>	\$136,000.00	\$27,500.00	<i>* represent payment to Senior Communications Advisor</i>		
<b>Meetings</b>	\$20,000.00				
<b>Website Fees</b>	\$1,500.00	\$1,500.00			
<b>Memberships</b>	\$780.00	\$780.00			
<b>Insurance</b>	\$1,625.00	\$1,625.00			
<b>Total Operating Expenses</b>	\$724,444.60	\$299,996.82			

*\* represent payment to Executive Director*

***Budget approved at the April 30, 2021 Board of Trustees Meeting***

**Membership & Governance Committee Activity Timeline**  
**For the One-Year Period June 1, 2021, to July 1, 2022**

Updated January 2022

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
<i><b>“identify, recruit and recommend candidates for appointment or re-election of current Trustees, consistent with applicable qualifications...”</b></i>	Determine ideal size of Board	Size of 7 Trustees, plus 1 Corporate Trustee and 1 Chair Emeritus established as goal (Maximum 11 Trustees) The packet required the addition of new material, updated information	June 27, 2019	DONE
	Update/Revise Orientation Packet for New Trustees		October 5, 2020	Completed and presented to new Trustees and posted on the secure site
	Review appointment and retirement dates	Target for New Trustees: 1 or 2 New Trustees in 2020; 1 or 2 in 2021; 1 in 2024; 1 in 2025 to maintain board size of 7	Fall 2020 Summer/Fall 2021	DONE Nominations were received Spring 2021 Vetting Conducted Fall 2021
	Review, discuss and determine expertise needed on Board	Behavioral Neurologists; Women; Expertise Needed in 2021 – Geriatric Psychiatrist; Primary Care Physician (Internal Medicine; Geriatrics; Family Practice)	Fall 2020	DONE
			Summer 2021	DONE
	Request Board names from MBRF Trustees, MBI Leadership, CWG Members and NIA contacts  In 2021, Nominee Names were requested of Trustees	Unanimous Vote to Appoint both Dr. Boyle and Dr. Brashear Names (13) were submitted which met the criteria identified; Names were submitted as recommendations to the Trustees on July 28 Interview Conducted and Unanimous Vote to Appoint Dr. John Brady	October 14, 2020  June 1, 2021  July 28, 2021  August/September 2021  December 2021	New Trustees Attended October 14, 2020, Meeting The Trustees approved candidates for further vetting by Trustees      Dr. John Brady began his term January 1, 2022



Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
<i><b>"identify, recruit, and recommend..." Continued</b></i>	Develop Process for Recruiting, Vetting, and Recommending Candidates <b><u>(The following is a summary of this document and a reminder of steps in the process)</u></b>	Committee reviewed and edited  Committee to review changes to process for recruitment and notification of new trustees	September 30, 2019  June 1, 2021  July 28, 2021	Document was shared October 2019 Meeting Document revised; Document was shared July 2021 Trustees Meeting as revised.
	<i>Names Submitted to and Reviewed by Committee</i>		June 1, 2021	
	<i>Selected Names Forwarded to Board with vetting information and Committee recommendation</i>		July 28, 2021	
	<i>Board selects Candidates to contact</i>		July 28, 2021	
	<i>Nominator and/or MBRF Chair (or Executive Director, if assigned) contact candidate(s) to assess interest and request CV</i>		August/September 2021	
	<i>Committee conducts further vetting, reviews CVs, ranks candidate(s), and makes final recommendation to Board</i>		September 27, 2021	
	<i>Board selects finalist(s), invites to interview, can invite to attend events or trustees meeting. Trustees vote on appointment. Vote must be unanimous</i>		October 28, 2021 or February 2022	
	<i>New Trustee(s) notified. Executive Director requests time for orientation call. Orientation provided by Executive Director and current Trustee as approved by MBRF Chair.</i>		Upon Election	

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
<b><i>“oversee annual Board self-evaluations”</i></b>	Review of the Committee's charge to conduct and monitor the Trustee Self-Assessment Process	Current Self-Assessment form and Commitment Form reviewed.  New form was distributed for January 2021  Review of Input on Forms and conversations with the Chair	September 2019 October 2019 January 2020 Self-Assessment January 2021 Conversations took place with Chair Feb. 2021	The Committee developed new self-assessment form and process.  No new changes to form were suggested
	<i>Identify needed questions and revisions to the current Trustee Self-Assessment Form</i>			DONE
	<i>Decide to send either current form or revised form in January with responses due to corporate trustee in one – two weeks</i>		December 2019 January 2020	MBRF proceeded as has been done in the past in 2019/2020 New Form used in 2021 and 2022
	Discuss whether to develop Board Self-Assessment to review progress toward Board goals		March 2020 Considered in 2021	Request for Suggestions to improve Board were added to Self-Assessment DONE
		Self-Assessment form distributed to Trustees and Returned to Corporate Trustee	Dec. 2021 January 2022	There were no changes to the form from 2021
<b><i>“...make recommendations on structure, charters, policies, process and practices...”</i></b>	Align policy with practice for length of service	Board approved change in policy to allow a “maximum of 9 years” service		DONE

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
<i>"...structure, charters, policies, process..." Continued</i>	Approve role of first Chair Emeritus	Board developed and approved by unanimous consent in email	July 2019	DONE
	Approve role of Trustee Emeritus/ae	Board approved; Recognition provided	July 31, 2019	DONE
	Review/revise "Qualifications for Trustees"	Expanded to non-MD, non-PhD candidates to include those..." active in a field or profession of value in advancing the mission and purpose of the MBRF."	July 31, 2019	DONE
	Develop criteria and process for review of performance of Trustees for Trustee Reappointment. Base criteria on Board Duties and Responsibilities	Summary of Recruitment, Election and Re-Election document developed in July 2020	DONE  June 2021	Trustees to review Summary of Recruitment, Election and Re-election document on July 22. Two re-elections and two retirements in 2021 Process for Review of Performance for re-election approved
	Develop and implement a formal Trustee Recognition of Appreciation for Service	Discuss notification of Trustees completing their service after one, two or three terms. Retiring Trustees will be recognized with a crystal bowl (or other gift) and proclamation	Jan. 21, 2021  April 30, 2021  July 28, 2021	Dr. Gene Ryerson received his recognition gift and proclamation was read into minutes Dr. Robert Wah was recognized with gift and proclamation

**MINUTES**  
**MCKNIGHT BRAIN RESEARCH FOUNDATION**  
**Finance Committee**  
**Via WebEx**  
**January 19, 2022**

The Finance Committee of the MBRF conference call was called to order at 1:00 p.m. EST on January 19, 2022 (See Agenda – Attachment 1)

The following members were present:

Dr. Allison Brashear, Chairman  
Dr. Michael Dockery, MBRF Chair  
Dr. Sue Pekarske Trustee  
Ms. Melanie Cianciotto, Corporate Trustee,  
    Truist Foundations and Endowments Specialty Practice

Others attending:

Ms. Amy Porter, Executive Director

**1. Approval of Minutes**

The minutes of the July 22, 2021, MBRF Finance Committee conference call (Attachment 2) were reviewed and approved as presented.

**Action Item 1: The Finance Committee members approved the minutes of the July 22, 2021, Finance Committee conference call as presented (Attachment 2).**

**2. Review of the Updated Finance Committee Activity Timeline**

The Finance Committee received the updated Finance Committee Activity Timeline (Attachment 3) for information.

**Action Item 2: The Finance Committee members received the updated Finance Committee Activity Timeline (Attachment 3) for information.**

**3. Review Financial Information in the MBI Annual Reports**

The Finance Committee reviewed the financial information provided in the MBI Annual Reports (Attachment 4).

**a. University of Alabama at Birmingham**

The committee had the following questions/comments regarding the financial information:

- Please use the agreed upon financial template to summarize each of the endowment funds listed on pages 8 – 11 of the report.
- The Jarman F. Lowder Endowed Professorship in Neuroscience previously held by Dr. Lori L. McMahon is now vacant. Please provide an update regarding the vacancy.
- The Rebecca Gale Endowed Professorship had a book value of \$750,000 and market value of \$726,918 in 2020. The 2021 book value is \$1,000,000 and the market value if \$1,175,868. Please provide an explanation for the increase in book value.
- Please provide some background on the new Protective Life Endowed Chair in Healthy Aging.
- In the UAB Matching Funds Chart, the 21/22 Projected Spendable Earnings match the information from pages 8-11 of the report with the exception of the Jarman F. Lowder Endowed Professorship in Neuroscience. Page 10 of the report shows the Projected Spendable Earnings as \$71,041 while the chart shows \$26,180. Pages 8-11 show the Projected Spendable Earnings of each fund for FY 2020/21 while the Matching Funds Chart shows it as FY 21/22. Please clarify which is correct.
- The date of the Book Value changes from year to year to match the market value date. Wouldn't the book value be the original date the funds were received?
- On Page 19 of the 2020 Annual report, 2 additional columns were included that referenced Additional Endowment Earnings and Matching Endowment Spendable Earnings. These columns need to be added to this year's report of the 2022 Budget (on page 6), as this also captures the Kinney Chair and Geropsychiatry Chair spendables.
- The "date Approved" on the Gale Professorship needs to be corrected.

#### **b. University of Arizona**

The committee had the following questions/comments regarding the financial information:

- Please provide the current MBI Budget.
- For the Quasi Endowment, please provide an explanation for how the \$777,084 was spent.
- For the Permanent Endowment, please provide an explanation for how the \$157,072 was spent.
- The Permanent Endowment has an unmatched balance of \$973,027. Please provide an update on the progress of the match.

#### **c. University of Florida**

The committee had the following questions/comments regarding the financial information:

- Please provide the current MBI Budget
- The date of the Book Value changes from year to year to match the market value date. Wouldn't the book value be the original date the funds were received?
- In order for each part to be comprehensively understood, please combine the financial summary and the Fund Impact Report into a single document for each chair, program or fund. In this way it will more closely resemble the agreed upon financial report template.

**d. University of Miami**

The committee did not have any questions/comments regarding the University of Miami regarding the financial information provided in the Annual Report.

There being no further business, the meeting was adjourned at 2:00 p.m. EST

Summary of Action Items:

Respectfully Submitted,

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Melanie A. Cianciotto  
Truist Bank, Corporate Trustee

*\*pending committee chairman review*

**Finance Committee Activity Timeline**  
**For the One-Year Period July 1, 2021, to June 30, 2022**

Updated January 19, 2022

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
<i>"...shall coordinate the Board of Trustee's Financial Oversight Responsibilities (through monitoring of) ...financial management, assets, and risks ..."</i>	Review Investments and Investment Policy	Asset Allocation Review (Mike Hill)	July 28, 2021	<b><i>completed</i></b>
		Efficient Frontier Analysis (Shelly Simpson)	July 28, 2021	<b><i>completed</i></b>
		Monte Carlo Simulation		upon recommendation by SunTrust or request of the MBRF
		Investment Performance Review	July 28, 2021	<b><i>completed</i></b>
		Investment Performance & Asset Allocation Review (Mike Hill)	October 28, 2021	<b><i>completed</i></b>
		Investment Performance & Asset Allocation Review (Mike Hill)	February 9, 2022	
		Investment Performance & Asset Allocation Review (Mike Hill)	March 24, 2022	

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
<b><i>Financial Oversight... "...Ensure Compliance with Federal, State and other Financial Reporting Requirements..."</i></b>	Assess and Maintain IRS Required Distribution Amount	Minimum Distribution Calculation Report	July 28, 2021 October 28, 2021 February 9, 2022 March 23, 2022	<b><i>completed completed</i></b>
	Compensation Review	Examples Presented for Comparison	July 28, 2021	<b><i>completed</i></b>
	Tax Filing	Legal Counsel for the MBRF reviews the completed tax form before filing		<b><i>7.1.20 – 6.30.21 filed 1.14.2021</i></b>
	Insurance	MBRF carries D & O Insurance	Renewed annually	Premium paid by Corporate Trustee <b><i>Paid 10.20.2021</i></b>
<b><i>Financial Oversight " planning, monitoring and evaluation of ...funding for the McKnight Brain Institutes... and the MBRF Operations"</i></b>	Monitor Current and Outstanding Gifts and Grants	Gifts and Grants Report	July 28, 2021 October 28, 2021 February 9, 2022 March 23, 2022	<b><i>completed completed</i></b>
		Travel Award Program Report	July 28, 2021 October 28, 2021 February 9, 2022 March 23, 2022	<b><i>completed completed</i></b>
	Review MBRF Operating Expenses	Year to Date Operating Expenses Report	July 28, 2021 October 28, 2021 February 9, 2022 March 23, 2022	<b><i>completed completed</i></b>
		Review & Approve Annual Operating Budget	April 30, 2022	



Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
<b><i>Financial Review...of reports and requests submitted to the MBRF by the MBIs and Other Partners</i></b>	Review Financial Reports Submitted with the MBI's Annual Reports		January 19, 2022	<b><i>completed</i></b>
	Review Financial Information included in Interim and Final Reports for Research Grants		Per terms of the award letter	
	Review Budgets Submitted with Requests for Funding		As submitted	
<b><i>"...ensure adequacy of MBRF internal controls and compliance with conflict of interest policy..."</i></b>	Review Signing Authority	MBRF policy is minimum of 2 individuals with signing authority	December 7, 2021	<b><i>Updated to Truist documentation-completed</i></b>
	Conflict of Interest	Conflict of Interest Policy signed by all new and re-elected Trustees and by all Advisory Members of MBRF Committees	ONGOING	

**From:** [Armstrong, Melanie A](#)  
**To:** [Cianciotto, Melanie](#)  
**Cc:** ["Amy Porter"](#); [Brannan, Tom](#); [Lazar, Ronald M](#); [Hixon, Vicki](#); [Rushing, Alan](#)  
**Subject:** FW: UAB MBRF Annual Report  
**Date:** Monday, January 31, 2022 3:39:40 PM  
**Attachments:** [Approving the Establishment of The Protective Life Endowed Chair in Healthy Aging Research.pdf](#)  
[Protective Life Endowed Chair in Healthy Aging Research News Article.pdf](#)  
[McKnight Annual Financial Report Template 10.2021.pdf](#)  
[Annual Report Financial Update.pdf](#)  
[FY22 McKnight Budget with matching endowments.pdf](#)

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Good Afternoon Melanie,

We have attached documents and answered questions below related to UAB's annual report to the McKnight Brain Research Foundation. Please let us know if you have any further questions.

Best,  
Melanie

- Please use the attached template to summarize each of the endowment funds listed on pages 8 – 11 of the report. [Attached](#)
- The Jarman F. Lowder Endowed Professorship in Neuroscience previously held by Dr. Lori L. McMahon is now vacant. Please provide an update regarding the vacancy. [Dr. McMahon retired from UAB in November. Dr. David Standaert is leading an active search for the next director of the Comprehensive Neuroscience Center. That candidate will also become a member of the McKnight Brain Institute and hold the Lowder Endowed Professorship. We will let the MBRF know once a candidate has been identified and an announcement has been made.](#)
- The Rebecca Gale Endowed Professorship had a book value of \$750,000 and market value of \$726,918 in 2020. The 2021 book value is \$1,000,000 and the market value is \$1,175,868. Please provide an explanation for the increase in book value.  
[The Gale Foundation made a payment of \\$250,000 to bring the book value up to its current level of \\$1,000,000. The Foundation plans to make two more payments in 2022 and 2023 to convert the Professorship to the endowed chair level at \\$1,500,000.](#)
- Please provide some background on the new Protective Life Endowed Chair in Healthy Aging.  
[Protective Life Foundation has given \\$1,500,000 to establish this fund in the College of Arts and Sciences to support aging research performed by Dr. Steven Austad. Dr. Austad is a faculty member in the Department of Biology and the Evelyn F. McKnight Brain Institute. An article and the official resolution approved by the Board of Trustees are attached.](#)
- In the UAB Matching Funds Chart, the 21/22 Projected Spendable Earnings match the information from pages 8-11 of the report with the exception of the Jarman F. Lowder Endowed Professorship in Neuroscience. Page 10 of the report shows the Projected

Spendable Earnings as \$71,041 while the chart shows \$26,180. Pages 8-11 show the Projected Spendable Earnings of each fund for FY 2020/21 while the Matching Funds Chart shows it as FY 21/22. Please clarify which is correct. [All projected earnings are for FY 21/22 and all occurrences now match.](#)

- The date of the Book Value changes from year to year to match the market value date. Wouldn't the book value be the original date the funds were received? [No, the Book value is contributions plus reinvested earnings so this is not a historical gift date.](#)
- On Page 19 of the 2020 Annual report, 2 additional columns were included that referenced Additional Endowment Earnings and Matching Endowment Spendable Earnings. These columns need to be added to this year's report of the 2022 Budget (on page 6), as this also captures the Kinney Chair and Geropsychiatry Chair spendables. [Update attached.](#)
- The "date Approved" on the Gale Professorship needs to be corrected. [Updated](#)

### **Melanie Armstrong, MPA | Director of Donor Relations & Engagement**

Office of Advancement

UAB | The University of Alabama at Birmingham

AB 1225 | 701 20<sup>th</sup> Street South | Birmingham, AL 35223-0112

O: 205.996.5600 | C: 205.903.4574 | [melaniek@uab.edu](mailto:melaniek@uab.edu)

[uab.edu](http://uab.edu)

---

**From:** Cianciotto, Melanie <[Melanie.Cianciotto@truist.com](mailto:Melanie.Cianciotto@truist.com)>

**Sent:** Monday, January 24, 2022 6:41 PM

**To:** Hixon, Vicki <[VHixon@uab.edu](mailto:VHixon@uab.edu)>; Lazar, Ronald M <[rlazar@uabmc.edu](mailto:rlazar@uabmc.edu)>; Brannan, Tom <[tbrannan@uab.edu](mailto:tbrannan@uab.edu)>; Armstrong, Melanie A <[melaniek@uab.edu](mailto:melaniek@uab.edu)>

**Cc:** 'Amy Porter' <[aporter@mcknightbrf.org](mailto:aporter@mcknightbrf.org)>

**Subject:** UAB MBRF Annual Report

Hi Vicki,

I hope you are doing well. In preparation for the February Trustees' Meeting, the MBRF Finance Committee has reviewed the financial information submitted with your Annual Report. The committee has the following questions/comments regarding the report:

- Please use the attached template to summarize each of the endowment funds listed on pages 8 – 11 of the report.
- The Jarman F. Lowder Endowed Professorship in Neuroscience previously held by Dr. Lori L. McMahon is now vacant. Please provide an update regarding the vacancy.
- The Rebecca Gale Endowed Professorship had a book value of \$750,000 and market value of \$726,918 in 2020. The 2021 book value is \$1,000,000 and the market value if \$1,175,868.

Please provide an explanation for the increase in book value.

- Please provide some background on the new Protective Life Endowed Chair in Healthy Aging.
- In the UAB Matching Funds Chart, the 21/22 Projected Spendable Earnings match the information from pages 8-11 of the report with the exception of the Jarman F. Lowder Endowed Professorship in Neuroscience. Page 10 of the report shows the Projected Spendable Earnings as \$71,041 while the chart shows \$26,180. Pages 8-11 show the Projected Spendable Earnings of each fund for FY 2020/21 while the Matching Funds Chart shows it as FY 21/22. Please clarify which is correct.
- The date of the Book Value changes from year to year to match the market value date. Wouldn't the book value be the original date the funds were received?
- On Page 19 of the 2020 Annual report, 2 additional columns were included that referenced Additional Endowment Earnings and Matching Endowment Spendable Earnings. These columns need to be added to this year's report of the 2022 Budget (on page 6), as this also captures the Kinney Chair and Geropsychiatry Chair spendables.
- The "date Approved" on the Gale Professorship needs to be corrected.

Please provide a response no later than January 31<sup>st</sup>.

Please let me know if you have questions or need clarification.

Thank you in advance for your attention to this matter.

Melanie

**Melanie Cianciotto, CTFA**

**First Vice President**

**Client Manager /Truist**

**Foundations and Endowments Specialty Practice**

333 S. Garland Avenue, 17<sup>th</sup> Floor, Orlando, FL 32801

Mail Code 886-73-17-50

Office: 407-237-4485 / Mobile: 321-228-6578 / Fax: 844-329-6323

[melanie.cianciotto@truist.com](mailto:melanie.cianciotto@truist.com)

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**Annual Report**  
**McKnight Brain Research Foundation**  
**Sponsored Institutes and Research Programs**  
(Include activity of all McKnight supported faculty and trainees)  
Report Period: 10/1/2020 – 9/30/2021

## MCKNIGHT BRAIN INSTITUTE AT UAB

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### Cumulative Endowment Total

Book Value at 9/30/2021: \$15,964,073  
Market Value at 9/30/2021: \$20,131,081  
Projected Spendable Earnings for FY 2021/22: \$804,440

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### Evelyn F. McKnight Brain Institute Endowed Support Fund

Date Approved: 2/4/2011  
  
Book Value at 9/30/2021: \$5,000,000  
Market Value at 9/30/2021: \$6,300,800  
Projected Spendable Earnings for FY 2021/22: \$237,969

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### Evelyn F. McKnight Endowed Chair for Learning and Memory in Aging

Date Approved: 10/1/2004  
  
Current Occupant: Ronald M. Lazar, Ph.D.  
Occupant Date: 9/15/2017  
  
Book Value at 9/30/2021: \$1,500,000  
Market Value at 9/30/2021: \$1,817,123  
Projected Spendable Earnings for FY 2021/22: \$68,629

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## Geropsychiatry Research Chair

Date Approved: 6/28/1993

Designated Occupant: Junghee Lee, Ph.D.

Occupant Date: 3/1/2020

Book Value at 9/30/2021: \$1,222,896

Market Value at 9/30/2021: \$2,286,455

Projected Spendable Earnings for FY 2021/22: \$86,355

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## F. Cleveland Kinney Endowed Chair in Geriatric Psychiatry

Date Approved: 6/15/2007

Current Occupant: Adrienne C. Lahti, M.D.

Occupant Date: 4/6/2018

Book Value at 9/30/2021: \$1,503,940

Market Value at 9/30/2021: \$1,800,986

Projected Spendable Earnings for FY 2021/22: \$68,020

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## Warren Family Endowed Chair in Neurology

Date Approved: 6/15/2012

Current Occupant: David S. Geldmacher, M.D., FACP

Occupant Date: 11/4/2016

Book Value at 9/30/2021: 1,506,618

Market Value at 9/30/2021: \$1,898,982

Projected Spendable Earnings for FY 2021/22: \$71,721

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## Patsy W. and Charles A. Collat Endowed Professorship in Neuroscience

Date Approved: 4/4/2014

Current Occupant: Jeremy H. Herskowitz, Ph.D.

Occupant Date: 11/8/2019

Book Value at 9/30/200.: \$500,000

Market Value at 9/30/2021: \$612,690

Projected Spendable Earnings for FY 2021/22: \$23,140

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## Jarman F. Lowder Endowed Professorship in Neuroscience

Date Approved: 6/15/2012

Current Occupant: Vacant

Book Value at 9/30/2021: \$530,619

Market Value at 9/30/2021: \$693,170

Projected Spendable Earnings for FY 2021/22: \$71,041

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## Virginia B. Spencer Endowed Professorship in Neuroscience

Date Approved: 9/14/2012

Current Occupant: Craig Matlow Powell, M.D., Ph.D.

Occupant Date: 6/8/2018

Book Value at 9/30/2021: \$1,500,000

Market Value at 9/30/2021: \$1,819,285

Projected Spendable Earnings for FY 2021/22: \$68,711

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## Rebecca Gale Endowed Professorship

Date Approved: 6/7/2049

Current Occupant: Erik D. Roberson, Ph.D.

Occupant Date: 9/6/2019

Book Value at 9/30/2021: \$1,000,000

Market Value at 9/30/2021: \$1,175,868

Projected Spendable Earnings for FY 2021/22: \$44,410

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## Protective Life Endowed Chair in Healthy Aging

Date Approved: 6/4/2021

Current Occupant: Steven N. Austad, Ph.D.

Occupant Date: 9/1/2021

Book Value at 9/30/2021: \$1,500,000

Market Value at 9/30/2021: \$1,485,331

Projected Spendable Earnings for FY 2021/22: \$55,365

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## Patsy W. and Charles Collat Scholar in Neuroscience Endowed Support Fund

Date Approved: 4/10/2015

Book Value at 9/30/2021: \$200,000

Market Value at 9/30/2021: \$240,391

Projected Spendable Earnings for FY 2021/22: \$9,079

UAB EMBI Matching Funds			
Endowment Name	Date Established	Corpus as of 9/30/2021	Projected Spendable Earnings FY 21/22
Warren Family Endowed Chair in Neurology	6/15/2012	\$1,506,618	\$71,721
Patsy W. and Charles A. Collat Endowed Professorship in Neuroscience	4/4/2014	\$500,000	\$23,140
Jarman F. Lowder Endowed Professorship in Neuroscience	6/15/2012	\$530,619	\$26,180
Virginia B. Spencer Endowed Professorship in Neuroscience	9/14/2012	\$1,500,000	\$68,711
Rebecca Gale Endowed Professorship	6/7/2019	\$1,000,000	\$44,410
Protective Life Endowed Chair in Healthy Aging	6/4/2021	\$1,500,000	\$55,365
Patsy W. and Charles A. Collat Scholar Endowed Support Fund	4/10/2015	\$200,000	\$9,079
<b>Total Matching Funds</b>		<b>\$6,737,237</b>	<b>\$298,606</b>
<b>Remaining UAB Match</b>		<b>\$0</b>	

# **THE UNIVERSITY OF ALABAMA AT BIRMINGHAM**

## **Resolution**

### **Approving the Establishment of The Protective Life Endowed Chair in Healthy Aging Research**

WHEREAS, Protective Life Corporation has made a generous commitment of \$2 million to the University to support healthy aging research in the Department of Biology within the College of Arts and Sciences; and

WHEREAS, the Donor has made gifts totaling \$1,500,000 toward the establishment of an endowed chair for the purpose of recruiting and/or retaining an international leader in the field of healthy aging research at the University; and

WHEREAS, this endowed chair will support the work of a recognized leader in the field of healthy aging; and

WHEREAS, it is most fitting that this endowment be named to honor the longtime partnership and generosity of Protective Life Corporation; and

WHEREAS, Protective Life Corporation has been a fervent champion of the University for more than 50 years, providing support to virtually all areas of campus, from student and patient support to facilities and community outreach; and

WHEREAS, Protective Life Corporation's most transformational commitment to date was to support the Alabama Drug Discovery Alliance (ADDA), a pipeline of therapies for diabetes, kidney disease, myeloma dysplastic syndrome, multiple myeloma, Parkinson's disease, Alzheimer's disease, many types of cancers, and more; and

WHEREAS, this gift continues to affect every aspect of the pipeline, from testing to clinical trials, bringing drugs to the market, patient care, and economic development; and

WHEREAS, Protective Life Corporation, founded in Birmingham, Alabama, has been helping protect and provide peace of mind to families for more than 110 years with an ongoing commitment to serve people and do the right thing; and

WHEREAS, the company's employees number more than 3,500 across the United States, with its home office still in Birmingham; and

WHEREAS, Protective Life Corporation is committed to its community, supporting a variety of nonprofits and important community initiatives, providing more than \$5.0 million in grants in 2020; and

WHEREAS, the company supported multiple COVID-19 relief efforts in 2020, providing \$1 million to support research and treatment development at UAB, childcare for essential frontline workers at the YMCA of Greater Birmingham, numerous relief programs and local food banks; and

WHEREAS, in 2019, Protective Life Corporation signed a 15-year agreement to name Birmingham's new multi-use stadium; and

WHEREAS, Protective Stadium will make an immeasurable impact on the Birmingham community—notably UAB, as the new home of UAB Football; and

WHEREAS, UAB is grateful to Protective Life Corporation for their steadfast support, allowing the University to pursue its mission to serve students, patients, the community, and the global need for discovery, knowledge dissemination, education, creativity, and the application of groundbreaking solutions; and

NOW, THEREFORE, BE IT RESOLVED by The Board of Trustees of The University of Alabama that it herewith approves the establishment of The Protective Life Endowed Chair in Healthy Aging, a pure endowment of the University totaling \$1,500,000.

BE IT FURTHER RESOLVED that this resolution be spread upon the permanent minutes of this Board and that copies or any parts of it be sent to Dr. Steven N. Austad, Chair of the Department of Biology, Dr. Kecia M. Thomas, Dean of the College of Arts and Sciences; and to other appropriate officials of The University of Alabama at Birmingham.

Approved 6/4/2021

## People of UAB

# Steven N. Austad, Ph.D., appointed as inaugural Protective Life Endowed Chair in Healthy Aging Research at UAB

UAB media contact: [Alicia Rohan](#)

Protective Life media contact: [Brittnie Bordonaro](#)

A partnership  
between  
the [University of  
Alabama at](#)



**Internationally renowned researcher named UAB's newest endowed chair in healthy aging through partnership with Protective Life.**

[Birmingham](#) and [Protective Life Corporation](#) focuses on advancing the science of healthy aging, including a \$1.5 million investment, announced in May, to create the [Protective Life Endowed Chair in Healthy Aging Research](#). The [University of Alabama System](#) Board of Trustees recently approved the appointment of Steven N. Austad, Ph.D., one of the most respected minds in healthy aging research, as the inaugural Protective Life Endowed Chair in Healthy Aging Research, enabling him to

build on his pioneering legacy to establish Birmingham as a global epicenter for healthy aging research.

“Dr. Austad is an international trailblazer in the science of aging, and we are thrilled to see him named as the inaugural Protective Life Endowed Chair in Healthy Aging Research at UAB,” said Rich Bielen, president and CEO of Protective. “At Protective, we are proud to be able to play a role in advancing healthy aging research, which will ultimately help people live longer, healthier lives and have a significant impact on our industry.”

Austad will lead a collaborative team of healthy aging researchers in the [UAB College of Arts and Sciences](#), [Marnix E. Heersink School of Medicine](#), [School of Public Health](#), [School of Health Professions](#) and others on interdisciplinary research to better understand the aging process as it relates to morbidity and mortality, prepare our society for future demographic shifts, and invest in people’s well-being.

## UAB research on healthy aging continues to show promise:

- [\\$4.5 million grant awarded to UAB to continue aging research](#)
- [\\$3.7 million grant awarded to UAB to study antiviral therapies and accelerated aging](#)
- [Symposium focuses on integrating aging research into clinical practice](#)
- [UAB aging and longevity researchers win international prize](#)

“Dr. Austad has shown outstanding leadership in the College of Arts and Sciences as he continues to advance his groundbreaking research in healthy aging,” said UAB President Ray L. Watts. “We are grateful to Protective Life for this new endowed chair that will provide a platform for building an interdisciplinary team focusing on the mechanics of the aging process.”

Austad currently serves as the chair of the [UAB Department of Biology](#), senior scientific director of the American Federation for Aging Research and co-director of the [UAB Nathan Shock Center of Excellence in the Basic Biology of Aging](#).

In addition to the Protective Life Endowed Chair in Healthy Aging Research, Protective’s total \$2 million investment toward advancing the science of healthy aging also funds the Protective Life Healthy Aging and Research Acceleration and Innovation Fund. This fund will drive further research efforts, while also expanding awareness about the findings and applications to advance the field and improve quality of life in aging individuals.

Tokyo-based Dai-ichi Life Holdings, Inc., parent company of Protective, is dedicated to helping solve various social issues, including healthy aging, and shares the vision to advance research that will help people live longer, healthier lives.

# Annual Report

**McKnight Brain Research Foundation**  
**Sponsored Institutes and Research Programs**  
**(Include activity of all McKnight supported faculty and trainees)**  
**Report Period: 10/1/2020 – 9/30/2021**

Financial Summary Format

\_\_\_\_\_ (Institute) \_\_\_\_\_

Summary for 12 months ended 9/30/2021

Account Name: All Endowments benefitting the Evelyn F. McKnight Brain Institute

A.	Beginning Balance on <u>10/1/2020</u>	\$ <u>\$14,536,159</u>
B.	Investment Growth	\$ <u>4,186,028</u>
C.	Distributions	\$ <u>(660,255)</u>
D.	Additional Contribution	\$ <u>1,750,000</u>
E.	Ending Balance on <u>9/30/2021</u>	\$ <u>19,811,932</u>
F.	Unmatched Balance (if applicable)	\$ _____

## DEFINITIONS

*DISTRIBUTION* is the money transferred from the account to the spendable/operating account for the designated use.

*BALANCE* is the market value of the account as of the first or last day of the reporting year.

*ADDITIONAL CONTRIBUTION* is additional contribution by MBRF, the reporting institution, match etc.

*INVESTMENT GROWTH* (Loss) is the total undistributed interest, dividends, and realized and unrealized gains and losses.

*BALANCE* is the value of the account's corpus including all contributions, and applicable state match monies as of the date indicated.



# Annual Report

**McKnight Brain Research Foundation**  
**Sponsored Institutes and Research Programs**  
**(Include activity of all McKnight supported faculty and trainees)**  
**Report Period: 10/1/2020 – 9/30/2021**

## Financial Summary Format

\_\_\_\_\_  
(Institute)

Summary for 12 months ended 9/30/2021

Account Name: Evelyn F. McKnight Brain Institute Endowed Support Fund

A.	Beginning Balance on <u>10/1/2020</u>	\$ <u>5,007,425</u>
B.	Investment Growth	\$ <u>\$1,123,375</u>
C.	Distributions	\$ <u>(237,969)</u>
D.	Additional Contribution	\$ _____
E.	Ending Balance on <u>9/30/2021</u>	\$ <u>\$6,300,800</u>
F.	Unmatched Balance (if applicable)	\$ _____

## DEFINITIONS

*DISTRIBUTION* is the money transferred from the account to the spendable/operating account for the designated use.

*BALANCE* is the market value of the account as of the first or last day of the reporting year.

*ADDITIONAL CONTRIBUTION* is additional contribution by MBRF, the reporting institution, match etc.

*INVESTMENT GROWTH* (Loss) is the total undistributed interest, dividends, and realized and unrealized gains and losses.

*BALANCE* is the value of the account's corpus including all contributions, and applicable state match monies as of the date indicated.

# Annual Report

**McKnight Brain Research Foundation  
Sponsored Institutes and Research Programs  
(Include activity of all McKnight supported faculty and trainees)  
Report Period: 10/1/2020 – 9/30/2021**

## Financial Summary Format

\_\_\_\_\_  
(Institute)

Summary for 12 months ended 9/30/2021

Account Name: Evelyn F. McKnight Endowed Chair for Learning and Memory in Aging

B.	Beginning Balance on <u>10/1/2020</u>	\$	<u>1,430,024</u>
B.	Investment Growth	\$	<u>455,728</u>
C.	Distributions	\$	<u>(68,629)</u>
D.	Additional Contribution	\$	_____
E.	Ending Balance on <u>9/30/2021</u>	\$	<u>1,817,123</u>
F.	Unmatched Balance (if applicable)	\$	_____

## DEFINITIONS

*DISTRIBUTION* is the money transferred from the account to the spendable/operating account for the designated use.

*BALANCE* is the market value of the account as of the first or last day of the reporting year.

*ADDITIONAL CONTRIBUTION* is additional contribution by MBRF, the reporting institution, match etc.

*INVESTMENT GROWTH* (Loss) is the total undistributed interest, dividends, and realized and unrealized gains and losses.

*BALANCE* is the value of the account's corpus including all contributions, and applicable state match monies as of the date indicated.

# Annual Report

**McKnight Brain Research Foundation**  
**Sponsored Institutes and Research Programs**  
**(Include activity of all McKnight supported faculty and trainees)**  
**Report Period: 10/1/2020 – 9/30/2021**

## Financial Summary Format

\_\_\_\_\_ (Institute) \_\_\_\_\_

Summary for 12 months ended 9/30/2021

Account Name: Geropsychiatry Research Chair

C.	Beginning Balance on <u>10/1/2020</u>	\$	<u>1,817,111</u>
B.	Investment Growth	\$	<u>555,699</u>
C.	Distributions	\$	<u>(86,355)</u>
D.	Additional Contribution	\$	_____
E.	Ending Balance on <u>9/30/2021</u>	\$	<u>2,286,455</u>
F.	Unmatched Balance (if applicable)	\$	

## DEFINITIONS

*DISTRIBUTION* is the money transferred from the account to the spendable/operating account for the designated use.

*BALANCE* is the market value of the account as of the first or last day of the reporting year.

*ADDITIONAL CONTRIBUTION* is additional contribution by MBRF, the reporting institution, match etc.

*INVESTMENT GROWTH* (Loss) is the total undistributed interest, dividends, and realized and unrealized gains and losses.

*BALANCE* is the value of the account's corpus including all contributions, and applicable state match monies as of the date indicated.

# Annual Report

**McKnight Brain Research Foundation**  
**Sponsored Institutes and Research Programs**  
**(Include activity of all McKnight supported faculty and trainees)**  
**Report Period: 10/1/2020 – 9/30/2021**

## Financial Summary Format

\_\_\_\_\_  
(Institute)

Summary for 12 months ended 9/30/2021

Account Name: F. Cleveland Kinney Endowed Chair in Geriatric Psychiatry

D.	Beginning Balance on <u>10/1/2020</u>	\$	<u>1,417,325</u>
B.	Investment Growth	\$	<u>451,681</u>
C.	Distributions	\$	<u>(68,020)</u>
D.	Additional Contribution	\$	_____
E.	Ending Balance on <u>9/30/2021</u>	\$	<u>1,800,986</u>
F.	Unmatched Balance (if applicable)	\$	

## DEFINITIONS

*DISTRIBUTION* is the money transferred from the account to the spendable/operating account for the designated use.

*BALANCE* is the market value of the account as of the first or last day of the reporting year.

*ADDITIONAL CONTRIBUTION* is additional contribution by MBRF, the reporting institution, match etc.

*INVESTMENT GROWTH* (Loss) is the total undistributed interest, dividends, and realized and unrealized gains and losses.

*BALANCE* is the value of the account's corpus including all contributions, and applicable state match monies as of the date indicated.

# Annual Report

**McKnight Brain Research Foundation**  
**Sponsored Institutes and Research Programs**  
**(Include activity of all McKnight supported faculty and trainees)**  
**Report Period: 10/1/2020 – 9/30/2021**

## Financial Summary Format

\_\_\_\_\_  
(Institute)

Summary for 12 months ended 9/30/2021

Account Name: Warren Family Endowed Chair in Neurology

E.	Beginning Balance on <u>10/1/2020</u>	\$	<u>1,506,618</u>
B.	Investment Growth	\$	<u>464,085</u>
C.	Distributions	\$	<u>(71,721)</u>
D.	Additional Contribution	\$	_____
E.	Ending Balance on <u>9/30/2021</u>	\$	<u>1,898,982</u>
F.	Unmatched Balance (if applicable)	\$	

## DEFINITIONS

*DISTRIBUTION* is the money transferred from the account to the spendable/operating account for the designated use.

*BALANCE* is the market value of the account as of the first or last day of the reporting year.

*ADDITIONAL CONTRIBUTION* is additional contribution by MBRF, the reporting institution, match etc.

*INVESTMENT GROWTH* (Loss) is the total undistributed interest, dividends, and realized and unrealized gains and losses.

*BALANCE* is the value of the account's corpus including all contributions, and applicable state match monies as of the date indicated.

# Annual Report

**McKnight Brain Research Foundation**  
**Sponsored Institutes and Research Programs**  
**(Include activity of all McKnight supported faculty and trainees)**  
**Report Period: 10/1/2020 – 9/30/2021**

## Financial Summary Format

\_\_\_\_\_ (Institute) \_\_\_\_\_

Summary for 12 months ended 9/30/2021

Account Name: Patsy W. and Charles A. Collat Endowed Professorship in Neuroscience

F.	Beginning Balance on <u>10/1/2020</u>	\$	<u>482,169</u>
B.	Investment Growth	\$	<u>153,661</u>
C.	Distributions	\$	<u>(23,140)</u>
D.	Additional Contribution	\$	_____
E.	Ending Balance on <u>9/30/2021</u>	\$	<u>612,690</u>
F.	Unmatched Balance (if applicable)	\$	

## DEFINITIONS

*DISTRIBUTION* is the money transferred from the account to the spendable/operating account for the designated use.

*BALANCE* is the market value of the account as of the first or last day of the reporting year.

*ADDITIONAL CONTRIBUTION* is additional contribution by MBRF, the reporting institution, match etc.

*INVESTMENT GROWTH* (Loss) is the total undistributed interest, dividends, and realized and unrealized gains and losses.

*BALANCE* is the value of the account's corpus including all contributions, and applicable state match monies as of the date indicated.

# Annual Report

**McKnight Brain Research Foundation**  
**Sponsored Institutes and Research Programs**  
**(Include activity of all McKnight supported faculty and trainees)**  
**Report Period: 10/1/2020 – 9/30/2021**

## Financial Summary Format

\_\_\_\_\_ (Institute) \_\_\_\_\_

Summary for 12 months ended 9/30/2021

Account Name: Jarman F. Lowder Endowed Professorship in Neuroscience

G.	Beginning Balance on <u>10/1/2020</u>	\$	<u>527,662</u>
B.	Investment Growth	\$	<u>236,549</u>
C.	Distributions	\$	<u>(71,041)</u>
D.	Additional Contribution	\$	_____
E.	Ending Balance on <u>9/30/2021</u>	\$	<u>693,170</u>
F.	Unmatched Balance (if applicable)	\$	

## DEFINITIONS

*DISTRIBUTION* is the money transferred from the account to the spendable/operating account for the designated use.

*BALANCE* is the market value of the account as of the first or last day of the reporting year.

*ADDITIONAL CONTRIBUTION* is additional contribution by MBRF, the reporting institution, match etc.

*INVESTMENT GROWTH* (Loss) is the total undistributed interest, dividends, and realized and unrealized gains and losses.

*BALANCE* is the value of the account's corpus including all contributions, and applicable state match monies as of the date indicated.

# Annual Report

**McKnight Brain Research Foundation**  
**Sponsored Institutes and Research Programs**  
**(Include activity of all McKnight supported faculty and trainees)**  
**Report Period: 10/1/2020 – 9/30/2021**

## Financial Summary Format

\_\_\_\_\_  
(Institute)

Summary for 12 months ended 9/30/2021

Account Name: Virginia B. Spencer Endowed Professorship in Neuroscience

H.	Beginning Balance on <u>10/1/2020</u>	\$	<u>1,431,726</u>
B.	Investment Growth	\$	<u>456,270</u>
C.	Distributions	\$	<u>(68,711)</u>
D.	Additional Contribution	\$	_____
E.	Ending Balance on <u>9/30/2021</u>	\$	<u>1,819,285</u>
F.	Unmatched Balance (if applicable)	\$	

## DEFINITIONS

*DISTRIBUTION* is the money transferred from the account to the spendable/operating account for the designated use.

*BALANCE* is the market value of the account as of the first or last day of the reporting year.

*ADDITIONAL CONTRIBUTION* is additional contribution by MBRF, the reporting institution, match etc.

*INVESTMENT GROWTH* (Loss) is the total undistributed interest, dividends, and realized and unrealized gains and losses.

*BALANCE* is the value of the account's corpus including all contributions, and applicable state match monies as of the date indicated.



# Annual Report

**McKnight Brain Research Foundation**  
**Sponsored Institutes and Research Programs**  
**(Include activity of all McKnight supported faculty and trainees)**  
**Report Period: 10/1/2020 – 9/30/2021**

## Financial Summary Format

\_\_\_\_\_  
(Institute)

Summary for 12 months ended 9/30/2021

Account Name: Rebecca Gale Endowed Professorship

I.	Beginning Balance on <u>10/1/2020</u>	\$	<u>726,918</u>
B.	Investment Growth	\$	<u>243,360</u>
C.	Distributions	\$	<u>(44,410)</u>
D.	Additional Contribution	\$	<u>250,000</u>
E.	Ending Balance on <u>9/30/2021</u>	\$	<u>1,175,868</u>
F.	Unmatched Balance (if applicable)	\$	

## DEFINITIONS

*DISTRIBUTION* is the money transferred from the account to the spendable/operating account for the designated use.

*BALANCE* is the market value of the account as of the first or last day of the reporting year.

*ADDITIONAL CONTRIBUTION* is additional contribution by MBRF, the reporting institution, match etc.

*INVESTMENT GROWTH* (Loss) is the total undistributed interest, dividends, and realized and unrealized gains and losses.

*BALANCE* is the value of the account's corpus including all contributions, and applicable state match monies as of the date indicated.

# Annual Report

**McKnight Brain Research Foundation**  
**Sponsored Institutes and Research Programs**  
**(Include activity of all McKnight supported faculty and trainees)**  
**Report Period: 10/1/2020 – 9/30/2021**

## Financial Summary Format

\_\_\_\_\_  
(Institute)

Summary for 12 months ended 9/30/2021

Account Name: Protective Life Endowed Chair in Healthy Aging

J.	Beginning Balance on <u>10/1/2020</u>	\$	<u>0</u>
B.	Investment Growth	\$	(14,669)
C.	Distributions	\$	
D.	Additional Contribution	\$	1,500,000
E.	Ending Balance on <u>9/30/2021</u>	\$	<u>1,485,331</u>
F.	Unmatched Balance (if applicable)	\$	

## DEFINITIONS

*DISTRIBUTION* is the money transferred from the account to the spendable/operating account for the designated use.

*BALANCE* is the market value of the account as of the first or last day of the reporting year.

*ADDITIONAL CONTRIBUTION* is additional contribution by MBRF, the reporting institution, match etc.

*INVESTMENT GROWTH* (Loss) is the total undistributed interest, dividends, and realized and unrealized gains and losses.

*BALANCE* is the value of the account's corpus including all contributions, and applicable state match monies as of the date indicated.

# Annual Report

**McKnight Brain Research Foundation**  
**Sponsored Institutes and Research Programs**  
**(Include activity of all McKnight supported faculty and trainees)**  
**Report Period: 10/1/2020 – 9/30/2021**

## Financial Summary Format

\_\_\_\_\_  
(Institute)

Summary for 12 months ended 9/30/2021

Account Name: Patsy W. and Charles Collat Scholar in Neuroscience Endowed Support Fund

K.	Beginning Balance on <u>10/1/2020</u>	\$	<u>189,181</u>
B.	Investment Growth	\$	<u>60,289</u>
C.	Distributions	\$	<u>(9,079)</u>
D.	Additional Contribution	\$	
E.	Ending Balance on <u>9/30/2021</u>	\$	<u>240,391</u>
F.	Unmatched Balance (if applicable)	\$	

## DEFINITIONS

*DISTRIBUTION* is the money transferred from the account to the spendable/operating account for the designated use.

*BALANCE* is the market value of the account as of the first or last day of the reporting year.

*ADDITIONAL CONTRIBUTION* is additional contribution by MBRF, the reporting institution, match etc.

*INVESTMENT GROWTH* (Loss) is the total undistributed interest, dividends, and realized and unrealized gains and losses.

*BALANCE* is the value of the account's corpus including all contributions, and applicable state match monies as of the date indicated.

## Evelyn F. McKnight Brain Institute FY2022 Budget

Category	McKnight Institute Expenses	McKnight Chair Expenses	McKnight Behavior Core Expenses	Additional Endowment Earnings	Matching Endowment Spendable Earnings
Salary and Benefits	\$ 100,000	\$ 20,000	\$ 15,000		
Dr. Lazar Phone		\$ 700			
Travel & Meetings	\$ 2,000				
Subject Payments	\$ 6,000				
Supplies & Services	\$ 23,000				
Pilot Projects and UCEM Collaboration	\$ 19,000				
Geropsychiatry Research Chair				\$ 86,355	
F. Cleveland Kinney Chair				\$ 68,020	
Warren Chair					\$ 71,721
Collat Professorship					\$ 23,140
Lowder Professorship					\$ 71,041
Spencer Professorship					\$ 68,711
Gale Professorship					\$ 44,410
Collat Scholar					\$ 9,079
<b>TOTAL</b>	<b>\$ 150,000</b>	<b>\$ 20,700</b>	<b>\$ 15,000</b>	<b>\$ 154,375</b>	<b>\$ 288,102</b>

**University of Arizona Evelyn F. McKnight Institute Annual Report 2021  
Addendum (1/28/2022)**

**Projected Budget – July 1, 2021 – June 30, 2022**

<b>Evelyn F. McKnight Brain Institute</b>	<b>Budget</b>
Personnel	\$500,000
<u>Operations</u>	<u>\$250,000</u>
Total	\$750,000

**Expenditures – July 1, 2021 – June 30, 2022**

<b>Evelyn F. McKnight Brain Institute</b>	<b>Budget</b>
Personnel	\$825,980
<u>Operations</u>	<u>\$198,833</u>
Total	\$1,024,813 *

\* Reflects total expenses for FY21 from the quasi endowment and the 4% match on the permanent endowment accounts. Additional funds came from carryforward budget available from FY20.

**Permanent Endowment Expenditures**

The endowment payment from the permanent endowment was not expended during this reporting period, as funds were available to the Institute from the Quasi Endowment and 4% match on the permanent endowment. These funds remain available for future years.

**Permanent Endowment Unmatched Balance**

The UA Foundation is pleased to report that an additional \$105,000 has been raised since the submission of the financial report on January 15, 2022, bringing the current unmatched balance to \$868,027. The UA Foundation will continue to direct all undesignated gifts to the McKnight Endowment until the match is received.

**From:** [Lacy, Tina L](#)  
**To:** [Cianciotto, Melanie](#)  
**Cc:** [Cohen, Ronald A](#); [Woods, Adam J](#); [Bizon, Jennifer Lynn](#); [Burke, Sara Nicole](#); [Mcintyre, Kathleen](#)  
**Subject:** Re: UF MBRF Annual Report  
**Date:** Monday, January 31, 2022 4:19:09 PM  
**Attachments:** [University of Florida McKnight Brain Research Funds 2021 Report Year.pdf](#)

---

Good Afternoon Melanie,

Please find attached the financial information for the University of Florida McKnight Brain Research Funds\_2021

- Please provide the current MBI Budget – [The budget for FY 2022 has been included.](#)
- The date of the Book Value changes from year to year to match the market value date. Wouldn't the book value be the original date the funds were received? [The information reported is provided by the UF Foundation. I did reach out to them to obtain the dollar amounts and dates of each donation. That information is now included the endowment portion for each fund as well as, the amount of the return on investment. I have subsequently reached out to the Foundation to ask for clarification regarding the date used for the Book Value and will provide that to you as soon as I receive the answer.](#)
- In order for each part to be comprehensively understood, please combine the financial summary and the Fund Impact Report into a single document for each chair, program or fund. In this way it will more closely resemble the agreed upon financial report template, which is attached for reference. [The financials for the UF Foundation \(the endowment\) and the University of Florida \(the UF side\) have been combined into one document for each of the four funds at UF. The endowment information is at the top of each page and the UF side is directly beneath.](#)

Kind Regards, Tina

Tina L. Lacy  
Administrative Coordinator  
Center for Cognitive Aging and Memory (CAM)  
Phone: 352-294-5841  
Email: [tinalacy@ufl.edu](mailto:tinalacy@ufl.edu)

---

**From:** Woods, Adam J <[ajwoods@phhp.ufl.edu](mailto:ajwoods@phhp.ufl.edu)>  
**Sent:** Friday, January 21, 2022 7:57 AM  
**To:** Lacy, Tina L <[tinalacy@phhp.ufl.edu](mailto:tinalacy@phhp.ufl.edu)>  
**Cc:** McIntyre, Kathleen <[kathleenmcintyre@ufl.edu](mailto:kathleenmcintyre@ufl.edu)>; Bizon, Jennifer Lynn <[bizonj@ufl.edu](mailto:bizonj@ufl.edu)>; Cohen, Ronald A <[roncohen@ufl.edu](mailto:roncohen@ufl.edu)>; Burke, Sara Nicole <[burkes@ufl.edu](mailto:burkes@ufl.edu)>  
**Subject:** Re: UF MBRF Annual Report

Looping in Tina

Adam J. Woods, PhD

---

Associate Professor

Associate Director, Center for Cognitive Aging and Memory (CAM)

McKnight Brain Institute

Department of Clinical and Health Psychology

College of Public Health and Health Professions

University of Florida

[PO Box 100165, 1225 Center Drive,](#)

[Gainesville, FL 32610-0165](#)

Phone: 352-294-5842

Email: [ajwoods@phhp.ufl.edu](mailto:ajwoods@phhp.ufl.edu)

Lab website: <https://woodslab.phhp.ufl.edu/>

—

Administrative Assistant

[m.garrepy@ufl.edu](mailto:m.garrepy@ufl.edu)

Direct Phone: (352) 294-8318

**(please cc Matthew Garrepy on emails when you are requesting meetings or information, especially if time sensitive)**

Sent from my iPhone

On Jan 21, 2022, at 7:46 AM, Cianciotto, Melanie <[Melanie.Cianciotto@truist.com](mailto:Melanie.Cianciotto@truist.com)> wrote:

**[External Email]**

Hi Kathleen,

I hope you are doing well. In preparation for the February Trustees' Meeting, the MBRF Finance Committee has reviewed the financial information submitted with your Annual Report. The committee has the following questions/comments regarding the report:

- Please provide the current MBI Budget
- The date of the Book Value changes from year to year to match the market value date. Wouldn't the book value be the original date the funds were received?
- In order for each part to be comprehensively understood, please combine the financial summary and the Fund Impact Report into a single document for each chair, program or fund. In this way it will more closely resemble the agreed upon financial report template, which is attached for reference.

Please provide a response no later than January 31<sup>st</sup>.

Please let me know if you have questions or need clarification.

Thank you in advance for your attention to this matter.

Melanie

**Melanie Cianciotto, CTFA**

**First Vice President**

**Client Manager /Truist**

**Foundations and Endowments Specialty Practice**

333 S. Garland Avenue, 17<sup>th</sup> Floor, Orlando, FL 32801

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[melanie.cianciotto@truist.com](mailto:melanie.cianciotto@truist.com)

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**Evelyn F. McKnight Cognitive Aging and Memory Research Fund**

**Financial Summary**  
January 1 to December 31, 2021

<b>UNIVERSITY OF FLORIDA FOUNDATION ENDOWMENT ACCOUNT</b>		
04/28/2000 - Initial Donation	\$	12,889,004
11/07/2002 - Match Donation	\$	4,927,951
Book Value as of 09/30/2021	\$	25,967,781
*12/31/2021 - Market Value projected	\$	39,401,877
*12/31/2021 - Return on Investment Projected	\$	5,970,734
*12/31/2021 - Endowment Income Transferred to UF Side Spendable Projected	\$	1,169,684
There are no outstanding matching funds.		
*Includes <b>projected</b> amounts for the Fiscal Year 2022 second quarter (October 2021 - December 2021). Fiscal Year 2022, Quarter 2 Financials have not been closed.		
Endowment assets are invested through the University of Florida Investment Corporation (UFICO, created in 2004) to manage UF's investment portfolios. UFICO is headed by a Chief Investment Officer who reports to a volunteer Board of Directors and President of the University of Florida		

<b>UNIVERSITY OF FLORIDA SPENDABLE ACCOUNT</b>		
<u><b>The Age Related Memory Loss Program</b></u>		
Beginning balance, January 1, 2021	\$	608,654
Endowment income transferred to the UF Side for Age Related Memory Loss Program		
	FY21 Q3 \$	149,249
	FY21 Q4 \$	152,226
	FY22 Q1 \$	116,462
	**FY22 Q2 \$	166,906
Total endowment income transferred into Spendable for the Age Related Memory Loss Program	\$	584,842
<b>Expenditures</b>		
Faculty, Research Staff, Staff Earnings, Graduate Assistant & Post Doctoral	\$	157,062
Research equipment, supplies, and services	\$	66,921
Tuition Waivers/Assistance	\$	1,300
Foster Development Fund	\$	200,000
Yegla Development Fund	\$	50,000
Other Miscellaneous	\$	69
Total Expenditures	\$	475,351
Ending balance December 31, 2021	\$	718,145
<u><b>The Cognitive Aging and Memory Clinical Translational Research Program</b></u>		
Beginning balance, January 1, 2021	\$	1,709,114
Endowment income transferred to the UF Side for the Clinical Translational Research Program		
	FY21 Q3 \$	149,249
	FY21 Q4 \$	152,226
	FY22 Q1 \$	116,462
	**FY22 Q2 \$	166,906
Total endowment income transferred into Spendable for the Clinical Translational Research Program	\$	584,842
<b>Expenditures</b>		
Faculty, Research Staff, Staff Earnings, Graduate Assistant & Post Doctoral	\$	209,225
Research equipment, supplies, and services	\$	51,258
Tuition Waivers/Assistance	\$	17,524
Publications	\$	12,553
Office Infrastructure	\$	11,356
Travel	\$	126
Total Expenditures	\$	302,043
Ending Balance December 31, 2021	\$	1,991,914
<b>NET ENDING BALANCE ON THE UF SIDE for the Cognitive Aging and Memory Research Fund</b>	<b>\$</b>	<b>2,710,059</b>
**Includes <b>projected</b> amounts for the Fiscal Year 2022 second quarter (October 2021 - December 2021). Fiscal Year 2022, Quarter 2 Financials have not been closed.		

McKnight Endowed Chair for Brain Research in Memory Loss

Tom Foster, PhD

Financial Summary

January 1 to December 31, 2021

UNIVERSITY OF FLORIDA FOUNDATION ENDOWMENT ACCOUNT		
04/28/2000 - Initial Donation	\$	1,725,001
07/03/2002 - Match Donation	\$	476,320
Book Value as of 09/30/2021	\$	3,995,677
*12/31/2021 Market Value projected	\$	5,290,490
*12/31/2021 Return on Investment projected	\$	801,690
*12/31/2021 Endowment Income to UF Side Spendable Projected	\$	169,272
There are no outstanding matching funds.		
*Includes <u>projected</u> amounts for the Fiscal Year 2022 second quarter (October 2021 - December 2021). Fiscal Year 2022, Quarter 2 Financials have not been closed.		
Endowment assets are invested through the University of Florida Investment Corporation (UFICO, created in 2004) to manage UF's investment portfolios. UFICO is headed by a Chief Investment Officer who reports to a volunteer Board of Directors and President of the University of Florida		

UNIVERSITY OF FLORIDA SPENDABLE ACCOUNT		
<b>McKnight Endowed Chair for Brain Research in Memory Loss</b>		
Beginning balance, January 1, 2021	\$	57,824.39
Endowment income transferred to the UF Side for the McKnight Endowed Chair for Brain Research in Memory Loss		
	FY21 Q3	\$ 40,079.21
	FY21 Q4	\$ 40,878.65
	FY22 Q1	\$ 43,493.25
	**FY22 Q2	\$ 44,821.03
Total endowment income transferred into the Spendable for the McKnight Endowed Chair for Brain Research in Memory Loss	\$	169,272.14
<b>Expenditures</b>		
Faculty Compensation	\$	125,180.08
Total Expenditures	\$	125,180.08
Ending balance December 31, 2021	\$	101,916.45
**Includes <u>projected</u> amounts for the Fiscal Year 2022 second quarter (October 2021 - December 2021). Fiscal Year 2022, Quarter 2 Financials have not been closed.		

**McKnight Endowed Chair for Clinical Translational Research in Cognitive Aging**  
**Ron Cohen, PhD**  
**Financial Summary**  
**January 1 to December 31, 2021**

<b>UNIVERSITY OF FLORIDA FOUNDATION ENDOWMENT ACCOUNT</b>		
11/01/2015- Initial Donation	\$	4,000,000
Book Value as of 09/30/2021	\$	4,000,000
*12/31/2021 Market Value projected	\$	5,290,490
*12/31/2021 Return on Investment projected	\$	801,690
*12/31/2021 Endowment Income to UF Side Spendable Projected	\$	169,272
There are no outstanding matching funds.		
*Includes <b>projected</b> amounts for the Fiscal Year 2022 second quarter (October 2021 - December 2021). Fiscal Year 2022, Quarter 2 Financials have not been closed.		
Endowment assets are invested through the University of Florida Investment Corporation (UFICO, created in 2004) to manage UF's investment portfolios. UFICO is headed by a Chief Investment Officer who reports to a volunteer Board of Directors and President of the University of Florida		

<b>UNIVERSITY OF FLORIDA SPENDABLE ACCOUNT</b>		
<b>McKnight Endowed Chair for Brain Research in Memory Loss</b>		
<b>Beginning balance, January 1, 2021</b>		\$59,471
Endowment income transferred into the UF Side for the McKnight Endowed Chair for Clinical and Translational Research in Cognitive Aging		
	FY21 Q3	\$40,062
	FY21 Q4	\$40,861
	FY22 Q1	\$43,474
	**FY22 Q2	\$44,802
Total endowment income transferred into the UF Side for the McKnight Endowed Chair for Clinical and Translational Research in Cognitive Aging		\$169,199
Residual Funds Transferred from Department of Aging and Geriatric Research		\$18,579
<b>Expenditures</b>		
Faculty Compensation	\$143,117	
Total Expenditures		\$143,117
<b>Ending balance December 31, 2021</b>		\$104,132
**Includes <b>projected</b> amounts for the Fiscal Year 2022 second quarter (October 2021 - December 2021) Fiscal Year 2022, Quarter 2 Financials have not been closed.		

Dr. William G. Luttge Lectureship in Neuroscience

Financial Summary

January 1 to December 31, 2021

UNIVERSITY OF FLORIDA FOUNDATION ENDOWMENT ACCOUNT			
06/01/2012 - Initial Donation		\$	250,000
06/27/2012 - 02/20/2018 - Contribution to the Fund	\$ 300		
Book Value as of 09/30/2021		\$	250,300
*12/31/2021 Market Value projected		\$	364,363
*12/31/2021 Return on Investment projected		\$	55,218
*12/31/2021 Endowment Income to UF Side Spendable Projected		\$	11,659
There are no outstanding matching funds.			
*Includes <b>projected</b> amounts for the Fiscal Year 2022 second quarter (October 2021 - December 2021). Fiscal Year 2022, Quarter 2 Financials have not been closed.			
Endowment assets are invested through the University of Florida Investment Corporation (UFICO, created in 2004) to manage UF's investment portfolios. UFICO is headed by a Chief Investment Officer who reports to a volunteer Board of Directors and President of the University of Florida			

UNIVERSITY OF FLORIDA SPENDABLE ACCOUNT			
<b>McKnight Endowed Chair for Brain Research in Memory Loss</b>			
Beginning balance, January 1, 2021			\$81,312
Endowment income transferred to the UF Side for Age Related Memory Loss Program			
	FY21 Q3	\$2,761	
	FY21 Q4	\$2,816	
	FY22 Q1	\$2,996	
	**FY22 Q2	\$3,087	
Total endowment income transferred in to Spendable for the Age Related Memory Loss Program			\$11,659
<b>Expenditures</b>			
Lecture Series Expenditures		\$2,500	
Total Expenditures			\$2,500
Ending balance December 31, 2021			\$90,471
**Includes <b>projected</b> amounts for the Fiscal Year 2022 second quarter (October 2021 - December 2021). Fiscal Year 2022, Quarter 2 Financials have not been closed.			



# FUND IMPACT REPORT

## McKnight Brain Research Foundation Evelyn F. McKnight Cognitive Aging and Memory Research Fund Spendable Fund Transfers since endowment inception

FY 2021/2022 First Quarter	\$ 323,924
FY 2020/2021	\$ 1,145,191
FY 2019/2020	\$ 1,067,240
FY 2018/2019	\$ 1,046,557
FY 2017/2018	\$ 1,041,290
FY 2016/2017	\$ 1,041,290
FY 2015/2016	\$ 1,071,895
FY 2014/2015	\$ 1,117,603
FY 2013/2014	\$ 1,063,533
FY 2012/2013	\$ 1,028,384
FY 2011/2012	\$ 1,026,301
FY 2010/2011	\$ 971,846
FY 2009/2010	\$ 941,689
FY 2008/2009	\$ 1,086,475
FY 2007/2008	\$ 1,172,824
FY 2006/2007	\$ 1,056,031
FY 2005/2006	\$ 881,347
FY 2004/2005	\$ 843,131
FY 2003/2004	\$ 729,335
FY 2002/2003	\$ 651,801
FY 2001/2002	\$ 657,852
FY 2000/2001	\$ 648,384
	\$ 20,613,923



# FUND IMPACT REPORT

## McKnight Brain Research Foundation Evelyn F. McKnight Chair for Brain Research in Memory Loss Spendable Fund Transfers since endowment inception

FY 2021/2022 First Quarter	\$ 43,493
FY 2020/2021	\$ 153,765
FY 2019/2020	\$ 143,298
FY 2018/2019	\$ 140,521
FY 2017/2018	\$ 139,814
FY 2016/2017	\$ 139,814
FY 2015/2016	\$ 143,923
FY 2014/2015	\$ 170,407
FY 2013/2014	\$ 162,162
FY 2012/2013	\$ 156,803
FY 2011/2012	\$ 156,485
FY 2010/2011	\$ 148,182
FY 2009/2010	\$ 143,584
FY 2008/2009	\$ 165,660
FY 2007/2008	\$ 178,827
FY 2006/2007	\$ 161,019
FY 2005/2006	\$ 134,384
FY 2004/2005	\$ 127,813
FY 2003/2004	\$ 124,127
FY 2002/2003	\$ 125,768
FY 2001/2002	\$ 100,869
FY 2000/2001	\$ 99,417
FY 1999/2000	\$ 3,438

\$ 3,063,573



# FUND IMPACT REPORT

**McKnight Brain Research Foundation**  
**Evelyn F. McKnight Chair for Clinical Translational Research**  
**in Cognitive Aging**  
Spendable Fund Transfers since endowment inception

FY 2021/2022 First Quarter	\$ 43,474
FY 2020/2021	\$ 153,698
FY 2019/2020	\$ 143,236
FY 2018/2019	\$ 140,460
FY 2017/2018	\$ 139,854
FY 2016/2017	\$ 139,754
FY 2015/2016	\$ 143,861
	\$ 904,337



# FUND IMPACT REPORT

## McKnight Brain Research Foundation William G. Luttge Lectureship in Neuroscience Spendable Fund Transfers since endowment inception

FY 2021/2022 First Quarter	\$ 2,996
FY 2020/2021	\$ 10,591
FY 2019/2020	\$ 9,869
FY 2018/2019	\$ 9,678
FY 2017/2018	\$ 9,628
FY 2016/2017	\$ 9,627
FY 2015/2016	\$ 9,909
FY 2014/2015	\$ 9,386
FY 2013/2014	\$ 9,074
FY 2012/2013	\$ 6,754
	\$ 87,512



**McKnight Brain Research Foundation  
Age Related Memory Loss Program  
Budget - Fiscal Year 2022**

Faculty, Research Staff, Staff Earnings, Graduate Assistant & Post Doctoral	\$	296,100
Research equipment, supplies, and services	\$	27,711
Tuition Waivers/Assistance	\$	6,500
Pilot Projects/Development Funds	\$	225,000
<b>Total Budget</b>	<b>\$</b>	<b>555,311</b>

**McKnight Brain Research Foundation  
Clinical Translational Research Program  
Budget - Fiscal Year 2022**

Faculty, Research Staff, Staff Earnings, Graduate Assistant & Post Doctoral	\$	300,000
Research equipment, supplies, and services	\$	189,311
Tuition Waivers/Assistance	\$	30,000
Publications	\$	15,000
Office Infrastructure	\$	20,000
Travel	\$	1,000
<b>Total Budget</b>	<b>\$</b>	<b>555,311</b>

<b>Grand Total Budgeted for McKnight Brain Research Foundation Funds</b>	<b>\$</b>	<b>1,110,622</b>
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The budget amount for the fiscal year is based on the actual funds transfers from the UF Foundation to the McKnight Brain Research Foundation Fund in the McKnight Brain Institute at the University of Florida from the previous fiscal year. The total amount of funds transferred in Fiscal Year 2021 was \$1,110,622. Those funds are equally divided between the Age Related Memory Loss Program and the Clinical Translational Research Program.

**MINUTES**  
**MCKNIGHT BRAIN RESEARCH FOUNDATION**  
**COMMUNICATIONS WORKING GROUP CONFERENCE CALL**  
**January 20, 2022**

The McKnight Brain Research Foundation's Communications Working Group conference call began at 1:00 p.m. Eastern on Thursday, January 20, 2022.

The following working group members participated in the call:

Sara Burke, PhD, University of Florida  
Christian Camargo, MD, University of Miami  
J. Lee Dockery, MD, Chair Emeritus, MBRF Trustee  
Susan Fox-Rosellini, MBA, University of Miami  
Vicki Hixon, University of Alabama Birmingham  
Richard Isaacson, MD, Chair, Communications Committee, MBRF Trustee  
Kathleen McIntyre, University of Florida  
Peggy Ann Nolte, University of Arizona  
Valerie Patmintra, MBRF Senior Communications Advisor  
Amy Porter, MBRF Executive Director  
Luann Snyder, University of Arizona  
Todd Taylor, University of Florida

**1. Roll Call and Welcome**

Ms. Patmintra opened the meeting, took roll and welcomed those in attendance. Ms. Patmintra thanked the group for making time to join the first meeting of 2022 and said this year the meetings would take place every other month going forward. Ms. Patmintra also welcomed Ms. Peggy Ann Nolte to the meeting, noting that she is a recent addition to the Communications Working Group and will be taking over for Ms. Luann Snyder when she retires. Noting that Dr. Isaacson was participating as Foundation Trustee, Ms. Patmintra asked if he would like to welcome the group.

Dr. Isaacson welcomed everyone to the call and said he was looking forward to walking the group through the Foundation's new communications plan, which includes additional support for online outreach, as well as continuing to buildout the website and efforts to reach primary care doctors.

**2. Review New McKnight Two-Year Communications Plan**

Dr. Isaacson walked through the new communications plan that the McKnight Trustees approved at the end of October, noting that with the new website and logo and branding in place, the plan aims to build on the momentum of the past two years and continue efforts to educate the public on cognitive aging and age-related cognitive decline. The plan also includes activities to raise awareness among primary care practitioners and highlight the research and researchers from each of the MBIs.

Dr. Isaacson noted that the Foundation is happy to promote any efforts or initiatives from the MBIs, not just on the McKnight website, but also through advertising and social promotion. He asked the CWG members to please let the Foundation know of any ideas for online content and ways we can help echo their research in the field.

Dr. Isaacson also noted that the overarching goal of the plan is to build sustained social outreach and to eventually become a resource for the media. The plan also includes implementing a larger social media campaign in September tied to Healthy Aging Month, which will be developed over the next seven-eight months.

Dr. Isaacson paused and asked the group if they had any thoughts or ideas on additional outreach tactics the MBRF could explore, especially in terms of reaching primary care practitioners. Dr. Burke asked if the Foundation had considered starting a podcast as it's a great way to reach busy practitioners. Dr. Isaacson said he had been working with the American Brain Foundation about ways to collaborate and develop a strategic partnership around their new Brain & Life podcast. Dr. Burke added that a graduate student at the University of Florida is starting a podcast for the Neurology department, not specifically for the UF MBI yet, and that she would keep the group posted on any opportunities to collaborate as that podcast develops.

Ms. Nolte noted that neurology as a whole is behind on technology, but is starting to catch up and podcasts are a good tool to leverage to reach different audiences. Dr. Dockery stressed the need for editing and ensuring that any information given in a podcast is accurate. Dr. Burke then asked for clarification if the Foundation was more interested in targeting physicians or consumers with a podcast series. Dr. Isaacson clarified that the Brain & Life podcast is targeting consumer audiences and that if the Foundation pursued a podcast targeting physicians, expert-to-expert interviews is definitely the format they would follow.

### **3. Request to Interview Experts for the “Three Questions with...” Blog Series**

Dr. Isaacson moved on to the request to interview experts for the “Three Questions with” blog series, noting that the list of experts included in the meeting material are meant as idea-starters and that input and additional ideas from the CWG are welcome. Dr. Dockery suggested Dr. Ralph Sacco as an expert to interview and Ms. Fox-Rosellini suggested Dr. James Galvin as another expert to interview. Ms. Patmintra agreed to reach out soon to schedule interviews with both Dr. Sacco and Dr. Galvin and encouraged the CWG members to send any other suggestions or ideas of experts to interview to her.

### **4. Reminder to Add Annual Reports to the MBI Websites**

Ms. Porter then reminded the MBIs to please add their annual reports (without their financials) to their websites. She noted that the MBRF Trustees are meeting on February 9 and encouraged the MBIs to wait until after that meeting to post the annual reports in case the Trustees have any updates for the annual reports coming out of that meeting.

Dr. Dockery thanked the MBIs for putting together the annual reports and publishing them as they are a great source of information. Ms. Fox-Rosellini noted that the University of Miami used a new tool to display their annual report in a magazine format online and said she would share the name of the tool if any other MBIs were interested in using it. Ms. Patmintra also agreed to send a link to the online tool the Foundation uses to display the organizational brochure as an online magazine.

### **5. Introduction of New MBRF Trustee – Dr. John Brady**

Ms. Porter then introduced the group to Dr. John Brady whose tenure as an MBRF Trustee began on January 1. She mentioned that Dr. Brady has a strong interest in communications and is a solo primary care practitioner in Newport News, Virginia. Dr. Dockery added that in the search to replace Dr. Wah and Dr. Ryerson whose tenures with the Board recently ended, Dr. Brady quickly rose to the top of the list for consideration. Dr. Dockery added that Dr. Brady is a very nice person and good spokesperson with an interest in improving patient interactions and

that he is very enthusiastic about Dr. Brady's addition to the trustees. Ms. Porter concluded saying she hopes everyone will get to meet him in Tucson in March.

#### **6. News and Updates from the MBIs**

Dr. Isaacson asked the CWG members if they had updates from their MBIs they would like to share. Mr. Taylor let the group know that Lynn Anderson who was Health Editor of The Conversation and spoke on the communications panel at the last inter-institutional meeting held in Gainesville, has moved on and there is a new Health Editor at The Conversation. He noted that the new editor is looking for strong news hooks in any content suggestions, but The Conversation is still a great outlet for outreach.

Dr. Dockery asked the group if there are any existing barriers to the institutes sharing or communicating information. Ms. Fox-Rosellini and Mr. Taylor both said their universities still have strict logo restrictions in place, but that they have found work-arounds to being able to post information to their MBI websites in a timely manner. Ms. Fox-Rosellini said she now has ownership of the UM MBI website and content she posts there doesn't have to wait for university approval. Ms. Snyder also noted that the UA MBI website was recently updated with a new look and encouraged everyone to take a look.

#### **5. Next Steps and Adjournment**

As the meeting approached the one-hour mark, Ms. Patmintra thanked the group again for their participation and said she would be reaching out soon to schedule the March meeting.

With no additional items to discuss, Dr. Isaacson thanked the group for their continued participation and the call was adjourned at 2:05pm.

**Communications Activity Timeline**  
**As Outlined in the 2022-2023 Communications Plan**  
**Updated January 31, 2022**

Activity	Date/Status	Action	Responsible Party	Comments
Patient Education Brochure	January-March 2022	Draft content and design a new patient education brochure	V. Patmintra	<p>Worked from patient education content posted on the McKnight website to draft content for the new patient education brochure.</p> <p>Worked with designers to come up with different cover designs and titles for the patient education brochure.</p> <p>Content draft and cover designs will be shared with the Education and Communications Committees for feedback and presented to the Trustees for review during the March 23 meeting. Dr. John Brady sits on both committees and as a primary care physician will be key to content development.</p>
McKnight Brain Website	<p>December 2020 <b>COMPLETE</b></p> <p>February – March 2022 <b>IN PROGRESS</b></p>	<p>Drafted and added content on the MBI Pilot Grants to the website</p> <p>Adding content to the website describing the Reserve &amp; Resilience Consortium</p>	V. Patmintra	<p>Added new pages to the Research section of the website describing the current pilot grants funded across the four MBIs.</p> <p>Drafted content summarizing efforts from the Reserve &amp; Resilience Consortium and highlights from each of the three workshops to add to the Research section of the website.</p>
	<p>March – July 2021 <b>COMPLETE</b></p> <p>March 2022</p>	Develop content to build a dedicated area of the website for PCP education	V. Patmintra	<p>Created web content to educate PCPs on the differences between Alzheimer's disease and cognitive decline and age-related memory loss. Content emphasizes the need for appropriate patient screening and offers vetted screening tools/resources PCPs can use with patients. PCP section of the website was added in early May 2021.</p> <p>Need to find ways to survey/focus group test PCPs about their educational needs and develop an outreach plan to reach PCPs and drive them to the website.</p>

	<b>Spring 2021 – Ongoing</b>  <b>TBD</b>  <b>May-July 2022</b>	Announce and promote the new MBRF Innovator Awards in Cognitive Aging and Memory Loss program  Next Award Cycle	V. Patmintra	Added dedicated pages of website describing the new Innovator Awards program, application requirements and relevant dates.  Announce the award recipients for 2021 and highlight their areas of research.  Create a dedicated area of the McKnight Brain homepage to announce the award application window is open and leading to new content pages.  Develop web banners the MBIs and other partners can post to their websites linking to the award information and applications on the MBRF website.
	<b>Spring 2021 – Ongoing</b>	Expert Interview Blog Series	V. Patmintra	Interview McKnight Trustees and experts from the MBIs to post the bi-monthly “Three Questions with...” Expert Interview blog series.
<b>Social Media</b>	<b>January – December 2022</b> <b>ONGOING</b>  <b>September 2022</b>	Develop monthly content themes and make regular posts to the MBRF Twitter account and Facebook page	V. Patmintra	Developing themes and drafting content on a monthly basis to make 3-4 social media posts each week. Leveraging funds from the Sanjay Gupta video promotion to boost posts and run Google ads driving additional traffic to the McKnight website.  Posts for the upcoming month will be shared with Trustees on Feb. 9.  Working on plans for a larger social media campaign to launch in September tied to Healthy Aging Month.
<b>Generate Visibility Opportunities</b>	<b>March 2022 - Ongoing</b>	Inter-Institutional Meeting	V. Patmintra	Attending Inter-Institutional Meeting in March to identify research stories and experts for potential media outreach and to highlight on MBRF website as upcoming blog posts or Meet the Researchers features.  Will post meeting summary and links to presentations to

				the Events section of the website after the meeting.
<b>Tracking and Quarterly Reports</b>	<b>Began in 2019 Ongoing</b>	Conduct media tracking and provide quarterly updates.	V. Patmintra	<p>Track media and social media metrics and reach throughout the year and provide quarterly updates to the Trustees. Tracking topics include: brain health, age-related memory loss, McKnight Brain Research Foundation, McKnight Brain Institutes.</p> <p>Q4 2021 Media Tracking report will be shared with Trustees on Feb. 9</p>
<b>Communications Working Group</b>	<b>Ongoing Meeting held on January 20, 2022</b>	Monthly calls and activities with members of the Communications Working Group	<p>A. Porter/V. Patmintra</p> <p>Meeting Schedule – January 2022 March 2022 May 2022 July 2022 Sept 2022 Nov. 2022</p>	<p>Schedule and hold bi-monthly calls with members of the Communications Working Group to engage in ongoing activities, including:</p> <ul style="list-style-type: none"> <li>• Identifying core competencies needed for each MBI to move forward with communications outreach</li> <li>• Reviewing, vetting and approving materials</li> <li>• Providing input on upcoming studies with relevant consumer/medical media angles</li> <li>• Identifying young researchers and studies of note to highlight on the MBRF website</li> </ul>



## Q4 2022 Media Coverage Highlights

### Media Coverage by the Numbers

Keyword	# of Articles
Memory Loss	More than 23,000 articles
Brain Health	More than 29,000 articles
Cognitive Aging	Nearly 684 articles
Age-Related Memory Loss	Nearly 278 articles
McKnight Brain Institute	216 articles
McKnight Brain Research Foundation	570 articles

### Sample Headlines

Does Air Pollution Reduce the Benefits of Physical Activity on the Brain, Science Daily

Three Ways to Stay Active and Keep Your Mind in Shape, Matte release picked up by more than 100 small community papers nationwide citing MBRF research

Meditation Enhances Immune System without Activating Inflammatory Signals, US Weekly

Brain Games that Really Work, Readers Digest

The Secrets to Successful Aging in 2022. New York Times Online

### Top Aging Reporters

Serena Gordon, HealthDay



David DiSalvo, Forbes Contributor

Sandee LaMotte, CNN

Jackie Crosby, Star Tribune

Tara Bahrapour, The Washington Post

Clare Ansberry, Wall Street Journal

Jane Brody, New York Times

Barbara Hannah Grufferman, AARP and Huffington Post

Emily Gurnon, Next Avenue

Hoilly Lawrence, Next Avenue

Jay Newton-Small, TIME

Matt Sedensky, Associated Press

Judy Silverman, NBC

Liz Szabo, Kaiser Health News

Sunny Sea Gold, Health Magazine

Sumathi Reddy, Consumer Health, "Your Health" columnist WSJ

Tony Dearing NJ.com, Cognitive Health and Dementia Prevention columnist

Paula Spenser Scott, Parade contributor, author of Surviving Alzheimer's, etc.

Jon Hamilton, NPR, Science Desk, covers neuroscience and health risks

Daniel Levitan, Cognitive psychologist, neuroscientist, writer, musician, and record producer



# **McKNIGHT BRAIN**

## **RESEARCH FOUNDATION**

*Preserving memory, enhancing life*

### **February Social Media Outline**

#### **Theme: Love Your Brain**

<b>Post Date</b>	<b>Facebook/Twitter Post Language</b>
<b>Tuesday, February 1</b>	<p><b>It's Time For a Digital Detox!</b></p> <p>It doesn't take a neuroscientist to tell you excessive screen time is harmful for your health. Show your brain some love and schedule a digital detox today to start reaping the rewards — taking a break from screen time is good for you and good for your brain.</p>
<b>Thursday, February 3</b>	<p><b>Show Your Body Some Love</b></p> <p>It's winter and we're all feeling sluggish, but there's never been a better time to get moving. Just 20 minutes of exercise a day can make all the difference. So, what are you waiting for? It's time to move your body!</p> <p><a href="https://mcknightbrain.org/exercise-for-brain-health/">https://mcknightbrain.org/exercise-for-brain-health/</a></p>
<b>Monday, February 7</b>	<p><b>Eat for Your Brain and Boost Your Mood</b></p> <p>Did you know hormones that affect the mood are produced in the digestive tract as well as in the brain? In fact, 90% of serotonin is made in the enteric nervous system — also known as the "gut brain."</p> <p>If you're looking to improve your mood, start by eating for your brain. You know the drill: Lots of fresh vegetables and fruit, whole grains, plenty of healthy fats, and adequate protein intake. Learn more here:</p> <p><a href="https://www.health.harvard.edu/blog/gut-feelings-how-food-affects-your-mood-2018120715548">https://www.health.harvard.edu/blog/gut-feelings-how-food-affects-your-mood-2018120715548</a></p>
<b>Wednesday, February 9</b>	<p><b>Don't overthink it...smart habits are good for your brain.</b></p> <p>Your brain thrives when you connect with others, drink enough water, move your body, learn something new, and get enough sleep. What are you already doing today to take care of your brain? Learn more about our top recommendations for brain health here: <a href="https://mcknightbrain.org/brain-health/">https://mcknightbrain.org/brain-health/</a>.</p>
<b>Friday, February 11</b>	<p><b>It's Time to Spread the Love: Start a Gratitude Journal</b></p> <p>According to research by UC Davis psychologist Robert Emmons, author of "Thanks!: How the New Science of Gratitude Can Make You Happier," just three weeks of daily writing in a gratitude journal offers physical, psychological, and social benefits — including improved immune responses, better sleep, more joy,</p>

	<p>and feeling less lonely and isolated. To put it simply, the emotions of gratitude and appreciation may lead to behavioral changes that boost your brain health. Ready to get started? Find out how:</p> <p><a href="https://greatergood.berkeley.edu/article/item/why_gratitude_is_good/">https://greatergood.berkeley.edu/article/item/why_gratitude_is_good/</a></p>
<b>Monday, February 14</b>	<p><b>Happy Valentine's Day!</b></p> <p>Did you know...Love is a nutrient? This Valentine's Day, focus on creating opportunities for connection — and allow yourself to be filled up with love. We can train our brains to focus on the positive aspects of the people in our lives — and appreciate all of the little ways people show up. You'll be surprised to learn that this simple act of letting yourself love and be loved supports your brain and overall health!</p>
<b>Tuesday, February 16</b>	<p><b>Are you confused by what to eat to be truly healthy?</b></p> <p>We like to keep it simple. Follow these 4 key tips to eat for your brain health:</p> <ol style="list-style-type: none"> <li>1) Add color to your plate and try eating from the rainbow.</li> <li>2) Plan healthy meals — and include vibrant, fresh foods with every meal and snack.</li> <li>3) Pay attention when you are eating, slow down and chew your food thoroughly.</li> <li>4) The simple act of eating intuitively helps break free from restrictive eating habits and dieting. Intuitive eating is a diet-and-dictum-free approach to food that asks us to eat when we are hungry and stop when we've had enough. If you pay attention to the messages coming from your own body, you'll be well on your way to a healthy relationship with food.</li> </ol> <p>Learn more about eating for brain health: <a href="https://mcknightbrain.org/brain-healthy-diet-tips/">https://mcknightbrain.org/brain-healthy-diet-tips/</a>.</p>
<b>Thursday, February 18</b>	<p><b>How are you staying active this winter?</b></p> <p>With winter in full swing, we know it's hard to stick to a regular exercise routine, but it's still important to get moving each day. Exercise has been linked to stimulating the brain's ability to maintain old network connections and make new ones that are vital to cognitive health.</p> <p>If you're committed to exercising outside in the elements, check out these tips to stay safe: <a href="https://www.cnn.com/2022/01/24/health/exercise-safely-in-cold-outdoors-wellness/index.html">https://www.cnn.com/2022/01/24/health/exercise-safely-in-cold-outdoors-wellness/index.html</a>.</p>
<b>Monday, February 21</b>	<p><b>Meditation Mondays: Have you tried pranayama?</b></p> <p>It's time to take the mystery out of yoga and meditation. Pranayama is yoga's science of breathing — it improves emotional regulation and is linked to positive changes in the brain and body. You can begin right where you are by simply paying attention to your breath.</p> <p>For more pranayama exercises, check out this article: <a href="#">6 Breathing Exercises That Can Help You Relax in 10 Minutes or Less</a></p>

<b>Thursday, February 24</b>	<p><b>What are your dinner plans today?</b></p> <p>With winter in full swing, it's time to show your body some love – from the inside out. We love making soups and stews full of colorful, seasonal veggies. Eating whole foods with plenty of vegetables has been linked to reducing the risk of cognitive decline — plus it tastes delicious and warms us up from the inside out. Consider trying this delicious butternut squash soup recipe:  <a href="https://cookieandkate.com/roasted-butternut-squash-soup/">https://cookieandkate.com/roasted-butternut-squash-soup/</a>.</p>
<b>Friday, February 25</b>	<p>If you're feeling fed up with the ongoing pandemic and flu season in full swing, you're not alone. Let food be your medicine — and focus on staying hydrated by sipping on plenty of water and tea.</p> <p>As winter continues, ward off unwanted illnesses by eating healthy food, staying hydrated, moving your body and getting plenty of rest. And, of course, keep following all the recommended hygiene practices you've honed and elevated to protect against COVID-19.</p>
<b>Monday, February 28</b>	<p><b>Meditation Mondays: It's Monday!</b></p> <p>How do you focus your mind at the beginning of each week? Whether you sit and breathe, walk in nature, eat mindfully, or listen to your favorite song, meditation in any form can help you feel better and boost your brain health. Start with a simple meditation that fits into your life — and notice how you feel before and after your experience. What happens when you slow down to focus on your breathing for just five minutes — and allow your thoughts to come and go? How do you feel after you meditate?</p> <p>Find more ways to stay healthy and happy as you age here:  <a href="https://mcknightbrain.org/cognitive-aging-101/">https://mcknightbrain.org/cognitive-aging-101/</a>.</p>

**Education Committee Activity Timeline**  
**For the Period July 1, 2021, to August 1, 2022**

Updated January 31, 2022

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
<i>"...shall develop information and resources (for the public and scientific community) on prevalence and impact of age-related cognitive decline and memory loss...."</i>	<p>Work toward alignment of messages across the MBIs and MBRF</p> <p>Make substantive judgments on content and quality of educational content/statements developed for or posted on the website</p>	Key Messages Were Approved and Distributed in Spring 2019	<p>July 1 – ONGOING</p> <p>ONGOING</p> <p>Review of Topics and Content for Primary Care Physician (PCP) pages on website February 2021</p>	<p>The Education Committee reviews content before it is posted on website, published, or included in print materials or slide presentations, ensuring consistency with key messages.</p> <p>The committee reviews for accuracy, soundness, and alignment with the MBRF mission and current scientific understanding and clinical practice. (The Research Committee also reviews content before making public.)</p>
	A top priority for the committee and MBRF, as approved by the Trustees, is to identify and/or develop educational content for primary care physicians and to oversee the ongoing posting of additional information	<p>The committee approved an outline of resources for the PCP Area on McKnightBrain.org</p> <p>The committee approved drafting content for the PCP area of the website based on the approved outline navigation of the section</p>	<p>DONE June 30, 2020</p> <p>DONE September/ October/November</p>	

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
		<p>The committee reviewed proposed navigation and drafted content for the Primary Care Physician (PCP) pages of the website</p> <p>Content will be revised and edited to include feedback from the committee and used to build out a mock-up of the PCP section</p> <p>An Update to the Trustees will be provided</p> <p>The PCP section will be shared with suggested primary care physicians for feedback and suggestions. New Trustee, Dr. John Brady, is a member of the Education Committee and his expertise will be instrumental in helping to develop and vet content</p>	<p>DONE February 2021</p> <p>DONE February – March 2021</p> <p>DONE April 30, 2021</p> <p>Winter/Spring 2022</p>	
<b><i>And..." assist those living with age-related cognitive decline and memory loss"</i></b>	Website content developed for individuals, families and caregivers of those with age-related cognitive decline and memory loss	Add links to approved articles as appropriate but development of content is on hold until PCP content is identified and developed.	Winter/Spring 2022	
<b><i>Inform "...how to better maintain brain health..."</i></b>	Website content developed for individuals on how to protect, maintain brain health	Add links to approved publications and articles	July 1 – ONGOING	Committee Reviews before Posting

<b><i>"shall review all educational materials...:"</i></b>	Brochure copy in development to raise awareness and promote the MBIs and MBRF to individuals, partners, donors	Review of Brochure was conducted and committee concurs with suggestions by Communications Committee	DONE Posted on website January 2021	
<b><i>"Identify educational opportunities and implement activities...to encourage MBIs...inspire commitment and shared vision"</i></b>	12 <sup>th</sup> Annual Inter-institutional Meeting  13 <sup>th</sup> Annual Inter-institutional Meeting Mar 23-25, 2022 UA  McKnight Scholars Will be invited to next Inter-institutional Meeting	2020 Meeting was canceled 2021 Meeting will be virtual  Draft Program Presented to MBRF Trustees for Review. Suggestions were made by Trustees and adopted by the Leadership Council.  Develop Feature on McKnight Scholars on McKnightBrain.org	April 28 & 29 2021 Two half days  Research Cmte reviewed on Oct 21 2021  DONE Posted April 2021	DONE  Was reviewed by Trustees on Oct. 28, 2022  Will be reviewed again Feb. 9, 2022  Will help promote scholarship and engage scholars
	McKnight Scholars Dinner at AAN	2020 Toronto, AAN Meeting was canceled 2021 Virtual AAN Meeting	April 17 – 22, 2021	Held over - MBRF approved funding of \$4,000 to cover travel, hotel for the night, dinner, UM staff travel To be applied in 2022
	William G. Luttge Annual Lectureship in Neuroscience at the University of Florida	Annual Lectureship by research scientist of National or International prestige in the field of neurosciences	Held in March/April each year in conjunction with Brain Awareness week. 7 <sup>th</sup> lectureship was by Dr. George Koop March 11, 2019 2020 Lecture was canceled. 2021 Lecture to be held in Fall 2021  2022 Virtual Lectures	Annual Lectureship established honoring the Founding Director of the Evelyn F. and William L. McKnight Brain Institute at the University of Florida  Events as part of the William G. Luttge Lecture Series were expanded in 2021 to become a Lecture Series.

			<p>January 13 - Dr. Alexis Stranahan, PhD, UF</p> <p>Feb 24 – Dr. Perla Moreno Castilla, PhD, "Rising Star" Luttge Lecturer, NIA</p> <p>March 3 – Dr. Dan Nicholson, PhD, Rush</p> <p>March 31 – Dr. Kirk Erickson, PhD, University of Pittsburgh</p>	See Attached information for 2022 Lectures
<b><i>"work to elevate the importance of age-related cognitive decline and memory loss on the national agenda...(work toward) greater investment in research and education by federal health agencies...."</i></b>	IOM Study	<p>"Public Health Dimensions of Cognitive Health" was released by the IOM (see attached document)</p> <p>Working Group formed under the lead of Dr. Molly Wagster</p>	<p>DONE</p> <p>April 14, 2015</p> <p>CURRENTLY NOT MEETING</p>	Study funded by MBRF and federal agencies (NIA, CDC, NINDS, HHS), AARP, Retirement Research Foundation
		MBRF has initiated and implemented several of the IOM recommendations.	ONGOING	
		Dr. Lee Dockery was in contact with IOM (now Academy of Medicine) about issuing a report on progress	<p>October 23, 2019</p> <p>NOT TO BE PURSUED</p>	This would be unusual for the Academy of Medicine to do per Dr. Molly Wagster.



		Dr. Ralph Sacco, former President of AAN, recommended to AAN that they support adding age-related cognitive decline and memory loss to curricula for requirements	July 11, 2019	Letters were sent from AAN to MBRF, American Board of Psychiatry and Neurology, and ACGME
<b><i>"work to elevate the importance of age-related cognitive decline and memory loss on the national agenda..." continued</i></b>		Dr. Robert Wah and Dr. Lee Dockery spoke by phone with Dr. Gordon Smith, Chair, AAN Education Committee, and Dr. Jaffar Khan, Chair, AAN Graduate Education Subcommittee, to discuss collaborative steps	August 8, 2019	
		Follow-up communication with Drs. Smith and Kahn and Kathy Malloy re: schedule for review of special requirements by ACGME	DONE September 16, 2019  June 2020 NOT TO BE PURSUED	On distribution list for ACGME e-Communication with schedule for review of special requirements  Committee feels they've done all they can do at this time.

## 2022 Virtual Luttge Lecture Series UF MBI

### Upcoming Spring 2022 CAM-sponsored Luttge Lecture Seminar Speakers

**Dr. Alexis Stranahan, PhD** (Associate Professor in the Department of Neuroscience & Regenerative Medicine) will be the CAM sponsored speaker on January 13, 2022. Dr. Stranahan's research focuses on microglial and neurovascular regulation of hippocampal function in metabolic disorder. Her lab studies the regulation of synaptic plasticity and cognition by metabolic stress at the behavioral, electrophysiological, and cellular levels. They define 'metabolic stress' broadly to encompass responses to exercise and caloric restriction at one extreme, and changes occurring in obesity and diabetes at the opposite end of this continuum. The long-term goal is to understand how neurons, glia, and cerebrovascular cells sense and respond to homeostatic challenges.

**RISING STAR Dr. Perla Moreno Castilla, PhD** (Postdoctoral Fellow in the Neurocognitive Aging Section, National Institute on Aging) will be the CAM sponsored speaker on February 24, 2022. Dr. Moreno-Castilla's research projects aim to understand inter-individual differences in hippocampal circuit engagement and elucidate the role of extracellular vesicles containing the synaptic protein Arc in the successful neuroadaptation in aging.

**Dr. Dan Nicholson, PhD** (Associate Professor of Neurological Sciences, Rush University) will be the CAM sponsored speaker on March 3, 2022. Dr. Nicholson's lab is interested in the neurobiology of cognitive aging, Alzheimer's disease and epilepsy. They bring to bear numerous techniques to unveil the events and pathogens that ultimately lead to brain failure, including electron microscopy, patch-clamp physiology, immunofluorescence array tomography, immunoprecipitation assays and mass spectrometry.

**Dr. Kirk Erickson, PhD** will be the CAM sponsored speaker on March 31, 2022 (Professor in the Department of Psychology, University of Pittsburgh) will be the CAM sponsored speaker on March 31, 2022. Dr. Erickson research interests range from cognitive neuroscience, aging, neuroplasticity, genetics, and molecular mechanisms of cognitive function. He is currently the Principal Investigator of the BACH lab and is continuing his research on how the brain changes in late adulthood and the factors that promote successful aging.

# 13<sup>th</sup> Annual McKnight Brain Research Foundation Inter-Institutional Meeting

**Hosted by: The Evelyn F. McKnight Brain Institute at the University of Arizona**

**March 23 – 25, 2022**

Westin La Paloma Resort, Tucson, Arizona

## **POWER OF PRECISION AGING APPROACHES TO BRAIN HEALTH & COGNITION**

### **Wednesday March 23, 2022**

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1:00 – 6:00pm      Registration, Sonoran Foyer, Main Level  
1:00 – 5:00pm      MBRF Board Meeting, Sunsations  
5:30 – 8:00pm      Opening Reception and Dinner  
Terrace Level Foyer and Patio  
6:00pm      *Welcome Remarks*  
**Carol A. Barnes, Ph.D.**  
Director, Evelyn F. McKnight Brain Institute  
Evelyn F. McKnight Chair for Learning and Memory in Aging  
Regents Professor, Psychology, Neurology and Neuroscience  
University of Arizona  
**Robert C. Robbins, M.D.**  
22<sup>nd</sup> President of the University of Arizona  
**JP Roczniak**  
President and CEO, University of Arizona Foundation  
**Michael L. Dockery, M.D.**  
Chair, McKnight Brain Research Foundation

### **Thursday March 24, 2022**

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7:30 – 8:40am      Breakfast  
Lobby Level, Murphey, Terrace Level, Westin La Paloma  
8:45 – 9:15am      *Opening Remarks and Welcome*  
Sonoran II, Lobby level  
**Lee Ryan, Ph.D.**  
Associate Director, Evelyn F. McKnight Institute, University of Arizona  
Professor and Head  
Psychology Department  
University of Arizona  
**Elizabeth Cantwell, Ph.D.**  
Senior Vice President for Research and Innovation  
University of Arizona  
**Carmala Garzione, Ph.D.**  
Dean, College of Science  
University of Arizona

9:10am	<p><i>Overview of meeting structure.</i></p> <p><b>Carol Barnes, Ph.D.</b> Director, Evelyn F. McKnight Institute, University of Arizona</p>
9:20am	<p><i>Lessons learned from Precision Medicine that apply to Precision Aging.</i></p> <p><b>Roberta Diaz Brinton, Ph.D</b> Inaugural Director of the Center for Innovation in Brain Science Regents Professor, Pharmacology and Neurology University of Arizona</p>
9:50am	Coffee break
10:20 – 11:10am	<p><i>The importance of centering diversity in cognitive aging research.</i></p> <p><b>Keynote Speaker</b> <b>Lisa Barnes, Ph.D.</b> The Alla V. and Solomon Jesmer Professor of Gerontology and Geriatric Medicine, Department of Neurological Sciences Rush Medical College</p>
11:10 – 11:20am	Discussion
11:20 – 12:20am	<p><i>Novel methods for recruiting and retaining diverse participants for studies of brain and cognitive aging.</i></p>
11:20 – 11:35am	<p><i>MindCrowd and Mobile Minds: Enhancing recruitment via electronic and mobile lab approaches</i></p> <p><b>Matt Huentelman, Ph.D</b> Professor Neurogenomics Division The Translational Genomics Research Institute</p>
11:30 – 11:35am	discussion
11:35 - 11:45am	<p><i>Creative recruiting strategies, and successes</i></p> <p><b>Tatjana Rundek, M.D., Ph.D., FAAN</b> Professor of Neurology Scientific Director, Evelyn F. McKnight Brain Institute University of Miami Miller School of Medicine</p>
11:45-11:50am	discussion
11:50-12:00pm	<p><i>Recruiting and retaining diverse participants for studies of brain and cognitive aging: It takes a village, \$\$, and advance planning</i></p> <p><b>Virginia Howard, Ph.D.</b> Distinguished Professor of Epidemiology University of Alabama at Birmingham</p>
12:00-12:05pm	discussion
12:05-12:15pm	<p><i>Boots on the ground recruiting methods</i></p> <p><b>David Coon, Ph.D.</b> Associate Dean and Professor, Edson College of Nursing and Health Innovation, Arizona State University</p>
12:15-12:20pm	discussion

12:20-1:40pm	Lunch Murphey Room
1:45- 2:45pm	<i>Why do some people show resistance to cognitive aging?</i> <b>Keynote Speaker</b> <b>Emily Rogalski, Ph.D.</b> Professor of Psychiatry and Behavioral Sciences Northwestern University
2:45 – 3:15pm	coffee break
3:15 – 4:15pm	<i>Genetic and epigenetic contributions to individual differences in aging.</i>
3:15 – 3:25pm	<i>Role of epigenetics in cognitive decline</i> <b>Tom Foster, Ph.D.</b> Professor of Neuroscience Evelyn F. McKnight Chair for Research on Cognitive Aging and Memory University of Florida
3:25 – 3:30pm	discussion
3:30 – 3:40pm	<i>Long noncoding RNAs in aging and memory decline</i> <b>Farah Lubin, Ph.D.</b> Associate Professor Neurobiology University of Alabama at Birmingham
3:40 – 3:45pm	discussion
3:45-3:55pm	<i>Biological clocks in families</i> <b>Susan Blanton, Ph.D.</b> Professor Human Genetics and Otolaryngology University of Miami
3:55 – 4:00pm	discussion
4:00 – 4:10pm	<i>(need title)</i> Someone from TGen - Neurogenomics Division Translational Genomics Research Institute
4:10 – 4:15pm	discussion
4:15 – 5:00pm	<i>Panel: Next steps to make solutions for optimizing cognitive health a reality – or “how to take our science out of the lab and make it useful for people”.</i> <b>Moderator: Lee Ryan</b>  <b>Meredith Hay, Ph.D.</b> , Professor of Physiology, University of Arizona <b>Ralph Sacco, M.D., FAAN</b> , Professor of Neurology, University of Miami <b>Ron Lazar, Ph.D., FAAN</b> , Professor of Neurology & Neurobiology, U. Alabama at Birmingham <b>Russ Bauer, Ph.D.</b> , Professor, Department of Neurology, University of Florida

5:30 – 7:30pm      Casual Reception and Dinner  
Fiesta Area  
  
This will be informal, and outside

## **Friday March 25, 2022**

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7:00 – 8:30am      Breakfast and checkout  
Murphey

7:30 – 8:30am      Board meeting, Trustees, Leadership Council  
Cottonwood, Mezzanine Level

8:15 – 8:30am      Load buses for departure to campus

8:45 am              Buses depart for University of Arizona, ENR2 Room S-107

9:30 – 10:15am      ***Data Blitz on updates from collaborative projects, new data and pilots***

9:00 – 9:05am      The McKnight Brain Aging Registry (MBAR): an update  
**Ron Cohen, Ph.D.**  
Department of Clinical and Health Psychology  
University of Florida

9:05 - 9:10am      discussion

9:10 – 9:15am      *Sleep and cognition in Hispanic Community Health Study – Study of Latinos (HCHS-SOL)*  
**Christin Agudelo, M.D.**  
McKnight Cognitive Neurology Fellow  
Department of Neurology  
Miller School of Medicine  
University of Miami

9:15 – 9:20am      discussion

9:20 – 9:25am      *Biopsychosocial Correlates of Successful Cognitive Aging with HIV*  
**Pariya Fazeli Wheeler, Ph.D.**  
Assistant Professor  
School of Nursing  
University of Alabama at Birmingham

9:25 – 9:30am      discussion

9:30 – 9:35am      *Combining AI and computational modeling to personalize neuromodulation therapeutics in older adults*  
**Aprinda Indahlastari, Ph.D.**  
Research Assistant Professor  
Department of Clinical and Health Psychology  
University of Florida

9:35 – 9:40am      discussion

9:40 – 10:05am      coffee break

10:05 – 10:10am	<i>Reuniting the Brain and Body to Understand Cognitive Aging: The Nexus of Geroscience and Neuroscience</i> (new McKnight pilot project recipient) <b>Abbi Hernandez, Ph.D.</b> Postdoctoral Fellow Department of Medicine University of Alabama at Birmingham
10:10 – 10:15am	discussion
10:15 – 10:20am	<i>Decreasing Cognitive Loss and Vascular Rarefaction with Exercise</i> (new McKnight pilot project recipient) <b>Amani Norling, MA</b> University of Alabama at Birmingham
10:20 – 10:25am	discussion
10:25 – 10:30am	<i>The neuroscience of phishing email detection and learning who to trust</i> (past McKnight pilot recipient) <b>Bob Wilson, Ph.D.</b> Associate Professor, Department of Psychology University of Arizona
10:30 – 10:35am	discussion
10:35 – 10:40am	<i>COVID-19 social isolation, mental health, and cognition in older adults: An ACT supplement study</i> <b>Adam Wood, Ph.D.</b> Department of Clinical and Health Psychology University of Florida
10:40 – 10:45am	discussion
10:45 – 11:00am	<i>Closing Remarks</i> <b>Michael L. Dockery, M.D.</b> Chair, McKnight Brain Research Foundation  <b>Carol A. Barnes, PhD.</b> Director, Evelyn F. McKnight Brain Institute, University of Arizona
11:15am	Travelers pick up box lunches and navigate to the airport transport buses

**Research Committee Activity Timeline**  
**For the One-Year Period July 1, 2021, to June 30, 2022**  
**Updated January 2022**

<b>Duty (from Committee Charter)</b>	<b>Activity/Action</b>	<b>Outcome</b>	<b>Date</b>	<b>Comments</b>
<b><i>"Encourage and assess research at the McKnight Brain Institutes (MBIs)"</i></b>	Review of the Annual Reports of the MBIs	Information for scientific review includes: scientific achievements, publications, presentations, collaborations	<p>DONE February 5, 2020</p> <p>DONE June 15, 2020</p> <p>DONE Feb. 26, 2021</p> <p>Annual Reports will be reviewed by the Trustees on Feb. 9, 2022</p>	<p>Reviewers presented at Feb 2021 Trustees Meeting. Follow up letters were written and sent to each of the MBIs. All Requests of MBIs have been addressed by MBIs.</p> <p>MBRF/MBI Task Force was established April 2021 to streamline Annual Report Recommendations. Recommendations were reviewed Oct 28, 2021 by Trustees. New Template used for 2021 Annual Reports.</p>
	<p>Review of all New Funding Requests from MBIs.</p> <p>Most Funding Requests should be reviewed by the Interventional Core Committee of the MBIs first.</p>	UM submitted a request for \$200,000 for Neurocognitive Post-Doctoral Fellowship over the next two years Christian Agudelo, MD, was selected	October 23, 2019 Trustees voted to fund -- payable over two years. Position Start Date – July 2020	The notification letter mentioned that future funding should come from other sources.
		UA submitted a request for \$244,400 for UM's participation in the Precision Aging Demonstration Pilot	The proposal was reviewed and approved by the Trustees on Feb 5, 2020. The budget was revised and approved June 2020	Dr. Mike Dockery notified UA of the Trustees' approval. Trustees were notified of the revised budget and approved no-cost revisions



Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
		A Funding Request "Centralized, telephone- based, computer- assisted...Spanish" for \$129,000 was submitted in April 2021 by Dr. Ron Lazar	Reviewed by Cmte in July and not recommended	This request was reviewed by the Trustees in July 2021 and was denied. Suggestion was provided to Dr. Lazar to work though MBI Core Committee if he chooses to resubmit.
		<p>UM submitted a request for \$ 3 million to endow a Neurocognitive Training Fund in Brain Health and Aging.</p> <p>UM submitted a request for \$250,000 to co-fund a fellowship over 5 years – The Evelyn F. McKnight Neurocognitive Clinical Scholar in Brain Health and Aging"</p>	<p>July 1, 2021</p> <p>October 2021</p> <p>Research Cmte reviewed on October 21, 2021; Recommended funding; Trustees reviewed and approved funding October 28, 2021</p> <p>Grant Notification Memorandum was dated Nov. 10, 2021</p>	<p>This request was denied by Trustees on July 28, 2021, but Dr. Lee Dockery was asked to pursue conversations with UM about how they might proceed. Dr. Dockery had several conversations and exchanges with UM with ideas for strengthening the program infrastructure.</p> <p>A memorandum notifying UM of the approval for funding the Evelyn F. McKnight Neurocognitive Clinical Scholar in Brain Health and Aging for a total of \$250,000 (\$50,000 over 5 years) to be matched by UM was sent by Dr. Mike Dockery to UM and agreed to and signed by Drs. Sacco and Rundek.</p>

<b><i>"Encourage and assess research at the McKnight Brain Institutes (MBIs)" continued</i></b>	Review of Travel Award Fund: Originally established to fund research scholars and faculty to visit other McKnight institutions.	Few applications for travel. The funds allocated for travel have been used to fund the activities of focus groups: Epigenetics, MRI standardization and cognitive test battery working group	Reviewed at each Trustees' Meeting  ON HOLD DUE TO UNIVERSITY TRAVEL RESTRICTIONS	Approved in 2009 In the amount of \$100,000  Approximately \$30,000 remains in the fund
	Inter-institutional Block Grants	Cognitive Aging Core Working Groups	N/A	5 Areas: Brain and Cognitive Health Cognitive Aging & Memory Cognitive Testing Battery Epigenetics MRI standardization
	Inter-institutional Block Grants	Bio-Informatics Core (Epigenetics)	Funding period: 9/1/2013-8/31/2015	Tom Foster, UF still lead scientist. \$76,276.49 still unexpended funds
	Inter-institutional Block Grants	Neuroimaging Core	Funding period: 1/1/2015 to 12/31/2017 \$931,759.00	Remaining balance: \$514,229.21
	Inter-institutional Block Grants	Cognitive Assessment and Brain Registry Core	Funding period: 9/1/2015-8/31/2017 Request for another extension was approved at the Feb 5, 2020, Trustees' meeting.	Remaining Balance: \$101,275.15 No-cost Extension Request submitted for April 30, 2021. Trustees approved the extension.
	Review of Pilot Grants (Funding Requests and Progress Reports)	1)A Novel Invention Tool – Levin 2)Revitalizing Cognition in Older Adults – Bowers	1)Funding Period: 5/1/2018-4/30/2020 2)Funding period: 5/1/2018-4/30/2020	1)Funding for 2-years for total of \$120,000 2)Funding for 2-years for total of \$120,000 No-cost Extension Request submitted and approved for April 30, 2021.

	<p>Applications for 2021 Pilot Grants</p> <p>Checked RFA for 2022 before it was posted to be sure it stresses Junior Faculty. It does.</p>	<p>3)Transcutaneous Vagal Nerve Stimulation and Cognition Training – Williamson/Alexander</p> <p>5 Letters of Intent were Submitted</p> <p>3 Grants were approved</p> <p>With Dr. Gomes-Osman's subsequent departure from UM, the Core Committee recommended the next application in line to replace Dr. Gomes-Osman's. This was submitted by Dr. Sonya Kaur "Sleep Intervention..."</p> <p>Drs. Lazar and Levin shared that only 1 LOI was received for 2022 funding cycle.</p>	<p>3)Approved July 2019 Funding period: 10/1/2019-9/30/2021 Deadline was extended</p> <p>Research Cmte Reviewed LOIs for 2020 Jan. 29, 2021.</p> <p>Feb. 26, 2021</p> <p>The Research Cmte did not recommend funding the next in line proposal in its July 2021 meeting</p> <p>January 31, 2022 Leadership Council Meeting attended by Drs. Thambisetty and Mike Dockery and A. Porter</p>	<p>3)Funding for 2-years for total of \$120,000</p> <p>Trustees approved 3 grants</p> <p>The Trustees denied funding and setting this precedent in its July 2021 meeting.</p> <p>Dr. Rundek was notified</p> <p>Several reasons for only 1 LOI were cited. The Leadership Council will draft a new RFA to address these reasons and broaden the scope of the research for Trustee review at their March meeting.</p>
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<p><b><i>"Identify opportunities...to foster greater interest in cognitive aging and age-related memory loss (in the scientific community)"</i></b></p>	<p>Research Partnership with the Foundation for NIH and the NIA.</p> <p>1<sup>st</sup> cycle-2009, 2<sup>nd</sup> cycle 2014,</p> <p>3<sup>rd</sup> cycle approved 2019 to begin Spring of 2020 MBRF Innovators Awards in Cognitive Aging and Memory Loss</p>	<p>Fund balance of \$1 million from 2<sup>nd</sup> five-year partnership returned to MBRF</p> <p>Report received on all FNIH/MBRF activities RFA posted: "Network for Identification, Evaluation, and Tracking of Older Persons with Superior Cognitive Performance for Age" FNIH Report submitted For information only</p>	<p>DONE August 2019</p> <p>FNIH Report in October 2019 had an error. A corrected report resubmitted on Feb. 5, 2020.</p> <p>Posted Feb 2020; Deadline LOI Sept. 1; Application October 1, 2020</p> <p>First payment was made to FNIH by March 31, 2021. Will continue until 2025</p> <p>Dr. Molly Wagster will be attending the March 23-25 Inter-institutional Meeting at UA.</p> <p>The Trustees will discuss inviting her to present at their meeting on March 23, and to the idea of inviting the grantees for a video presentation.</p>	<p>History: Established 2009 \$5 M over 5 years from MBRF; match from NIA and partners was \$23 M for total of \$28 M (17 five-year grants funded).</p> <p>2014 Partnership renewal funded one 5-year project for \$15 million with \$5 M from MBRF and \$10 M from NIA</p> <p>Valerie connected with Julie Wolf-Rodda and Molly Wagster on promoting STARRS study.</p> <p>NIA will provide \$14M to be pooled with MBRF \$5 M. A 2.8 Match.</p> <p>RFA was shared with Communications Working Group for posting and with Leadership Council.</p> <p>Two grants were provided from the Research Partnership "Network for Identification, Evaluation and Tracking of Older Persons with Superior Cognitive Performance for their Chronological Age" to Dr. Thomas Perls, Boston University, and Dr. Emily Rogalski, Northwestern.</p> <p>Their abstracts are attached.</p>
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<p><b><i>"Identify opportunities...to foster greater interest in cognitive aging and age-related memory loss (in the scientific community)" (continued)</i></b></p>	<p>MBRF Innovator Awards in Cognitive Aging and Memory Loss</p> <p>AFAR Review Committee: Chair: Dr. Anna Maria Cuervo Members: Dr. Rafa de Cabo Dr. Thambisetty Dr. Boyle and Dr. Roz Anderson</p>	<p>Program was Approved by the Trustees Potential administrative and/or funding partners were approached American Federation of Aging Research (AFAR) was identified as an excellent partner organization. AFAR presented a proposal and draft contract for review Revised Agreement signed</p>	<p>October 14, 2020</p> <p>February 2021</p> <p>May 2021</p> <p>July 15, 2021 August 2021</p> <p>Mid Oct. 2021 Fall 2021</p> <p>Dec. 2021</p> <p>Jan 31, 2022</p> <p>Feb. 17 – Feb. 14, 2022</p>	<p>The McKnight Brain Research Foundation committed \$4.5 million over the next five years to support outstanding mid-career scientists committed to researching the basic biological mechanisms underlying cognitive aging and memory loss. Trustees approved AFAR as the MBRF Partner on the mid-career award Announcement for the Innovators Awards is finalized and posted. LOI Deadline – 9 LOIs Recieved LOI Review – 7 applicants asked to submit full application Application Deadline Review by Committee</p> <p>Successful applicants notified</p> <p>Dr. DeBiase and Dr. Vidella's research profiles will be posted on AFAR.org (once universities sign off) Issuing of joint Press Release, Posting on AFAR's site and newsletter and on MBRF's site.</p>
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<p><b><i>"Identify opportunities...to foster greater interest in cognitive aging and age-related memory loss (in the scientific community)" (continued</i></b></p>	<p>Reserve &amp; Resilience Workshop 2019</p> <p>Reserve &amp; Resilience Workshop Pilot Grants 2020</p> <p>Final Reserve &amp; Resilience Workshop 2021</p>	<p>Over 300 Attendees (8 MBI researchers)</p> <p>Organizers requested \$30,000 to support (1 – 3) pilot grants</p>	<p>September 9 and 10<sup>th</sup>, 2019 Bethesda</p> <p>In-Person Meeting CHANGED TO VIRTUAL MTG September 14 and 15, 2020; Report Submitted Jan. 2021</p> <p>Oct 31/Nov 1, 2021 Bethesda Meeting was a hybrid – part virtual and part in-person. The program is posted on reserveandresilience.com. Of note, Jen Bizon and Tom Foster were panelists.</p>	<p>This is an outcome from Cog. Aging Summit III held in 2017. Research Committee approved support in first and second years.</p> <p>Dr. Stern requested support for the Final R &amp; R Workshop to take place Oct. 31/Nov. 1 in Bethesda. He did not request a specific amount but support MBRF provided last year was \$30,000. Committee supports recommendation to fund at no more than \$30,000. Trustees approved.</p>
<p><b><i>"Encourage young investigators in this area of research"</i></b></p>	<p>McKnight Brain Research Foundation Clinical Translational Research Scholarship with American Academy of Neurology (AAN) and American Brain Foundation (ABF)</p>	<p>2021-2022 MBRF Reviewers are Dr. Boyle, Dr. Thambisetty, and Dr. Isaacson</p>	<p>Reviewers meet in Dec. Two Scholars are selected and alternates were identified. Awardees are notified in January. Funding starts July 1 of each cycle</p>	<p><u>First Scholarships Awarded</u> January 2018 (McConnell, Albert)</p> <p><u>Second Scholarships Awarded</u> January 2019 (Camargo, Sedaghat)</p> <p><u>Third Scholarships</u> Awarded January 2020 (Baxter, Getz)</p>
			<p>Edits to 2021 RFA were made and approved by Research Cmte. RFA has been posted as of July 4, 2020, on AAN site. Was added prominently to MBRF site in July.</p>	<p><u>Fourth Scholarships</u> were Awarded in January 2021 to Dr. Wendy Yau Wai-Ying (Brigham and Women's) and <del>Dr. Matthew Burns (UF)</del> Dr. Reem Waziry ( Publicly announced in April 2021</p>

<p><b><i>"Encourage young investigators in this area of research"</i></b> <b><i>(continued)</i></b></p>	<p>McKnight Brain Research Foundation Clinical Translational Research Scholarship with American Academy of Neurology (AAN) and American Brain Foundation (ABF) (continued)</p>	<p>2022-23 Scholarship Review (last in this first 5 year cycle)</p>	<p>Advertising followed 2019 Plan for 2020 Award and begin in August, 2020. 8 applications for 2021 were received.</p> <p>October 14, 2020, Renewal for five years was approved by the Trustees. First round will be 2023-24 Scholarships.</p> <p>Members of the Review Committee included Dr. Madhav Thambisetty, Dr. Patricia Boyle, and Dr. Richard Isaacson</p>	<p>UPDATE on 4<sup>th</sup> Scholarships: Dr. Matthew Burns (UF) received a K-Award from NIA and had to decline the McKnight Scholarship. First Alternate Dr. Reem Waziry was offered and accepted the 2021 Scholarship</p> <p><u>Fifth Scholarships</u> Advertising was conducted in August and September 5 Applications received Oct. 1. Review was held in December. Two applicants (Drs. Szymkowica and Kleiman) were approved for 2022 - 23 Scholarships. To be announced in April 2022 at time of AAN Meeting in Seattle</p>
<p><b><i>"Encourage young investigators..."</i></b> <b><i>Continued</i></b></p>	<p>Poster Reception at 2019 Society for Neuroscience annual meeting (Chicago)</p> <p>2020 Society for Neuroscience canceled due to DC pandemic closing guidelines</p> <p>SfN 2021 50<sup>th</sup> Annual Meeting</p> <p>SfN 2022</p>		<p>October 20, 2019</p> <p>October 2020</p> <p>Intended to be: November 8 – 11 virtually and Nov. 13 – 16 in person Chicago</p> <p>Nov. 12 – 16, 2022 San Diego</p>	<p>First Poster Reception held in 2008. (50 submissions received) Sponsored by MBRF. Hosted by Directors of MBIs. Submissions open to researchers at MBIs and invited guests only</p>

**Recent Grantees of the FNIH (NIA)/MBRF Research Partnership 3<sup>rd</sup> Cycle of Funding**

January 2022

*PIs: PERLS, THOMAS T (contact), Boston University Medical Campus; ANDERSEN, STACY, Boston University Medical Campus; BOOKHEIMER, SUSAN Y, UCLA*

**1U19AG073172-01**

## **Resilience/Resistance to Alzheimer's Disease in Centenarians and Offspring (RADCO)**

### **Abstract**

Centenarians delay age-related diseases and disabilities into their mid-nineties. Some remain cognitively intact despite extreme exposure to the strongest risk factor for cognitive impairment and AD, aging. The overall hypothesis of this study, titled “Resilience/Resistance to AD in Centenarians and Offspring” (RADCO), is: centenarian cognitive superagers and some of their offspring have protective factors that confer such resilience or in some cases, even resistance against cognitive decline and dementia. RADCO assembles an unprecedentedly large sample of prospectively studied centenarian cognitive superagers (n=495, essentially, centenarians with cognitive function that falls within the norms of septuagenarians) along with offspring (n=600) and offspring spouses (n=120), who, via RADCO cores, undergo careful, comprehensive and cutting edge neuropsychological, biomarker, neuroimaging and neuropathological phenotyping. These data are used by two projects with the overall scientific objective of gauging cognitive resilience in this sample, understanding the underlying protective biology and translating that into therapeutic targets. The Cognitive Resilience and Resistance Phenotypes Project (Project 1) gauges resilience by neuroimaging, plasma AD biomarkers risk and neuropathology and therefore generates a range of resilience endophenotypes. The Protective Factors and Mechanisms Project (Project 2) is the translation arm of RADCO; it discovers genes, candidate biological pathways and sets of mi-RNA regulators associated with the resilience endophenotypes characterized in Project 1. In-vitro models of AD incorporate cortical neurons, microglial cells and astrocytes created from centenarian cognitive superager induced pluripotent stem cell (iPSC) lines are used to test the candidate pathways for how they cause resilience against AD. PUBLIC HEALTH RELEVANCE: Centenarian cognitive superagers have exceptional cognitive function despite extreme exposure to the strongest risk factor for cognitive impairment and Alzheimer's disease, aging. The “Resilience/Resistance to AD in Centenarians and Offspring” (RADCO) Study gauges cognitive resilience among centenarian cognitive superagers and their offspring using cognitive testing, neuroimaging, blood biomarkers, and neuropathology and translational studies will identify protective factors and underlying mechanisms that confer resilience or in some cases, even resistance against cognitive decline and dementia.



*PI: ROGALSKI, EMILY J (contact), Northwestern University at Chicago; GEULA, CHANGIZ, Northwestern University at Chicago; MESULAM, MAREK-MARSEL M, Northwestern University at Chicago*

**1U19AG073153-01**

## **Study to Uncover Pathways to Exceptional Cognitive Resilience in Aging (SUPERaging)**

### **Abstract**

The primary goal is to establish a multicenter SuperAging Consortium to identify behavioral, health, biologic, genetic, environmental, socioeconomic, psychosocial, anatomic and neuropathologic factors associated with SuperAging. These goals will be achieved through an organizational structure with 3 Cores (Administrative/Biostatistics, Clinical/Imaging, and Biospecimen/Neuropathology) and 2 Research Projects. The Consortium will enroll 500 participants across 4 US Sites located in Illinois, Wisconsin, Michigan and Georgia, and the Canadian Site in Southwest, Ontario, with a focus on the enrollment of Black SuperAgers and Cognitively Average Elderly Controls with similar demographics (Controls). The Administrative/Biostatistics Core will provide governance and fiscal oversight, maintain scientific integrity, and create a centralized biostatistics and database infrastructure to harmonize the goals and activities of the Cores, Sites, and Projects, with each other, with the NIA and with extramural collaborators. The Clinical/Imaging Core will standardize criteria for the uniform cross-site and multidisciplinary characterization of SuperAgers, streamline recruitment including that of Black participants, enter relevant information in the comprehensive database, support co-enrollment into Project 1, and encourage collaborative ventures aiming to understand the factors that promote SuperAging. The Biospecimen/Neuropathology Core will collect and bank brain tissue and blood products from SuperAging and Control cases, according to optimized procedures. It will render pathological diagnoses, quantitate selected markers of neurodegeneration and neuronal structure, coordinate the analyses of plasma biomarkers for Alzheimer's disease, and make specimens available for collaborative investigations. Project 1 will use state-of-the-art wearable technology to obtain real-time measurements in the course of everyday life to characterize quantitative parameters related to sleep, physical activity, autonomic responsiveness, and social engagement to determine whether SuperAgers have relatively preserved and quantitatively determined physiologic and behavioral 'complexity' compared to Controls. Project 2 will use transcriptomic, genetic, and protein profiling approaches to test the hypothesis that SuperAgers will demonstrate significant molecular differences in their central and peripheral immune and inflammatory system parameters compared to matched Control and Alzheimer's disease participants. By identifying neurobiologic features that contribute to superior memory performance in old age, outcomes from this Consortium will help isolate factors that promote successful cognitive aging and perhaps also prevent age-related brain diseases such as Alzheimer's disease. PUBLIC HEALTH RELEVANCE: : The proposed Consortium offers optimal organization for the accelerated recruitment of a racially diverse cohort of SuperAgers so that they can be more fully characterized neuropsychologically, neuropathologically, psychophysiology, and molecularly. The planned activities of the Consortium will help isolate factors important for promoting successful cognitive aging and potentially also for avoiding age-related brain diseases such as Alzheimer's disease.

**Date Submitted:****Awarded Amount:** \$150,000.00**Activity Upload**

If an applicant has submitted their activity via email, please upload here.

## Final Report Details

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**Restatement of Specific Aims and progress achieved for each Aim**

This study's goal is to examine whether differences in attentional control networks are related to subjective and objective real-life cognitive performance. We will examine these changes in older adults who do and do not have subjective complaints of attention and memory difficulties using ecological momentary assessment (EMA). EMA approaches repeatedly assess cognitive performance and subjective measures (such as mood and cognitive complaints) in the moment and in the context of the participant's daily life experience. Combining laboratory cognitive assessments with EMAs will inform whether MRI measures of attention network function relate to everyday cognitive performance.

Aim 1: In older adults with and without subjective cognitive decline (SCD) identify differences in functional connectivity in attention networks.

34 older adults (10 without SCD, and 24 with SCD) enrolled in the study and completed an fMRI session including resting-state fMRI to measure functional connectivity within and between three key brain attention networks (the alerting, orienting, and executive attention networks). The resting-state fMRI data have proceeded through pre-processing, quality assessment, first-level single subject analysis and, second-level analysis to examine the effects of group (with and without SCD) and the covariate effects of cognitive complaint severity and age.

Older adults with SCD show altered connectivity in each attention network compared to older adults without subjective decline. The SCD group showed reduced functional connectivity between parietal regions in the alerting and orienting networks and frontal regions including the cingulate and, orbital and dorsolateral prefrontal cortex. Within the orienting network, older adults with SCD also show reduced widespread

connectivity between the left lateral parietal cortex and anterior and posterior cingulate gyrus, supramarginal gyrus, and angular gyrus. Reduced parietal and anterior cingulate functional connectivity were correlated with cognitive complaint severity such that higher complaint severity was associated with less functional connectivity between these regions and regions in the orienting and executive networks.

These differences in connectivity may reflect reduced functional integration within attention networks, particularly the orienting attention network, and connectivity to other functional brain networks including the default mode network. This reduced connectivity may result in reduced capacity for attentional control processes to successfully modulate other brain networks and appropriately direct cognitive resources.

**Aim 2:** Examine the relationship between laboratory measures of attention network functional connectivity with real-life ecological cognitive performance.

34 older adults (10 without SCD, and 24 with SCD) enrolled in the study and completed one week of EMA through the Ambulatory Research in Cognition (ARC) smartphone application. Mean completion rate for the EMA tests was 74%. Mean and variability (standard deviation) for each of the ARC measures was calculated for each subject and included as covariates of interest for the resting-state fMRI analyses. Greater variability in processing speed across the EMA trials was associated with reduced functional connectivity within executive network frontal regions, and between alerting and orienting network regions and motor network regions. Reduced functional connectivity within the executive network and between attention networks important for directing attention to salient information and motor areas may reduce processing speed and result in the experience of mental slowing or cognitive impairment. Greater variability in memory performance was associated with greater connectivity between alerting and executive attention regions and the default mode network through the posterior cingulate. These networks typically show inverse activity as task-on (alerting, executive) and task-off (default mode) networks. Greater positive connectivity between attention and default mode networks may reflect reduced ability to switch between a task-off and task-on state, which may result in occasional memory failures, a common complaint among older individuals with SCD.

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**Describe obstacles, if any, in achieving each Specific Aim**

Enrollment and study activity completion has been delayed during the COVID-19 pandemic.

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**Plans for Next Year**

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In the next year data analysis will continue, including further analysis of the group difference (SCD and Non-SCD) on the EMA and resting-state connectivity data. These results will be presented at national conferences, including the American Academy of Neurology and American Association for Geriatric Psychiatry annual meetings, and be prepared for publishing as a scientific manuscript.

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**Coursework and other educational opportunities and activities**

Vanderbilt Translational Bridge Seminars and Vanderbilt Early Career Faculty Seminars  
Vanderbilt Women on Track

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**Publications, presentations, awards, resulting from current American Academy of Neurology support**

Data from the study were used as pilot data for an awarded K12 Vanderbilt Faculty Research Scholars career development award and will be used to support a National Institute on Aging K01 application.

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**Please include a one page research summary written for a lay audience (minimum of 150 words). Please gear the summary to an audience with a 2nd grade reading level**

This will be used by the American Academy of Neurology to promote the Research Program to current and potential donors.

Although memory complaints in aging are common, changes in attention may occur earlier and result in memory deficits. Reduced memory in aging is a non-specific symptom that may be related to structural, neurophysiological, or neurochemical changes in the brain, including changes in the networks that support attention. Activity and dynamic interactions in brain networks responsible for appropriately directing attention are reduced in aging. Accordingly, in older adults changes in activity and connectivity in these networks is associated with declining memory and decreased ability to maintain attention towards appropriate information. Attention processes in early cognitive decline and the neurobiological mechanisms underlying attention deficits in aging have not been widely studied.

The goal of this study was to examine whether brain activity and function in brain networks important to attention are altered in healthy older adults with cognitive complaints with aging, and whether in-lab brain network assessments relate to everyday cognitive performance outside of the lab. Participants completed brain MRI scans and cognitive assessments during a study visit in the lab and then completed a one-week period of repeated short remote assessments using smart-phone technology. These out of the lab repeated assessments allow for cognitive assessment in the context of the participants' everyday experience and provide extensive data that captures intra-individual variability in participants. The results of this study suggest that older adults who have cognitive complaints have reduced coordinated activity in brain areas important for attention, and between these networks and other brain networks important for memory. In addition, variability in everyday processing speed and memory performance over one week were correlated with attention network connectivity with brain regions important for directing motor activity and appropriate cognitive resources to deal with tasks. These results support that cognitive complaints in aging may be related to changes in attention networks, and that measuring everyday cognition using remote smartphone approaches is feasible and may provide unique information about brain network changes in cognitive aging.

#### **Additional Documents:**

## **Mentor Input**

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### **Mentor Comments**

Thank you for being a mentor for Kimberly Albert on their American Academy of Neurology award. Please comment on your mentee's progress in achieving their specific research aims and their overall progress on the project.

**Date Submitted:** 01/05/2022

**Awarded Amount:** \$150,000.00

## Activity Upload

If an applicant has submitted their activity via email, please upload here.

## Final Report Details

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### Restatement of Specific Aims and progress achieved for each Aim

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see attached report

### Describe obstacles, if any, in achieving each Specific Aim

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see attached report

### Plans for Next Year

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see attached report

### Coursework and other educational opportunities and activities

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see attached report

### Publications, presentations, awards, resulting from current American Academy of Neurology support

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see attached report

**Please include a one page research summary written for a lay audience (minimum of 150 words). Please gear the summary to an audience with a 2nd grade reading level**

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This will be used by the American Academy of Neurology to promote the Research Program to current and potential donors.

see attached report

**Additional Documents:****McConnell\_AAN\_Final\_Progress\_Report\_2021\_(002).pdf**

116.7 KB - 09/14/2021 21:13

Total Files: 1

## Mentor Input

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**Mentor Comments**

Thank you for being a mentor for Brice McConnell on their American Academy of Neurology award. Please comment on your mentee's progress in achieving their specific research aims and their overall progress on the project.

Brice has done an outstanding job with a very challenging and innovative project. As noted in his report, he has had to pivot several times as his data suggested that some of our original strategies and assumptions were either not optimal or not correct. He has done a great job of finding new data sources, collaborating with several big names in the sleep field and putting together new grants including a K-award.

## **AAN Final Report**

**Overall Summary:** During this trial we made compelling discoveries into the nature of slow wave sleep that greatly advanced our understanding of human neurophysiology, although unfortunately undermined the rationale and data analysis plan for this trial. Early termination led to small numbers of participants analyzed, and there were technical problems with measurement leading to unreliable or uninterpretable data for several participants. In total we recruited 47 participants into this trial. Twenty-three of the participants were enrolled into a “technical development” arm of our protocol as we needed to invent and refine novel methodology to examine our aims, and there were many technical challenges. Twelve participants were randomized into Aim 1, and another twelve into Aim 2. Of the 12 who started Aim 1, only 2 successfully completed the protocol due to technical failures and dropouts. A significant barrier to continuing enrollment was the COVID-19 pandemic, which effectively shuttered our ability to enroll any participants for greater than one year. In addition, my mentor for this project left our institution and launched a new clinical program at another academic center, and our core team members including our electronics engineer and our physicist were unable to continue contributing to this project due to lack of time and resources.

Despite these setbacks, the project was quite successful in furthering our understanding of sleep neurophysiology, and indeed, we did discover several critical features of slow wave sleep that will impact numerous published works and ongoing projects in the field of sleep’s neurological functions. Our key insight from this work is that slow wave sleep is a heterogeneous state that I have described as an amalgam of at least two different types of slow waves subtypes in my recent publication. These slow waves are observed to have different properties and are hypothesized to have very different functions in synaptic regulation. We further discovered that aging is associated with a shift in the composition of slow wave sleep, and that restoration of slow wave sleep will require knowing which subtypes may be beneficial. The products of this grant include two peer-reviewed publications, numerous grant applications, and a line of investigation that is currently breaking ground with several more publications and grant applications in various phases of development.

### **Restatement of Specific Aims and progress achieved for each Aim**

**Aim 1: To determine whether nested-frequencies tES demonstrates greater induction of sleep spindles relative to sinusoidal tES or sham tES, resulting in improved sleep architecture and enhanced cognitive performance in aging adults.**

We developed a novel custom waveform stimulation paradigm that allows for pulsation of nested frequencies tES and recovery of EEG recordings in between EEG signals. We also developed custom MATLAB scripts that can automate processing of EEG recordings that contain tES artifacts. We discovered several critical post-processing techniques in automated tES artifact subtraction to avoid contamination of physiological signals in the EEG. We completed the technical development testing of these novel techniques in overnight, home-based EEG/tES recordings in the first ever of such experiments. We initially believed that we were observing a restoration of sleep spindle phenotype to a pattern that more closely resembles young adult sleep spindle physiology among aging adults, although subsequently we realized that this was a technical artifact from oversimplifying the structure of slow wave sleep. Specifically, we discovered that slow wave sleep does not have a “young slow wave” and



“older slow wave” division of spindle coupling phenotypes, as had been previously published by others. Rather, by our (now published) observations, we were able to identify lighter and deeper sleep subtypes of slow wave and spindle couples, and we further demonstrated that the ratio of these slow wave subtypes shifts with aging toward the deeper sleep phenotype. Unfortunately, with these insights we were able to reproducibly observe that the electrical stimulation had no effect on the sleep architecture, and our initial observations were based on an oversimplified conceptual model of sleep that has been extensively published in the sleep literature.

**Aim 2: To determine whether sleep-network tES demonstrates greater entrainment of SWA relative to sinusoidal tES or sham tES, resulting in improved sleep architecture and enhanced cognitive performance in aging adults.**

We developed custom electrodes that modify our original 8 channel EEG/tES system to allow for tES pulsation of sleep network nodes and EEG recording of physiological responses. We extensively tested these electrodes in preliminary human subjects testing. Due to unforeseen problems with analogue switch-related DC artifact production (see below), we created custom scripts for production of our sleep-network tES to minimize the artifacts that would otherwise preclude our ability to interpret the physiological EEG signals. Unfortunately, as in Aim 1, we were able to reproducibly observe that the electrical stimulation had no effect on the sleep architecture, and we terminated this Aim with a consensus among the team that our study design was fatally flawed for similar reasons as Aim 1.

**Describe obstacles, if any, in achieving each Specific Aim**

After we developed and tested our initial hardware/software configuration for delivery of EEG/tES in a home environment, we enrolled thirteen subjects for first-wave “real world” testing of home-based EEG/tES. Our results demonstrated success in activation of tES during the appropriate stage of sleep, and we did not encounter any significant adverse events among our subjects. Given that we were the first research team to achieve this technical ability, we published our results as feasibility paper in the journal of Brain Stimulation (see below).

Our first round of EEG/tES enrollment did, however, uncover several technical issues that needed to be addressed. We discovered that the ability of subjects to successfully self-apply electrodes was too variable, and we needed to custom design and build a new type of electrode that would provide additional reliability. We also encountered problems with subject’s ability to activate the software systems that integrate the EEG acquisition with the automated EEG sleep staging and tES activation. We developed custom software to integrate all our software systems into a small laptop computer that can automate every step after the subjects activate the power button. We extensively tested the latest iterations of our newly re-designed custom electrodes and fully automated software systems among ten additional subjects in the home-setting, and our system’s reliability and user-friendliness was greatly improved.

With regard to sleep-network tES, our technical development encountered several formidable barriers. The hardware limitations of our current tES/EEG device require activation of an analogue switch to transition from EEG recording to application of tES. Unfortunately, this analogue switch activation creates a >1000 microvolt spike over 1-2 samples in the EEG recording, and the resultant recording artifact is particularly challenging to remove. This artifact produces a very sizable “ringing” phenomenon when EEG data is filtered using both finite impulse response and infinite impulse response filters, and

thus far we are unable to produce pulsatile tES through network nodes by our originally proposed method. Further, during our work to trouble-shoot this network-based tES, we uncovered several signal processing issues that we strongly suspect others in this field are not aware of (some key papers in the sleep/tES field of study may have at least some flawed data analysis methodology). Given the politically sensitive nature of these findings, we worked very diligently to verify that our interpretations and methods for signal processing are indeed correct, and we are exploring the best way to disseminate our findings to the field.

### **Plans for After This Award**

During this award period I applied for K23 funding from the NIH, and while I received a very competitive score, my proposal narrowly missed the funding line. I am currently being supported by an NIH supplement grant to protect my time and continue my research, and I plan to submit another K23 and an R03 grant within the next year.

### **Publications, presentations, awards, resulting from current American Academy of Neurology support**

#### **Publications:**

**McConnell B**, Kaplan R, Teale P, Kronberg E, Broussard J, Guzzetti J, Sillau S, Dhanasekara A, Kluger B, Berman BD. "Feasibility of Home-based Automated Transcranial Alternating Current Stimulation During Slow Wave Sleep." *Brain Stimul.* 2019. doi: 10.1016/j.brs.2019.02.014

**McConnell, Brice V.**, et al. "The Aging Slow Wave: A Shifting Amalgam of Distinct Slow Wave and Spindle Coupling Subtypes Define Slow Wave Sleep Across the Human Lifespan." *Sleep*: zsab125.

#### **Posters:**

Kaplan R, Teale P, Kronberg E, **McConnell B**. Analysis of Theta Bursts and Slow Spindles During Sleep: Insights Into the Phase Coupling Memory Consolidation Model. American Neuropsychiatric Association 30<sup>th</sup> Annual Meeting; 2019 March; Chicago, IL, USA

McClure R, **McConnell B**, Kronberg E, Kaplan R, Teale P, Berman B. Synaptic regulation and slow wave, sleep spindle, and theta burst event order in slow wave sleep. Colorado Neuroscience Symposium; 2019 April; Aurora, CO, USA

**Please include a one page research summary written for a lay audience (minimum of 150 words). Please gear the summary to an audience with a 2nd grade reading level**

My research project focused on the use of non-invasive brain stimulation to improve brain health and memory functions among aging adults. I designed a system that uses gentle electrical fields to align brainwaves while people are sleeping. The system consists of a cap that is worn on the head, and a computer that automatically performs the brain wave alignments. I designed and built this project based on the ideas of other prominent sleep researchers who had reported that certain brain waves called slow waves and sleep spindles become misaligned during aging and when people develop diseases such as Alzheimer's disease. These sleep experts had also reported that the exact timing of slow waves and sleep spindles is important for the memory boosting and brain protective features of sleep.

As I implemented this project and analyzed sleep data looking for changes in slow waves and spindles, I began to realize that the ideas that were used as a rationale for the project were oversimplified in many ways. For example, I discovered that there are multiple different types of slow waves and spindles in sleep, and they have unique functions for memory processing. I also discovered that aging is associated with a shift in the types of slow waves and spindles that occur during sleep. Ultimately, I found no evidence that the electrical stimulation could re-align brain waves. The work performed under this grant provides critical information for any attempts to use slow waves and sleep spindles as a marker for brain disease, and any future attempts to modify slow wave sleep will need to consider these fundamental concepts that my team has discovered and published.

**The MBRF Cognitive Aging and Memory Intervention Core  
Inter-institutional Pilot Program  
REQUEST FOR LOI and PROPOSALS**

**APPLICATION RECEIPT DATE:**

LOI Deadline: **March 15, 2021**

Full Application Deadline: **May 15, 2022**  
(if invited to submit by the Core)

**PURPOSE:** The McKnight Brain Research Foundation (MBRF) Cognitive Aging and Memory Intervention Core invites inter-institutional MBRF applications for pilot studies to support interventions to reduce age-related memory loss and cognitive decline. The proposal can be either a direct intervention or one that seeks to identify mechanisms in animal or human models leading to a future, direct intervention. The specific goal of these projects will be to collect pilot data across two or more MBI (McKnight Brain Institute) sites to facilitate grant submission to extramural funding sources for multi-MBI site cognitive aging and memory intervention trials.

**ELIGIBILITY REQUIREMENTS:** *Please read carefully.*

Applications are solicited from investigators from the MBI sites.

- Applications must include at least two MBI sites
- Applications must propose preliminary or pilot interventions with promise for combating cognitive aging and age-related memory decline in older adults
- Investigators who have received a previous award are eligible to applying for a second pilot grant as long as the application meets the above criteria.
- LOI submitted by the Deadline **(March 15, 2022)** using the attached form.
- Only applications that have not been submitted for review and remain unfunded by any source will be considered.
- Awardees will be asked to serve as reviewers for 1-2 cycles (2023 & 2024)
- Young investigators are encouraged to apply. The review committee will give priority to junior investigators for at least one of the awards.
- Both pre-clinical/translational and clinical interventions are eligible for consideration.

**MECHANISMS OF SUPPORT:** Up to two grants of up to total of \$60,000 per year for 2 years will be made. The funding period is for maximum of two years.

**RESEARCH OBJECTIVES:** The MBRF Cognitive Aging and Memory Intervention Core was established to facilitate multi-McKnight site cognitive aging and memory interventions, as well as collect and disseminate information important for cross-site study collaborations. The Cognitive Aging and Memory Intervention Core will work with invited applicants to facilitate access to necessary resources for multi-site intervention across the MBI sites.

**APPLICATION PROCEDURES:**

**Pre-proposal Letter of Interest (LOI):** LOI is required for all applications using the attached form. The LOI must be sent by **March 15, 2022** to Ronald Lazar ([rlazar@uabmc.edu](mailto:rlazar@uabmc.edu)) and Bonnie Levin ([blevin@med.miami.edu](mailto:blevin@med.miami.edu)) via email attachment. LOIs will be reviewed by the MBRF Cognitive Aging and Memory Intervention Core Committee and selected investigators will be invited to submit a full application by **April 1, 2022**.

**Full Application:** The full applications must be submitted by the deadline of March 1, 2022. The proposal should be sent to Ronald Lazar ([rlazar@uabmc.edu](mailto:rlazar@uabmc.edu)) and Bonnie Levin ([blevin@med.miami.edu](mailto:blevin@med.miami.edu)) via email attachment in a single file in the PDF format.

Applications must include:

- A cover letter with the names and contact information and up to 2-3 potential qualified reviewers
- Face Page: Project Title, Senior/Key Personnel, Project/Performance Sites, Contact PI (and Contact PI information)
- Research Plan - limited to 5 pages (without References) and should include:
  - a. Summary (max 1/2 page)
  - b. Specific Aims
  - c. Research Strategy (Significance, Innovation, Approach). For proposals seeking to establish hypothesized mechanisms, an explicit narrative is required stating how findings will lead to a future, direct intervention.
  - d. Multisite MBI Collaborations
  - e. Timeline and Future Directions
  - f. References
- Detailed Budget (Budget limited to \$60,000 per year in total costs) and Budget Justification. There should be no support for faculty other than the minimum required by the institution to be a PI on a grant.
- Biographical Sketch(es) for Key Personnel: <http://grants.nih.gov/grants/forms/biosketch.htm>

**APPLICATION REVIEW CRITERIA:** Applications will be reviewed for scientific merit by two expert reviewers. Applications will be rated based on 1) significance, 2) quality, innovation and feasibility, 3) collaborations across the MBRF sites, 4) likelihood of leading to a successful larger grant application, and 4) potential of applications to develop into a successful research program in the field. The final selection of projects for funding will be made by the MBRF and the Cognitive Aging and Memory Intervention Core and awardees will be contacted by email. The anticipated funding start date of successful applications is July 1, 2022.