

To: McKnight Brain Research Foundation Trustees

Amy Porter, Interim Executive Director

From: Melanie Cianciotto

Subject: MBRF Meeting October 13 – 14, 2024

Date: October 2, 2024

Enclosed you will find the meeting package for the October 14, 2024, Trustees' meeting in Dallas, Texas. Included in this package for your review are the following items: the agenda, final draft of the minutes of the August 22, 2024, Trustees' meeting, minimum distribution calculation and other supporting materials for the agenda items.

The meeting will be held at the Grand Hyatt Dallas Fort Worth International Airport. There are three Hyatt Hotels in the Airport so please make sure to proceed to Grand Hyatt DFW located inside Terminal D. Please see the enclosed Grand Hyatt Arrival and Departure documents for information on accessing the hotel. Dinner is at 7:00 pm on October 13, 2024, in the Grand Met Restaurant in the hotel. The meeting on October 14, 2024, will begin at 8:00 am in the Executive Board Room on the Ballroom Level. Breakfast and Lunch will served during the meeting.

Reservations have been made at the Grand Hyatt Dallas Fort Worth International Airport. Here are the confirmation numbers:

Patricia Boyle	33354749-1	Roy Hamilton	35161702-1
John Brady	42948495-1	Valerie Patmintra	29405852-1
Sharon Brangman	10791147-1	Sue Pekarske	15343395-1
Allison Brashear	6507802-1	Amy Porter	4054722-1

Mike Dockery 37013191-1

I look forward to seeing you in Dallas!

GRAND HYATT DFW - Arrival

LOCATED INSIDE TERMINAL D

Grand Hyatt DFW

The Dallas/Fort Worth International Airport provides complimentary transportation to the Grand Hyatt DFW via SkyLink and Terminal Link. Both services connect all terminals with the hotel. Depending on which side of the terminal the guest is on (secured or unsecured), will dictate which mode of transportation to use.

**Note: There are three Hyatt Hotels located at DFW Airport – ensure guests proceed to <u>Grand Hyatt DFW located in</u> Terminal D

SkyLink (Connect Inside Security)

SkyLink unites the existing Terminals A, B, C and E, and extends to International Terminal D. SkyLink's average wait time is 2 minutes, and average passenger ride time is 5 minutes. There are two spacious SkyLink stations in each terminal, located at the north and south ends of the terminals. The stations feature passenger information systems and escalators and elevators for easy access to the station platforms. The SkyLink operates 24 hours a day.

If a guest is traveling with carry-on luggage only, and does not need to claim any checked baggage, they can remain on the secured side of the terminal and proceed to the nearest SkyLink station to board the train. Once the guest arrives at Terminal D, they will leave SkyLink and the secured side of the terminal and proceed to the escalators/elevators that will carry them into the Grand Hyatt DFW reception area.

Terminal Link (Connect Outside Security)

DFW's Terminal Link service is a speedy, shuttle van service that takes guests directly from one terminal to another, including the Grand Hyatt DFW hotel in Terminal D. If a guest needs to claim their checked baggage, they will need to leave the secured side of the terminal, claim their baggage and proceed to the nearest Terminal Link stop to board the shuttle marked Grand Hyatt DFW/Terminal D.

Terminal Link operates on the arrivals level at its designated stops except for inbound Grand Hyatt DFW guests who will be dropped off in front of the hotel entrance, departure level. Outbound guests needing Terminal Link service from the hotel to other terminals will need to go down to the arrivals level.

Pick-up/drop-off areas are conveniently located outside the bag claim areas in each of DFW's five terminals on the arrivals level by the roadway curb. There are two locations per terminal. The Terminal Link vans run continuously between 5 a.m. and 12 a.m., and a guest's wait is approximately 5 to 7 minutes. Reduced/on-call service is available after hours by calling 972-574-LINK (5465).

Parking:

In order to have your self-parking validated, use "ticket only" lanes when entering & exiting the toll booth. Enter the parking garage at Terminal D and park on level 3, near Gate 22. Please avoid 2-hour parking spots.

GRAND HYATT

GRAND HYATT DFW - Departure

LOCATED INSIDE TERMINAL D

Grand Hyatt DFW

The Dallas/Fort Worth International Airport provides complimentary transportation from the Grand Hyatt DFW via SkyLink and Terminal Link. Both services connect all terminals with the hotel. Depending on which side of the terminal the guest is on (secured or unsecured), will dictate which mode of transportation to use.

**American Airlines, AeroMexico, Air France, British Airways, Emirates, Interjet, jetBlue, Lufthansa, Qatar, Sun Country, Volaris, Avianca, Japan Airlines Korean Air, & Qantas are the only airlines with ticket counters located in Terminal D

GRAND HYATT

Departing without a boarding pass or if you have baggage to check (not with Airline carrier above):

Exit the lobby via the escalator or elevators to the terminal level.

Proceed straight ahead. Just past the Relay store, there is an elevator on the left (just before the currency exchange booth).

Take the elevator to arrival level one.

Exit straight ahead and turn right down the sidewalk.

The Terminal Link sign is where you wait to pick up the shuttle.

*Please make sure you board the shuttle that is going to your terminal. Terminals are posted on scrolling marquee sign on the shuttle bus. Busses run every 5 minutes.

Departing with a boarding pass and no luggage to check:

Exit the lobby via the escalator or elevators to the "T" / terminal level.

Proceed to the left or right to enter security checkpoint.

Once through security, look for the closest SkyLink location (Between D11 & D20 and Between D24 & D30)

Proceed up the escalators to the SkyLink platform

Board the SkyLink to your departing terminal*

*Terminal instructions are displayed above the terminal SkyLink doors

Parking:

Once your self-parking ticket is validated, use "ticket only" lane when exiting the toll booth. Give the attendant your parking ticket pulled & your validation ticket provided from hotel.

MCKNIGHT BRAIN RESEARCH FOUNDATION (MBRF) Meeting of the Board of Trustees

Monday, October 14, 2024 Executive Boardroom Grand Hyatt Dallas Fort Worth International Airport 2337 South International Parkway, DFW Airport, Texas 75261 8:00 am CT – 2:00 pm CT

AGENDA

8:00 am	1.	Call to Order/ Welcome	Dr. Michael Dockery
ACTION	2.	Approval of Minutes a. August 22, 2024	Dr. Michael Dockery
8:10 am	3.	Investment Review	Mr. Mike Hill Mr. Evan West
8:50 am	4.	 Chairman's Report a. Update on UA new Gift Agreement b. Update on UF Search for Clinical Translational Chair c. Brain Health Action Advisory Committee d. Leadership Council Meeting October 24 	Dr. Michael Dockery Dr. Lee Dockery Dr. Michael Dockery Dr. Sharon Brangman Dr. Michael Dockery
9:30 am	5.	Executive Director's Report a. Update on Activities	Ms. Amy Porter
9:45 am	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
10:10 am		Break	
10:25 am	7.	Committee Reports	
		 a. Research Committee 1) September 24, 2024 Minutes 2) Updated Committee Timeline 3) Cognitive Aging Summit IV Executive Summar 	Dr. Madhav Thambisetty
ACTION		4) Innovator Awards Review (AFAR/MBRF)5) SfN MBRF Poster Reception	Dr. Madhav Thambisetty Dr. Patricia Boyle
11:30 am		b. CEO Search Committee Update	Dr. Lee Dockery SpencerStuart Team

MCKNIGHT BRAIN RESEARCH FOUNDATION Meeting of the Board of Trustees Monday, October 14, 2024

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12:30 pm		Lunch	
1:00 pm		c. Communications Committee1) Updated Committee Timeline2) October 7, 2024 Minutes	Dr. Patricia Boyle
		3) Brain Works Campaign Updates - Coverage Highlights - Public Service Announcement Planning - Strategic Partnerships Update	Ms. Valerie Patmintra BRG Team
1:30 pm		Committees having not met: d. Membership & Governance Committee 1) Updated Committee Timeline	Dr. Susan Pekarske
		e. Finance Committee1) Updated Committee Timeline	Dr. Allison Brashear
		f. Education Committee1) Updated Committee Timeline	Dr. John Brady
	8.	Other Business	
2:00 pm	9.	Future Meetings and Events (Attachment 1)	Dr. Michael Dockery
ACTION	10.	Adjournment	Dr. Michael Dockery

Attachment 1

FUTURE MEETINGS AND EVENTS

<u>February 23 – 25, 2025</u> Trustees' Meeting

TBD

May 14 – 16, 2025 Inter-Institutional Meeting hosted by UM, Miami, FL

May 14 12:00 – 5:00 pm Trustees' Meeting

5:30 pm – 8:00 pm Opening Reception and Dinner

May 15 Scientific Program

Casual Reception and Dinner

May 16 Scientific Program

MINUTES MCKNIGHT BRAIN RESEARCH FOUNDATION BOARD OF TRUSTEES MEETING Via Teams

August 22, 2024

The Trustees' meeting of the McKnight Brain Research Foundation (MBRF) was called to order at 4:00 PM EDT on August 22, 2024.

The following members were present:

- Dr. Michael Dockery, Chair
- Dr. Madhav Thambisetty, Vice Chair
- Dr. Patricia A. Boyle, Trustee
- Dr. John Brady, Trustee
- Dr. Sharon A. Brangman, Trustee
- Dr. Allison Brashear, Trustee
- Dr. Roy H. Hamilton, Trustee
- Dr. Susan Pekarske, Trustee
- Dr. J. Lee Dockery, Chair Emeritus
- Ms. Melanie Cianciotto, Corporate Trustee,

Truist Foundations and Endowments Specialty Practice

Others attending:

Mr. Mike Hill, Truist Foundations and Endowments Specialty Practice

Ms. Amy Porter, Interim Executive Director

Ms. Valerie Patmintra, Senior Communications Advisor

Ms. Shelly Simpson, CFA, CAIA, Senior Analyst - Investment Strategy, Portfolio & Market Strategy, Truist Advisory Services, Inc.

Mr. Dylan Kase, Senior Investment Strategy Analyst – Investment Strategy, Truist Advisory Services, Inc.

1. Approval of Minutes

The minutes of the May 15, 2024, Board of Trustees Meeting of the McKnight Brain Research Foundation were reviewed and approved as presented (Attachment 1).

Action Item 1: The minutes of the May 15, 2024, Board of Trustees Meeting were approved as presented (Attachment 1).

2. Investment Review

Mr. Hill presented the investment review and commented on key economic and investment factors through June 30, 2024 (Attachment 2).

A. Market Environment

- Through June 30, 2024, the S&P 500 is up 15.29%. The U.S economy remains solid, yet the cumulative impact of higher interest rates should slow the economic growth compared to 2023. Global inflation has declined sharply though still above prepandemic levels.
- The Fed's goal is to get to 2% inflation, but they have indicated inflation does not need to reach 2% before they start cutting rates. The S&P returns following the initial Fed rate cut tend to be positive, unless the economy falls into recession which is not our base case.
- Election year uncertainty and broader geopolitical risks can cause near-term volatility in the market. We continue to overweight U.S stocks relative to International with an emphasis on large cap stocks.

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.

Portfolio Performance: For the one-year period ending June 30, 2024, the total return for the portfolio was 17.37% versus 17.71% for the Investment Policy Statement Index.

Efficient Frontier Analysis, Asset Allocation and Investment Policy

Ms. Simpson and Mr. Dylan Kase presented the Efficient Frontier Analysis. Ms. Simpson explained to the trustees the capital market assumptions for various bond and stock indexes, as well as non-traditional asset classes and discussed how the estimated investment return is factored into the proposed allocation. The proposed allocation incorporates the changes from the Efficient Frontier Analysis. The Truist recommended asset allocation mix would yield an expected return of 6.91%.

After review and discussion, a motion was made to accept the recommended proposed mix of asset classes for the investment portfolio of the MBRF as presented in the asset allocation study with a targeted return of 6.91%. The motion passed unanimously. Mr. Hill provided the trustees with the recommended revisions to Appendix A and Appendix B of the Investment Policy Statement. These revisions are compatible with the newly approved asset allocation mix recommendations, and also update the inflation figure obtained through the Biomedical Research and Development Price Index with an effective date of August 22, 2024. The motion passed unanimously.

Action Item 2: The trustees approved the Efficient Frontier Asset Allocation Analysis with the mix of asset classes for the investment portfolio of the MBRF to produce an anticipated return of 6.91%.

Action Item 3: The trustees approved the revised Appendix A and Appendix B of the Investment Policy Statement as presented by Mr. Hill, compatible with the newly approved asset allocation mix, with an effective date of August 22, 2024.

3. Chairman's Report

A. Additional Gift to the University of Arizona

Dr. Lee Dockery shared the proposal to amend the May 1, 2014, gift agreement between the MBRF and the University of Arizona to increase the value of the Evelyn F. McKnight Chair in Learning and Memory in Aging from \$1,000,000 to a minimum of \$4,000,000 (Attachment 3). After discussion, the trustees approved a gift of up to \$2,000,000. The trustees desire the gift be matched by the University of Arizona. If the University is unwilling to match the gift, a gift of \$2,000,000 will be paid over three years with \$1,000,000 being paid in year one and \$500,000 being paid in years two and three. If the University is willing to match the gift, a gift of \$1,500,000 will be paid over two years with \$1,000,000 being paid in year one and \$500,000 being paid in year two.

B. MBI Annual Report Review Summary

Dr. Mike Dockery shared the 2023 MBI Annual Reports – Summary Metrics (Attachment 4). Dr. Schlanger created the summary to try and have some comparables from the Annual Reports. The trustees decided not to score the reports and to continue with providing a narrative report. Two additional suggestions are to request a table as part of the Annual Report template and to provide the reviewer of each Annual Report with the prior year's letter for the reviewer to assess whether the issues have been addressed.

C. Proposed Annual Committee Meeting Schedule

Dr. Mike Dockery shared the proposed Annual Committee Meeting Schedule (Attachment 5) for information. Ms. Porter will check with the Committee Chairs to see if the pre-determined

dates work for them and then Ms. Cianciotto will send out save the date calendar invites for each committee.

D. CEO Search Progress

Dr. Lee Dockery shared an update on the progress of the MBRF CEO Search Committee. To date, the committee has met three times. The committee decided to use a search firm and RFPs were requested from five firms. The committee elected to hire SpencerStuart. The contract with SpencerStuart has been signed and the team at SpencerStuart has begun interviewing the MBRF Trustees.

1. Budget Authority

Dr. Brashear shared the previously approved budget for the project is not to exceed \$165,000. The budget breakdown is as follows: \$130,000 minimum professional fee, 10% administrative fee, plus direct expenses.

E. Presentation by SpencerStuart

Mr. Philip (Flip) Jaeger, Ms. Shannon Yeatman and Ms. Kaitlin Hayes from SpencerStuart joined the trustees' meeting to discuss the CEO search process. Mr. Jaeger reviewed the search timeline (Attachment 6) as well as a summary of feedback obtained from the interviews with the MBRF Trustees. The job description will be shared with the MBRF CEO Search Committee at their meeting on September 10, 2024. Once the job description is reviewed and finalized it will be shared with the full board.

4. Executive Director's Report

A. Update on Activities

Ms. Porter shared since starting in mid-July, she has met with BRG Communications, the MBRF CEO Search Committee and the FNIH. Ms. Porter also shared she will be meeting with Dr. Molly Wagster in September.

B. MBRF Organizational Timeline

Ms. Porter shared the MBRF Organizational Timeline (Attachment 7) for information.

5. Corporate Trustees' Report

- **A.** The trustees reviewed the projected minimum distribution calculation for information (Attachment 8).
- **B.** The trustees reviewed the Gift & Grants Report for information (Attachment 9).
- **C.** The trustees reviewed the Travel Award Report for information (Attachment 10).
- **D.** Ms. Cianciotto shared the Operating Expense Report with the trustees (Attachment 11).

Action Item 4: The trustees reviewed, for information, the projected minimum distribution calculation (Attachment 8).

Action Item 5: The trustees reviewed, for information, the Gifts and Grants Report (Attachment 9).

Action Item 6: The trustees reviewed, for information, the Travel Award Report (Attachment 10)

Action Item 7: The trustees reviewed, for information, the Operating Expenses Report (Attachment 11).

6. Committee Reports

Committees having met in July/August:

A. Education Committee

Dr. Brady provided the trustees with the updated Education Committee Activity Timeline (Attachment 12). The committee last met on July 29, 2024.

B. Communications Committee

Dr. Boyle provided the trustees with the updated Communications Committee Activity Timeline (Attachment 13). The committee last met on August 1, 2024.

Brainworks Year One Update and Year Two Plan

Mr. Shannon McDaniel, Ms. Nicole Grady, Ms. Kate Worthy, and Ms. Mandy Byrd from BRG Communications (BRG) joined the trustees' meeting to provide a Brainworks year one update and year two plan.

Ms. Byrd shared the Brain Works Year campaign results from the end of March through the end of June. She noted that to date there has been strong media interest in the campaign and the public is responding favorably by engaging with the content being shared in media placements and across the MBRF's social channels.

Ms. Grady presented recommendations for Year Two of the Brain Works campaign, noting that July already kicked off with a media effort tied to Minority Mental Health Awareness Month. Dr. Sharon Brangman, Dr. Patricia Boyle, and Dr. Roy Hamilton participated in interviews throughout the month of July, resulting in several high-profile placements Dr. Boyle mentioned World Alzheimer's Day in late September as another timing hook to consider for media outreach.

The objectives of year two of the campaign are to sustain momentum for the Brain Works campaign, reach consumer audiences, reach healthcare professionals, strengthen the MBRF brand, and drive audiences to the MBRF social and digital assets. Strategies that will be used to meet these objectives include leveraging media relations, MBRF's-owned assets and paid digital strategies, engaging online influencers, creating an Ambassador Network, partnering with organizations conducting in-community outreach, and partnering with professional and membership organizations. Ms. Grady also shared examples of year two campaign activities.

Ms. Patmintra shared she is working with BRG to put together a diverse group of influencers to be considered for upcoming digital influencer activations.

Ms. Patmintra highlighted the idea of creating a network of Brain Works Ambassadors, which includes leveraging relationships with MBI investigators and determining ways the MBRF can help further their community outreach initiatives.

Another strategy for the MBRF to reach deeper in communities and engage with healthcare professionals is by creating strategic partnerships with Community Partners and HCP-serving organizations to directly reach their members and the audiences they serve.

Committees having not met:

C. Finance Committee

Dr. Brashear provided the trustees with the updated Finance Committee Activity Timeline (Attachment 141) for information.

D. Membership & Governance Committee

Dr. Pekarske provided the trustees with the updated Membership and Governance Committee Activity Timeline (Attachment 15) for information.

E. Research Committee

Dr. Thambisetty provided the trustees with the updated Research Committee Activity Timeline (Attachment 16).

ABF/AAN McKnight Clinical Translational Research Scholarship Update

The application deadline is September 10, 2024. Dr. Hamilton and Dr. Boyle will be participating in the review of applications which is scheduled for November 7, 2024. Dr. Thambisetty will participate in the review if his schedule allows.

MBRF Innovator Awards in Cognitive Aging and Memory Loss Update

Eleven applications were received. AFAR is currently completing their administrative review and will send the applications that meet all the eligibility requirements to the committee

soon. The committee review is scheduled for September 30, 2024. Dr. Hamilton and Dr. Boyle will be participating in the review. Dr. Thambisetty will participate in the review if his schedule allows. The goal once the review is complete is to have full board approval by December 10, 2024 and recipient notification would take place the week of January 13, 2025.

Cognitive Aging and Memory Intervention (CAMI) Core Pilot Grant Program Update 10 LOIs were submitted that involve 28 faculty from the 4 institutes. There was a good distribution of faculty by rank and institution. From the 10 LOIs, 8 teams have been invited to submit full proposals that will be due Nov 1, 2024. Of the 2 that were not invited, 1 was focused on Alzheimer's disease the other was not testing an intervention to improve cognitive function in older adults. As such, these proposals were considered inappropriate for CAMI-Core pilot funding.

SfN Poster Session Update

Ms. Vicki Hixon sent out a Save the Date and call for Abstracts in late June. As of August 10[,] 2024,19 abstracts have been received. With 2 months to go this is right on target. Dr. Boyle will represent the MBRF at the poster session.

7. Future Meetings and Events

Fall 2024 Trustees' Meeting

The Trustees' agreed to hold their fall Board of Trustees' Meeting October 13 - 14, 2024. The meeting will be held at the Grand Hyatt at the Dallas Fort Worth Airport. The trustees will meet for dinner on October 13, 2024, at 6:30 p.m. The trustees' meeting will begin at 8:00 a.m. on October 14, 2024, and conclude not later than 3:00 p.m.

February 2025 Trustees' Meeting

The Trustees' agreed to hold the dates of February 22 - 23, 2025 for their Board of Trustees' Meeting. A decision regarding whether the meeting will be held virtually or in-person will be made at a later date.

8. Other Business

Ms. Cianciotto shared the University of Florida MBI submitted their report on the 2024 Inter-Institutional Meeting. The approved budget was \$145,100 of which \$104,100 was provided to the UF MBI to cover meeting costs. The actual meeting costs were \$99,212.24. The UF MBI will be sending the MBRF a check for \$4,887.76 representing the unspent funds.

9. Adjournment

There being no further business, the meeting was adjourned at 8:10 PM EDT.

Summary of Action Items:

Respectfully submitted,

Melanie A. Cianciotto Truist Bank, Corporate Trustee

McKnight Brain Research Foundation

Projected Minimum Investment Return Calculations

(As of 4/30/2024 for fiscal year ending 6/30/2024)

Average Fair Market Value	\$63,459,095.08			
Less: Cash held for charitable purposes (1 1/2 %)	(\$951,886.43)			
Net value of non-charitable use assets	\$62,507,208.65			
Minimum Investment Return (5%)	\$3,125,360.43			
Net Minimum Investment Return Calculation:				
Minimum investment return	\$3,125,360.43			
Less: sub total Qualifying Distributions	(\$3,516,862.15) (\$391,501.72)			
Excess distribution carryover (actual for '20, '21, '22, estimate '23)	\$1,137,253.95			
(estimate for '24)	\$1,137,253.95			

McKnight Brain Research Foundation

Minimum Distribution Calculation Fiscal years 2000 - 2024

Market Value Dec 1999 -\$69,126,583	<u>Tax Year</u>	Distributable Amount	Qualifying Distributions	Excess Distributions Carryover	Undistributed Income
\$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>	Distributable Amount	<u>Qualifying</u> <u>Distributions</u>	Excess Distributions Carryover	Undistributed Income
\$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 - 6/30/20	\$2,393,971	\$2,522,157	\$128,186	\$0.00
\$65,427,203	7/1/2020 - 6/30/21	\$2,728,732	\$2,018,715	\$0	\$0
\$55,517,277	7/1/2021 - 6/30/22	\$3,015,394	\$2,703,592	\$0	\$0
\$58,125,334	7/1/2022 - 6/30/2023	\$2,774,744	\$2,424,751	\$0	\$0
\$61,342,449	7/1/2023 - 6/30/2024	\$2,869,571 (estimate)	\$4,006,825 (estimate)	\$1,137,253 (estimate)	
\$63,574,148	7/1/2024 - 6/30/2025	\$3,125,360 (estimate)	\$3,516,862 (estimate)	\$391,501 (estimate)	
			\$76,065,726.13	\$1,528,754.00	(estimated total excess carryover)

McKnight Brain Research Foundation

Active Grant Summary Fiscal years 2000 - 2029

				FISCAI YEARS 2000 - 20				
	FNIH	American Brain Foundation	Innovator Awards in Cognitive Aging and Memory Loss	Innovator Awards in Cognitive Aging and Memory Loss Administrative & Indirect Costs	Evelyn F. McKnight Neurocognitive Clinical Scholar in Brain Health and Aging (UM)	FNIH - CAS IV	MBAR	2024 SfN Poster Session
Total Grant Amount	\$5,000,000 (7/2009 - 7/2013) \$5,000,000 (7/2014 - 5/2018) \$5,000,000 (3/2021 - 3/2025)	\$1,650,000 (7/1/2018 - 1/1/2024) \$1,650,000 (7/1/2023 - 1/1/2029)	\$4,500,000 (11/2021 - 11/2025) \$4,500,000 (11/2024 - 11/2028)	\$115,000 (4/2021 - 4/2025) \$126,500 (4/2025 - 4/2028)	\$250,000 payable over 5 years	\$313,573.28 (6/2023 - 5/2024)	\$58,306 (7/1/2024- 6/30/2025) \$31,224 (7/1/2025 - 6/30/2026)	\$27,400
7/1/99 -6/30/00								
7/1/00 -06/30/01								
7/1/01 - 06/30/02								
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7/1/10-6/30/11	\$1,000,000							
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7/1/12-6/30/13	\$1,000,000							
7/1/13-6/30/14	\$1,000,000							
7/1/14-6/30/15	\$1,000,000							
7/1/15-6/30/16	\$2,000,000							
7/1/16-6/30/17	\$1,000,000							
7/1/17-6/30/18	\$1,000,000							
7/1/18-6/30/19	+ 1,000,000	\$165,000						
7/1/19-6/30/20		\$330,000						
7/1/20-6/30/21	\$1,000,000	\$330,000		\$34,500				
7/1/21-6/30/22	\$1,000,000	\$330,000	\$500,000	\$34,500	\$50,000			
7/1/21-6/30/22	\$1,000,000	\$330,000	\$1,000,000	\$34,500	ψου,ουο	\$155,230.20		
7/1/23-6/30/24	\$1,000,000	\$330,000	\$1,500,000	\$43,700	\$50,000	\$158,343.08		\$4,192.75
7/1/24-6/30/25	\$1,000,000	\$330,000	\$1,500,000	\$43,700	+,	Ţ.00,0H0.00		\$19,042.50
7/1/25-6/30/26	ψ1,000,000	\$330,000	\$1,500,000	\$37,950				Ψ10,0-12.00
7/1/26-6/30/27		\$330,000	\$1,500,000	\$6,325				
7/1/27-6/30/28		\$330,000	\$1,000,000	\$6,325				
7/1/28-6/30/29		\$165,000	\$500,000	V 0,020				
7/1/29-6/30/30		ψ100,000	4000,000					
Total	\$15,000,000	\$3,300,000	\$9,000,000	\$241,500	\$250,000	\$313,573.28	\$89,530	\$27,400
Balance	\$1,000,000	\$1,385,497	\$6,000,000	\$94,300	\$250,000 \$150,000	\$0.00	\$89,530	\$4,164.75
Dalalice	φ1,000,000	φ1,303,431	\$0,000,000	φ34,300	φ130,000	φυ.υυ	ф03,330	φ 4 , 104.73

Total Active Grants \$28,222,003

Active Grants Remaining Balance \$8,719,327

McKnight Brain Research Foundation Pilot Grants

				Improving Age Related Cognitive Decline with Exercise
	A Novel Invention Tool	Revitalizing Cognition in Older Adults	Transcutaneous Vagal Nerve Simulation	in Hypertensive Older Adults
	(Levin)	(Bowers)	(Williamson)	(Lazar)
	\$60,000 (5/1/2018)	\$60,000 (5/1/2018)	\$60,000 (10/1/2019)	\$56,144 (5/1/2021)
	\$60,000 (5/1/2019)	\$60,000 (5/1/2019)	\$60,000 (10/1/2020)	\$56,144 (5/1/2022)
		4/30/2021 extension approved through 4/30/2022	8/29/2022 extension approved through 10/01/2023	5/3/2023 extension approved through 4/30/24
	completed - remaining balance will not be used	3/23/2022 extension approved through 4/30/2023	10/22/2023 extension approved through 10/22/2024	no cost extension approved through10/31/2024
		5/3/2023 extension approved through 4/30/2024		
		6/21/2024 extension approved through 4/30/2025 for Dr. Alexander		
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	
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	\$3,583.98 UF	\$20,776.94 UF	\$19,472.95 UF \$1,231.60 UA	
7/1/22 - 6/30/23		\$3,583.98 UF	\$10,391.27 UF \$8,276.60 UA	\$39,734.56 UAB
7/1/23 - 6/30/24		\$5,593.54 UA \$10,677.61 UF	\$7,154.71 UF \$29,849.90 UA	\$34,221.72 UAB
7/1/24 - 6/30/25		\$1,278.31 UA		
Total Award	\$120,000.00	\$120,000.00	\$120,000.00	\$112,288.00
Unpaid Balance	\$1,982.82	\$49,118.80	\$23,395.53	\$38,331.72
		we received a refund from UF of \$12,468.18 after Dr. Bowers		
		completed her share of the project. \$34,765.04 is balance to be used by Dr. Alexander.		
		,		
			Ketogenic Diet Improvement of Age-Related Memory	
	Reuniting the Brain and Body to	Feasibility of a Timed Bright Light Exposure Therapy	Impairments Nominates Cell-type Specific O-GicNAc	Cue High-Speed Multidirectional Yoga: Impact on
	Understand Cognitive Aging	to Improve Circadian Function	Deficiencies in the Aged Hippocampus	Retinal Microvascular and Cognitive Measures
	(Hernandez)	(Kaur)	(Lubin)	(Signorile)
	\$23,600 (5/1/2021)	\$60,000 (5/1/2023)	\$57,141 (5/1/2023)	\$59,997 (5/1/2023)
	\$36,800 (5/1/2022)	\$60,000 (5/1/2024)	\$64,391 (5/1/2024)	\$59,742 (5/1/2024)
	7/2/2023 extension approved through 4/30/2024	φοσσου (5/1/201.)	(5) 2) 202 1)	\$35)\$.= \(\(\begin{array}{c} \(\beta\) = \(\beta\)
	final invoice received 5/31/2024			
7/1/18 - 6/30/19	,			
7/1/19 - 6/30/20				
7/1/20 - 6/30/21				
7/1/21 - 6/30/22	\$6,801.70 UAB			
7/1/22 - 6/30/23	\$14,028.50 UAB			
7/1/23 - 6/30/24		\$30,000.00 UM	\$53,281.36 UAB	\$26,487.96 UM
	\$39,569.80 UAB	\$30,000.00 0101		
<u> </u>	\$39,569.80 UAB	\$30,000.00 0101	\$33,201.30 UAB	\$7,512.93 UM
7/1/24 - 6/30/25 Total Award	\$39,569.80 UAB \$60,400.00	\$120,000.00	\$121,532.00	. ,

\$68,250.64

\$85,738.11

\$90,000.00

Unpaid Balance

\$0.00

^{*}balances as of 8/29/2024

		<u> </u>	
Date	Name	School	Amount
Beginning Balance			\$100,000.00
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
3/21/2023	Legal Seafood - AAN Scholars Dinner	Dinner deposit for McKnight Clinical Translational Research Scholars Dinner	\$3,878.40
5/10/2023	Tara Tracy IIM Reimbursement	airfare, taxi, meals	\$877.42
3/8/2024	Hotel Teatro	Dinner deposit for 2024 McKnight Clinical Translational Research Scholars Dinner	\$360.00
4/11/2024	Hotel Teatro	2024 McKnight Clinical Translational Research Scholars Dinner	\$2,810.20
6/20/2024	Denise Cai IIM Reimbursement	airfare and taxi	\$1,870.78
Remaining Balance			\$10,017.07
			\$89,982.93

MBRF Operating & Communications Budget 7/1/2024 - 6/30/2025

Operating Expenses			Communications Expenses		
	Budget	Actual	BRG Communications	Budget	Actual
Board of Trustee Fees	\$400,000.00	\$100,000.00	brg Communications	\$500,000.00	\$137,500.00
Legal Fees	\$27,000.00	\$5,479.00			
CPA Fees	\$20,000.00	\$0.00			
Consulting Fees*	\$218,000.00	\$62,752.48	Website Support and Social Media Advertising Out of pocket expenses for social media promotion, web hosting and support functions	\$6,750.00	\$4,488.00
Truist Bank Fees	\$175,000.00	\$46,675.82			
Taxes	\$107,000.00	\$0.00			
Meetings	\$40,000.00	\$2,174.50			
Website Fees	\$840.00	\$840.00			
Memberships	\$5,090.00	\$0.00	Senior Communications Advisor Consulting Fees	\$93,500.00	\$21,750.00
Conferences/Travel - Executive Director	\$3,000.00	\$0.00	Travel	\$2,500.00	\$0.00
Insurance	\$1,667.00	\$0.00			
Total Operating Expenses	\$997,597.00	\$217,921.80	Total Communications Expenses	\$602,750.00	\$163,738.00
Search Committee Budget**	\$165,000.00	\$95,333.68			

^{*} represents payment to Executive Director approved at the 5.15.2024 Board of Trustees' Meeting

as of 9/30/2024

^{**} approved by Board 8/6/2024

MINUTES MCKNIGHT BRAIN RESEARCH FOUNDATION (MBRF) RESEARCH COMMITTEE CONFERENCE CALL September 24, 2024

The Research Committee of the MBRF was called to order at 5:05 pm EDT on September 24, 2024, by Dr. Madhav Thambisetty.

The following members were present:

- Dr. Madhav Thambisetty, Chair of the Research Committee, Trustee
- Dr. Mike Dockery, MBRF Chair
- Dr. Roy Hamilton, Trustee
- Dr. Sue Pekarske, Trustee

The following members were absent:

Dr. Patricia Boyle, Trustee

Others attending:

Dr. Lee Dockery, Chair Emeritus

Ms. Melanie Cianciotto, Corporate Trustee

Ms. Amy Porter, Interim Executive Director

Ms. Valerie Patmintra, Senior Communications Advisor

1. Call to Order

Dr. Thambisetty welcomed the members of the committee to the call.

2. Minutes of the April 25, 2024 Meeting

The minutes of the April 25, 2024, Research Committee Meeting (Attachment 1) were approved as presented.

Action Item 1: The minutes of the April 25, 2024, Research Committee Meeting were approved as presented (Attachment 1).

3. Updated Activity Timeline

The committee reviewed the updated Activity Timeline (Attachment 2) for information.

4. Cognitive Aging and Memory Core (CAMI) – RFA

Dr. Thambisetty expressed his excitement about the revamp of the program. This year 10 Letters of Intent were received, 8 were invited to submit full proposals. Proposals are from 30 investigators across all four of the MBIs.

The Committee was asked to consider the \$200 honorarium Dr. Sara Burke requested for the outside reviewers. The \$200 was approved previously, but Dr. Burke wanted to confirm the amount is approved for eight reviewers. As part of the program revamp, the MBRF requested reviewers from outside the MBIs review the CAMI Core Pilot proposals. Dr. Mike Dockery proposed a motion to approve an honorarium up to \$200 for external reviewers and the motion was approved.

Action Item 2: The \$200 honorarium for eight external reviewers was approved.

5. Cognitive Aging Summit IV Summary

Dr. Thambisetty offered his thoughts on the Cognitive Aging Summit IV Executive Summary (Attachment 3) sharing that he felt the summary was very high level and it would be helpful to have a summary from the NIH in addition to the FNIH. He thought the program and content of the Summit overall was very strong with a high level of engagement and discussion and noted the limited opportunities for networking as an area for improvement. He also noted that the Executive Summary didn't focus on the science aspects of the meeting or how the meeting could potentially drive new RFAs. Dr. Lee Dockery noted that the CAS IV contract includes that a science writer would draft summaries of the science presented during the Summit and he and Ms. Porter agreed to follow up with Dr. Molly Wagster and her team about the summaries.

Action Item 3: Dr. Lee Dockery and Ms. Porter will follow up with Dr. Molly Wagster and her team to find out the status of the summaries of the science presented during the Summit.

6. MBRF Innovator Awards in Cognitive Aging and Memory Loss (AFAR)

Dr. Thambisetty directed the committee's attention to the September 2024 AFAR Progress Report (Attachment 4). It is a very detailed report submitted by AFAR that includes background information on all of the awardees named to date, links to their research summaries and updates on where their research has been published and featured in media coverage.

11 applications were received this cycle up from five received in 2023. He and Dr. Hamilton agreed the basic applications received are all excellent and meet the award criteria of focusing on cognitive aging. It was noted that one clinical application was submitted by an MD and one basic application was submitted by an MD/PhD. Ms. Patmintra was asked to reach out to AFAR for additional details on the media coverage secured to make sure it is reaching the correct target audience. Drs. Thambisetty, Hamilton and Boyle will participate in the application review meeting on September 30, 2024.

Action Item 4: Ms. Patmintra will reach out to AFAR to additional details on the media coverage secured to make sure it is reaching the correct target audience.

7. MBRF Clinical Translational Research Scholarship in Cognitive Aging and Age-Related Memory Loss (ABF)

Dr. Thambisetty noted the CTRS program is also on an upward trajectory with 10 applications submitted this year compared to only two submitted in 2023. The applications haven't been sent to MBRF for review yet and Dr. Thambisetty thanked Drs. Boyle and Hamilton for serving as reviewers.

Dr. Lee Dockery and Ms. Amy Porter attended the Meet the Researchers webinar and noted that it was a very formal presentation with limited time for audience questions or discussion. In response to Dr. Yang not mentioning the MBRF as his scholarship funder, the committee noted the need to make sure the MBRF branding is included as part of the scholarship award. Ms. Porter agreed to discuss that point when she meets with Ms. Julia Miglets-Nelson later in October.

Ms. Porter asked if there was support for ABF's inquiry about awarding a third scholarship this year since only one was awarded last year. This would keep the program on track towards 10 researchers over 5 years. Dr. Thambisetty is open to the idea, but hesitant to commit before seeing the quality of the applications received. Dr. Lee Dockery encouraged the committee to consider awarding scholarship funds to all worthy applicants. The review committee meeting is scheduled for November 7, 2024. The slate will be presented to the MBRF Trustees in mid-November via email and scholarship recipients will be announced in April at the AAN's annual meeting.

Action Item 5: Ms. Porter will discuss the need to make sure the MBRF branding is included as part of the scholarship award when she meets with Ms. Julia Miglets-Nelson in October.

8. Society for Neuroscience Poster Session

Dr. Thambisetty noted 48 abstracts will be presented to the SfN poster session, including Dr. Carol Barnes presenting a poster as first author. Dr. Boyle is attending the event on October 6, 2024, representing the MBRF. Dr. Mike Dockery asked for confirmation that Dr. Molly Wagster and Dr. Jonathan King have been asked to attend the event as judges as in past years. Ms. Porter will make sure they both receive invitations to attend the event and serve as judges.

Dr. Lee Dockery offered to check in with Ms. Vicki Hixon to request a draft of the formal event invitation for review by the MBRF to ensure the MBRF Trustees are listed as hosts of the event. He also asked if it would be appropriate to ask Dr. Carol Barnes to represent the MBRF in the event Dr. Boyle is unable to attend. Ms. Porter will reach out to confirm Dr. Boyle's attendance and Dr. Barnes will be asked to represent the MBRF only in the event Dr. Boyle is unable to attend.

Action Item 6: Ms. Porter will confirm Dr. Molly Wagster and Dr. Jonathan King have been asked to attend the event as judges.

Action Item 7: Ms. Porter will reach out to confirm Dr. Boyle's attendance at the Poster Session.

Action Item 8: Ms. Porter will reach out to Ms. Hixon to request a draft of the formal event invitation.

9. Adjourn

Dr. Thambisetty asked if there was any further discussion. Hearing none, he called for adjournment of the meeting at 5:56 p.m. EDT.

Summary of Action Items:

Respectfully Submitted,

Melanie A. Cianciotto Corporate Trustee

Research Committee Activity Timeline 2022 - 2024

Updated September 15, 2024

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
"Encourage and assess research at the McKnight Brain Institutes (MBIs)"	Review of the Annual Reports of the MBIs	Information for scientific review includes: scientific achievements, publications, presentations, collaborations	Annual Reports were reviewed by the Trustees on Feb. 20, 2024	Reviewers presented at Feb. 2024 Trustees Meeting. Follow up letters were written and sent to each of the MBIs. All Requests of MBIs are being addressed by MBIs.
	Review of all New Funding Requests from MBIs. Most Funding Requests should be reviewed by the Interventional Core Committee of the MBIs first.	The Leadership Council, by way of the CAMI-Core Chair, Dr. Sara Burke, submitted a proposal to relaunch the Pilot Grant Program. UM submitted a request for \$250,000 to co-fund a fellowship over 5 years —	The board approved the proposal to re-launch the CAMI Core Pilot Grant Program at \$75,000 per year for each award at its February 20, 2024 meeting. A memorandum notifying UM of the approval for	The revitalized CAMI-Core Pilot Grant program was officially launched at the 2024 IIM. Dr. Burke shared that 10 LOIs were submitted this year involving 28 faculty from the 4 institutes. Distribution by MBI is as follows: 10 from UAB, 8 from UF, 5 from U Miami, and 5 from UA. From the 10 LOIs, 8 teams have been invited to submit full proposals that are due Nov. 1, 2024. (The other 2 LOIs were not appropriate for CAMI-Core pilot funding.) The distribution by Faculty Rank is 9 New Investigators and 19 Established PIs. There is a balance of \$150,000 on this grant commitment.

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
		The Evelyn F. McKnight Neurocognitive Clinical Scholar in Brain Health and Aging"	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 signed on Nov 10, 2021.	
	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 as needed	Travel funds have been approved to fund travel and lodging for Innovator Award winner(s) to attend the 2024 IIM meeting at UF – Dr. Denise Cai attended.
	Inter-Institutional Block Grants	Cognitive Assessment and McKnight Brain Aging Registry (MBAR) Core	The Leadership Council, by way of Dr. Kristina Visscher, submitted a proposal to support MBAR with remaining dollars. The proposal was approved with minor amendments by the research committee on April 25, 2024 and by the Full Board at its May 15, 2024 Meeting. The Board also approved an additional \$88,000 to cover the proposed	

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
			budget for the MBAR over the next two years, based on a recommendation from the Finance Committee.	
	Inter-institutional Block Grants	Cognitive Aging Core Working Groups	No Updates	5 Areas: Brain and Cognitive Health Cognitive Aging & Memory Cognitive Testing Battery Epigenetics MRI standardization
	Inter-institutional Block Grants	Bio-Informatics Core (Epigenetics)	No Updates	
	Inter-institutional Block Grants	Neuroimaging Core	No Updates	
"Identify opportunitiesto foster greater interest in cognitive aging and age- related memory loss (in the scientific community)"	Research Partnership with the Foundation for NIH and the NIA.	1 st cycle-2009, 2 nd cycle-2014, 3 rd cycle-2019	2023 annual progress report was submitted in January and reviewed by the board on March 19, 2024	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). The 2014 Partnership renewal funded one 5-year project for \$15 million with \$5 M from MBRF and \$10 M from NIA Current Cycle: NIA committed to provide \$15M to be pooled with MBRF's \$5M. Two grants

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
		Cognitive Aging Summit (CAS) IV	CAS IV, with a theme of "Precision Aging and Brain Health" took place on March 20-21, 2024. There were 170 in-person attendees and up to 449 virtual attendees. Session Chairs, NIA leaders, FNIH and the MBRF met for an Executive Session following the summit.	were provided from the Research Partnership, led by to Dr. Thomas Perls and Dr. Emily Rogalski. The FNIH/NIA developed the meeting summaries and the recordings have been posted online (here). Follow-up reflections and takeaways from the Summit and the Executive Session will be shared by NIA, by way of Dr. Molly Wagster and Dr. Jonathan King, later this year. In August, FNIH provided a report on the Cognitive Aging Summit IV. It is included in the material for the September 24, 2024, Research Committee meeting.
	MBRF Innovators Awards in Cognitive Aging and Memory Loss			
	The McKnight Brain Research Foundation committed \$4.5 million over the next five	AFARI award cycles under the current grant were implemented (2021, 2022, 2023)	The research committee reviewed the draft RFA and Institutional Commitment Form at its	AFAR Review Committee: Chair: Dr. Anna Maria Cuervo Members:

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
	years to support outstanding mid-career scientists committed to researching the basic biological mechanisms underlying cognitive aging and memory loss. AFAR was invited to submit a renewal proposal for three additional years with updated program guidelines to broaden the applicant pool and able greater access to applicants from institutions with fewer resources	AFAR presented a renewal proposal to provide two 3-year awards each year for the next three years. It was approved by the MBRF board on March 19, 2024. The MBRF committed to \$4,626,500 over the next 5 years.	meeting on April 25, 2024. The committee suggested several edits to the documents. The RFA and application were finalized and posted by AFAR at the end of May, following input from the Board at its meeting on May 15, 2024. Upcoming 2024 grant cycle deadlines include: *July 1: application period opens *August 12: application submission deadline *September 30: review committee meets *Oct 1: Award start date	Dr. Rafa de Cabo Dr. Thambisetty Dr. Boyle and Dr. Roz Anderson Dr. Hamilton (joined in 2023) Ms. Odette van der Willik has not yet reported how many applications were received. The Review Committee meets on September 30 and material will be provided before that meeting.
"Encourage young investigators in this area of research"	McKnight Brain Research Foundation Clinical Translational Research Scholarship with American Academy of Neurology (AAN) and American Brain Foundation (ABF)	Seven award cycles have been completed. Two awardees have received the CTRS every year since 2018, with the exception of 2023, when one award was made. Members of the 2022-23 Review Committee include Dr. Madhav Thambisetty and Dr. Patricia Boyle. Dr Hamilton joined in 2023-24.	The Research Committee approved the draft RFA for 2024 with minor amendments at the April 25, 2024 meeting. Upcoming 2024 grant cycle deadlines include: *May: application period opens	Two applications were submitted to the MBRF Award mechanism, and one was awarded to Haopei Yang, PhD. The Trustees determined that the other project did not align with the scope or spirit of the award guidelines.

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
			*September 10: application submission deadline *November 7: review committee meets *January: notification of awardees *July: Award start date	10 applications were received by the deadline of September 10 and they appear to all be focused on cognitive aging. Last year only 2 applications were received; in 2023, 8 were received; and in 2022 there were 5 received. Question – Would the Trustees be interested in making 3 awards this year since only 1 was awarded last year? This would keep the program on track towards 10 researchers over 5 years.
	Poster Reception at Society for Neuroscience annual meeting	Poster sessions were held in 2008, 2019 and 2023.		Vicky Hixon submitted a proposal to organize the poster session to take place on October 6, 2024 in Chicago. The trustees approved the proposal at their March 19, 2024 meeting. On June 23 rd , Vicki sent a Save-the-Date to MBI leadership and communications teams to announce the event will take place on October 6, 2024 at the Chicago Hilton. Dr. Patricia Boyle will attend as a representative of the MBRF.

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
				Ms. Vicki Hixon reported that 48 abstracts have been received with a few more expected before the event. Included in the Sept 24 meeting material are a list of those abstracts, a report and information about the event.

Cognitive Aging Summit IV

March 20-21, 2024

Revised July 22, 2024

Executive Summary

The fourth Cognitive Aging Summit was held on March 20-21, 2024, in Bethesda, MD. This Summit was devoted to discussion of biological, behavioral, and social factors that affect agerelated brain and cognitive changes. An international cohort of investigators presented research into the causes of aging-related neurodegeneration and discussed how this research could inform strategies and future interventions for sustaining brain health and cognitive function during aging and the importance of individualized approaches to risk reduction. The meeting was convened by the National Institute on Aging of the National Institutes of Health (NIH) and made possible by the McKnight Brain Research Foundation through a generous grant to the Foundation for the NIH. Key themes from each of the six sessions are highlighted below.

Session One, *Blood, Metabolism, and Systemic Environment*, explored plasma proteins and hormones that affect brain morphology and function and cognitive ability. Levels of several inflammatory proteins increase in the brain with age, which may exacerbate cognitive decline. Declining estrogen levels due to aging or menopause can also lead to cognitive decline, while higher estrogen levels during pregnancy can lead to increased brain functional connectivity. Research into the specific mechanisms by which plasma protein and hormone levels affect brain function may help inform individualized therapeutic interventions that sustain or rejuvenate brain health during aging. Speakers emphasized that because brain health and body health are intricately linked, improvements in lifestyle factors also may benefit cognition as individuals age. Understanding individual responses to such lifestyle changes can provide another individualized pathway to improving cognitive and brain health.

Session Two, Structural and Social Environment, addressed the cognitive effects of sociodemographic factors, the built environment, and interpersonal social determinants of health, all of which may contribute to individual differences across the life course. Researchers have leveraged historical and survey data by adding cognitive measures to examine how early life language development and education bolster cognitive abilities throughout life. By contrast, stressors like perceived discrimination, racial violence, and lack of equitable access to education correlate with increased inflammation in the brain as well as increased depressive symptoms and contribute to diminished cognitive ability later in life. However, resilience pathways appear to be protective of memory function in the context of such stressors. The session highlighted the need for further research to disentangle the impacts of frequently intersecting social and experiential factors on individual cognitive health outcomes. Improving our understanding of the influence of these factors on the brain and cognitive aging may illuminate promising avenues for policy and neighborhood-level interventions to ameliorate entrenched health disparities.

Session Three, *Genetic Environment*, focused on the role of specific chromosomes, genes, and proteins in shaping cognitive aging and disease. During hormonal changes like perimenopause, when lowered levels of circulating estrogens disrupt normal glucose metabolism, female APOE4 carriers display worse metabolic and cognitive outcomes than noncarriers. Cognitive decline also correlates with reduced gene expression throughout neuronal cells and on the X

Executive Summary 2

chromosome. Further research on these sex and gene interactions, including systematic comparisons of gene expression across populations, may contribute to the development of targeted and personalized interventions to prevent cognitive decline and improve individual cognitive health. Such findings could aid efforts to determine appropriate levels of hormone therapy for individuals based on gene expression, boost expression of silenced genes that may improve cognitive ability, or address barriers to preventive care.

Session Four, *Circuit Environment*, examined how gene expression, cellular activities, and brain morphology can affect learning, memory, and navigation. In human and animal experiments, upregulation of the Per1 gene, higher levels of estrogens, and consistency in neuronal firing patterns correspond with better ability to learn and remember spatial environments in young individuals. By contrast, aging results in loss of synaptic density and inconsistency in spatial firing patterns, leading to increased difficulty in spatial learning and memory. Further studies may help identify other genes involved in these changes in cognition, their mechanisms of action, and possible interventions to protect against age-related cognitive decline. These studies may also facilitate a greater understanding of individual differences in genes and behavior that lead to aging-related neural and brain changes.

Session Five, Co-morbidities and Sleep Environment, explored the importance of sleep, cardiovascular disease, and depression in risk for cognitive decline and dementia. Sleep plays a central role in learning and memory and helps clear the brain of misfolded proteins and other debris that could lead to neurodegeneration. Yet as individuals age, the percentage of time spent in REM sleep and slow wave sleep decreases. Sleep apnea, nocturia, and noisy environments (such as areas near airports) can exacerbate such sleep disruptions, while prevention and treatment of risk factors and co-morbidities—such as high blood pressure, depression, smoking and physical inactivity in midlife—may improve sleep quality and reduce the risk of cognitive decline. Because Alzheimer's disease and related dementias are primarily diagnosed late in life, studies of how co-morbidities and sleep in early life and midlife affect risk for cognitive decline and dementia may rely on surrogate biomarkers of risk. These studies need to account for the fact that some co-morbidities, such as kidney disease and obesity, independently affect biomarkers of Alzheimer's disease (e.g., phosphorylated tau 181 and amyloid beta 40) and thus require careful interpretation of the interaction among various conditions. Finally, both comorbidities and sleep are often related to lifestyle factors that interact with biological sex and genetic risk factors to determine individuals' risk for cognitive decline. To probe such interactions in animal models, researchers must utilize genetically heterogeneous strains.

The final session, *Study Design and Intervention Environment*, delved into novel methods for delaying cognitive decline and reviewed the results from several recent intervention trials. These study results underscore the complexity and heterogeneity of treatment responses within interventions. For example, provision of hearing aids reduced the risk for dementia among older individuals in a community cohort with relatively elevated risk factors but not in a normal risk cohort. Speakers also explored novel approaches to intervention design. For example, use of "digital twins"—the virtual representation of real-world individuals with

Executive Summary 3

varying risk and protective factors for cognitive decline—may help researchers design multifactor interventions that target individuals based on genetic and lifestyle risk factors for cognitive decline and determine the appropriate size and duration for testing these interventions. In addition, machine learning and other AI-based methods can enable researchers to dynamically incorporate electrophysiological data in ongoing animal studies, dramatically reducing the amount of time required to understand neuronal responses to stimuli. Presenters discussed the importance of rate of decline, genetic variation, and exposures to social determinants of health in determining individual responses to interventions, as well as whether interventions have the largest impacts when initiated in midlife or earlier.

Several themes emerged from discussions across the sessions. Understanding the impacts and interactions of diverse biological, social, and environmental factors—ranging from genes to proteins to social structures—may help researchers and clinicians develop personalized therapeutic interventions. Additional research is required to understand the mechanisms through which these factors influence age-related brain and cognitive health. Speakers also emphasized the importance of early and midlife risk factors such as education, physical activity, cardiovascular disease, and sleep for predicting cognitive decline in later life. Finally, speakers discussed the need to conduct interventions for extended periods of time, among populations experiencing health disparities, and in midlife or earlier.

Executive Summary 4



2024 McKnight Brain Research Foundation Innovator Awards in Cognitive Aging and Memory Loss Committee Recommendations

The selection committee met September 30, 2024, to review the 2024 applications for the MBRF Innovator Awards in Cognitive Aging and Memory Loss.

We received 11 applications of which 2 did not pass the administrative review. The committee was asked to review 9 applications, with the goal to recommend one application that focuses on basic biological mechanisms and the other on clinical/translational research. Five applications were considered basic research applications, and 3 clinical/translational applications. One application was deemed to fall in both categories and the committee was asked to rank that application within each category.

During the meeting, the committee discussed whether the three lowest scoring applications should receive further review. All the committee members were in agreement that these were indeed the lowest-scoring applications, and that further discussion was not warranted. The committee identified two applications belonging in different categories and ultimately recommended the following two applicants:

Basic Science-focused Application:

Janine Kwapis, PhD, Assistant Professor, Pennsylvania State University: *Improving cognitive flexibility in old age by fixing the transcriptome within memory cells*

Project summary (provided by the applicant): Globally, lifespans are increasing. While modern medicine has made great strides toward preserving the function of most major organs in old age, neurobiology has lagged far behind. Despite the fundamental importance of memory and other cognitive functions to living a healthy, fulfilling life, there are few effective treatments that improve cognition in old age. Understanding the biology behind cognitive decline is therefore a critical challenge. One aspect of cognition that is especially vulnerable to aging is the ability to update memories. Memories need to be dynamically modified to incorporate new information, a process thought to involve reactivating and modifying memory ensembles. Memory updating is impaired with aging, yet little is known about the mechanisms that go awry, in part because most laboratory paradigms focus on new memory formation. Using our own memory updating task, my lab has collected data suggesting that memory co-allocation (the process of storing linked memories in overlapping neuronal ensembles) is disrupted in old age, possibly due to altered transcription within co-allocated cells. Here, I will test the hypothesis that aging disrupts the transcriptional architecture within memory-storing neuronal ensembles, preventing successful memory updating in old mice. Why is this work innovative and transformative? Until recently, the necessary technology simply did not exist. The development of single-cell and spatial transcriptomics along with activity-dependent neuronal tagging now allows us to interrogate the transcriptional landscape in individual neurons with unprecedented precision. The proposed project has



the potential to radically transform how we understand age-related memory loss and will identify a rich database of potential therapeutic targets to improve memory and cognition in old age.

Discussion: There was overall agreement by the committee that Dr. Kwapis is a strong and highly productive candidate and this award would be impactful, not just icing on the cake. Very elegant set of experiments using very innovative methodology with a clearly outlined rationale. This type of research is novel though very expensive and feasibility may be challenging. If approved for funding the committee recommends that we give her advice about the age groups of the mice and we will need to clarify her level of effort on the grant.

Clinically/Translational-focused application:

Sanaz Sedaghat, PhD, Assistant Professor, University of Minnesota: *Biological Aging Clock: A Tool to Differentiate Cognitive Aging Trajectories*

Project Summary (provided by the applicant): Novelty: First, this project asks a novel question whether proteomics-based biological aging clocks (PACs) will identify persons at high risk for cognitive aging. Second, we will develop and validate two novel PACs based on functional and biologically pathways; namely: senescence-associated secretory phenotype (SASP) proteins and central nervous system (CNS) related proteins secreted into blood. Using NULISAseq CNS disease panel is novel and PACs using this panel can not only act as a predictor but also provide detailed information regarding pathways involved in cognitive aging. Third, we will create PACs (non-pathway- and SASP-specific) on repeated proteomics measures at both midlife and late-life. Proteins are dynamic over life span and using midlife and late life measures will overcome a limitation of previous studies of PACs that utilized a one-time measure of proteins. Impact: Loss of brain function through aging imposes a significant human and economic burden, particularly given major increase in life expectancy. Identifying age-related proteins associated with cognitive aging trajectories can provide invaluable insights into biological pathways and help target high-risk individuals at an early stage. Also, since proteins are the biological targets in 96% of FDAapproved medications, they can serve as surrogate endpoints in clinical trials focusing on cognitive aging, with protein changes occurring much earlier than disease development and progression.4 For example, there are recent mice-model studies that showed effective strategies that can mitigate the detrimental effects of SASP proteins in neurodegeneration.

Discussion: This is a strong candidate who is at the right stage of her career to receive this award. Top clinical application, which is very well crafted, and impactful. This candidate received a McKnight Clinical Translational Grant Award in Cognitive Aging and Age-Related Memory Loss from the American Academy in Neurology in 2019. If approved for funding, the committee would like to recommend that she does not limit her focus on 120 proteins, but instead do full proteomics and use facilities at the University of Minnesota or other institutions rather than outsourcing this to the commercially pre-set protein panels.



General Discussion

- The committee was pleased that the number of applications doubled after revising the guidelines to modify the way in which institutional support was reported and evaluated.
- There was some discussion about the criteria used for demonstrating the commitment to the
 candidate. This comes up at each review, and it was agreed to best review case by case as it is
 difficult to compare. (Note: this also was the conclusion of the survey AFAR conducted how to
 determine non-monetary institutional commitment. This will be different for each applicant,
 depending on the type of research and the institutional resources (wealth) available.)
- We may need to better define/categorize which applications belong in which categories.
 Overall, there was agreement that use of human tissues should not be the defining factor, but where is the research along the spectrum from basic to clinical.
- Committee appreciates that written critiques are not required for this review.

2024 McKnight Brain Research Foundation Innovator Awards In Cognitive Aging and Memory Loss Selection Committee

Ana Maria Cuervo, MD, PhD, *Chair* Albert Einstein College of Medicine

Rozalyn Anderson, PhDUniversity of Wisconsin, Madison

Patricia Boyle, PhD
Rush University/The McKnight Brain Research Foundation

Rafael de Cabo, PhD National Institute on Aging

Roy H. Hamilton, MD, MS

University of Pennsylvania Perelman School of Medicine/The McKnight Brain Research Foundation

Madhav Thambisetty, MD, PhD
The McKnight Brain Research Foundation



SAVE-THE-DATE

MCKNIGHT BRAIN RESEARCH FOUNDATION POSTER RECEPTION

In conjunction with SfN

SUNDAY, October 6, 2024 5:00 - 7:00 P.M.

Hilton Chicago Williford ABC 3rd Floor 720 S Michigan Avenue Chicago, IL 60605



Questions:

poster_session@mcknightbrain.org

Vicki Hixon

McKnight Brain Research Foundation Poster Reception Progress Report September 14, 2024

Plans are underway for the McKnight Brain Research Foundation Poster Reception to be held on Sunday, October 6, 2024.

Conveniently located in downtown Chicago, the Chicago Hilton at 720 S Michigan Avenue will host the event. The national news has broadcast stories about hotel union workers going on strike in various cities across the nation. After speaking with the hotel representative, he said he did not anticipate any problems as their union contract was renewed last year.

Reminders have been sent to each of the 4 McKnight Brain Institutes regarding the event for distribution to their McKnight faculty, post-docs, and students. Abstracts have been received from each of the MBRF Institutes. Forty-eight abstracts have currently been received with a few more expected as the event approaches. Reception will be held from 5:00 - 7:00 p.m. with those presenting posters arriving prior to 5:00 to set-up their posters. Catering details have been reviewed with the host hotel and details are being finalized. As in previous years, abstracts will be collected, organized and forwarded to the judges for preliminary review.

After comparing quotes from rental companies, Indestructo Rental Company, Inc. provided the most competitive rate which includes set-up at 2:00 pm and tear-down at 8:00 pm.

Certificates, name tags, sign-in sheets, poster numbers, list of abstract, and signs are being printed.

The search for a photographer is underway. A photographer will be identified to take photographs during the poster session. Photos will be taken of the winners along with casual photos to be taken throughout the reception. A digital link will be provided after the event.

McKnight Brain Research Foundation

Poster Reception Chicago, IL October 6, 2024

	Alpha First Author Last Name	Institute	Abstract Title	
1	Adamson, Ashley	UAB	The role for cell cycle regulators in trichloroethylene-induced Parkinson's dement	
2	Balsamo, Barbara	Gainesville	Alpha-Synuclein Aggregation Impairs Executive Function in Aging: Insights from a Prefrontal Cortex Mouse Model study	
3	Banerjee, Anisha	UAB	Targeting AD-pathology by increasing Angiotensin (1-7) via genetically modified probiotic in TgF344-AD rats	
4	Barnes, Carol	Arizona	Relationships between cognition, MRI-based regional gray matter volume and amyloid and tau histopathology across the lifespan of male and female rhesus macaques	
5	Baumgartner, Nina	UAB	The rostral lateral septum drives estrous cycle state-dependent suppression of cued threat memory	
6	Bolaram, Anudeep	UAB	Neural Mechanisms of Adolescent Sustained Attention	
7	Brunson, Jackie	UAB	Examination of Motility and Neuronal Morphology in Variants Associated with MAPK8iP3-related Disorders	
8	Chawla, Monica	Arizona	Identification of novel activity-related transcripts using laser capture microdissection and RNA sequencing	
9	Chen, Yu Jung	Arizona	Arc mRNA expression pattern in the CA1 subregion of rat hippocampus following spatial behavior	
10	Claar, Robert	Gainesville	Fronto-limbic activity and functional connectivity in post-traumatic stress disorder and mild traumatic brain injury	
11	Cook, Anna	UAB	Progranulin insufficiency and TDP-43 overexpression interact to worsen phenotypes in a mouse model of Frontotemporal Dementia	
12	Cooper, Mary	UAB	Alzheimer's Disease Clock Gene Expression Alterations in Parvalbumin Interneurons	
13	Davis, Natalie	UAB	Loss of Alzheimer's disease risk factor BIN1 in inhibitory neurons induces network hyperexcitability and behavioral abnormalities	
14	Eickstead, Cameryn	UAB	Violence Exposure, Psychosocial Stress, and Prefrontal Cortex Reactivity	
15	Faraji, Mojdeh	Gainesville	Age associated changes in brain phospholipids are mitigated by vagus nerve stimulation	
16	Fox, Stephanie	UAB	Block of Sortilin Binding in Progranulin Gene Therapy Increases Progranulin Levels and Corrects Lipid Abnormalities, Behavioral Phenotypes, and Neurodegeneration Biomarkers in Progranulin Deficient Mice	

	I			
17	Gazarov, Emely	Gainesville	Effects of chronic cannabis smoke exposure on peripheral and brain inflammatory markers and tau pathology in mice	
18	Grey, Devon	UAB	Adolescent neural reactivity to stress varies with dietary nutrients	
19	Hill, Clune	Gainesville	Exploring the Impact of Reward Objects on Mnemonic Discrimination and Aging: Insights from Rodent Model	
20	Jeyagopal, Swetha	Gainesville	Cognitive effects of intra-striatal injection of α-synuclein preformed fibrils in young versus aged rats	
21	Johnson, Megan	Arizona	A large normative aging dataset for the characterization of verbal memory performance across the lifespan	
22	Jones-Muhammad, Maria	UAB	The Ketogenic diet modifies O-GlcNAc transferase expression in neurons and astrocytes within the aged hippocampus	
23	Juhasz, Joshua	Gainesville	Accuracy of BrainAGE Estimates Produced by Machine Learning Algorithms	
24	Krumm, Zachary	Gainesville	Assessing The Impact of the GLP-1 Receptor Agonist Exendin-4 On Reward-Mediated Behaviors	
25	Kumar, Sreehari	UAB	Sex-specific multisystem alterations in metabolome in aged TgF344-AD rats	
26	Ling, George Cowart, Hannah	UAB	Dynamics of Default Mode Network Activity Linked to Processing Speed in Cognitively Healthy Oldest-Old	
27	Lovett, Sarah	Gainesville	Unveiling the dynamics of hippocampal theta wave propagation in freely moving rats	
28	Mallepalli, Suresh	Miami	Role of cofilin in recurrent hypoglycemia exposure-linked stroke risk in insulin-treated diabetic rats	
29	McCuiston, Mary	UAB	Effects of ketone diester supplementation on fear extinction impairments in the TgF344AD rat model of Alzheimer's disease across the lifespan	
30	McDermott, Kelsey	Arizona	Changes in noradrenergic receptor density in hippocampus across the lifespan of the rhesus macaque	
31	Mikhail, Karim	UAB	Effects of Alzheimer's disease risk factor BIN1 on L-type voltage-gated calcium channel surface localization in neurons	
32	Nakamura, Megan (Broersma, Faith)	Gainesville	Electrophysiological Signatures of Novel Language Learning in the Earliest Stages	
33	Ngwu-Hyacinth, Ogechukwu	UAB	A novel multi-modal magnetic resonance imaging technique to measure the concentration and ratio of iron products in a phantom of cerebral cavernous malformation	
34	Ojeda, Ana	Gainesville	Employing sexually dimorphic risk for metabolic syndrome to identify Alzheimer's disease risk promoting or protective genes	
35	Qiu, Alina	Gainesville	Stopping Before the Finish Line: Exploring Differences in Dropout and Readmission Rates for Older Adults in Substance Use Disorder Treatment	
36	Raciti, Federica Maddalena	Miami	Auditory and Vestibular Consequences of Mild Traumatic Brain Injury	
37	Rehni, Ashish K.	Miami	Recurrent hypoglycemia exposure results in cognitive impairment via increased platelet dysfunction in aged insulin-treated diabetic male rats	

38	Rodriquez, Jose	Gainesville	Effects of chronic vagus nerve stimulation in aging	
39	Sangaletti, Rachele	Miami	Exploring the link between blast-induced hearing loss and the progression of Alzheimer's disease	
40	Silva, Giovana	Gainesville	The Importance of Tissue Identity in MRI-derived tDCS Models	
41	Smith, Gabrielle	UAB	Development of SLC6A1 Knock-out Zebrafish and Drug Screening Pipelines to Identify Treatments for SLC6A1 Neurodevelopmental Disorders	
42	Srivathsa, Sahana	Arizona	Investigating age-related changes of mPFC neural responses to ventral hippocampus stimulation	
43	Tadepalli, Aniketh	UAB	Block of sortilin binding in progranulin gene therapy enhances rescue of microgliosis and microglial lipofuscinosis in progranulin-deficient mice	
44	Tellez, Alexa Jo	UAB	Ovarian Hormones Tune Amygdala Inhibition to Drive Anxiety-Like Behavior Across the Reproductive Cycle	
45	Titus, Ann	Gainesville	Identifying peripheral immune response signature dependent on Parkinson's disease progression	
46	Tuckey, Ryan	UAB	MD simulations of rare Alzheimer's disease–associated APOE isoforms, such as APOE3- Christchurch, highlight unique structural, conformational, and dynamical features	
47	Zempare, Marc	Arizona	CRISPR screening of genes associated with neuronal pentraxin 2 gene expression in human iPSC-derived glutamatergic excitatory neurons	
48	Zequeira, Sabrina	UFL	Differential effects of chronic oral THC consumption in young and aged rats	
49				
50				

From: jld007@cox.net

To: "Mike Dockery, MD"; "Madhav Thambisetty"; "John Brady"; "Patricia Boyle"; "Sharon Brangman"; "Allison

Brashear"; Cianciotto, Melanie; "Hamilton, Roy"; "Sue Pekarske"; "Amy Porter"; "Valerie Patmintra"

Subject: MBRF CEO Position Description

Date: Thursday, September 19, 2024 3:22:46 PM

Attachments: MBRF CEO Position Description 66286-001 SPC Final.pdf

Importance: High

Dear friends.

Attached please find a final copy of the approved position description of the Chief Executive Officer (CEO) of the McKnight Brain Research Foundation (MBRF).

The draft of position description was developed by the Spencer Stuart executive search team following the personal interviews with each of you, and a review of relevant information (both written and verbal) about the history and operation of the of the MBRF.

A draft copy of the position description was provided for review by the members of the search committee in advance of the meeting on September 10, 2024. Editorial suggestions were submitted in advance of the meeting and reviewed individually and collectively during the meeting

The amended copy of the CEO position description was approved unanimously by the members of the search committee and authorized the executive search team to distribute the announcement to the constituent community of the MBRF to publicize the CEO position broadly.

Many of you have contacts and important collaborative professional and personal relationships in other organizations. It would be useful to the recruitment effort if each of you would please distribute the announcement of the CEO position to any of your colleagues in your respective professional societies and organizations.

Next steps: The executive search team will publicize and advertise the position throughout the month September will evaluate each prospective candidate in preparation for the submission of a qualified list of candidates for review by the members of the search committee in early November 2024. The executive search team has committed to biweekly reports on the progress of the search or ad hoc communication from either the search firm or the MBRF as needed.

An interval report will also be available for the Trustees' meeting October 14, 2024.

With best wishes and appreciation for any help you can provide in spreading the word.

Lee

SpencerStuart

Position and Candidate Specification



Chief Executive Officer

PREPARED BY:

Philip Jaeger Shannon Yeatman Kaitlin Hayes

September 2024

Assignment: 66286-001

The McKnight Brain Research Foundation is an Equal Opportunity Employer and encourages candidates of all backgrounds to apply for this position.

Confidential: This document has been prepared for the exclusive use of the client named. Because it contains confidential information, its use should be controlled and limited to the executives concerned. This information is given in good faith and is believed to be correct but may require verification.

About the Foundation

Enhance life by preserving memory and supporting healthy cognitive aging through research and education.

Founded in 1999 by Evelyn F. McKnight, the McKnight Brain Research Foundation is the only private foundation devoted exclusively to solving the mysteries of the aging brain and helping people achieve a lifetime of cognitive health. With cognitive changes due to the normal aging process potentially affecting the majority of people aged 65 and older, the McKnight Brain Research Foundation works to champion research to better understand agerelated cognitive decline and memory loss. As leaders in cognitive aging research, the Foundation is also committed to sharing its research findings and practical suggestions for maintaining brain health with the scientific community and the public at large.

Since its founding, the Foundation has established Evelyn F. McKnight Brain Institutes at the University of Alabama at Birmingham, the University of Arizona, and the University of Miami, and the Evelyn F. and William L. McKnight Brain Institute at the University of Florida.

By partnering with the Foundation for the National Institutes of Health, and with the support of four National Cognitive Aging Summits and the National Academies Cognitive Aging Report, the McKnight Brain Research Foundation has made great progress toward better understanding the effects of age-related cognitive decline and memory loss over the last two decades. The McKnight Brain Research Foundation will strive to continue promoting advancements in the field of cognitive aging and age-related memory loss through scholarships, research awards, and educational programs to optimize Brain Health.

For more information, please visit the McKnight Brain Research Foundation website.

Values Statement

INTEGRITY

The McKnight Brain Research Foundation conducts its affairs with the highest degree of honesty, integrity, and accountability.

COMMITMENT

We are committed to our vision of helping people optimize a healthy brain throughout life.

DISCOVERY

We value scientific curiosity and discovery leading to clinical interventions in age-related cognitive decline and memory loss.

The McKnight Brain Research Foundation seeks a visionary and strategic leader with fluency in basic and/or clinical neuroscience and related health sciences to lead and advance the Foundation's mission and purpose of preserving memory and supporting healthy cognitive aging through research and education. Fundamentally, the Chief Executive Officer (CEO) will harness the unique elements of the Foundation in order to translate research in cognitive aging to the care and treatment of patients, thereby improving the lives of innumerable individuals and families.

The Foundation benefits from a committed board, strong partnerships with federal funders, and four thriving brain research Institutes at major academic medical centers. The conditions are right to set a scientific agenda and raise visibility to ensure that the Foundation remains a vital driver and contributor to the understanding of age-related cognitive decline and memory loss.

The CEO will be a passionate, collaborative, and driven professional, who will serve as the inaugural chief administrative officer of the Foundation, reporting directly to the McKnight Brain Research Foundation Board of Trustees. Along with the Board Chair, the CEO serves as the lead representative of the organization and primary spokesperson for the Foundation. The CEO is responsible for overseeing all strategic planning, operations, and administration of the organization's programs, finances, marketing, and grant distributions. The CEO is further supported by the Corporate Trustee who has additional duties and works closely with the Foundation.

This role will be fully remote with some travel required to attend Trustee meetings, the annual Inter-Institution Meeting, and additional meetings as directed or approved by the Board.

KEY RELATIONSHIPS

Reports to	Board of Trustees
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Other key relationships

Corporate Trustee Leaders of the four campus-level McKnight Brain Institutes:

University of Florida

University of Alabama at Birmingham

University of Arizona

University of Miami

National Institutes of Health National Institute on Aging American Brain Foundation

American Federation of Aging Research American Academy of Neurology

Foundation for the National Institutes of Health

KEY RESPONSIBILITIES

- Report to and work closely with the Foundation Board, regularly communicating with the Board Chair and Trustees to provide updates, seek the Board's involvement in policy decisions, ensuring that the organization's mission is represented in its strategic planning goals.
- In concert with the Board Chair, ensure good governance and Board engagement; develop, maintain, and support a strong board; serve as ex-officio of each committee.

- Convey the vision of the Foundation's strategic future to, actively engaging and energizing, the Board, the four McKnight Brain Institutes, and other external stakeholders—including the National Institute on Aging, Foundation for the National Institutes of Health, American Brain Foundation, American Federation of Aging Research, and the American Academy of Neurology, and any future partners.
- Ensure operational excellence in administration, finance, grantmaking and program evaluation, communications, and Board support, including all systems and resources needed to achieve strategic goals, ensuring maximum resource utilization, and maintaining a positive financial position.
- Oversee the execution of a programmatic and grantmaking strategy that adheres to the Foundation's
 mission, ensure effective systems to track progress, regularly evaluate program components, and
 communicate status of successes to the Board, the Institutes, and other stakeholders.
- Establish a strong relationship of support and provide guidance to the leadership of the four McKnight Brain Institutes.
- Maintain relationships with grantees, other funders of similar research, and leaders at each grant site, while increasing the overall visibility of the Foundation throughout the sector; leverage external presence and relationships to garner new opportunities for collaborative funding and build national recognition for the importance of age-related cognitive decline and memory loss.
- Be active and visible in identified relevant sectors and communities, advancing the Foundation's mission and
 its brand as the recognized leader in supporting clinical translational research in age-related cognitive
 decline and memory loss—in contrast to other neurogenerative diseases—from research laboratory to
 clinical practice.
- Expand existing partnerships, forging collaborations with various organizations throughout the brain/neuroscience research community, the medical, clinical research, and academic spaces, relevant training organizations, and public and private organizations related to the Foundation's mission.
- Serve as one of the Foundation's primary spokesperson internally and externally, representing the Board and organization at grantee site visits, meetings with professional partners and other stakeholders, as well as to organizational constituents, the media, and the general public.
- Coordinate with the Corporate Trustee, serving as the primary liaison between the Corporate Trustee and the Board.
- Collaborate with existing consultants to deepen and refine the branding and marketing strategy—from web
 presence, social media, and trade media to external relations—with the goal of creating a stronger brand
 for the Foundation.
- Work diligently with health care educators to convey the importance of including cognitive aging and memory loss in educational programs and seek additional pathways to expand research in the discipline.
- Actively engage health care practitioners to further efforts around the inclusion of cognitive assessment as a standard of care and component of health maintenance.
- Advise the Board on organizational structure, with the potential to establish internal staff roles at the Board's discretion; establish employment and administrative policies and procedures for all day-to-day operations and functions of the Foundation.
- Improve the annual review process across the four McKnight Brain Institutes, ensuring transparent communication, more timely reporting, and better adherence to the mission of the Foundation.

• Assist the Board in determining the appropriate approval levels for the CEO role in order to streamline grant and fiduciary approval processes.

IDEAL EXPERIENCE

Mission alignment

Evidenced dedication to advancing healthy cognitive aging through research and education, with an understanding of translational research within the health care and/or academic sectors.

Executive leadership

Significant senior management experience or relevant comparable experience and background; strong organizational planning and delegation skills.

Financial acumen

Fiduciary management experience, including budget preparation, analysis, decision-making, and reporting.

Public relations and communications

Experience serving as the external face of an organization or division, with excellent written and oral communication skills; ideally, exposure to marketing campaigns and strategy.

Stakeholder engagement

Demonstrated ability to lead through influence and engage a wide range of stakeholders.

Advanced degree

An M.D. or Ph.D. or equivalent in education and training in a relevant field such as medicine, neurosciences, public health, basic and life sciences, from a recognized university accredited through the U.S. Department of Education and the Council on Higher Education.

Serving on and/or reporting to a board

CRITICAL LEADERSHIP CAPABILITIES

Strategic & Visionary Mindset

The CEO will be a strategic thinker who will provide dynamic leadership in charting the future for the Foundation. In doing so, the CEO will:

- Create and implement a programmatic strategy that better links and articulates the progress of the grantees in meeting the strategic goals of the Foundation.
- Contribute to the development of a strategic plan and new initiatives based on a broad understanding of the health and academic sectors, as well as age-related cognitive health issues.
- Track and communicate the trends and shifts occurring in the health care ecosystem that potentially pose challenges to the Foundation's mission.

Driving Results

The McKnight Brain Research Foundation is the nation's only private foundation dedicated exclusively to solving the mysteries of the aging brain, particularly age-related cognitive decline and memory loss. The CEO is expected to expand recognition of the organization and:

- Pursue new initiatives and strategic partnerships to further the goals and priorities of the Foundation.
- Maintain awareness of the challenges and opportunities for its grantees and partners, adjusting the programmatic strategy as needed in concert with the Board.
- Identify areas where the Foundation and its related Institutes can have significant influence.

External Representation

As the chief ambassador for the Foundation, the CEO will:

- Champion a compelling vision and purpose, effectively engaging and influencing other leaders from the neuroscience research, education, and professional communities.
- Build innovative and distinctive partnerships and alliances across the field to increase the Foundation's
 influence and profile, thereby broadening the impact of the Foundation's goals, vision, mission and work.
- Catalyze crucial dialogue with leaders across the health care sector and related communities—ultimately, helping to establish age-related cognitive aging and memory concerns as a standard part of brain health maintenance.

OTHER PERSONAL CHARACTERISTICS

- Resilient, adaptable, and nimble.
- Humble and empathetic, with high EQ.
- Optimistic, collegial, and transparent.
- Entrepreneurial and innovative.
- Strategic thinker.
- Curious.
- Authentic relationship builder.
- Integrity.

COMPENSATION

The base salary range for the Chief Executive Officer position will be \$200,000 - \$300,000 per year, commensurate with experience and qualifications, or as mandated by a U.S. Department of Labor prevailing wage determination. Other compensation associated with this position may include administrative salary supplement and allowances. The McKnight Brain Research Foundation is an equal opportunity employer and encourages all qualified applicants to apply.

APPLICATION

The Foundation has retained Spencer Stuart to support this search. If you wish to submit your own application or nominate someone to serve as the next CEO, please send an email message with supporting materials to McKnightBrain@SpencerStuart.com.



Communications Activity Timeline Updated October 1, 2024

Activity	Date/Status	Action	Responsible Party	Comments
Patient Education Brochures	Complete Drafted content and designed two new patient education brochures		V. Patmintra	The "Cognitive Aging Explained" and "Keeping Your Brain Healthy" brochures are both posted on the Helpful Resources page of the website and on the "About Cognitive Aging" and "Brain Health Tips" pages of the Brain Works microsite. As part of the ongoing relationship with the Gerontological Society of America, the "Cognitive Aging Explained" and "Keeping Your Brain Healthy" brochures were added to GSA's KAER toolkit in July of 2023 along with the Foundation's tip sheet on healthy aging.
MBRF Organizational Brochure	In Progress	Updating the MBRF Organizational Brochure to Post for the 25 th Anniversary	V. Patmintra	The organizational brochure is being updated to include new visuals, updated metrics and information on the MBRF and updated content for each of the four MBIs. Updated content was received from the MBIs this summer and a new version of the brochure will be posted to the website and shared in October to continue the Foundation's 25 th Anniversary celebration.
MBRF Anniversary Video	Complete	Updating the MBRF Highlights Video for the 25 th Anniversary	V. Patmintra BRG	A new video highlighting the Foundation's 25-year history and commitment to advancing research on age-related cognitive decline was developed and released at the Inter-Institute Meeting in Gainesville.

				The video is also featured on the website and included in social media promotion efforts as part of the activities commemorating the Foundation's 25 th anniversary.
Mind Your Memory Newsletter	Ongoing	Quarterly Newsletter with Consumer-Focused News and Highlights	V. Patmintra	The Mind Your Memory consumer newsletter began distribution in September 2022 and is distributed quarterly to the Foundation's organizational contacts list and to consumers who sign-up for distribution on the website.
				The Spring 2024 issue of the newsletter was distributed in early May to a contact list of 700 email addresses. The Fall 2024 issue of the newsletter will be distributed in mid-October.
McKnight Brain Website	Ongoing	Home Page Refresh and Ongoing Content Development	V. Patmintra	Based on results from the User Testing initiative, the website navigation was updated at the end of July with new headers designed to draw audiences in to the content most relevant to their needs. The organizational content about the Foundation is also now separated across two tabs titled "Our Work" and "About Us." Following completion of the navigation update, new content has been added to the Blog and News pages of the website on a weekly basis. The Brain Works microsite launched on March 22 as part of the campaign kickoff activities and features a Resource Hub with materials from the MBRF as well as other leading cognitive aging and brain health organizations. The Hot Topics section of the microsite is updated regularly to feature campaign news and consumer-friendly research updates from the MBIs. A Brain Works button is featured in the McKnightBrain.org's primary navigation and a hero image highlighting the campaign was added to the homepage carousel to help users flow seamlessly between the two areas of the site.

PCP Education Initiative	May 2021 – COMPLETE	Develop content to build a dedicated area of the website for PCP education	V. Patmintra	Created web content to educate PCPs on the differences between Alzheimer's disease and cognitive decline/agerelated 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. The Brain Works Year Two campaign recommendations include ideas for engaging with healthcare professionals via partnerships with relevant membership organizations and exploring options to feature campaign assets as part of the leading electronic medical records systems.
Ask the Experts Blog Series	Spring 2021 Ongoing	Expert Interview Blog Series	V. Patmintra	Interviewing McKnight Trustees and experts from the MBIs to post the bi-monthly "Three Questions with" Expert Interview blog series. Coordinating with CWG members to interview an expert from one of the MBIs each month as outlined in the calendar presented to the CWG during their October meeting. A blog post featuring Dr. Tatjana Rundek (UM) was posted to the website in late January. Additional ideas of experts to interview will be developed when the Communications Working Group resumes meeting after the summer break.
Social Media	Ongoing	Develop monthly content themes and make regular posts to the MBRF Twitter, Facebook and LinkedIn pages	V. Patmintra	Developing themes and drafting content on a monthly basis to make 2-3 posts per week. Leveraging boosted Facebook posts and Google ads to drive additional traffic to the McKnightBrain.org website.

Tracking and Quarterly Reports	Began in 2019 Onngoing	Conduct media tracking and provide quarterly updates.	V. Patmintra	Tracking media and social media metrics and reach throughout the year and providing quarterly updates to the Trustees. Tracking topics include: brain health, agerelated memory loss, cognitive aging, cognitive decline, age-related cognitive decline, McKnight Brain Research Foundation, McKnight Brain Institutes. A comprehensive report of media coverage and website traffic generated from the Brain Works campaign will be included for review with materials for the October 14 Trustees' meeting.
Communications Working Group	Began in 2019 Ongoing	Zoom meetings with members of the Communications Working Group	A. Porter V. Patmintra Last Meeting: February 27, 2024 Upcoming Meeting: October 2024	Every other month meetings with members of the Communications Working Group to discuss and engage in ongoing activities, including: • Identifying core competencies needed for each MBI's communications outreach • Reviewing, vetting and approving materials • Providing input on upcoming studies with relevant consumer/medical media angles • Identifying young researchers and studies of note to highlight on the MBRF website
Precision Aging Network Collaboration	Ongoing	Meeting with members of the Precision Aging Network team to engage on sharing news, events and information about the initiative via the MBRF's website and social media channels	V. Patmintra A. Porter PAN Marketing Team	Meeting with members of the Precision Aging Network team to engage on sharing news, events and information about the PAN initiative via the MBRF's website and social media channels. • First meeting held in December 2022 at the suggestion of Dr. Carol Barnes to introduce the MBRF and PAN marketing and communications contacts • Follow up meeting held in September 2023 to discuss featuring PAN on the MBRF website and in upcoming newsletters and Ask the Experts blog posts

		 PAN featured resources and a link to a blog post featuring Dr. Carol Barnes in their September newsletter Follow up meeting held in June to discuss featuring MBRF on the PAN website, getting feedback on the PAN page drafted for the McKnightBrain website and opportunities to share Brain Works campaign materials to complement the PAN initiative
Brain Works Public Awareness Campaign	Ongoing	V. Patmintra A. Porter BRG BRG After approval during the February Trustees' meeting, an RFP was drafted requesting proposals for a three-year visibility campaign at three different budget levels. RFPs were sent to 5 agencies in early April. Proposals were reviewed by the Communications Committee during the committee's April 19 meeting. BRG previewed ideas for creative campaign concepts with the Communications Committee in early October and presented their recommended Campaign Concepts for the Trustees to review and provide feedback on during the October 23 Trustees meeting.
		The <i>Brain Works: Optimize Your Brain Span</i> campaign launched on March 22 with a Satellite Media Tour, launch of the Brain Works microsite and ongoing media outreach. Results from the first few months of the campaign were shared with the Trustees during the May meeting, along with high level plans for year two of the campaign. Plans for the campaign's second year will be formalized following the meeting. Year Two Brain Works campaign activities, including ongoing media relations, development of an online public service announcement, partnership engagement, and influencer activations are underway and updates will be



Brain Works Results at a Glance

In March of 2024, The McKnight Brain Research Foundation launched the Brain Works: Optimize Your Brain Span campaign to educate the public about cognitive aging and offer tips to help maintain optimum brain health with age. The highlighted metrics are a result of the communications activities from March 22 – September 30, 2024.



Microsite

5Materials created

24K

Webpage views





Digital Promotion

19.7K

Website clicks

1.2M

Impressions



Media

1.09B Total Impressions

4K Total Placements

41 Total Interviews



Parade TIME





Social Media

38.6%

Average new followers

25.7K

Social impression

3.1K

Clicks from social







Influencer

866.9K

Impressions

20K

Views & Engagements





Collaborators

30

7

Resources used on Brain Works Hub Shared Brain Works materials on their owned channels





McKnight Brain Research Foundation

Brain Works: Optimize Your Brain Span Campaign

Coverage Report: July 1 – October 1, 2024

By The Numbers

250.1M Media Impressions*

63 Placements*

Anticipated Media Coverage**

Podcast

- WomenOver70 Podcast
 - o Interview with Dr. Brangman

National

- Kevin MD
 - o Dr. Hamiltion's Byline
- AFRO American Newspapers
 - o Interview with Dr. Brangman
- Oprah Daily
 - o Interview with Dr. Boyle
- Healthcasts Media
 - o Interview with Dr. Brady
- TIME Magazine
 - o Interview with Dr. Hamilton
- Black Headline News
 - o Interview with Dr. Brangman

Published Media Coverage

Podcast

- The Podcast by KevinMD: How to preserve your brain health, September 20, 2024
- Let's Talk Brain Health! Podcast: BrainWorks: Optimize Your Brain Span with Dr. Madhav Thambisetty, MD, PhD, August 14, 2024

National

- Parade: Want To Lower Your Dementia Risk? Don't Skip This Vaccine, September 15, 2024
 Additional Pick Up:
 - o AOL.com
- CBS Newspath Eye on Health: Feature interview with Dr. Sharon Brangman, Healthy Aging Month, September 13, 2024

^{*} See Media Glossary on page 27 for definitions of key terms.

^{**}Anticipated media coverage impression and placement numbers are not included in the totals above.

Additional Pick Up:

- KYTX CBS19-TV
- o WMAZ-TV
- o WTOL-TV
- o WBNS-TV
- o WUSA-TV
- o WTSP-TV
- o WFMY-TV
- o WWL-TV
- o KHOU-TV
- o KREM-TV
- o KFMB-TV
- o KTHV-TV
- VeryWell Health: Learning a New Language Is Hard, But Your Brain Will Thank You,

August 16, 2024

Additional Pick Up:

- o AOL.com
- Yahoo! Lifestyle
- Rolling Out: Sharon Brangman explains how to maintain cognitive health as we age, August 9, 2024
- Black Health Matters: Brain Aging: What's Normal & When Should We Worry?, July 24, 2024
- Well+Good: 11 Habits Neurologists Do Every Night for Better Brain Health—and How You Can Incorporate Them Too, July 12, 2024

Additional Pick Up:

- Internewscast Journal
- Fortune: Is there a perfect age to be a leader?, July 6, 2024
- CBS Newspath Eye On Health: Feature interview with Dr. Sharon Brangman: Minority Mental Health Awareness Month, July 5, 2024

Additional Pick Up:

- CBS New York
- WUSA-TV
- o 23 other affiliates
- Fortune: What's happening inside an 80-year-old brain?, July 3, 2024

Additional Pick Up:

- o AOL.com
- o Yahoo! Singapore Finance
- o Blogtop10
- Don't Worry Buy
- Alpha Leaders
- Yahoo! Finance
- o Fortune China
- o Fortune Italia

^{*} Full text articles available below

Full Text Articles

Podcast

How to Preserve your Brain Health

The Podcast by KevinMD September 20, 2024

https://www.kevinmd.com/2024/09/how-to-preserve-your-brain-health-podcast.html

We sit down with Roy Hamilton, a professor of neurology, psychiatry, and physical medicine and rehabilitation at the University of Pennsylvania. Roy shares insights from his research on using non-invasive brain stimulation to help individuals with cognitive problems caused by neurological disorders. We dive into common misconceptions about cognitive aging, explore proactive steps to maintain brain health, and discuss the strong connection between heart health and brain function.

Mentioned on the show:

BrainWorks: https://mcknightbrain.org/brainworks/

Roy Hamilton is a professor of neurology, psychiatry, and physical medicine and rehabilitation at the Perelman School of Medicine at the University of Pennsylvania. He is currently a trustee of the McKnight Brain Research Foundation, director of the Penn Laboratory for Cognition and Neural Stimulation, and director of the Penn Brain Science, Translation, Innovation, and Modulation Center. He discusses the KevinMD article, "Working with your patients to promote healthy brain aging."

BrainWorks: Optimize Your Brain Span with Dr. Madhav Thambisetty, MD, PhD Let's Talk Brain Health! Podcast
August 14, 2024

https://open.spotify.com/episode/5NDCexcEWCKxi3SnQYDbUc

Join us as we delve into brain health with Dr. Madhav Thambisetty, MD, PhD, a McKnight Brain Research trustee and senior investigator at the National Institute on Aging.

Learn about his distinguished career in neurology and his passion for brain health

Discover insightful findings from a recent survey on American perspectives on brain health, including common concerns about aging and memory.

Dr. Thambisetty shares valuable lifestyle tips to promote a healthy brain and discusses how the McKnight Brain Research Foundation is working to educate the public and healthcare providers alike.

Stay informed and empowered with practical steps to optimize brain health across your lifespan.

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00:00 Introduction to Dr. Manhav Thambisett

00:47 Early Career and Achievements

01:38 Personal Journey into Brain Health

03:18 Survey on American Perspectives on Brain Health

07:25 Understanding Normal Brain Aging

11:18 Lifestyle Modifications for Optimal Brain Health

13:15 The BrainWorks Campaign

18:47 Future Directions in Brain Health Research

21:06 Final Thoughts and Practical Tips

22:19 Rapid Fire Questions and Conclusion

Resources

- Optimize your brain span with McKnight's Brain Works Resource
- Explore additional tip sheets on cognitive health and brain health from McKnight's Brain Research Foundation

National

Big change for mammogram screenings could save lives | Eye on Health CBS Newspath – Eyes on Health July 5, 2024

https://www.cbsnews.com/newyork/video/big-change-for-mammogram-screenings-could-save-lives/

The cancer risks that could be hiding in dense breast tissue; A breakthrough in sickle cell disease treatment; A chef teaching wholesome food is medicine, and more. Michael George reports in this episode of Eye on Health.

[Click link for full video]

Want To Lower Your Dementia Risk? Don't Skip This Vaccine

4 MBRF Brain Works: Optimize Your Brain Span Campaign Coverage Report

Parade September 15, 2024

https://parade.com/health/vaccine-that-lowers-dementia-risk

If you're 50 or older and haven't gotten this often-overlooked vaccine yet, consider this a sign to make an appointment.

Flu shots, <u>COVID vaccines</u>, RSV vaccines...There's a lot to stay on top of—especially if you're 50 and older. It's easy to see how vaccines for health conditions that don't make headlines as much as COVID or the flu (which everyone seems to be getting this time of year) can be forgotten about. One example is the shingles vaccine.

<u>The shingles vaccine</u> is recommended for people 50 and older. While the primary reason for this is to protect against shingles, of course, there's an added benefit many aren't aware of. <u>Scientific research</u> shows a connection between getting the shingles vaccine and a lower risk of dementia.

What Is the Connection Between Shingles and Dementia?

The scientific name for shingles is herpes zoster, which is different from oral or genital herpes. (They are both caused by herpes viruses, but shingles is not a sexually transmitted infection.) Shingles is a viral illness that stems from being previously infected with chickenpox. After getting chickenpox, the virus can remain dormant in the body for many years until manifests as shingles.

Symptoms of shingles include pain, itchiness and a rash that looks like a stripe of blisters on the left or right side of the body, around the rib cage or waist. It can also appear on the face. "Most adults have the herpes virus, which is the same virus that causes chickenpox, living quietly in their bodies. If you are not vaccinated, the virus has a very high likelihood of eventually activating which causes shingles," says Dr. Sharon A. Brangman, MD., FACP, AGSF, a Distinguished Service Professor of Geriatrics Medicine and Director of the Center for Excellence for Alzheimer's Disease at SUNY Upstate Medical University.

Dr. Brangman explains that the reason why getting the shingles vaccine can lower the risk of dementia isn't known, but there are several theories. She says that one theory is that the shingles vaccine helps to prevent inflammation. "Shingles is associated with inflammation that damages nerve cells in the brain, especially when the herpes virus activates within the brain," she says.

<u>Dr. David Canaday, MD</u>, a professor in the Division of Infectious Disease at Case Western University, adds to this saying that shingles could promote dementia in brain tissue, so getting the vaccine could help protect against this. "The virus may cause damage within the walls of the blood vessels in the brain. Alzheimer's disease is associated with the buildup of a toxic protein in the brain called amyloid. Vaccines may help our immune system more effectively remove toxic amyloid proteins in the brain, which may reduce the risk of developing Alzheimer's disease," Dr. Brangman says.

While getting the shingles vaccine helps protect against shingles (and therefore may lower the risk of dementia), both doctors say that there is no evidence that the vaccine changes the progression of Alzheimer's disease or any other type of dementia. This means that if someone already has dementia, getting the shingles vaccine will not stop its symptoms.

Are There Other Vaccines That Lower the Risk of Dementia?

The connection between the shingles vaccine and a lower risk of dementia certainly is intriguing. Now you may be wondering if there are other vaccines with a similar connection. "Besides the shingles vaccine, the flu vaccine may have a smaller chance of helping lower the risk of dementia," Dr. Canaday says. Dr. Brangman also says that staying on top of yearly flu vaccines may help lower the risk of dementia, along with the vaccine for pneumococcus. Scientific research backs this up, showing that the <u>flu vaccine</u> is associated with a 17% reduced risk of dementia while the <u>pneumococcal vaccine</u> is linked to a 63% reduced risk—that's major!

Additionally, Dr. Brangman says that the Tdap vaccine, which protects against tetanus, diphtheria and whooping cough, is also linked with lowering the risk of dementia. <u>One study shows</u> it may lower the risk by as much as 42%.

Dr. Canaday says that the reason why all these vaccines may lower the risk of dementia is because they all serve as ways to prevent inflammation. The more you can do to stay healthy, the better. "These are all very compelling reasons to talk with your healthcare provider to make sure you are up to date with all recommended vaccines. In addition to staying up on vaccines, we also encourage people not to wait to talk to their health care provider about their brain health," Dr. Brandman says.

Consider this your sign to talk to your healthcare provider about the shingles vaccine—or any others you may need—today!

Sources

- <u>Dr. Sharon A. Brangman, MD., FACP, AGSF</u>, Distinguished Service Professor of Geriatrics
 Medicine and Director of the Center for Excellence for Alzheimer's Disease at SUNY Upstate
 Medical University
- <u>Dr. David Canaday, MD</u>, professor in the Division of Infectious Disease at Case Western University

Learning a New Language Is Hard, But Your Brain Will Thank You

VeryWell Mind August 16, 2024

https://www.verywellmind.com/benefits-of-learning-a-new-language-8695564

Every night, no matter how exhausted I am, I carve out at least 5 to 10 minutes for a quick lesson on my language learning app. I might not be fluent yet, but according to the experts, my daily lessons have serious brain-boosting benefits.

"Learning a new language can be immensely helpful for cognitive health, particularly as we age. This is because language learning engages a wide range of complex cognitive abilities, including memory, attention, and problem-solving, which can help to create and strengthen connections in the brain," explains <u>Dr. Roy Hamilton</u>, <u>MD</u>, trustee of the McKnight Brain Research Foundation.

The benefits go beyond protecting the brain against the effects of aging. Experts also note that language learning can help foster social connections and empathy. We are all citizens of the world, and it's important for us to stay connected with other cultures and people from different backgrounds.

Of course, knowing the benefits doesn't necessarily make the process easy. Learning a new language takes time, practice, and diligence. Even if you stick with it every day for a long time, it can still be a struggle. But that's *exactly* why learning a new language can be so beneficial. It challenges your brain in unique ways that, ultimately, help your mind stay healthy and strong.

At a Glance

People learn new languages for all kinds of reasons. Sometimes, it's for work or school. Others enjoy the thrill of chatting with the locals when they're on vacation. And sometimes, it's just for fun. However, it can also be a powerful way to boost your cognitive skills and maintain your brain's health. It can build your cognitive reserve, stave off the effects of brain aging, and have helpful social and emotional benefits. Learning a new language as an adult is certainly more challenging, but your brain will thank you.

Why Learning a New Language Is So Hard

My daily Duolingo sessions aren't my first foray into trying to learn a new language. But, like many people, my motivation dwindled once my high school foreign language credits were completed. Time and dedication are two common challenges when it comes to learning a new language. But a big part of the reason it's so tough comes down to how your brain is wired.

Dr. Hamilton explains that there is an optimal developmental period—usually spanning infancy to around puberty—when the brain is particularly receptive to language. During this age, the brain's language networks possess a high degree of neuroplasticity, which is the brain's ability to adapt and change.

"Because of this, [children] can easily organize and reinforce themselves in response to being exposed to language. This allows children to learn languages naturally and efficiently—essentially automatically—if they are regularly exposed to those languages," Dr. Hamilton says.

Other factors that might affect your ability to pick up a new language as an adult include:

- Language complexity: Sometimes, other languages have linguistic complexities that can be challenging, especially if they're very different from those of your native tongue. Dr. Hamilton notes that adults tend to rely on the thoughts and structures of their native language, which makes learning the sounds and grammatical rules of a new language trickier.
- Anxiety and self-consciousness: Dr. Hamilton explains that adults are more likely to feel anxious
 or self-conscious about learning a new language, which can stand in the way of their progress.
 Being scared to practice or embarrassed about making mistakes certainly doesn't make it any
 easier!

- **Learning methods**: How you learn and practice is also important. Traditional learning methods may focus more on things like memorization and vocabulary, which may work for some people. However, others may find that approach tedious and difficult to stick with.
- Age: Let's face it, it really can be harder to teach an old dog (or brain) new tricks. Experts
 suggest that the ability to learn new languages starts to decline once someone reaches
 adolescence and adulthood. "While the adult brain remains plastic, the rate at which new
 connections form slows down over time, making it harder to acquire new skills, including
 language," Dr. Hamilton says. Plus, the stress and busyness of everyday life can make it difficult
 to find time to practice.

The Benefits of Learning a New Language

Learning a new language can definitely be a challenge-but that's exactly why it can be so rewarding!

According to psychotherapist <u>Kristie Tse</u>, <u>LMHC</u>, clinical director and founder of Uncover Mental Health Counseling, "Learning a new language has profound benefits for brain health. It encourages the brain to be flexible and adaptable, as it requires quick thinking and problem-solving skills to comprehend and construct new sentences."

Cognitive Benefits

Learning a new language doesn't just make you *sound* smarter. In one analysis, 90% of the studies they examined found that learning a new language leads to improvements in other academic subjects as well.¹

Such benefits don't just stem from increased literacy skills. Other research has found that second language learners also appear to make gains in their working memory, concentration, and <u>creativity</u>.²

Dr. Hamilton also points to research findings showing that people who speak two or more languages have a delayed onset of <u>dementia</u> compared to those who only speak one.³

"Speaking more than one language may improve so-called <u>executive functions</u>, such as the ability to switch fluidly between mental tasks, and may even positively impact other cognitive skills like visual-spatial abilities and reasoning," Dr. Hamilton says.

Emotional Benefits

On an emotional level, developing new language skills can also give you a greater sense of <u>confidence</u> and <u>purpose</u>.⁴ Such benefits can spill over into other areas of your life. You might not be a polyglot *yet*, but tackling one language can give you the boost in <u>self-efficacy</u> you need to keep working toward your language-learning goals.

Social Advantages

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Hint: Knowing more than one language can be a great <u>conversation starter</u>. People are often interested in learning more about your learning journey. Plus, learning a new language can be a great opportunity to meet new people and <u>forge new friendships</u> over your shared interests.

Building these <u>meaningful connections</u> not only helps widen your social circle (and improves your <u>social support system</u>), but it also brings a deeper sense of cultural perspective.

It not only enriches cognitive abilities but also serves as a bridge to understanding cultural complexities and enhancing emotional resilience. — KRISTIE TSE, LMHC

How the Brain Changes When You Learn a New Language

So, what exactly is going on inside your head when you're conjugating verbs and learning how to roll your Rs? Learning a new language does a lot more than just expand your linguistic skills—it actually leads to significant changes in your brain.

Researchers have found that the brain actually starts to rewire itself in response to learning a new language.⁵

Such changes not only challenge your brain, but they can also help you stay more adaptable as you age.

What other kinds of brain-boosting benefits can you expect?

It Can Protect Your White Matter

White matter is the fatty substance that covers brain axons, which allows signals to travel through the brain quickly and efficiently. Evidence suggests that learning a second language helps protect white matter from the effects of aging, which can help you keep your brain healthier as you grow older.⁶

It Can Increase Grey Matter Volume

<u>Grey matter</u> is the brain material associated with learning, movement, emotions, and memory. Learning and using a new language helps to increase grey matter volume in important areas of the brain.⁷

It Leads to Changes in Brain Structure

One study found that bilingualism increases the size of certain brain regions. Such increases also tend to grow as people gain more bilingual experience. The findings suggest that learning a new language creates complex changes in brain structures that are similar to those of other cognitively demanding tasks.⁸

No single activity is a one-size-fits-all solution to maintaining healthy cognition throughout one's brain span, but language learning is certainly a really great way to contribute to the health of one's brain. — DR. ROY HAMILTON, MD

Practical Tips for Learning a New Language

Learning a new language as an adult can be really challenging. Fortunately, there are plenty of effective (and fun) ways to achieve your language-learning goals:

Try a Language App

Language-learning apps can be a great way to get started with a new language. Babbel, Duolingo, and Memrise are a few options you might consider.

Practice Daily

Consistency is the key! Even just 5 to 10 minutes a day can help.

"Being exposed to and using the target language on a daily basis, even in small amounts, can significantly boost retention and fluency," Dr. Hamilton says.

Be sure to turn on app notifications and use app widgets if they are available on your device. These regular reminders can help you stay on track.

Immerse Yourself

Don't just limit your daily learning to your lessons. "It's important to immerse oneself as much as possible in the language one wants to acquire. This can be done through media, such as movies, music, and podcasts, which helps to build listening skills and exposes the learner to the language being used in its natural context," Dr. Hamilton suggests.

Memorize Vocabulary

<u>Rote memorization</u> may not be the most exciting part of learning, but it's important for laying the foundation you'll need to succeed when learning a new language. Flashcards, whether you're using an app or making them yourself, can be a great tool for nailing those basic vocabulary terms.

Learn Grammar

Getting used to the grammatical structure of a new language can be tough. Start with the basics, like verb conjugations and sentence structure. Then, challenge yourself with more complex sentences. A grammar book or app can be a helpful tool.

Find a Conversation Partner

Getting actual experience speaking your target language is vital! "Finding a language partner or joining a conversation group can provide the necessary practice in speaking and listening, which are critical components of language proficiency," says Dr. Hamilton.

Integrate Other Learning Tools

As you gain more skill and experience, start looking for other tools and resources that can help you build your language abilities. Listening to podcasts or radio broadcasts in your target language can be a great way to gain a greater appreciation and understanding of the nuances of the language.

Try reading a book in your target language! Kids' books can be perfect for beginners, and as you get more advanced, you might try reading a book you already know and love in your new language.

Tip: Try Spaced Repetition System (SRS)

Dr. Hamilton recommends spaced repetition system (SRS) when learning a new language. "This is a learning technique grounded in memory research that helps one to remember new vocabulary items by rehearsing them in a systematic manner. Reviews of words one remembers well are gradually spaced out, focusing effort on more on challenging items; this makes one's study time more efficient and helps vocabulary to stick in long-term memory," he explains.

Takeaways

Learning new things is good for your brain, and experts suggest that learning a new language, in particular, can have numerous important benefits for your cognitive functioning and health. Dr. Hamilton recommends managing your expectations as an adult language learner.

"Language learning is a gradual process," he says, "and embracing mistakes as part of the learning journey and staying motivated through setting achievable goals can make the experience both effective and enjoyable."

Sharon Brangman explains how to maintain cognitive health as we age

Rolling Out

August 9, 2024

https://rollingout.com/2024/08/08/sharon-brangman-maintain-cognitive/

Sharon Brangman, MD, explains that 1 in 5 U.S. adults live with a <u>mental illness</u>. However, Black American adults are 20 percent more likely to experience <u>serious mental health problems</u>. Brangman is a brain health and cognitive aging expert at the <u>McKnight Brain Research Foundation</u>. She talks about steps people can take to help maintain brain health as they age.

[Click link for full video]

Brain Aging: What's Normal & When Should We Worry?

Black Health Matters

July 24, 2024

https://blackhealthmatters.com/brain-aging-whats-normal-when-should-we-worry/

Spotting signs of mental decline in ourselves and our loved ones can sometimes be tricky. We all face brain aging, so understanding its signs can significantly affect how we approach our health. We chatted with Dr. Sharon A. Brangman, a McKnight Brain Research Foundation Trustee. She's also the Chair of the Department of Geriatrics and Director of the Center for Excellence for Alzheimer's Disease at Upstate Medical University. We asked her to share her wisdom on brain health with us.

BHM: Can you tell us about the McKnight Brain Research Foundation and its work to bridge the knowledge gap on normal cognitive aging?

Dr. Brangman: The McKnight Brain Research Foundation is the only foundation focusing on normal cognitive aging. We concentrate on what is normal as we get older regarding how our brains function and overall brain health. Right now, the foundation is sponsoring a campaign called BrainWorks to spread the word across the United States about maintaining brain health and recognizing what is normal versus what might be concerning.

In my work, I often see many Black people seeking help when their disease is far advanced. At that point, our options are limited. This is why it is crucial for people to understand what is normal and what might be worrisome.

BHM: Can you explain cognitive aging and how it differs from more severe conditions?

Dr. Brangman: Cognitive aging is the usual process our brains undergo as we age. It includes "senior moments," like forgetting names or words. Like hard drives, our brains have accumulated a lot of information over a lifetime, leading to "slow retrieval." This means it takes longer to access information, but we usually get there eventually. You might remember a name or word after a while. Misplacing items like phones, keys, or glasses often happens because we multitask too much. Our brains are designed to do one thing at a time, but our culture bombards us with information.

When multitasking, we don't lay down memories properly, leading to frustration when searching for misplaced items. With normal cognitive aging, you can usually retrace your steps and find the missing object. However, with severe problems like dementia, you might be unable to retrace your steps, or the object might be in a strange place. Our brains are overloaded due to constant information from news and social media, which consumes brain energy.

BHM: What are some common signs that memory problems might be linked to mental illnesses like depression or anxiety rather than cognitive decline?

Dr. Brangman: Well, there can be some overlap. Some people who are depressed may have trouble remembering information because they just can't put the energy or focus into keeping information straight. Some may have difficulty concentrating and focusing when they are depressed.

Anxiety is quite common in our society. I have patients who watch the news and get anxious about what is happening and how it will impact them. We have a lot to worry about and be nervous about. Some people with severe memory problems have that, too. Again, if you go to your healthcare provider, they can help sort out what is related to general anxiety and what may be an indication of something more serious.

BHM: What are some early signs that a family member might be experiencing severe cognitive decline?

Dr. Brangman: It's essential to educate yourself so you can watch for signs in family members. It can be tricky for someone to realize they have a problem, and other family members often notice it. For example, you may repeat a story within a few short minutes. I have had patients who ask their spouse or partner every 5 minutes for the time of a doctor's appointment. They get the information, but it doesn't stay. There is an inability to hold onto new information. You might see people start to have trouble with driving, getting lost going to places they usually drive to without any problems.

For example, I had a patient who went to the same hairdresser every week for 20 years, and then one day, due to road construction and a detour, she couldn't figure out how to get back on the correct road to her hairdresser. She was hours late. They may start to forget appointments or miss paying bills. Now and then, we all miss a bill, but then we realize it and fix it. But I'm talking about people who may not pay their light bill for months and don't even realize it. They may run out of medications and not get a refill, have problems keeping their house organized, and the mail may pile up. Maybe you notice their clothes are soiled and wearing the same thing repeatedly. It could be very subtle signs.

BHM: Why is early intervention crucial for memory problems, and how can it benefit individuals in the long run?

Dr. Brangman: The impact is significant because not everyone with a memory problem has dementia. Sometimes, it can be related to certain vitamin deficiencies or specific medication side effects. A person may think everybody is making a big fuss over nothing. So, you must have a strategy. Maybe you're working with your doctor or the person's doctor to see how to get them evaluated and get help. So, you want to ensure that your finances are organized and that you know all the treatment options right now. Some medications can maybe slow down the process a little bit.

BHM: What lifestyle changes can we make to protect our brain health and reduce the risk of cognitive decline?

Dr. Brangman: You want to do things to help maintain your brain health throughout your lifespan. Our brains are designed to last for our whole life, but there are things that we do every day that can increase our risk of having severe memory problems as we get older.

Exercise is fantastic for your brain! It boosts chemicals that help nerves grow and stabilize and improves blood circulation around your brain. You don't need to train for a marathon; move more daily.

Diet plays a huge role, especially in our community. Historically, our diets have been high in fat, which might stem from when we had to do heavy physical labor and needed a lot of energy. Now, we need to shift towards healthier eating. Stick to whole foods, not highly processed ones. Reduce fried foods and high-fat meats like red meat. Opt for chicken, fish, lots of vegetables, and fresh fruits. Be mindful of how you cook your veggies and avoid too much fat and salt.

Alcohol is another area to watch. Contrary to popular belief, there's no safe amount of alcohol for your body. It's toxic to nerve cells, especially in your brain. Try to limit alcohol to special occasions and avoid daily drinking. Social connections are healthy. This doesn't mean scrolling through social media. It means face-to-face interactions.

Stress is not suitable for your body or brain either. Exercise, meditation, or spiritual practices can help reduce stress. There is emerging research that shows discrimination and racism take a toll on our bodies, and over time, it can lead to chronic diseases like high blood pressure and diabetes. We must avoid unhealthy coping mechanisms like smoking or drinking. Instead, find healthy ways to unwind, even if it's just a few moments to concentrate on things aside from your current worries. I also want to add that if you have high blood pressure or diabetes, keep them under control. These conditions can increase your risk of dementia. And if you smoke, consider quitting. It's never too late to stop.

BHM: Why is adequate sleep important for brain health, and what happens when we don't get enough sleep?

Dr. Brangman: Sleep is another big issue, and it's necessary for brain health. When we sleep, our brain cleans up all the chemical reactions during the day. Without adequate sleep, this self-cleaning process can't happen. Many of us have responsibilities outside regular working hours, leading to late nights. Society often values hard work and long hours, which isn't good for our health.

Another essential thing to know is that there are no magic sleeping pills. Many advertised on TV either don't work or have harmful side effects on your brain. Similarly, memory supplements are often a waste of money. Instead, establish a routine and turn off screens, smartphones, and TVs at a set time each night to create a quiet, dark environment. Consistency is crucial; your brain needs good sleep every day, and you can't catch up on a week's sleep on the weekend. Some people think a glass of wine before bed will help them sleep, but it disrupts deep restorative sleep. Caffeine is another culprit. While this stimulant enables you to wake up in the morning, it can keep you awake at night. So, be mindful of your caffeine and alcohol intake. Your brain will thank you!

11 Habits Neurologists Do Every Night for Better Brain Health—and How You Can Incorporate Them Too

Well+Good July 12, 2024

https://www.wellandgood.com/nighttime-habits-for-brain-health/

In today's fast-paced world, winding down at the end of the day can feel like a massive challenge. With constant digital distractions (don't feel bad, we've all zoned out to funny animal videos at some point or another), lingering work emails, and the pressures of daily life, finding a moment of calm to end the day

is easier said than done. All this stress means our brains don't work at their best. But nighttime habits for brain health can help.

This got me thinking: What do neurologists—aka, brain docs—do before bed to keep their brains sharp? To find out, I picked the brains (pun intended) of four neurologists to get their top recommendations—from calming rituals to tech-free zones.

Experts In This Article

- <u>Christopher Allen, MD</u>, board-certified sleep medicine physician, medical advisor, and pediatric neurologist at Aeroflow Sleep
- Faye Begeti, PhD, neuroscientist and author of <u>The Phone Fix</u>
- <u>Madhav Thambisetty, MD, PhD</u>, a professor of neurology at <u>Johns Hopkins</u> University and McKnight Brain Research Foundation vice chair and trustee
- Rizwan Bashir, MD, board-certified neurologist based in Atlanta, Georgia

1. Have a consistent sleep schedule

One of the most important things you can do for your brain is have a consistent sleeping schedule, says <u>Christopher Allen, MD</u>, medical advisor and pediatric neurologist at <u>Aeroflow Sleep</u>. He recommends going to bed and waking up at the same time every day, even on weekends (sorry, we're just the messenger!). He also says a consistent sleep schedule strengthens your sleep-wake cycle and enhances deep-sleep phases, improving your quality of sleep.

But how exactly does this process work? It's related to the release of different hormones, according to <u>Faye Begeti</u>, MD, a neurologist, neuroscientist, and author of <u>The Phone Fix: The Brain-Focused Guide</u> to <u>Building Healthy Digital Habits and Breaking Bad Ones</u>.

"Our brain releases hormones like cortisol to make us feel alert and melatonin to make us feel sleepy," Dr. Begeti explains. An erratic sleep schedule can throw these hormones out of sync, making you sleepy or alert at the wrong times, she adds. Dr. Allen also says adequate, high-quality sleep is essential for brain function, memory, and removing brain toxins¹ that accumulate during the day. So to give your brain a chance to reset, make sure your sleep schedule isn't a roller coaster.

Some tips? Set an alarm that reminds you to wind down for bed. And, if possible, avoid hitting the snooze button too many times in the morning. Easier said than done (we know), but your brain will thank you for it.

2. Try 10 minutes of meditation or guided imagery

After a busy day, it can be difficult to keep your mind from racing with stressful or anxious thoughts. This is where mindfulness and relaxation techniques come in—like meditation, deep breathing, or <u>progressive muscle relaxation</u>.

Because stress and anxiety can <u>impair brain function</u>² and lead to sleep disturbances, Dr. Allen recommends incorporating these practices into your nighttime routine. They help lower your heart rate and blood pressure, making it easier to fall (and stay) asleep, per <u>Penn Medicine</u>.

Dr. Allen practices these techniques 10 to 15 minutes before bed, either sitting or lying down comfortably, while focusing on deep, rhythmic breathing and guided imagery. He reminds us that meditation isn't about "emptying" your brain of thoughts—it's about being aware of those thoughts and letting them pass by without judgment.

3. Limit screen time (aka, blue light exposure)

Look, we've all done it. That is, gone to bed with the intention of sleeping, only to spend two hours scrolling down a TikTok rabbit hole. Unfortunately, this is not the best thing you can do for your brain health and sleep quality.

But why is it so bad? According to Dr. Allen, exposure to blue light from screens can suppress the production of melatonin—the hormone that tells your brain it's time to wind down and sleep. Reduced melatonin levels can disrupt sleep patterns, which in turn affects brain function and overall health, per Harvard Health Publishing.

If you can, try to avoid screens (like your phone, laptop, or TV) at least one hour before bedtime, says Dr. Allen. If you can't avoid them, consider blue light filters or glasses.

4. Read some pages before bed

If the idea of curling up with a good book has always been appealing, you'll be happy to know it may have brain benefits, too. According to <u>Mather Hospital</u>, reading can help improve brain and memory function, enhance brain connectivity, and reduce stress.

It can also help your sleep: A December 2021 randomized trial in <u>BMC</u> found participants who read in bed before going to sleep had improved sleep quality compared to those who didn't. Dr. Allen suggests reading a book as part of your bedtime routine to prepare your mind for rest. Even just a few pages can make your eyes start to feel heavy. Opting for a good ol' paperback copy (vs. a digital one) can help cut down on light exposure that keeps you awake, too.

5. Create a cool, dark sleep environment

It's true: The state of your sleeping quarters can have a real effect on how your brain prepares for sleep. According to Dr. Allen, cooler temps and darkness facilitates the brain's sleep process and signals the body to produce melatonin. Meaning, having a cool and dark bedroom may lead to deeper, more restorative sleep (and who doesn't want that?).

Here are some tips to make your bedroom the ideal sleeping environment, per Dr. Allen:

- Keep your bedroom temperature around 65 to 70 degrees Fahrenheit. (If you don't have AC, try propping open some windows and using fans to circulate the air in the room.)
- Put up blackout curtains to keep light out
- Try wearing an eye mask if you still see light
- If you need noise to fall asleep, consider investing in a <u>white noise machine</u>, or download a <u>calming sound app</u> on your phone

And if you're not quite ready to head off to dreamland yet, some people have found <u>adding red light</u> or low, warm lighting to their rooms has helped them relax. (There's not much research on this, but it's harmless if you want to give it a try.)

6. Relax with gentle movement

As you might know, exercise is not only good for your heart and muscles, but also for your brain. In fact, getting regular, moderate-intensity exercise can reduce your risk of cognitive decline as you age, per the Centers for Disease Control and Prevention (CDC). It can also boost memory skills, and encourage production of certain growth factors in the body—including chemicals that affect the growth of new blood vessels in the brain, per Harvard Health Publishing.

And according to Dr. Allen, exercise can increase your time spent in deep sleep, which is critical for brain health and repair.

You might want to reserve that HIIT workout or Pilates session for the morning or afternoon, though. While everyone is different, some people find vigorous exercise too late in the evening to be overstimulating for the brain. This is where light activities like yoga and stretching might be more helpful. Even a post-dinner/pre-bedtime walk around your neighborhood can help your brain relax.

Here are some yoga poses to try before bed:

- Child's pose
- Reclining bound angle pose
- Supported <u>bridge pose</u>
- Supported fish pose
- <u>Savasana</u> (or corpse pose)

7. Do a puzzle (or other brain-boosting hobby)

Picking up new hobbies that exercise your brain, like doing a puzzle, learning a new language, or taking an online class, can improve memory and concentration, says <u>Madhav Thambisetty</u>, <u>MD</u>, <u>PhD</u>, a professor of neurology at <u>Johns Hopkins University</u> and <u>McKnight Brain Research Foundation</u> vice chair and trustee.

We know it's tempting to zone out watching Netflix or scroll on your phone after a long day (in fact, sometimes that's what you need!), but adding new hobbies to your nights can be fun and beneficial for your mind.

And it doesn't have to be anything too complex: a jigsaw puzzle, simple word search, or game of Uno or checkers (family game night, anyone?) can do the trick. As long as you're using your "thinking cap," you're helping your brain. Who knows, you may just find your new favorite hobby in the process.

8. Talk to a friend

Social butterflies, this one's for you. Research shows that greater social engagement and staying connected with friends, family, and your community stimulates the brain and may improve mental well-being, says Dr. Thambisetty.

You may not have the time to socialize *every* night, but carving out a few nights per week/month to meet up with friends or family can improve your mood, relieve stress and anxiety, and curb feelings of loneliness and isolation. Some ideas to consider:

- Meet up with friends for dinner (or host dinner at your place)
- Go on a walk with friends/neighbors/loved ones
- Volunteer
- Join a local social club

9. Eat a handful of nuts and berries for night snack

What you eat at night matters, too. Adding more antioxidant and omega-3-rich foods to your dinners and nighttime snacks can help your brain, says <u>Rizwan Bashir</u>, <u>MD</u>, a board-certified neurologist based in Atlanta, Georgia.

For example, "antioxidants, found in fruits like berries and vegetables like spinach, help protect brain cells from oxidative stress, which can lead to cognitive decline," he says. And "omega-3s, found in salmon and walnuts, support brain function and structure." On the other hand, heavy, high-sugar meals and snacks can disrupt sleep and may lead to inflammation, which can negatively affect brain health, Dr. Bashir adds.

The best way to get more of these nutrients? "Have a light snack in the evening, like a handful of nuts or a small serving of berries, and avoid sugar and heavy foods at least two hours before bedtime to ensure better sleep quality," he says.

10. Sip on some chamomile tea

Winding down with a cozy drink is a must in many night routines. But things with caffeine or alcohol can interfere with sleep patterns and reduce overall sleep quality, which is crucial for brain function and health. Instead, Dr. Bashir recommends replacing your evening espresso or nightcap with a warm cup of herbal tea.

"Herbal teas, like chamomile and peppermint, can promote relaxation and better sleep quality," he explains. Make sure to also have your last caffeinated drink in the early afternoon, to avoid sleep disruption.

11. Choose what you watch wisely

It's not just the *light* of screens that can keep your brain on high alert, but the *type* of content you're watching at night, too, says Dr. Begeti. "Some people will keep their bedroom completely tech-free," she notes, but many people need to watch TV to help them unwind and fall asleep (it distracts their minds from <u>racing thoughts</u> about work or other stressful events).

It's true: the types of shows, movies, or videos you watch can keep your brain alert, stimulated, and even stressed, per the <u>Cleveland Clinic</u>. Here are some tips Dr. Begeti implements and suggests to her patients when choosing what to watch before bed:

- Avoid stressful content before bed to keep your mind calm. This is important because the alertness hormone cortisol is produced when you're stressed, per the <u>Mayo Clinic</u>.
- Steer clear of content (and even social interactions) that are naturally psychologically stimulating. This could be thrillers, murder mysteries, or arguments/debate-style content, which all have potential to be stress-inducing. Try to opt for passive, relaxing content, Dr. Begeti says.
- Avoid watching content or doing activities that cause you to put off your bedtime. This is a
 phenomenon called revenge bedtime procrastination, and it can seriously affect your sleep.

The bottom line

The top nighttime habits for brain health (that neurologists themselves do) can not only help you sleep at night, but can also improve your mood, reduce stress, and improve your memory and cognition over time. But don't feel like you need to incorporate every single one right away.

Everyone's body is different, and what works for one person may not work for another. Ultimately, it's best to stick with healthy habits that work for you, which in turn, help your noggin.

Is there a perfect age to be a leader?

Fortune July 6, 2024

https://fortune.com/well/article/president-age-minimum-leadership/

Much of the discussion on the upcoming U.S. presidential election revolves around issues of age: Donald Trump is 78 and Joe Biden is 81.

That begs a question: Just what is the perfect age to be president—or any high-stakes leader, for that matter?

That's a question that has been well-studied by many scholars over the years, <u>Dr. John Rowe</u>, a <u>Columbia University Mailman School of Public Health</u> professor of health policy and aging, tells *Fortune*.

But that doesn't mean it's easy to pinpoint an ideal number.

"First, cognitive function and behavioral functions include a variety of different specific functions, such as fluency, short-term and long-term memory, problem solving, speed ... and there's a fair amount of variability in the effects of aging on these different functions," he says. "So it's not a monotonic everything-gets-worse-at-the-same-rate."

<u>Michael Snyder, PhD</u>, chair of the <u>genetics department at the Stanford University School of Medicine</u>, agrees that cognitive decline is highly variable and specific to each individual.

"That can go pretty late for a lot of people," he tells *Fortune*. "We all know people in their <u>90s who are still super, super sharp</u>. And, likewise, we know people who hit their 60s who slow down a lot."

Rowe adds that, cognitively, "all 40-year-olds are mostly the same, but when you get up to 80, there are people who are very, very good and some who are not so good."

Loss of cognitive function exceeds after age 65

With increasing age, there is a greater likelihood of "non-normal loss" of cognitive function, he says, either dementia, the prevalence of which is about 10% at 65 and quadruples by one's mid-80s, or mild cognitive impairment (MCI).

Most people with dementia are 65 and older, and the <u>Centers for Disease Control and Prevention</u> estimates nearly 14 million will be diagnosed with <u>Alzheimer's disease</u> by 2060. "Obviously, somebody demented is not qualified to lead a country," Rowe says. "So let's just take that off the table."

But for those with MCI—which occurs in 12–18% of people over 65 and causes behaviors such as forgetfulness and misplacing items—things can get "more interesting."

Among the cognitive functions that decline with advancing age, he says, the easiest to study is speed of functioning. But while a lab test might show impairment, it's usually just 10 milliseconds slower than the younger group, which may not be of much consequence.

For example, someone making a decision about international finance would have more than 10 milliseconds. "So some of the changes may not be functionally important," he notes.

Snyder stresses that people are <u>living longer</u>, <u>healthier lives</u> than they were just a few decades ago. With that, they're <u>retiring later</u>, and new research published in the journal <u>Neurology</u> suggests people who had cognitively stimulating jobs from their 30s through their 60s are at a lower risk of MCI and dementia in their 70s and beyond.

Plus, with age comes wisdom—just one aspect of aging that might, in fact, be beneficial to a leader. The minimum age of a U.S. president is 35, the same age of typical cognitive 'peak'

Some <u>studies</u> have shown that people reach their cognitive "peak" around age 35—the minimum age requirement <u>for U.S. presidents</u>—and that it lasts until some point in their mid-40s, when effects of cognitive aging may start, according to <u>Patricia Boyle, PhD</u>, professor of psychiatry and behavioral sciences at Rush University and Trustee of the McKnight Brain Research Foundation.

"Of course, every person has a different experience as cognitive health can be influenced by genetics, diet, exercise, blood pressure, connectedness with others, and keeping their minds active or inactive," she notes.

But then there are the advantages of aging. Rowe says there are aspects of intelligence, like vocabulary, that improve with age. And that's not all. Studies have repeatedly shown older people have more emotional stability, he adds.

Wisdom that comes with age and experience can't be discounted

Rowe points to a <u>pair of studies</u> from 2010 by <u>Igor Grossmann, PhD</u>, then at the University of Michigan and now director of the <u>Wisdom and Culture Lab</u> at the University of Waterloo in Canada. The research found that people 65–80 were much better at the following aspects of leadership:

- Bringing multiple perspectives to problems
- Allowing for compromise
- Recognizing the limits of current knowledge that's available
- Resolving conflict

•

"Social reasoning improves with age despite a decline in fluid intelligence," the research notes. "The results suggest that it might be advisable to assign older individuals to key social roles involving legal decisions, counseling, and intergroup negotiations."

Rowe also points to a <u>2020 report</u> by <u>Laura Carstansen</u>, <u>PhD</u>, professor of psychology at Stanford University and director of the <u>Stanford Center on Longevity</u>. Her study of 1,000 people aged 18–76 found that, during the early days of the pandemic, older adults reported more resilience than younger people.

Older people were more likely to feel calm, interest, and appreciation, and less likely to feel negative emotions, like anxiety, Carstansen explained <u>in an interview</u> for Stanford on the study, attributing it to experience and a shift in perspective.

"People tend to view older people as frail and helpless, but there is enormous variability among older people, more so than younger people," Carstansen said. "Some older people are quite infirm. As a group, however, older people are extraordinarily resilient and actually doing better than younger people in terms of emotional well-being."

<u>Maddy Dychtwald</u>, author of <u>Ageless Aging</u> who has been a thought leader in the field of aging and longevity for 40 years, says that's a gift of aging that cannot be overlooked.

If you feel more positive about life and are happier, "you bring that perspective to your leadership game," she explains.

Rowe says it's his view that if older people are cognitively intact, they can be expected to have more emotional stability, better problem-solving skills, and better negotiating skills.

But he also acknowledges he would not appoint a 95-year-old as president because the likelihood of serious adverse medical issues increases with advancing age.

So would he count an elderly person out altogether?

Rowe doesn't think it's fair, given all the obvious exceptions. And different institutions have different leadership needs at different times, he adds, highlighting Winston Churchill, who became the U.K. prime minister at age 66. "He was perfect for World War II, but when the war was over they voted him out of office, because the problems the country had to solve were not the problems that Winston Churchill could solve."

Dychtwald points to many good examples of older leaders—including Warren Buffett, Pope Francis, and Nelson Mandela, who came into office at age 75. "I think they're older and wiser and have the maturity to make decisions based on experiences," she says.

Regarding the current conversation around presidents and age, she thinks people are looking at it in a myopic way, noting that her book examines three different kinds of aging—physical, psychological, and, of course, chronological.

"That's what people seem really zeroed in on right now," she says. "I'm 74 and I don't think that defines me at all. In all modesty, I feel like I'm at the top of my game."

Summer bump of COVID increasing across most of U.S. | Eye on Health

CBS Newspath – Eyes on Health July 5, 2024

https://www.cbsnews.com/newyork/video/summer-bump-of-covid-increasing-across-most-of-u-s-eye-on-health/

Cases of COVID are on the rise; One woman's struggle to stay alive as she waits for a transplant; More than 300 drug shortages; A disco that helps kids with complex disabilities. Michael George reports.

[Click link for full video]

What's happening inside an 80-year-old brain?

Fortune

July 3, 2024

https://fortune.com/well/article/80-year-old-brain-aging-memory-t/

In the wake of last week's presidential debate between the 78- and 81-year-old candidates—and the impression among some that <u>President Joe Biden</u> looked "<u>old and frail</u>," with at least <u>one public call</u> for cognitive testing—much of America has had age on the brain.

But what *does* age actually do to the brain? *Fortune* consulted with experts on aging to get a clearer picture.

The incredible shrinking cortex

"The <u>brain undergoes many changes</u> associated with aging, and one of them is the shrinkage of what we call the outer layer of the brain, or the cortex," Emily Rogalski, professor of neurology at the University of Chicago and director of its <u>Healthy Aging & Alzheimer's Research Care Center</u>, tells Fortune.

The cortex, she explains, is like the bark on a tree, and is the layer where brain cells live. "It's really important to our thinking and our communication," she says, and its shrinking tends to occur in areas related to memory, and tends to be correlated with changes in memory—which is at its peak performance, believe it or not, when we are just in our 20s or early 30s.

Also vulnerable as a result are skills of attention and executive functioning. "And all of these things are interrelated in a way, because you need to have good attention in order to remember something," Rogalski says. "Our cognitive functions don't just sit on little islands of, here's memory and here's attention, and there's no interaction. It's a complex system."

Age-related memory loss is normal

22 MBRF Brain Works: Optimize Your Brain Span Campaign Coverage Report

A recent <u>McKnight Brain Research Foundation survey</u>, points out Patricia Boyle, professor of psychiatry and behavioral sciences at Rush University and a neuropsychologist with the <u>Rush Alzheimer's Disease</u> <u>Center</u>, found that 87% of Americans are concerned about experiencing age-related memory loss and a decline in brain function as they grow older.

"But, what many don't know is that age-related memory loss is not always a sign of a serious cognitive problem," Boyle, also Trustee of the McKnight Brain Research Foundation, tells Fortune. "Most people do not understand that <u>age-related memory loss</u> is usually associated with mild forgetfulness and is a normal part of brain aging and not necessarily a sign of a serious memory problem."

Some signs of normal aging, she says, include:

- Making a bad decision occasionally
- Missing a monthly payment
- Losing track of time
- Not being able to find the right words
- Losing things around the house

"As we get older, it is normal to see signs of cognitive aging just like it's normal to see the physical signs of your body aging, like moving slower or more aches and pains," Boyle says.

Brain shrinkage does accelerate when you're older

Brain volume continues to decrease as we age—including the <u>frontal lobe and hippocampus</u>, the areas responsible for cognitive functions—with the rate of shrinkage increasing by around age 60.

"With aging, we increase our risk for many diseases just by getting older," which makes sense, Rogalski explains, if you think about wear and tear and the increasing vulnerabilities of our body—and the fact that, unlike with hips or knees, there are no brain replacements.

Aging brings the possibility of one of two types of atypical loss of cognitive function, notes <u>Dr. John</u>

<u>Rowe</u>, a Columbia University Mailman School of Public Health professor of health policy and aging:
dementia and mild cognitive impairment (MCI), "an age-related change that occurs in between 12% and
18% of older people, over 65," he says. "And what is reflected in day-to-day living is that people become
more forgetful, they lose things, they miss appointments, and this can have an impact on your day-today function." MCI, he adds, progresses to dementia in about 10% of people per year.

Some older adults are performing at high levels

Rogalski stresses that an important part of looking at aging is to not just dwell on the things that go wrong, but new opportunities. "A huge challenge with aging is actually the stigma associated with aging and the expectations that we put on individuals as they age—that there is no trajectory but down—and that we take away activities and responsibilities that people can do."

And that's a problem in some new, luxury assisted-living facilities, she says, which provide services from room service to laundry folding. "It turns out that many of these daily activities that we do, such as washing our dishes or just moving around, are actually really good for keeping those muscles strong." Similarly, it's important to keep our <u>brain engaged and active</u>, which can come in many forms. "It can come from staying socially connected. It can come from learning something new. But we want to think about exercising our brain and using our body, including thinking about ways to practice our fine motor skills ... and if we have those things taken away and done for us, we're not necessarily doing ourselves a service."

Still, stresses Rowe, "There's tremendous variability. And what we're seeing is an increasing proportion of the older population that's performing at very high levels who are kind of <u>superagers</u>."

Enter the superagers...

Rogalski, through her research as part of the ongoing, multidisciplinary <u>SuperAging Research Initiative</u>, is looking at evidence from biologic, family history and lifestyle perspectives in order to learn what makes certain people seem to barely age, at least cognitively.

"What we've seen is that superagers, biologically, seem to look different. Their brains actually look more like 50 to 60 year olds than they do like 80 year olds," she says, adding that their rate of shrinkage is slower than that of average 80-year-olds.

"So they seem to be resisting that thinning of the outer layer of the brain, or the cortex, and when we measure it using really precise tools, we see that the <u>superager brains</u> actually don't show any shrinkage relative to the 50- to 60-year-olds," she says. In fact, there's a region of the brain called the anterior cingulate cortex (ACC)—which has a role in motivation, decision-making, and emotional and situational cues—that's thicker in the superagers than it is in the 50- to 60-year-olds. They've also discovered an abundance of a neuron called von Economo neurons, helping scientists to have a "biologic pathway" for understanding superagers.

Years ago, Rowe tells Fortune, he ran a research network that studied "successful aging" at Harvard University. In one study, he followed a group of 75-year-olds for six years, testing them physically and cognitively over that period. "At the end, 25% had not changed, 50% had gotten much worse and the other kind of stayed in the middle," says Rowe, noting that those who did the best, the superagers, shared certain lifestyle characteristics, including not living alone, educational attainment, and financial security.

It underscores how, were you to gather a bunch of 80-year-olds today to assess their cognitively abilities, you'd get mixed results: Probably a couple with dementia, a superager or two, and others who are in between. That's not only due to people's brains changing at different rates, but also the difference in lifestyles, genetics, and other factors.

Bottom line, says Rowe, who points out that he himself is 80, "I don't think we can talk about an average with any meaningful validity when we are trying to reduce that to a decision about a person. I don't think we can ascribe an average of an 80-year-old to an individual."

Working with your patients to promote healthy brain aging

Kevin MD June 29, 2024

https://www.kevinmd.com/2024/06/working-with-your-patients-to-promote-healthy-brain-aging.html

As a behavioral neurologist and professor in the departments of neurology, psychiatry, and physical medicine and rehabilitation at the University of Pennsylvania, my research focuses on using noninvasive brain stimulation technologies to help people with cognitive problems due to neurological disorders. I also study human cognition with the goal of better understanding how different parts of the brain work in order to help people preserve their brain health and cognition later in life.

Many people today think cognitive decline is an inevitable part of aging. In fact, a recent consumer survey conducted by the McKnight Brain Research Foundation (MBRF) found that 87 percent of Americans are concerned about age-related memory loss and declining brain function as they grow older.

This sentiment is understandable—we rely on our memory to guide us through everyday life, and the thought of experiencing memory loss with age is deeply distressing. Even as physicians, we can empathize with these fears, especially as conversations surrounding diseases like Alzheimer's and other causes of dementia dominate the news.

While the concerns are natural, it's imperative for people to understand that cognitive aging is a natural part of the aging process and often doesn't signify anything more serious. Just like the body, the brain also ages. The process starts at birth and continues through the lifespan.

As part of the MBRF's Brain Works – Optimize Your Brain Span campaign, we want to help people understand that momentary lapses in memory, such as forgetting a name or misplacing an object, happen to everyone from time to time. We accept that there are natural differences in athletic abilities between a 70-year-old and a 30-year-old, yet normal signs of brain aging often evoke fear of cognitive decline.

Concerningly, only 32 percent of Americans surveyed by the MBRF believe they can take action to help control their brain health as they age, compared to 68 percent who believe they have greater control over their physical health. We also want to help individuals understand that while certain factors affecting how the brain ages may be beyond our control, there are steps we can take to help maintain our cognitive health with age.

To advance this message, I encourage physicians to start talking with their patients from an early age about the actions they can take to promote healthy brain aging. From physical activity to not smoking or drinking excessively, the things you can do to protect your brain health really should be a lifelong practice.

There's also a strong correlation between physical health and cognitive well-being, particularly in relation to heart health. Prioritizing heart health through actions like maintaining a healthy weight, engaging in regular cardiovascular exercise, and managing blood pressure also contributes to brain health. This understanding can serve as a motivator for patients to embrace healthy habits that will benefit both their physical and cognitive well-being.

I also encourage physicians to discuss other preventive actions that can help reduce cognitive decline, like staying socially engaged, reading or doing puzzles to keep the brain active, and managing stress. These actions also are not exclusive to older individuals; they can be beneficial to all age groups.

As physicians, we need to start treating brain health with the same importance as physical health. Just as we discuss how certain foods promote gut health or the significance of vitamin D for our bones, educating patients on the lifestyle factors that can help them maintain their brain health is equally essential. Not only can this education help alleviate the fear our patients have about age-related memory loss, Alzheimer's disease, and dementia, but it's also empowering to know there are things we can do to help preserve our cognitive well-being.

There are a lot of great resources to help physicians and patients learn more about this topic, including the McKnight Brain Research Foundation's "Brain Works- Optimize Your Brain Span" campaign. The initiative aims to educate the public about cognitive aging and offers tips and resources to help people maintain their brain health. While we can't prevent our bodies or our brains from aging, there is hope that with a proactive approach, we can maintain cognitive health at any stage of life, allowing people to age independently and enjoy the benefits of a fuller life.

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Media Terms

Media Impressions: Cumulative number of people reached across all placements

Placements: Total number of campaign mentions

Online and Social Media Terms

Views: Number of times the online content was viewed

Engagements: Number of shares, likes and comments on the online content

Social Impressions: Number of times our social content was seen, including multiple views from individual users

Average Follower Increase: Percentage increase in followers across the Foundation's social media channels (Facebook, Linked In and Twitter)

Clicks: Number of users who actively engaged with a link

Webpage Views: Total number of pages loaded by users on the website, including when users load the same page of the website.

Membership & Governance Committee Activity Timeline 2021 to 2024

Updated September 30, 2024

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
"identify, recruit and recommend candidates for appointment or reelection of current Trustees, consistent with applicable	Determine ideal size of Board	Size of 7 Trustees, plus 1 Corporate Trustee and 1 Chair Emeritus was established as goal (Maximum 11 Trustees)	June 27, 2019	DONE
qualifications"	Update/Revise Orientation Packet for New Trustees	The orientation packet required the addition of new material and updated information	October 5, 2020 June 2023	Completed and presented to new Trustees and posted on the secure site
	Provide Ongoing Updates to the Orientation Packet as needed	Appointments of New Trustees and the new Executive Director necessitated updating the orientation material	January 2022 August 2022 June 2023	DONE DONE DONE
	Review appointment and retirement dates	Target for Identifying New Trustees to Maintain Board Size of 7 (or more): 1 or 2 in 2020 1 or 2 in 2021 2 in 2023	DONE (2)	New Appointments to the Board of Trustees: Dr. Patricia Boyle September 2020 Dr. Allison Brashear September 2020
			DONE (1)	Dr. John Brady December 2021

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
		No targets have been set for 2024 or 2025	DONE (2)	Dr. Sharon Brangman July 2023 Dr. Roy Hamilton July 2023
	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 Summer 2021 Ongoing	DONE DONE
		Discussed Expertise Needed to round out the Board	Oct 11,2022	DONE
		Trustees approved the appointment of two new candidates in 2023: one with expertise in Behavioral Neurology and one in Internal	October 27, 2022	DONE
		Medicine with a specialty in Geriatrics.	January/February 2023	DONE
		Additional Areas of expertise needed – i.e. a public member?	At its March 20, 2024 meeting, the board approved the committee's recommendation not	

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
			to add a public member at this time.	
"identify, recruit, and recommend" Continued	Develop Process for Recruiting, Vetting, and Recommending Candidates	Committee reviewed and edited	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. Document Approved
"oversee annual Board self-evaluations"	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
		Self-Assessment form distributed to Trustees and Returned to Corporate Trustee	Dec. 2021 January 2022 Dec. 2022 Dec. 2023	There were no changes to the form from 2021
"make recommendations on structure, charters, policies, process and practices"	Align policy with practice for length of service	Board approved change in policy to allow a "maximum of 9 years" service The Board approved an amendment to the trustee terms of service at its March 20, 2024 meeting.	March 20, 2024	The amendment allows for an extended term of service if desired and

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
				approved by the board in unique circumstances.
"structure, charters, policies, process" Continued	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	July 31, 2019	DONE
	Developed 'Qualifications for Advisory Committee Members'	Trustees approved	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 reviewed Summary of Recruitment, Election and Re-election. 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 was recognized with gift and proclamation Dr. Robert Wah was recognized with gift and proclamation

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
			May 3, 2023	Dr. Richard Isaacson was recognized with a proclamation
	Review concept of developing an	Recommendation to hire a Sr.	Feb. 22, 2022	
	Education Working Group vs.	Advisor, Education, and to	March 13, 2022	
	establishing an Education	follow the Communications		
	Committee Subcommittee	model with a working group,	March 23, 2022	
		was shared with the		
		Board of Trustees.		
		Conversation has been paused		

Finance Committee Activity Timeline For the One-Year Period July 1, 2023, to June 30, 2024

Updated September 30, 2024

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
"shall coordinate the Board of Trustee's Financial Oversight	Review Investments and Investment Policy	Asset Allocation Review (Mike Hill)	August 22, 2024	completed
Responsibilities (through monitoring of)financial		Efficient Frontier Analysis (Shelly Simpson)	August 22, 2024	completed
management, assets, and risks"		Monte Carlo Simulation		upon recommendation by Truist or request of the MBRF
		Investment Performance Review	August 22, 2024	completed
		Investment Performance & Asset Allocation Review (Mike Hill)	October 14, 2024	
		Investment Performance & Asset Allocation Review (Mike Hill)	February 2025	
		Investment Performance & Asset Allocation Review (Mike Hill)	May 14, 2025	

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
Financial Oversight "Ensure Compliance with Federal, State and other Financial Reporting Requirements"	Assess and Maintain IRS Required Distribution Amount	Minimum Distribution Calculation Report	August 22, 2024 October 14, 2024 February 2025 May 14, 2025	completed
	Compensation Review	Examples Presented for Comparison	May 2025	
	Tax Filing	Legal Counsel for the MBRF reviews the completed tax form before filing		7/1/2022 – 6/30/2023 was filed on 5/14/2024
	Insurance	MBRF carries D & O Insurance	Renewed annually	Premium paid by Corporate Trustee
Financial Oversight " planning, monitoring and evaluation offunding for the McKnight Brain Institutes and the MBRF Operations"	Monitor Current and Outstanding Gifts and Grants	Gifts and Grants Report	August 22, 2024 October 14, 2024 February 2025 May 14, 2025	completed
·		Travel Award Program Report	August 22, 2024 October 14, 2024 February 2025 May 14, 2025	completed
	Review MBRF Operating Expenses	Year to Date Operating Expenses Report	August 22, 2024 October 14, 2024 February 2025 May 14, 2025	completed
		Review & Approve Annual Operating Budget	May 14, 2025	

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
Financial Reviewof reports and requests submitted to the MBRF by the MBIs and Other Partners	Review Financial Reports Submitted with the MBI's Annual Reports		January 2025	
	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	
"ensure adequacy of MBRF internal controls and compliance with conflict of interest policy	Review Signing Authority	MBRF policy is minimum of 2 individuals with signing authority	July 12, 2024	Completed Signers are good for 5 years unless there is a change in the signers for the account
	Conflict of Interest	Conflict of Interest Policy signed by all new and re-elected Trustees and by all Advisory Members of MBRF Committees	ONGOING	

Education Committee Activity Timeline For the Years 2019 – 2024

Updated October 1, 2024

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
"shall develop information and resources (for the public and scientific community) on prevalence and impact of age-related cognitive decline and memory	Work toward alignment of messages across the MBIs and MBRF	Key Messages Were Approved and Distributed in Spring 2019	July 1 – ONGOING ONGOING	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. The committee reviews for
1055	content and quality of educational content/statements developed for or posted on the website		ONGOING	accuracy, soundness, and alignment with the MBRF mission and current scientific understanding and clinical practice. (The Research Committee also reviews content before making public.)
	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	The committee approved an outline of resources for the PCP Area on McKnightBrain.org The committee approved content for the Brain Works Microsite, including items featured in the Cognitive Aging Resources,	DONE June 30, 2020 DONE Initial content approved between November 2023 and	

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
		Resource Hub, and Hot Topics sections.	ONGOING- Updated articles for the Hot Topics section were approved in September 2024. Dr. Brady participated in an interview with Healthcasts Media on Wednesday, October 2 to educate HCPs on the importance of talking to their patients about brain health and cognitive aging. Dr. Hamilton authored a bylined article and participated in a podcast interview with Kevin MD — a leading online platform where physicians, advanced practitioners, nurses, medical students,	

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
			and patients share insights and advice.	
And" assist those living with age-related cognitive decline and memory loss"	Website content developed for individuals, families and caregivers of those with agerelated cognitive decline and memory loss	Add links to approved articles as appropriate. Development of content is on hold until PCP content is identified and developed. Cognitive Aging Resources section of the Brain Works microsite includes downloadable guides on "How to Talk to Your Doctor About Brain Health" and "What To Do if a Loved One is Experiencing Signs of Memory	Winter/Spring 2022 March 2024	
Inform "how to better maintain brain health"	Website content developed for individuals on how to protect, maintain brain health	Loss" Add links to approved publications and articles	July 1 – ONGOING	Committee Reviews before Posting
"shall review all educational materials:	Brochure developed to raise awareness and promote the MBIs and MBRF to individuals, partners, donors Brain Works Microsite developed	Review of Brochure was conducted and committee concurs with suggestions by Communications Committee. Microsite launched in March 2024	DONE Posted on website January 2021 ONGOING- Education	
	to feature educational materials on Brain Health and Cognitive Aging.		Committee reviews and approves content for the Brain Works microsite	

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
			Resource Hub and Hot Topics sections New articles to feature in the Hot Topics section of the microsite were approved in September.	
"Identify educational opportunities and implement activitiesto encourage MBIsinspire	12 th Annual Inter-institutional Meeting	2020 Meeting was canceled 2021 Meeting will be virtual	April 28 & 29 2021	DONE
commitment and shared vision"	13 th Annual Inter-institutional at UA	Meeting was in-person	Mar 23-25, 2022	
	14 th Annual Inter-Institutional Meeting, UAB	Meeting was in-person	May 3-5, 2023	
	McKnight Scholars Will be invited to next Inter- institutional Meeting 15 th Annual Inter-Institutional Meeting, UF	Innovator Awardees attend 2023 (Dr. Tracy) and 2024 Meetings (Cr. Cai)	May 15-17, 2024	Will help promote scholarship and engage scholars
	McKnight Scholars Dinner at AAN	2020 Toronto, AAN Meeting was canceled		Held over - MBRF approved funding of \$4,000 to cover travel, hotel for the night, dinner, UM staff travel
		2021 Virtual AAN Meeting	April 17 – 22, 2021	

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
		2023 AAN Meeting	April 24, 2023	Hosted by Dr. Thambisetty
		2024 AAN Meeting	April 15, 2024	Co-hosted by Drs. Brashear and Hamilton
	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.	Annual Lectureship established honoring the Founding Director of the Evelyn F. and William L. McKnight Brain Institute at the University of Florida
			2024 Lecture: February 2, 2024 – Dr. Adam Gazzaley, M.D. Ph.D.	Lecture was part of the UF 25 th Anniversary Celebration Event
"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"	IOM Study	"Public Health Dimensions of Cognitive Health" was released by the IOM (see attached document) MBRF has initiated and implemented several of the IOM recommendations.	DONE April 14, 2015 ONGOING	Study funded by MBRF and federal agencies (NIA,
"work to elevate the importance of age-related cognitive decline		The committee approved content for the Brain Works Microsite, including items featured in the Cognitive Aging Resources,	ONGOING July 17, 2024	

Duty (from Committee Charter)	Activity/Action	Outcome	Date	Comments
and memory loss on the national agenda" continued		Resource Hub, and Hot Topics sections. The campaign is raising awareness on a national level for the importance of brain health.		Contact information to contacts at AARP; AAN; and the Milken Institute, as well as Grantmakers in Aging has been transferred to Ms. Cianciotto.
		MBRF Membership in collaborative groups for advocacy and education related to agerelated cognitive decline and memory loss	September 2024	Dr. Sharon Brangman was appointed the MBRF representative to the Brain Health Action coalition and attended her first committee meeting.