iADC Reflections

Indiana Alzheimer Disease Center

Summer July 2014

INDIANA ALZHEIMER DISEASE CENTER NEWSLETTER
INDIANA UNIVERSITY SCHOOL OF MEDICINE

2014 Volume 23 Issue 1

Music & Memory

.. Brandy R. Matthews, MD & Mary Guerriero Austrom, PhD

It is very common for people to hear a song and be transported back to a time when the song had special significance. While listening to music from childhood, functional MRI (fMRI) images of volunteers' brains showed significant activity in the medial prefrontal cortex, a region of the brain associated with memories of personal information or history. In addition to stimulating autobiographical memories, music also seems to help improve memory storage and retrieval in general. For example, when patients with mild Alzheimer's disease (AD), an illness affecting episodic memory, were compared with normal age-matched controls on their recall of personal memories from various stages of life in silence and with Vivaldi's *Spring* being played in the background, the mild AD group demonstrated marked improvements in the ability to recall



James J. Pellerite (native American flute) and Karen Moratz, (flute) (not pictured)

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personal memories in the music condition, with recall

of recent memories showing the greatest improvement. Conflicting data regarding memory tasks specific to music and AD is difficult to generalize. Some case reports describe individuals who have severe memory impairments based on neuropsychological test scores with retained ability to develop new memories of musical passages. Other studies report that AD patients perform just as poorly on musical memory tasks as on verbal memory tasks.

Formal musical training has been shown to increase the functional plasticity or flexibility of the hippocampus, which is the area in the brain responsible for storing and retrieving memories and is especially vulnerable to AD. Compared to non-musicians using fMRI, musicians have increased activity in the left



Charles Webb (piano), Esther Kim (violin) and Joseph Kaizer (cello)

anterior hippocampus when detecting novel changes in repeated auditory patterns. Similarly, musical academy students scanned before and

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Music and Memory

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after two semesters of intensive musical training, demonstrated increased activity in the hippocampus after the training. Using a long-term semantic memory (information memory) task in musicians compared to non-musicians, musicians showed increased fMRI activity in the hippocampi as well as the medial frontal gyrus and superior temporal areas on both sides of the brain. Musicians reported a much higher rate of personal memories during the semantic memory task. These results



James J. Pellerite (flute) and Joseph Kaizer (cello)

suggest that musical training may increase flexibility in the hippocampus that increases access to both semantic and episodic memory systems simultaneously (Grant and Matthews, 2014).

A special concert event, *Music & Memory* was held Sunday, May 4, 2014 at Goodman Hall to celebrate the pioneering AD research at Indiana University. The event was held to recognize and celebrate the establishment of the Helen Mae Pellerite Alzheimer's Research Fund and the hope that research inspires for patients and families everywhere. Helen Mae Kraut Pellerite (1926-2013) pursued a singing career from an early age. It was while performing in the orchestra pit at the Mascagni Opera Guild in Manhattan that Jim Pellerite noticed her beauty, which lit up any stage with her glowing personality and infectious smile. After becoming Mrs. Pellerite, she left the Opera, but she continued her singing career with local symphonic choirs and dedicated her superlative qualities to her family and living in service to others. She is missed.

After a brief welcome from Dr. Nicholas Barbaro, Department of Neurological Surgery Medical Director, Dr. Andrew Saykin, IADC Director, and Dr. Martin Farlow, Leader of IADC Clinical Core, provided an update on IADC research and programs. The audience then enjoyed a concert of the Native American flute, flute, violin, piano, cello and voice from world renowned performers. Some of the musical selections included Native Scenes, Etudes in Wood, Malaguena; Colors Fall; The Swan; Obal, din lou Limouzi, Lou Boussu, A Little Bit In Love. Included in the selections was the world premiere of Colors Fall composed by James DeMars. Michael Mauldin composed Spring Dance for James Pellerite and dedicated it to his wife Helen Mae Pellerite, whom he had met on several occasions.



Sylvia McNair, vocalist, and Charles Webb (piano)

The IADC thanks Mr. Pellerite and his musician friends, Meridian Music, and Jacobs School of Music at IU for organizing and sharing this concert. We are very honored by the establishment of the Helen Mae Pellerite Alzheimer's Research Fund. For information on how to make a gift, honor a loved one or make a bequest, please visit iadc.iupui.edu and click on "Give Now" or contact: Lee Vriesman, Director of Development, Neuroscience by email lvriesma@iu.edu or phone 317-278-4142.

Reference: Grant IM, Matthews BR. The Musical Brain. Encyclopedia of the Neurological Sciences 2nd edition Chapter 459. Editors: Robert Daroff & Michael Aminoff. Elsevier, Oxford, UK. 2014

Top Ten Outdoor Spaces to Visit in Indianapolis

This is the perfect time to enjoy the outdoors. *Visit Indy* has provided a list of the Top 10 Outdoor Spaces to visit in Indianapolis.

Canal Walk: Tour this unique Indianapolis space, which stretches from White River State Park to Indianapolis' near north side, on foot, bike, boat or Segway.

Military Park: Originally a Civil War encampment, Military Park is home to Indianapolis' biggest festivals including Rib Fest, Irish Fest and the Eiteljorg Museum's annual Indian Market.

Eagle Creek Park: With 3,900 acres of land and a 1,400 acre lake, Eagle Creek Park & Marina is the 6th largest city park in the U.S. and is a hotbed for rowing, birding and cycling.

Monument Circle: As the geographic heart of the city, "the Circle" is the perfect spot of enjoy lunch or get a picture taken.

100 Acres: Virginia B. Fairbanks Art & Nature Park: Located on the grounds of the Indianapolis Museum of Art, this kid-friendly green space connects contemporary art and an untouched landscape.

Monon Trail: Take in Indianapolis' neighborhoods while along this popular rail-trail that stretches from the northern suburb of Westfield to downtown's Mass Ave Cultural District (where it connects to the Indianapolis Cultural Trail.

Indiana War Memorial Plaza: Relax on a sunny day or walk your dog in this urban green space that blankets the space between the Central Library and the Indiana War Memorial.

Fort Harrison State Park & Golf Resort: Between picnics or fishing, visitors can tour the park's military past at the Prisoners of War Camp, Citizen's Military Training Camp and Civilian Conservation Corps camp. Or enjoy a round of golf on the Pete Dye-designed 18-hole course.

White River Gardens: The Indianapolis Zoo's botanical gardens offer over one thousand varieties of natural beauty and are home to a stunning array of butterflies every spring.

Garfield Conservatory and Sunken Gardens: With 10,000 square feet of tropical plants that are in full bloom year-round in the conservatory and three acres of classic, European formal garden, Garfield Park is a must-see for any green thumb.

Remember to drink plenty of water and use sunscreen! Enjoy the outdoors.



visitindy.com/top-ten-outdoor-spaces

Hear us ROAR!

The IADC is partnering with local and national agencies to help recruit older adults into research.

In every issue of this newsletter, we highlight research studies that are enrolling participants (see pages 6-8). Successfully enrolling patients into clinical trials and other studies is critical to reaching one of the goals of the National Plan to Address Alzheimer's Disease, that is, to prevent and effectively treat Alzheimer's disease (AD) by 2025. Tens of thousands of participants of all kinds will be needed for research trials focused on delaying, treating, or preventing this growing public health problem.

Several national agencies including the National Institute on Aging (NIA), the Administration for Community Living (ACL), and the Centers for Disease Control and Prevention (CDC) are working on increasing <u>clinical-trials participation</u> by bringing their aging, public health, research networks, and resources together. This effort, called "Recruiting Older Adults into Research," or **ROAR**, seeks to raise awareness of and engagement in research among older adults, connect them with opportunities to participate in research, and ultimately, expand the pool of older adults willing to participate in clinical studies and trials for AD and other health conditions.

The initial focus is to get more participants engaged in AD research. All of the agencies are interested in AD as it is recognized as urgently needing a disease altering treatment or prevention strategy. With the rapidly aging population, the prevalence of AD is expected to double by 2050, with tremendous consequences to everyone touched by it. The ROAR team is developing a set of educational materials with simple, persuasive messages about making a difference and helping future generations. Throughout the summer of 2014, the team will work with service providers and public-health networks in several local areas across the country to try out the messages and materials and further refine them. These trusted local sources—senior centers, caregiver support groups, home care programs, public health clinics, and other organizations—reach millions of older adults, including people from diverse racial and ethnic backgrounds, low-income seniors, and rural residents, all of whom are underrepresented in clinical research. The Indiana Alzheimer Disease Center is one of the partners in Indiana working on testing the initial materials. So if you are at a health fair or caregiver program and get asked for your opinion about research and recruitment materials, please help us by completing the survey and/or answering questions. You can help us ROAR.

To create an easy step that can be taken by seniors anywhere, the team is collaborating with existing resources and registries such as ResearchMatch, a free, national recruitment registry funded in part by the National Institutes of Health (NIH); the Alzheimer's Prevention Registry, part of the NIH-supported Alzheimer's Prevention Initiative; and the Alzheimer's Association's TrialMatch service. The goal is to significantly increase enrollment of older adults in these registries, allowing for more targeted invitations to participate in current and future studies.

Adapted from the NIA's Alzheimer's Disease Education and Referral Center enewsletter, *Connections*, posted May 16, 2014. www.nia.nih.gov/alzheimers/features/roar-hhs-agencies-seek-recruit-older-adults-research

Save the Dates



Link to our Current Events and calendar:

iadc.iupui.edu/current-events/



Join us for the
8th Annual Martin Family Alzheimer's Disease
Caregiver Symposium
Mark your calendars and
SAVETHE DATE
Friday, September 12, 2014
Goodman Hall Auditorium

Caregiving and Dementia: Decisions and Transitions is designed for those who care for people with dementia and related neurodegenerative disorders. The program will be beneficial to both family caregivers and professional care providers. The symposium will focus on some of the difficult decisions that families and providers must make while caring for people with these disorders across the course of the disease. In addition, sensitive issues such as intimacy and dementia, genetic testing and legal/financial issues for caregivers to consider will also be presented in smaller breakout sessions.

OBJECTIVES:

At the conclusion of this program, participants will be able to:

- 1. Identify the stressors and challenges of caregiving over the course of the disease.
- 2. Understand the complexities of decision making. Recognize transition points in care, such as when to take away the car keys, when to ask for in-home help, when to consider long term care, and when to call hospice.
- 3. Learn how and when to make tough decisions.

The symposium begins at 10:15 am with a brief update of the Indiana Alzheimer Disease Center followed by the Keynote at 11 am titled —*Tough Decisions: How and When to Make Them.*

Lunch will be provided at noon with your choice of one of the three breakout sessions following:

- 1. Intimacy and Dementia (For spouses or partners of persons with dementia)
- 2. Genetic Testing and Dementia: To Test or Not to Test
- 3. Legal and Financial Planning and Dementia

For more information about the symposium, speakers and registration visit our website:

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IADC Current Studies on AD and Related Disorders Research Enrolling Participants

Who is needed?	For which study?	Length of study?	Please contact
To participate, volunteers must have a diagnosis of one of the following: Probable Alzheimer's disease Mixed Dementia Mild Cognitive Impairment Vascular Dementia Lewy Body Disease Parkinson Dementia Frontotemporal Dementia	Research Registry/ database used to capture data for self- referred volunteers and established clinic patients interested in participating in clinical research and drug studies, now and in the future.	 Information regarding research projects will be disclosed prior to enrollment in specific research studies. Length varies by individual study. 	Christina Brown 317-963-7426 chbrown@iupui.edu
Participants need to: • Be a member of family with 3 or more living siblings diagnosed with probable AD.	The Genetics of Late Onset Alzheimer's Disease (LOAD) Study	 Longitudinal; over a lifetime or as long as person is willing. Visits include: neurological exam, cognitive evaluation, informant interview and a blood sample for DNA at first visit. 	National Cell Repository for AD I-800-526-2839 <u>alzstudy@iupui.edu</u>
Participants need to: • Have mild to moderate memory problems; • Be 60 years of age +; • Be right-handed; • Have completed at least 8 th grade.	Healthy Older Adults Study of Memory Study includes brain scans, blood draw, eye exam and cognitive testing	 Longitudinal; over a lifetime or as long as person is willing; Assessments are 18 months apart; Each visit is 10.5 hours and will be scheduled over 2 days; Compensation for time and effort provided. 	Eileen Tallman 317-278-3121 etallman@iupui.edu
Participants need to: • Be part of a family with two or more living members with AD or symptoms of serious memory loss; • Be eager to involve new families from all locations.	The National Cell Repository for Alzheimer's Disease (NCRAD)	 Longitudinal; over a lifetime or as long as person is willing. Visits are done by telephone or mail. 	National Cell Repository for AD I-800-526-2839 alzstudy@iupui.edu
Participants need to: • Be 50-90 years of age; • AChEls and/or memantine allowed if stable dose for at least 12 weeks prior to baseline; • Have a BMI < 35 at screening; • Have a MMSE 22+.	Eisai — A placebo- controlled, double-blind, parallel-group, dose regimen-finding study to evaluate safety, tolerability, and efficacy of BAN2401 in subjects with early AD, defined as mild cognitive impairment due to AD.	 Up to 41 months Average visit 3-6 hours Compensation: varies from \$50 to \$100 visit; up to \$2600 maximum. 	Lyla Christner 317-963-7411 lychrist@iupui.edu or Christina Brown 317-963-7426 chbrown@iupui.edu

IADC Current Studies on AD and Related Disorders Research Enrolling Participants

(Continued from page 6)

Who is needed?	For which study?	Length of study?	Please contact
Participants need to: Be aged 60 years of age +; Have a diagnosis of mild cognitive impairment; Have support by an adult family member or friend; Both be able to read and speak English; Both participate in the study.	Daily Enhancement of Meaningful Activity (DEMA).	 3-month skill-building and health promotion program; 6 biweekly nurse sessions; First 2 are face-to-face sessions at the Neuroscience Center; Last 4 are telephone sessions; Sessions are 30-60 minutes for 3 months; 3 telephone interviews before, after and 3 months after nurse sessions approximately 1.5 hours each. Compensation: Up to \$60 in gift cards Parking passes provided for face-to-face sessions. 	Katie Sundt, DEMA program manager; 317-274-7739 kalmcdan@iupui.edu
Participants need to: Have a first degree relative with Alzheimer's disease caused by a known mutation; Be at least 18 years of age; Speak and read English; Have someone who knows them well and is willing to answer questions about their memory and thinking.	Dominantly Inherited Alzheimer Network (DIAN)	 Longitudinal, visits every Ito 3 years, as long as the person is willing; Visits include: neurological exam, cognitive evaluation, PET and MRI imaging, informant interview, blood draw and spinal tap. Compensation: Travel, meals, completion of some procedures, and accommodations. 	Melissa Wesson 317-278-9545 mkwesson@iu.edu or Christina Brown 317-963-7426 chbrown@iupui.edu
Participants need to: Be 55-90 years of age; Have Mild Alzheimer's Disease; Have an MMSE score of 20-26; Have amyloid pathology present at screening; Be stable I2 weeks prior to screen if using AChEls.	Lilly: H8A-MC-LZAX A research study to assess the effects of passive immunization on the progression of mild AD; Solanezumab (LY2062430) versus Placebo.	 Approx. 18 months; Approx. 25 visits to center with caregiver; Visits are 3-6 hours long; You will receive monthly IV infusion if eligible for study. Compensation: \$75 for 5 visits \$50 for all other visits 	Lyla Christner, LPN 317-963-7411 lychrist@iupui.edu

(Continued from page 7)

IADC Current Studies on AD and Related Disorders Research Enrolling Participants

Who is needed?	For which study?	Length of study?	Please contact
 Participants need to: Be 66-85 years of age; or Be up to 90 years of age with approval from medical monitor; Have a MMSE 14-26 (mild to moderate AD); Be stable 12 weeks prior to screen, if using AChEls or Namenda. 	Nourish Placebo-controlled study of effects of daily administration of AC- 1204 in participants with mild to moderate AD.	 26 weeks double blind and optional 26 weeks open label extension; Compensation: \$75 each for 5 Clinic visits; \$25 each for phone interviews. 	Scott Herring 317-963-7418; sherring@iupui.edu or Christina Brown 317-963-7426 chbrown@iupui.edu
Participants need to: Be 55-85 years of age; Have an MMSE score of 20+.	SNIFF Study of Nasal Insulin to Fight Forgetfulness A multi-center, double blind, placebo-controlled phase II/III study to evaluate impact of nasal inhaled insulin in participants with mild memory impairment and early AD.	 Blind study for 12 months; Followed by 6 months open label (all participants receive insulin). Compensation: \$75 for each completed lumbar puncture;; Complimentary parking. 	Scott Herring, RN 317-963-7418 sherring@iupui.edu
Participants need to: Be 70 years of age or younger; Have an MMSE score of 20+.	Tau RX A double-blind, placebo- controlled, randomized, parallel-group, 12 month Safety and Efficacy trial of Leuco-methylthioninium bis (hydromethanesulfonate) in subjects with Behavior Variant Frontotemporal Dementia (bvFTD).	 Approximately 62 weeks Volunteer and their caregiver will need to complete 10 study visits at the IU Neuroscience Center Average study visit 3 to 6 hours. Compensation: \$100 for 5 certain visits; \$50 for each other visit. 	Angie Secrest 317-963-7533 secresta@iupui.edu or Christina Brown 317-963-7426 chbrown@iupui.edu
 Participants need to: Be 65-85 years of age; Have an MMSE score of 27-30 if more than high school education; Have an MMSE score of 25-30 if only high school education; 	A4 A research study to assess the effects of Solanezumab(LY2062430) versus Placebo in slowing cognitive decline in preclinical AD.	 Approx. 164 weeks; Clinic visit every 4 weeks. Compensation: \$50 for each completed clinic visit; \$75 for optional lumbar puncture at visit #5; \$125 for final visit of optional lumbar puncture; Complimentary parking. 	Nancy McClaskey 317-963-7429; nmcclask@iupui.edu or Christina Brown 317-963-7426 chbrown@iupui.edu

Keeping the Memory Alive....

Honor or remember a loved one this holiday season by making a gift in support of the Indiana Alzheimer Disease Center. All gifts are 100% tax-deductible and gratefully appreciated. Thank you for making a difference.



I would like to donate:	
□ \$100 □ \$1,000 □ \$250 □ \$2,500 □ \$500 □ Other	☐ This Gift will be matched by
\$	(Print name of company or foundation)
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☐ In Memory of	☐ I would like additional information about giving to the Indiana Alzheimer Disease Center
Print tribute name here	
Your gift will support ongoing research at IU on Alzhe • Basic science (cellular, molecular and neuropathe • Clinical research (biomarkers, genetics, advanced • Caregiver, outreach and education services	_
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Phone (E-mail	
☐ My check is enclosed, payable to: Indiana Alzheir	mer Disease Center

Please make checks payable to: Indiana Alzheimer Disease Center

Mail to: Brad Glazier, Administrator Indiana Alzheimer Disease Center Indiana University School of Medicine IU Health Neuroscience Center, Suite 4100 355 West 16th Street Indianapolis, IN 46202 For more information on making a bequest or planned giving to the Indiana Alzheimer Disease Center you may also call 317-963-7599 or email

bsglazie@iupui.edu

To use a credit card to make a gift, please go to our secure website at

iadc.iupui.edu/give-now/

Welcome Melissa to Our Staff



Melissa Wesson, MS, CCRP has joined the IADC as a study coordinator. Melissa graduated from the Genetic Counseling Program at Indiana University School of Medicine. She was a genetic counselor and instructor in the Department of Pediatrics at SIU School of Medicine in Springfield, IL before returning to Indianapolis. Melissa has worked as a clinical research coordinator for Huntington Disease projects for the last 16 years. With the IADC, she will be working on the DIAN Observational Study and other studies on familial dementias. In addition, Melissa serves as the Assistant Director of the IU Genetic Counseling Training Program. Melissa is looking forward to her new responsibilities in Alzheimer disease research. Welcome Melissa!

Get Connected 2 2 2

Link to our Calendar:

iadc.iupui.edu/current-events/151/



Caregiver Support Group Available:

Are you caring for a family member or friend with AD, dementia or related disorder? Do you have questions or concerns about providing care, about AD or other dementia? Our support group meeting may be your answer. The IADC together with the Healthy Aging Brain Center and the Alzheimer's Association, facilitates a monthly support for caregivers. All family members are welcome.

The meeting is normally held on the 4th Friday of each month from 1:00—3:00 pm at Cottage Corner Health Center, 1434 S. Shelby St, Indianapolis, IN (317.655.3200). Feel free to join us for education and social support.



FTD Caregiver Support Group

Has a loved one been diagnosed with frontotemporal dementia (FTD)?

Do you have questions about the disease and how to manage it?

You are not alone.

The IADC FTD Caregiver Support Group meets the 2nd Tuesday of each month from 6:30-8:30 pm. at Indianapolis First Friends Church, 3030 Kessler Blvd. East Dr., Indianapolis, IN.

Safe Today. Healthy Tomorrow.

... National Institute on Aging (NIA)

The NIA provided the following tips to keep our loved ones with dementia and Alzheimer's disease (AD), safe and healthy.

Safety is a major concern for caregivers of a person with Alzheimer's disease. Caregivers face the ongoing challenge of adapting to each change in the person's behavior and function in order to keep them safe. These general principles may be helpful:

- 1. **Think prevention.** Checking the safety of your home on a regular basis will help you take control of some of the potential problems that may create hazardous situations.
- 2. Adapt the environment. It is more effective to change the environment than to change most behaviors. For example, if the person with



Alzheimer's is prone to wandering, place STOP, DO NOT ENTER, or CLOSED signs on doors in strategic areas, and keep shoes, keys, suitcases, coats, hats, and other signs of departure out of sight.

 Minimize danger. By minimizing danger, you can maximize independence. A safe environment can be a less restrictive environment for the person with Alzheimer's. For example, remove or lock away anything that is potentially poisonous such as medicines, alcohol, and cleaning supplies.

Learn more about keeping a person with AD safe at home with the National Institute on Aging's online-only publication Home Safety for People with Alzheimer's Disease.

You may also be interested in the AD caregiving tip sheets about the following topics:

- Disaster Preparedness
- Driving Safety
- Wandering

These tip sheets are available online, as PDFs, and as eBooks to download to your e-reader of choice.

Pass it on! Share <u>NIA's free resources</u> by linking to them on our website <u>iadc.iupui.edu/resources/caregiver-information</u> or via our social media accounts. (Connect by using control click on the links above; or using your browser www.nia.nih.gov/health/.

Indiana Alzheimer Disease Center 355 West 16th Street Indianapolis, Indiana 46202 317-963-5500 iadc.iupui.edu For up-to-date news and events....Like and follow us on

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