BU ADC Bulletin

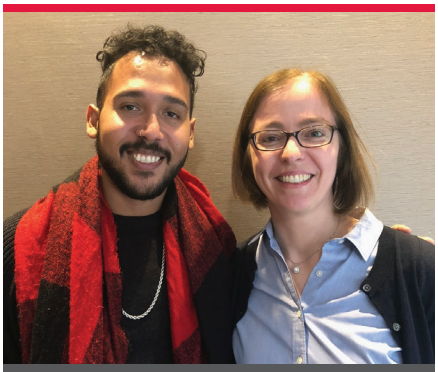
Summer 2019

Boston University Alzheimer's Disease Center

Funded by the National Institute on Aging

Can Discrimination Related to Racial Minority Status Contribute to Memory Problems Associated with Alzheimer's Disease?

WE KNOW that stress can cause chronic health conditions and affect our overall cognitive brain health. Stress can be caused by many different things, including things that we are aware of and experience daily, and things that we experience over time. Discrimination related to racial minority status – racism – is a known chronic stressor. Experiences of racism are common among Black Americans, the largest minority group in the United States.



Michael Rosario and Dr. Karin Schon

The prevalence of Alzheimer's disease (AD) is higher in Black Americans than their white, non-Hispanic counterparts. The reasons for this health disparity are unclear, but there has been research implicating a higher prevalence of hypertension, differences in socioeconomic status, and genetic factors. BU ADC investigators are looking at whether chronic stress due to a lifetime of experiences of racism negatively affects brain function in two subgroups of Black seniors. **Dr. Karin Schon**, an investigator at the Boston University Alzheimer's Disease Center (BU ADC) and Alzheimer's Association Research Grant recipient, along with her PhD student, **Michael Rosario**, who has received a Health Policy Research Scholarship from the Robert Wood Johnson Foundation, and **Dr. Yvette Cozier**, an Associate Professor of Epidemiology and an investigator of the Black Women's Health Study at the Boston University School of Public Health, are conducting studies about the impact of racism on memory and whether the Alzheimer's health disparity may, in part, be explained by differences in racism-related chronic stress for Black Americans. The hippocampus, a brain area critical for memory formation, is impacted by both Alzheimer's disease and chronic stress. Schon and colleagues hypothesize that Black seniors who experience higher levels of chronic stress due to racism will show poorer cognition and hippocampal function, and elevated salivary cortisol, a physiological marker of the stress response, independently of other stressors.

If you're a healthy Black adult between 50 and 80 years old with no neurological or psychiatric conditions and are interested in learning more about this study, please call 617-358-5382 or email JoinADC@bu.edu.

First, they will examine whether racism-related chronic stress in Black seniors could lead to poor cognition, elevated cortisol, and a dysfunctional hippocampus. Volunteers will be asked to attend two study visits where they will provide a saliva sample through a cheek swab, answer questions about potential stressors, and undergo cognitive testing. Schon and her team will then compare the cognitive function and cortisol level of Black seniors living in the City of Boston, where they are members of a racial minority, with Black seniors living in Rosario's home

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In This Issue

What part of working with participants do you like the most?

"My favorite part of working with research participants is connecting with them on a personal level and being able to show my gratitude for their generosity in volunteering their time."

— Maricelle Ramirez, from BU ADC Clinical Research Team 7

Maricelle Ramirez

< Discrimination continued from page 1

island of St. Croix in the United States Virgin Islands, where they are members of the racial majority, to see if differences are found. The proposed work could generate a new hypothesis: Individuals experiencing racism-related chronic stress may show accelerated cognitive decline.

Dr. Schon's group is also looking at the long-term implications of disparities in brain structure and function and cortisol levels through an additional research project titled Impact of Psychosocial Stress Study. They are looking for volunteers who already participate in our BU ADC HOPE Study. The purpose of this second study is to examine the effects of psychosocial stress, including experiences of discrimination, and socioeconomic status on thinking processes and on the function and structure of the brain over time.

If you're interested, are between the ages of 65 and 85, and would like to participate in the study on the **Impact of Psychosocial Stress**, please call 617-358-5382 or email JoinADC@bu.edu. *Note: For this study there is no additional visit besides the HOPE Study visit. The survey and cheek swab will be mailed to your home.*

BU ADC in the Community

Meeting of the Minds

In collaboration with the BU ADC, Alzheimer's Association, Brigham and Women's Hospital Center for AD Research, and the Mass ADRC, these informative workshops take place every other month in the community and include a discussion with local researchers on topics like normal aging, memory problems, keeping your brain healthy, and available resources in your community. Please visit the BU ADC Website Calendar to view upcoming Meeting of the Minds Workshops.

http://www.bu.edu/alzresearch/calendar/

Memory Sunday

2019 Memory Sunday
North East Planning Committee

Memory Sunday, the second Sunday in June, is a designated Sunday within congregations serving Black communities that provide education on Alzheimer's prevention, treatment, research studies, and caregiving. The purpose of Memory Sunday is to utilize the power and influence of the Black community pulpit to bring national and local attention to the tremendous burdens that Alzheimer's disease and other dementias are placing on the Black community, as well as to distribute the facts about Alzheimer's, encourage participation in research studies, and support persons living with Alzheimer's and their caregivers. This year the BU ADC, along with a number of organizations, supported Memory Sunday in congregations across Massachusetts. This year's Memory Sunday was held on June 9th, 2019 at 19 churches across Massachusetts. If you're interested in getting your place of worship involved in next year's Memory Sunday or any type of programming throughout the year, please call Christina DiTerlizzi at 857-364-2140.

About Us

The Boston University Alzheimer's Disease Research Center (BU ADC) aims to reduce the human and economic costs of Alzheimer's disease through the advancement of knowledge. We conduct cutting-edge Alzheimer's research and provide education about aging and dementia to professionals and communities in Boston and beyond.

The BU ADC Education core publishes the *BU ADC Bulletin* bi-annually. It includes stories about research findings, new studies, and more.

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2018 BU ADC Walk to End Alzheimer's Team Photo

BU ADC joins the Walk to End Alzheimer's

Friends, faculty, and staff of the BU ADC raised awareness and funds for Alzheimer's disease.

On Sept. 23rd, 2018, more than 20 people joined the BU ADC team at the Alzheimer's Association Walk to End Alzheimer's, raising more than $4,000 for research.

We are excited to bring the team back together to raise money for the 2019 Walk to End Alzheimer's, which will be held on Sunday, September 22nd, 2019 at DCR North Point Park, Museum Way, Cambridge, MA 02141.

To join our team, visit our team website: http://act.alz.org/goto/BUADC

Community Events & Programs

The BU ADC holds many educational events and programs for community members. Our faculty speak at a variety of community events throughout Massachusetts, Southern New Hampshire, Rhode Island, and Eastern Connecticut. We also conduct numerous educational activities for healthcare professionals. We are able to cater each lecture and presentation to the needs of the audience. Visit our online calendar to learn more about upcoming presentations. Call our Center if you would like to schedule a time for us to speak to your group.

Our BU ADC Ambassadors are students who attend Boston University and assist the BU ADC with their outreach and education efforts. Here they are with their leader, Christina DiTerlizzi, attending a Community Health Fair and providing memory screens.

Congratulations to Dr. Ann McKee, Director of the VA-BU-CLF Brain Bank, for being elected to the National Academy of Medicine (NAM) and the recipient of the William Fairfield Warren Distinguished Professorship at Boston University School of Medicine.

Ann McKee spoke at the 2019 BU School of Medicine Graduation. "Speak Up for the Voiceless. Tell the hard truth, and tell it over and over and over, until people listen and it is heard."

Ann McKee, MD, is Professor of Neurology and Pathology at Boston University School of Medicine, Director of Neuropathology for VA Boston, and Director of the BU Chronic Traumatic Encephalopathy Center. She is Director of the Neuropathology Core and Associate Director for the BU ADC. Dr. McKee also directs the brain banks for the BU ADC, Framingham Heart Study and Chronic Effects of Neurotrauma Consortium, which are all based at VA Boston. Dr. McKee completed her undergraduate studies at the University of Wisconsin, received her medical degree from the Case Western Reserve School of Medicine, and completed her residency training in neurology at Cleveland Metropolitan General Hospital and in neuropathology at Massachusetts General Hospital. Dr. McKee is a board-certified neurologist and neuropathologist whose initial career focused on Alzheimer's disease and aging.

Over the past 10 years, she has concentrated on the long-term effects of concussion, subconcussion and blast injury, and Chronic Traumatic Encephalopathy (CTE) in contact sports athletes and military veterans. Her work has shifted the prevailing paradigm of scientific thought regarding head trauma; she has demonstrated that repetitive "mild" head trauma is not just an acute injury, it can provoke a persistent neurodegeneration, CTE, that continues long after the trauma has stopped. Dr. McKee has published over 70% of the world's cases of CTE and has created the VA-BU-CLF brain bank, the world's largest repository of brains from individuals exposed to traumatic brain injuries (over 725) and neuropathologically confirmed CTE (over 400). Dr. McKee was named Bostonian of the Year 2017 by the *Boston Globe*, one of the 50 Most Influential People in Healthcare and one of the 100 Most Influential People in the World by *Time* magazine in 2018.

She was recently awarded the William Fairfield Warren Distinguished Professorship at Boston University School of Medicine and was elected into the National Academy of Medicine.

If you're interested in learning more about Brain Donation, please call 617-358-5382 or email JoinADC@bu.edu.

Actively Recruiting Studies

AD = Alzheimer's Disease; MCI = Mild Cognitive Impairment

STUDY TITLE	STUDY DESCRIPTION	STUDY AGE RANGE	CURRENTLY RECRUITING
Health Outreach Program for the Elderly	HOPE is a community-based resource that is intended for people with and without memory concerns. Participants will complete annual visits to assess their memory and other thinking skills. Following their visit, participants will receive feedback about their results and will have the opportunity to speak with a clinician. HOPE allows participants to play a more active role in their own healthcare. This study aims to collect a longitudinal set of data on a large, diverse group to advance our knowledge on the diagnosis, prevention and treatment of Alzheimer's disease and related disorders. We are also recruiting participants with a history of contact sports to help us understand how repetitive head impacts affect a person's risk of developing later-life neurologic disorders. *Located in Boston and Needham.*	55+	**Healthy Adults, MCI, AD**
Alzheimer's Disease Neuroimaging Initiative 3	A longitudinal study designed to investigate the relationships between the clinical, cognitive, imaging, genetic and biochemical biomarker characteristics of the entire spectrum of Alzheimer's disease. *Located in Boston.*	55-90	**MCI, AD**
Generations: A Prevention Trial	This clinical trial is testing a new oral medication that may be able to prevent amyloid-beta protein plaques from forming in the brain. This study is specifically recruiting asymptomatic individuals with a specific form of a gene called APOE4, which increases a person's chance of developing Alzheimer's disease. Participants will learn their genetic status as a part of the study. *Located in Boston.*	60-75	**Healthy Adults**
DIAGNOSE CTE Research Project	Diagnostics, Imaging, And Genetics Network for the Objective Study and Evaluation (DIAGNOSE) of Chronic Traumatic Encephalopathy (CTE) is looking to develop diagnostic criteria for CTE. *Located in Boston, New York City, Las Vegas, and Scottsdale.*	45-74	**Healthy Adults**
Cerebral Perfusion and Metabolism in Chronic Traumatic Encephalopathy	This study aims to compare Alzheimer's disease and Chronic Traumatic Encephalopathy. Alzheimer's disease and MCI participants will undergo a one-hour MRI. Participants should have little to no history of head injury and should have no history of playing contact sports. *Located in Boston.*	45-74	**MCI, AD**
LEGEND	Longitudinal Examination to Gather Evidence of Neurodegenerative Disease. This study is currently recruiting former football, soccer, and hockey players. Participants complete an annual telephone interview along with online questionnaires. *Telephone/no visit required.*	18+	**Anyone**
Memory in AD	This study looks at participant responses to certain cognitive testing. Research suggests that patients with different types of cognitive impairment perform differently on certain tests. The goal of this study is to better understand how different impairments affect perception, thinking and memory, hopefully leading to better diagnostic evaluations. *Located in Jamaica Plain.*	65-90	**Healthy Adults, MCI, AD**
Utility of ERP in Diagnosing Alzheimer's Disease	Study investigating the use of event-related potentials to diagnose Alzheimer's disease in the clinic. Participants will complete pen-and-paper tests as well as EEG tests during two separate visits. *Located in Jamaica Plain.*	55-100	**Healthy Adults, MCI**
Chronic Stress Research Study for African American Older Adults	This study assesses the relationship between chronic stress and cognition in older African American adults. Participants will answer questionnaires, undergo cognitive testing and provide a saliva sample to measure cortisol levels (a hormone associated with stress). *Located in Boston.*	55-75	**Healthy Adults**
The Light Study	This study is researching a new non-invasive system designed to measure brain activity by shining a light on a person's temple and taking a series of measurements while a series of tasks are performed. *Located in Bedford.*	65-90	**MCI**
Exercise Intervention Study	Research shows that being physically active is beneficial for cognitive health. This study is looking for participants who are currently physically inactive, looking to be more active. Participants will work with a personal trainer for free, 3 times per week for 12 weeks. *Located in Boston.*	60-80	**Healthy Adults**
Impact of Psychosocial Stress	Studies show that African Americans are more likely than European Americans to have Alzheimer's disease. This study aims to examine how psychosocial stress and socioeconomic status contribute to this health disparity. *Telephone/Mail – no visit required; HOPE participants only.*	55-85	**Healthy Adults**
Digital Technology Study	This study is looking at the feasibility of using wearable technology to detect differences between cognitively normal, mild cognitively impaired, and Alzheimer's disease participants of the HOPE study. The devices will be used in combination with smartphone applications to gather lifestyle data on participants, which will contribute to the understanding of indicators of cognitive impairment and Alzheimer's disease. *Located in Boston.*	65-95	**Healthy Adults, MCI, AD**
A Novel Approach to Diagnosis	This study is testing whether it is possible to repurpose a diabetes drug called pramlimtide as a diagnostic test for Alzheimer's disease. In this study participants will undergo a PET scan, two infusions and several blood tests over the course of three total visits. *Located in Boston.*	60-90	**Healthy Adults, MCI, AD**
Developing a Global Diagnostic AD Test	This study aims to compare the diagnostic standards for Alzheimer's disease in the ADC cohort to another from South Africa. Participants will take part in a neuropsychological assessment commonly used in South Africa to compare the results to that of their ADC testing. *Located in Boston or at home.*	60-90	**Healthy Adults, MCI, AD**

Interested? Contact the BU ADC recruitment coordinator at 617-358-5382 or JoinADC@bu.edu

www.bu.edu/alzresearch/

Generations Study

The Generations study is a pioneering clinical trial examining whether an investigational medication can help to prevent the symptoms of Alzheimer's disease (AD). The study is looking for participants who are cognitively normal, but at an increased risk of developing AD dementia due to their age and genetic risk. The goal of this study is to find out whether the investigational treatment can prevent or postpone the onset of symptoms of AD.

As a part of this study, participants will be given information on their genetic makeup as it pertains to the APOE gene. Everyone has two copies of the APOE gene. There are three variations of the gene: APOE e2, APOE e3, and APOE e4. Through research, the APOE e4 variation has been identified as a gene that increases one's risk of developing AD (though it does not cause it). Through the Generations study, participants will learn if they have the APOE e4 gene.

Candidates who have either one or two copies of the APOE e4 gene will have the option to move forward with screening for the clinical trial. **To find out more information, contact our Recruitment Coordinator 617-358-5382.**

Research Updates

VA Merit Grant Recipient

Andrew Budson, MD – Many Veterans with Alzheimer's disease (AD) in the mild cognitive impairment and mild dementia stages live alone in the community. Although it has been known for over 100 years that forgetting interferes with their quality of life, we have obtained new data demonstrating that rates of false memories in those with AD are extremely high – almost as high as forgetting. The goals of this grant are to understand the physiological and cognitive bases of false memories and their clinical and functional implications in the daily lives of patients with AD. To accomplish this goal, we need to understand the extent that false memories impact daily life. We need good models of false memories in the laboratory that correlate with false memories in the real world. We need to use those models to understand the cognitive and physiological bases of false memories, and try out different strategies, aids, and techniques to reduce false memories. Once these goals have been accomplished, we will be ready to apply these methods to reduce false memories in the daily lives of Veterans with AD.

The Role of Inflammation in Alzheimer's Disease

Wendy Qiu, MD – Research has shown that possessing the ApoE4 gene is a major genetic risk factor for AD, but it wasn't clear why some people with the gene don't get the disease. Dr. Wendy Qiu and her team set out to learn more about why this was the case. They used data from the Framingham Heart Study, which includes more than 3,000 human subjects. They looked at people who had the ApoE4 gene and examined measurements of their levels of C-reactive protein, which indicates the amount of inflammation in the body. The results of the study showed that chronic inflammation interacts with genetic vulnerability to increase the risk for AD, and suggest that early treatment with anti-inflammatory therapies may be helpful in treating AD, at least in ApoE4 carriers.

Klotho, a hormone found in the brain, may protect people with Alzheimer's Disease

Carmela Abraham, PhD – Aging is the principal demographic risk factor for AD. Klotho is a key modulator of the aging process and, when overexpressed, extends mammalian lifespan, increases synaptic plasticity, and enhances cognition. Whether klotho can counteract deficits related to neurodegenerative diseases, such as AD, is unknown. In Dr. Abraham's paper, she shows that elevating klotho expression decreases premature mortality and network dysfunction in human amyloid precursor protein (hAPP) transgenic mice, which simulate key aspects of AD. Increasing klotho levels prevented depletion of NMDA receptor (NMDAR) subunits in the hippocampus and enhanced spatial learning and memory in hAPP mice. Klotho elevation in hAPP mice increased the abundance of the GluN2B subunit of NMDAR in postsynaptic densities and NMDAR-dependent long-term potentiation, which is critical for learning and memory. Thus, increasing wild-type klotho levels or activities improves synaptic and cognitive functions, and may be of therapeutic benefit in AD and other cognitive disorders.

Advances Towards Diagnosing Chronic Traumatic Encephalopathy During Life

Robert Stern, PhD – CTE is a neurodegenerative disease that has been associated with a history of repetitive head impacts, including concussions and subconcussive trauma, such as those experienced by American football players. CTE is currently diagnosed after death by a neuropathological examination, with the hallmark findings of the buildup of an abnormal form of tau protein in a specific pattern in the brain. In an important advance toward the ability to diagnose CTE during life, a team of researchers from across the country, led by Dr. Robert Stern, BU ADC Clinical Core Director, found that an experimental PET scan can detect abnormal tau protein in the brains of living former NFL players who have cognitive, mood, and behavior symptoms. The study was recently published in the *New England Journal of Medicine* and included other BU ADC researchers as co-authors, including Dr. Mike Alosco (Clinical Core Associate Director), Dr. Yorghos Tripodis (Biostatistics and Data Management Core Director), and Brett Martin. The researchers also found that the more years of tackle football played (across all levels of play), the higher the tau protein levels detected by the PET scan. However, there was no relationship between the tau PET levels and cognitive test performance or severity of mood and behavior symptoms.

The researchers' hope is that this tau PET scanning will eventually be able to be used to diagnose CTE during life. Ideally, this type of scan will be able to detect the abnormal tau protein prior to symptom expression. This could then help doctors know who may benefit from drugs that are currently being developed to stop the production of the abnormal tau protein or to remove it from the brain.

Dr. Stern is currently leading another study using the experimental tau PET scan called the DIAGNOSE CTE Research Project (www.diagnosecte.com). See page 4 for more details.

2019 BU ADC Development Project Winners

The Development Grant funding mechanism is intended to support new investigators from other fields eager to bring their expertise to bear on Alzheimer's disease, as well as feasibility testing of novel research to develop preliminary data for larger grant applications. Development study support is not intended for large undertakings by established investigators, or to enhance ongoing research projects that are already funded.

Ian Mahar, PhD – Project Title: Brodmann Area 25 in the etiology of depression in Alzheimer's disease and CTE

Alzheimer's disease (AD) and chronic traumatic encephalopathy (CTE) share some common neuropathological and symptomatic features, with elevated prevalence of depression and depressive symptoms found in both disorders. Depression outside of neurodegenerative contexts has been widely studied, with several possible etiological mechanisms supported. However, the neurobiological etiology of depression in the context of AD and CTE has been largely or wholly unexamined, despite the widespread prevalence and substantial distress elicited. It is unknown whether mechanisms underlying depression in neurodegenerative cases are similar to those found for depression not induced by degenerative neuropathology, or conversely whether unknown mechanisms associated with neurodegeneration are responsible for depression in AD or CTE. Using postmortem samples, Ian and his team will examine the association of neurodegenerative pathology in AD and CTE with depression by comparing neurodegenerative cases with depression to those without. This will focus on Brodmann area 25 (BA25), which is heavily implicated in depression and antidepressant effects. AIM 1: Compare verified AD/CTE cases who had depression to cases that did not have depression in terms of ptau or Aβ pathology in BA25. AIM 2: Examine whether localized neuroinflammation or gliosis (previously associated locally with AD/CTE pathology) is altered in BA25, as this may be etiologically related to the development of depressive phenotypes. AIM 3: Determine whether any alterations (identified in AIMs 1 and 2) distinguishing depressed from non-depressed neurodegenerative cases and controls are reduced in individuals who received particular antidepressant treatments.

Zhi Ruan, PhD – Project Title: P2X7R inhibitor blocks exosome secretion and reduces proteopathic Tau accumulation in P301S tauopathy mouse model.

The best-correlated pathology to clinical onset of Alzheimer's disease (AD) is neurofibrillary tangles, or intracellular aggregates of hyperphosphorylated tau protein (pTau) in hippocampal regions. Great progress in drug development based on Tau pathology has been made during past decades; however, no such drug works in clinical until now. Recently, emerging studies suggest that exosomes may be the mediator of tau propagation in AD brain and targeting on the block of exosome secretion from microglia, leading to halt the Tau propagation in the brain or even cue AD finally. The P2X7 receptor (P2X7R) is an ATP-gated cation channel, highly expressed in microglia, involved in AD pathobiology. Series of studies suggested that pharmacological inhibition or genetic deletion of P2X7R could alter exosome secretion triggered by ATP stimulation. The study by Zhi and his team will be the first time to determine if there is any relationship between the level of Tsg101 in the brain and the severity of the AD, as well as the relationship with Tau aggregates. The objective of this study is to discover novel Tau-based treatment for AD and explore the potential molecular mechanisms of the candidates, and to validate the findings in human brains using the BU ADC Brain Bank.

Alice Cronin-Golomb, PhD – Project Topic: Sleep, memory consolidation and markers of brain pathology in presymptomatic Alzheimer's disease

Alzheimer's Disease (AD)-related neurodegeneration can induce abnormalities of sleep pattern and quality, which in turn may lead to memory impairment. It has been suggested that sleep disturbance causes an increase in amyloid beta and tau, two brain proteins associated with AD. Further, the relationship between sleep and amyloid deposition is thought to be bidirectional—namely, sleep disruption leads to amyloid deposition, and amyloid deposition may lead to additional sleep disturbance.

Memory consolidation, the process by which initial memories become long-term representations, has been linked to the integrity of slow-wave sleep (SWS). It has been suggested that sharp-wave ripples during SWS play a crucial role in strengthening and replaying newly learned information in the hippocampus, which is critical for the long-term storage of memory within the neocortex. These memory reactivations are also thought to enhance plasticity within medial temporal lobe structures. How SWS is impacted by incipient AD-related brain pathology, and how SWS disruption may lead to downstream memory consolidation problems in preclinical stages of AD, is not fully understood. To address this gap in knowledge, Alice and her team will work with an extraordinary kindred population of approximately 5,000 individuals from Antioquia, Colombia, which contains roughly 1,800 carriers of a Presenilin1 (PSEN1) E280A mutation, causing autosomal dominant Alzheimer's disease (ADAD). These carriers have a homogenous disease course, and are genetically destined to develop mild cognitive impairment in their mid-forties. For this proposal, Alice and her team will use PET imaging and polysomnographic (PSG) measures to examine whether abnormalities in objective sleep physiology, as measured by PSG sleep patterns, are present in pre-symptomatic ADAD, and are associated with accumulation of AD pathological proteins (amyloid-beta and tau), several years before estimated clinical onset. Alice will also aim to examine whether abnormalities in objective sleep physiology may predict changes in long-term memory consolidation in preclinical AD. This study will greatly improve our understanding of the relationships between AD neuropathological changes and the onset of sleep disturbance and cognitive decline in preclinical stages of AD, decades before symptoms begin. Findings from this study will also help inform the design and analysis of prevention interventions.

BU ADC Happenings

Welcome

The Boston University Alzheimer's Disease Center (BU ADC) and its affiliate, the Chronic Traumatic Encephalopathy Center (CTE Center), would like to extend a warm welcome to Maricelle Ramirez!

Maricelle Ramirez

Meet Maricelle Ramirez

Where did you go to school?
Vanderbilt University School of Arts and Sciences

Why are you interested in working in the field of Alzheimer's disease research?
I have been interested in AD research since I was a high school intern at the Mount Sinai Hospital's Division of Geriatric Psychiatry under a team of social workers, psychiatrists, nurses, and administrative staff focused on Alzheimer's disease dementia. I worked closely with a medical team on a project that aimed to develop a healthcare proxy form and identify health care agents for patients with mild dementia. As part of this project I shadowed clinic and social work visits, assisted in presenting the healthcare proxies, and helped gather feedback from caretakers in the local Spanish Harlem neighborhood. I was gifted a copy of the DSM IV and went on to study clinical psychology and neuroscience at Vanderbilt University, with an interest in degenerative neurocognitive disorders, intellectual disability, and the human limbic system, in particular the Ventral Amygdalofugal Pathway. Later on, some of my own loved ones developed dementia. I helped their primary caretakers during extended visits and was able to have many wonderful shared moments and conversations with them.

What is your role at the BU ADC?
I am a Clinical Research Coordinator at the ADC. I work with participants who are involved in our Clinical Trials. I walk them through the process and I am by their side every step of the way.

What part of working with participants do you like the most?
Connecting with participants' humanity. They share their time and effort with us. They also share parts of their lives, and I've been able to hear about participant family life, books they are reading, travels, and personal projects, such as repairing household items or wonderfully complex textile projects. Connecting with participants on the human level and showing gratitude for their generosity in sharing their time is rewarding.

What do you like to do for fun outside of the BU ADC?
I completed the Master Urban Gardener's program through the Trustees of Reservations. I volunteer as a guest speaker on starting a community garden at this program. I am the programming chair and assistant coordinator at the Lawton Park Community Garden (LPCG). The LPCG started with a group of neighbors; it was built in the late fall 2017, and officially opened in the spring of 2018, led by the current coordinator. The LPCG is entirely volunteer run. I assist in organizing and executing educational, community-building, and recreational activities and events at the LPCG. I also conduct workshops at the Lawton Park Community Garden and at the Annual Gardener's Gathering.

I like to explore local towns as well as travel longer distances, learn and practice languages, support independent films and new musicians, bake and cook meals, take nieces and nephews on day trips, volunteer at Inner City Outings, and entertain friends and family. I also am more active in attending workshops and volunteering for social justice organizations, including taking a community organizing class.

Goodbyes

Many thanks and best wishes to departing BU ADC and CTE Center staff:

Laney Evers, UNITE Research Assistant
Shannon Conneely, DIAGNOSE Research Assistant
Courtney Diamond, DIAGNOSE Research Assistant
Dawn Jacobs, BU ADC Clinical Trials Coordinator

Honorary and Memorial Contributions

The Boston University Alzheimer's Disease Center is involved in a variety of clinical, research and educational activities. Research study participants, families, and community leaders often wish to contribute to the fight against Alzheimer's disease. We welcome honorary and memorial donations. These gifts are an excellent way to honor a family member or friend while contributing to the advancement of Alzheimer's research. **To make a donation, please call Suzanne Maselli in the BU Development Office at 617-358-9530 or visit us online: www.bu.edu/alzresearch**

The BU ADC would like to recognize the following private donors for their greatly appreciated contributions, which were made between July 2018 and June 2019. Please note that anonymous donors are not listed.

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4th Annual Conference

November 14th & 15th, 2019

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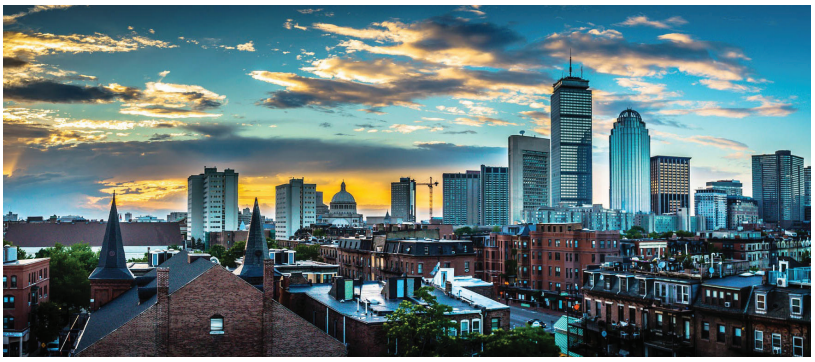

Please refer to the conference website for details.

www.CTEConference.com

The Boston University Alzheimer's Disease Center and Chronic Traumatic Encephalopathy Center and the US Department of Veterans Affairs will be holding a Continuing Medical Education Course on November 14th and 15th, 2019. During this two-day course participants will learn about all aspects of CTE, including pathology, pathophysiology, genetics, biomarkers, imaging, clinical syndromes, clinical criteria, differential diagnosis, impact on Veterans, implications for the family, and what it is like to live with or worry about the disease. We will be joined by distinguished presenters from our center and from around the world, as well as athletes who will talk about their experience playing contact sports. Continuing Education Credits will be provided for Physicians, Psychologists, and Athletic Trainers.