where autophagy appears beneficially induced in many conserved longevity models. As a critical process to ensure cellular homeostasis, autophagy is regulated at multiple levels, yet it remains a challenge in the field to understand how the regulation of autophagy is integrated at the cellular and molecular level to ensure health- and lifespan benefits. I will here discuss our progress on understanding the different molecular mechanisms employed by cells and organisms to regulate autophagy in response to stressors such as aging and disease.

**REGULATION OF AUTOPHAGY IN AGING AND DISEASE**

Malene Hansen, *Sanford Burnham Prebys Medical Discovery Institute, La Jolla, California, United States*

The cytosolic recycling process of autophagy plays an important role in many age-related diseases and has been directly linked to aging, including in the nematode C. elegans where autophagy appears beneficially induced in many conserved longevity models. As a critical process to ensure cellular homeostasis, autophagy is regulated at multiple levels, yet it remains a challenge in the field to understand how the regulation of autophagy is integrated at the cellular and molecular level to ensure health- and lifespan benefits. I will here discuss our progress on understanding the different molecular mechanisms employed by cells and organisms to regulate autophagy in response to stressors such as aging and disease.

**DISCOVERY OF NOVEL REGULATORS OF AUTOPHAGY IN ANIMALS**

Eric Bachrache, *UMass Medical School, Worcester, Massachusetts, United States*

The clearance of organelles by autophagy is important for cell health, and defects in this process have been associated with age-associated degenerative disorders. Ubiquitination of proteins enables their recognition by cargo receptors that facilitate the delivery of both protein aggregates and organelles to forming autophagosomes for degradation. We have investigated developmentally programmed autophagy to identify novel regulators of organelle clearance. We identified an Atg7-independent autophagy program that is required for cell size reduction and clearance of mitochondria. We have used this system to screen for new factors regulate ubiquitin-dependent autophagy and clearance of organelles. We screened a collection of putative ubiquitin binding domain encoding genes, and identified the novel gene Vps13D. Vps13D is an essential gene that is necessary for autophagy, mitochondrial size, mitochondrial clearance, and is associated with human movement disorders. We have used genetics and biochemistry to identify factors that link Vps13D, mitochondrial biology and autophagy.

**AUTOPHAGY AND IMMUNITY**

Vojo Deretic

**LYSOSOMES AND CANCER**

Rushika Perera

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**SESSION 7000 (SYMPOSIUM)**

**3D TEAM CARE MANAGEMENT TRIAL FOR COGNITIVELY VULNERABLE OLDER ADULTS: WHO PARTICIPATES AND HOW DOES THE TEAM WORK?**

Chair: Richard Fortinsky Discussant: Caroline Stephens

Community-dwelling older adults often experience cognitive symptoms, and three common conditions that contribute to changes in cognition are dementia, depression and delirium. Despite the clinical inter-connectedness among these medical conditions, hereafter referred to collectively as cognitive vulnerability, little is known about the potential for success of clinical interventions that simultaneously address these conditions. From the perspective of older adults with cognitive vulnerability and their families, hospital admissions and emergency department (ED) visits are disorienting and often lead to declines in functional capacity and well-being, and significant family distress, threatening continued independent living. In this Symposium, we present details about an ongoing clinical trial testing a novel in-home, multidisciplinary team care management intervention for older adults with cognitive vulnerability and their families. This care management intervention led by nurse practitioners, called the 3D Team care model, aims to help reduce ED visits and hospitalizations and achieve other health-related outcomes. The first presentation will provide study background and design features as well as characteristics of study participants. The next two presentations by the 3D Team nurse practitioners will provide details about how the multidisciplinary team works, and how each team member provides interventions intended to address risk factors for adverse health outcomes. The fourth presentation by the 3D Team community health educator will explain how needs related to social determinants of health are addressed. The Discussant will place this clinical trial within the broader context of multidisciplinary team care for older adults with cognitive vulnerability led by nurse practitioners trained in geropsychiatry.

**3D TEAM CARE MANAGEMENT TRIAL: STUDY DESIGN FEATURES AND PARTICIPANT CHARACTERISTICS**

Richard Fortinsky, *University of Connecticut, Farmington, Connecticut, United States*

This clinical trial was designed in partnership with a Medicare Advantage (MA) plan, with the goal of comparing two care management approaches for its MA policyholders age ≥65 living with cognitive vulnerability. To test the efficacy of the 3D Team, we are using a randomized design, with the comparison group receiving telephonic care management currently offered to MA members. In this presentation, detailed aspects of the study design, characteristics of the study population, and patterns of 3D team referrals will be explained. To date, 390 older adults and 306 informal caregivers are enrolled in the trial toward a recruitment goal of 576 older adults and 380 caregivers. Among older adults, 40% have depression only, 23% have dementia only, and the rest have more than one of these conditions and/or delirium. Most common referrals by 3D Team nurse practitioners are
to the community health educator and to physical and occupational therapy.

NURSE PRACTITIONER’S ROLE AS 3D TEAM LEADER
Kathleen Obuchon, UConn Health, Farmington, Connecticut, United States

The nurse practitioner’s (NP) clinical activities during the 12-month intervention period include 4 monthly in-home visits and 8 monthly telephone contacts. This presentation will detail the clinical assessments and activities conducted during the initial home visit, and how subsequent home visit activities and interventions are structured for older adults and their informal caregivers depending on whether older adults have dementia, depression, and/or recent delirium. Because the potential for medication-related problems is a critical concern for older adults with cognitive vulnerability, this presentation also will detail how the NP works with the 3D Team pharmacist to determine potential inappropriate medications through a review and reconciliation process, and how the NP and pharmacist summarize these results and correspond accordingly with the older adult’s primary care physician. Finally, this presentation will explain how the NP manages communication among members of the 3D Team who provide interventions to the same older adult and caregiver.

NURSE PRACTITIONER’S CLINICAL TRIGGERS FOR REFERRAL TO OTHER 3D TEAM MEMBERS
Shawn Ladda, UConn Health, Farmington, Connecticut, United States

This presentation features how 3D Team nurse practitioners (NP) use results of clinical assessments to determine whether older adults and caregivers enrolled in the study are referred to other Team members; these assessment results are called “clinical triggers”. Other team members who receive referrals based on NP-generated clinical triggers include: Licensed Clinical Social Workers, who deliver Problem Solving Therapy to older adults with significant depressive symptoms; Occupational Therapists, who deliver an evidence-based dementia care intervention; Physical Therapists, who deliver an adapted Otago exercise program; Registered Dietician, who provides nutrition and dietary instruction; and Community Health Educator, who provides community resource information to address social determinants of health. All clinical triggers will be detailed in this presentation, along with a description of each intervention delivered by other team members except the Community Health Educator. Case studies will be presented to illustrate how study participants receive multiple interventions from the 3D Team.

COMMUNITY HEALTH EDUCATOR’S ROLE ON THE 3D TEAM
Alba Santiago, UConn Health, Farmington, Connecticut, United States

As a member of the 3D Team, the bilingual, bicultural Community Health Educator (CHE) addresses needs expressed by study participants related to social determinants of health. Clinical triggers generated by nurse practitioners (NPs) that lead to CHE referral include: social isolation and loneliness; lack of transportation access; lack of resources to sustain nutritional adequacy, purchase medications, and purchase assistive devices; and cultural and linguistic barriers that lead to lack of knowledge about community resources. To date, 50% of study participants randomized to receive 3D Team care have triggered referral to the CHE. In this presentation, the team CHE will provide details on the frequency of different needs expressed by study participants, how she utilizes an ever-growing community resource directory, and specific types of information and guidance she provides to address their expressed needs. Case studies will help illustrate ways in which CHE services have successfully provided assistance to study participants.

SESSION 7005 (SYMPOSIUM)
ADVANCING ALZHEIMER’S DISEASE CARE AND SERVICES AMONG RACIAL AND ETHNIC MINORITIES
Chair: Lenora Smith
Discussant: Roland Thorpe, Jr.

Research shows consistent and adverse disparities among racial and ethnic minorities compared to non-Hispanic Whites in the prevalence and incidence of Alzheimer’s disease, mortality, participation in clinical trials, use of medications and other interventions, health care expenditures, and quality-of-life outcomes. The literature suggests numerous underlying causes, including factors related to measurement of the disease, genetics, socioeconomic factors, cultural differences, lack of culturally competent interventions, and discrimination in services and care. Although these disparities are well known, little is known about the effectiveness of various strategies to address these differences within the context of Alzheimer’s disease services and care. This symposium aims to contribute to this knowledge. The first presentation examines the role of race with marital status and risk for dementia using data from the Health and Retirement Study. Results suggest differences for unmarried White and unmarried older adults of color, which can inform dementia care services. The second presentation highlights the opportunities and challenges of facilitating cognitive impairment screenings among African American congregations. The third presentation introduces attitudes about brain donation among African American research participants and suggestions to increase involvement. The symposium concludes with a presentation on hearing care disparities in dementia with practical recommendations on how to close this gap in hearing care. The findings from these papers contribute significantly to the impact of ethnoracial differences in dementia and the need to include more diverse populations in ADRD research to promote equity. Alzheimer’s Disease Research Interest Group Sponsored Symposium.

MARITAL STATUS AND RISK OF DEMENTIA: DOES RACE MATTER?
Zhenmei Zhang,1 Hui Liu,2 and Seung-won Choi,3
1. Michigan State University, Okemos, Michigan, United States, 2. Michigan State University, EAST LANSING, Michigan, United States, 3. Texas Tech University, Lubbock, Texas, United States

Previous research has shown that unmarried individuals (i.e., divorced, widowed, and never married) had a higher risk of dementia than their married counterparts. However, few studies examined whether the link between marital...