



GRECCs: VA's Network of Aging Centers of Excellence Explores Aging, Age-related Diseases and Promising Interventions.

...what follows is a small sampling from among the hundreds of research investigations currently underway in VHA's Geriatric Research, Education and Clinical Centers (GRECCs).

Ann Arbor GRECC: Antipsychotic Use in Parkinson's disease patients. Use of antipsychotics (APs) in Parkinson's disease (PD) is common. Noting the high rate at which persons with PD experience psychosis and dementia, investigators at the **Ann Arbor GRECC** hypothesized that use of APs placed patients at elevated risk for mortality. Multivariate analysis of a Veterans Health Administration database of PD patients revealed that antipsychotic users had more than twice the risk of death as observed in a matched group of non-users. The commonly used atypical antipsychotics identified during the study were olanzapine, risperidone, and quetiapine. This work highlights the need for caution when prescribing atypical antipsychotics to PD patients and the importance of always considering non-pharmacologic strategies in managing psychosis. To learn more about this research, contact Dr. Helen C. Kales at helen.kales@va.gov.

Little Rock GRECC: Nutrient Intake and Hospitalization. Older Veterans often become severely malnourished during hospitalization, leading to a range of complications and a higher risk of mortality. To prevent this from happening, inpatient programs need to closely monitor each patient's nutrient intake. Yet most hospitals are not adequately staffed to do this. The **Little Rock GRECC** developed and studied a novel means for completing daily patient nutrient intake assessments in less than one-third the time required by traditional methods, and the new approach was found to be more accurate as well. The greater ease and improved accuracy facilitates identification of patients at elevated risk for becoming malnourished. Anyone interested in this new approach to assessing nutrient intake can contact Dennis H. Sullivan, MD at dennis.sullivan@va.gov.

San Antonio GRECC: Proteins Block Neuronal Death. A number of aging-related neurological diseases such as stroke, Lou Gehrig's disease, and Alzheimer's disease, involve the death of neurons in the brain. The **San Antonio GRECC** recently described ferroptosis, a previously unrecognized mechanism of neuronal death. Even more exciting, the investigators identified a protein that disrupts this mechanism. Enhancing the activity and delivery of this protein might be a new approach for supporting healthy brain aging. To find out more about this work, contact Dr. Nicolas Musi at Nicolas.musi@va.gov.

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Potential translational impacts of a plant derived compound on reducing a major risk factor for heart disease, diabetes, and nonalcoholic fatty liver disease

Metabolic syndrome (MetS) is a cluster of metabolic risk factors such as increased blood pressure, high blood sugar, excess body fat around the waist and abnormal cholesterol or triglyceride levels. These risk factors are implicated in a number of health issues in older Veterans such as heart disease, stroke, diabetes and the common liver disease, nonalcoholic fatty liver disease (NAFLD). At present, there are no approved drugs to treat MetS associated risk factors. Recent studies from Dr. Salman Azhar's laboratory provide evidence that a small molecule (i.e., Nordihydroguaiacuretic acid or NDGA), derived from the Creosote bush plant, improves several components of MetS in experimental animal models. Dr. Azhar's laboratory has been directing much effort towards screening and testing synthetic derivatives of NDGA. One of the lab's goals is determining target molecules with the best potential toward developing new drugs to treat one or more components of MetS; and therefore reduce several potent risk factors in the development of heart disease, diabetes and/or NAFLD, which affect many older Veterans.

