University of Texas Rio Grande Valley
ScholarWorks @ UTRGV

Research Symposium | Research Symposium 2024

Examining CETP gene associated with AD-related diseases of the Hispanic population in the Rio Grande Valley.

Erika Guajardo
The University of Texas Rio Grande Valley, erika.guajardo01@utrgv.edu

Luis Aguillon
The University of Texas Rio Grande Valley, luis.aguillon01@utrgv.edu

Daniela Ollervides-Charles
The University of Texas Rio Grande Valley, daniela.ollervidescharles01@utrgv.edu

KeSheng Wang
West Virginia University

Gladys Maestre
The University of Texas Rio Grande Valley School of Medicine, gladys.maestre@utrgv.edu

See next page for additional authors

Follow this and additional works at: https://scholarworks.utrgv.edu/somrs

 Part of the Genetics Commons, and the Medicine and Health Sciences Commons

Recommended Citation

Guajardo, Erika; Aguillon, Luis; Ollervides-Charles, Daniela; Wang, KeSheng; Maestre, Gladys; Garza, J.; and Xu, Chun, "Examining CETP gene associated with AD-related diseases of the Hispanic population in the Rio Grande Valley." (2024). *Research Symposium*. 31.
https://scholarworks.utrgv.edu/somrs/2024/posters/31

This Poster is brought to you for free and open access by the School of Medicine at ScholarWorks @ UTRGV. It has been accepted for inclusion in Research Symposium by an authorized administrator of ScholarWorks @ UTRGV. For more information, please contact justin.white@utrgv.edu, william.flores01@utrgv.edu.

Presenter Information (List ALL Authors)
Erika Guajardo, Luis Aguillon, Daniela Ollervides-Charles, KeSheng Wang, Gladys Maestre, J. Garza, and Chun Xu

This poster is available at ScholarWorks @ UTRGV: https://scholarworks.utrgv.edu/somrs/2024/posters/31

Examining CETP gene associated with AD-related diseases of the Hispanic population in the Rio Grande Valley.

Guajardo E.[1], Aguillon L.[1], Ollervides-Charles D.[1], Wang W.[2], Maestre G.[3], Garza J.[3], Xu C*.[1]

[1] Department of Health and Biomedical Science, College of Health Affairs, University of Texas Rio Grande Valley, TX, USA;
Chun Xu: chun.xu@utrgv.edu (C.X.), a corresponding author;
Erika Guajardo: erika.guajardo01@utrgv.edu (E.G.); Aguillon: luis.aguillon01@utrgv.edu (L.A.);Daniela Ollervides Charles (D.O.C) : daniela.ollervidescharles01@utrgv.edu
[2] Department of Family and Community Health, School of Nursing, Health Sciences Center, West Virginia University, Post Office Box 9600 – Office 6419, Morgantown, WV 26506, USA; Kesheng Wang: kesheng.wang@hsc.wvu.edu (K.W.)

Background:
There are currently about 6 million people in the United States that suffer from Alzheimer's Disease (AD) and Alzheimer's Disease related dementia (ADRD). It is a progressive disease beginning with mild memory loss and possibly leading to loss of the ability to carry on a conversation and respond to the environment. Over time, these conditions can cause many different health issues that decrease the quality of life. In addition, Hispanic people are twice as likely to develop AD or AD related dementia than non-Hispanic White people. In our study, we are investigating a known gene, CETP, that directly corresponds with AD and dementia in the U.S Hispanic population.

Methodology:
A total of 200 Hispanic subjects were collected from the Rio Grande Valley (RGV, N = 200). Questionnaires from demographics, lifestyles, medical history and saliva samples were collected. We genotyped for the CETP gene based on one SNP, with statistical analysis being performed through Chi-squares tests, independent sample t-test, and multivariable logistic regression models using SPSS version.

Results:
Current findings have indicated that there was a higher index of Hispanics in the RGV with both the major and minor alleles (A;G), Preliminary findings also showed that there was a higher frequency of individuals with (A;A, risk allele) than any of the other genotypes. There was a weak correlation found with lung problems and AD/ADRD.

Conclusion:
The CETP gene has shown increased risks of AD related diseases in the RGV Hispanic population. However, further research is needed to confirm our current findings for this specific population.