

2017 Summer Undergraduate Poster Session Abstracts

American Indian and Caucasian College Students' Stress and Anxiety Differences

Molly Allery¹, Kyle X. Hill², Jacqueline S. Gray¹, Carissa Malevich¹, Amanda Young¹, Thomas Petros¹ University of North Dakota¹; Indian Health Services²

Expression of IL6 and IL8 in RPTEC/HTERT1 Cells When Exposed to Cadmium

Chaz Bauer, Danyelle B. Osowski, Swojani Shrestha, and Scott H. Garrett
Department of Pathology, University of North Dakota School of Medicine, Grand Forks, ND

Examining DNA Methylation Patterns at Fkbp2 and Bdnf in Neonate Mice Treated with Citalopram

Elizabeth M. Black¹, Meghan A. Rodriquez², and L. Keith Henry²
¹Department of Biology, Wake Forest University; ²Department of Biomedical Sciences, University of North Dakota School of Medicine and Health Services

Cultural Identity: Trending Protective Factor Against Substance Use & Paranoia

Celestina Bonilla A.A., (Mono, Big Sandy Rancheria)¹, Jacqueline S. Gray, PhD., (Choctaw/ Cherokee)², Carissa Malevich M.S.², Amanda Young, B.A. (MHA)², Thomas Petros, PhD²
Salish Kootenai College¹, University of North Dakota²

HSP90AA1 and HSPA8 expression in response to acute cadmium exposure

KC Braaten, Zachary E. Hoggarth, Andrea Slusser-Nore
Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

Assessing Sox9 Protein Expression during the Thermosensitive Period of Embryonic Gonad Development in the Common Snapping Turtle, Chelydra serpentine

Caitlin Brabble¹, Sunil Singh², Turk Rhen²
¹North Carolina Wesleyan College; ²Biology Department University of North Dakota

Response of SERPINE1 and GPC3 in the kidney to chronic cadmium exposure

Matthew J. Briese, Danyelle B. Osowski, Swojani Shrestha, and Scott H. Garrett
Department of Pathology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND

SLC11A2 and CAT Expression in Renal hTERT Cells Acutely Exposed to Cadmium

Bethany Brumbaugh, Danyelle B. Osowski, Shrestha Swojani, and Scott Garrett
Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, North Dakota

Role of Anti-apoptotic Genes in Acute Cadmium-induced Nephrotoxicity in Human Proximal Tubule Cells

Therese Carson, Brooke A. Freeberg and Seema Somji
Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

Expression of GAGE1 and GAGE2A in Estrogen Receptor Positive and Negative Breast Cancer Cell lines

Amber Charboneau¹, Brent Voels¹

¹Cankdeska Cikana Community College

Expression of ATG7 and ATG3 genes in human proximal tubules under cadmium stress

Hannah Christenson, Brooke A. Freeberg and Seema Somji

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

Expression of the immediate early genes FOS, JUN, and MYC in RPTEC/TERT1 cells following acute cadmium exposure

Natisha J. Corum, Zachary E. Hoggarth, Andrea Slusser-Nore

Department of Pathology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND

Expression of Chemokines CXCL2 and CXCL3 after chronic exposure to cadmium

Casey M. DeBeltz, Danyelle B. Osowski, Swojani Shrestha, and Scott H. Garrett

Department of Pathology, School of Medicine and Health Sciences, University of North Dakota, Grand Forks, North Dakota

Food allergy-induced gastrointestinal inflammation results in behavioral abnormalities and associated differential expressions of Th1 and Th2 inflammatory cytokines and tight junction proteins

Patricia Doyle; Nicholas Smith; Danielle Germundson; Kumi Nagamoto-Combs, PhD

Department of Pathology, University of North Dakota School of Medicine and Health Sciences Grand Forks, ND

Effects of cadmium exposure on expression levels of DMT1 and BCL2L1 genes in RPTEC/TERT1 cells

Caleb Ellingson, Brooke A. Freeberg and Seema Somji

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

Expression of HSP60 (gene HSPD1) and HSP70 (gene HSPA1A) by human proximal tubule cells (hTERT) cells following acute exposure of cadmium concentrations

Emily Falcon, Danyelle B. Osowski, Swojani Shrestha, Scott H. Garrett

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

Expression of GAGE12C and GAGE12D in Estrogen Receptor Positive and Negative Breast Cancer Cell Lines Does Not Correspond to Estrogen Receptor Status.

Danacia Greywater¹, Brent Voels¹

¹Cankdeska Cikana Community College

Does Ca²⁺/Calmodulin-Dependent Protein Kinase II Mediate Dopamine Transporter Palmitoylation?

Ann Hajostek¹, Daniel J. Stanislawski², Moriah J. Hovde², James D. Foster²

¹University of Minnesota; ²Department of Biomedical Sciences, University of North Dakota School of Medicine and Health Sciences

The expressions of RYR1, FCRLA, SLC2A4, and VAV3 in RPTEC/TERT1 when induced with cadmium

Nicholas Hammons, Brooke A. Freeberg and Seema Somji

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

The Roles of Solute Carrier Family 39 Members 8 and 14 (SLC39A8 and SLC39A14) Genes in Renal Proximal Tubule Reuptake of Cadmium

Anna Horner, Danyelle B. Osowski, Swojani Shrestha, Scott H. Garrett

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

Effects of chronic cadmium exposure on HIF1A and AURKA

Annabel Jiran, Zachary E. Hoggarth, Andrea Slusser-Nore

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

Nucleosome Positioning and Histone Modification in relation to the Repression of Early and Late Transcription during SV40 Infection

Karine Kasti¹, Barry Milavetz², Meera Ajeet²

¹Emory University; ²Department of Biomedical Sciences, University of North Dakota School of Medicine

Expression of SEMA3A and SEMA5A in cadmium exposed kidney cells

Haylea Kern, Zachary E. Hoggarth, Andrea Slusser-Nore

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

Detecting Mitochondrial Heteroplasmy or Nuclear Insertions of the D-Loop Control Region of Muskrats (*Ondatra zibethicus*)

Emily Klatt^{1,2}, Brian J. Darby²

¹University of North Dakota School of Medicine and Health Sciences; ²Biology Department, University of North Dakota

α 1A-adrenergic Receptor Subtype Activation Reduces, Knock-out Increases, Epileptiform Event Frequency in the Murine Hippocampal CA3 Region

Theda P. Knauth¹, Joseph P. Biggane², Zach O. Dent², Dianne M. Perez³, Van A. Doze²

¹Department of Biology, Carroll College; ²Department of Biomedical Sciences, University of North Dakota School of Medicine & Health Sciences; ³Department of Molecular Cardiology, Lerner Research Institute, The Cleveland Clinic Foundation

GPR37 and GPR161 expression in human proximal tubule cells exposed to cadmium

Matt Kretschmar, Zachary E. Hoggarth, Andrea Slusser-Nore

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

Relationship Between Health & Technology Among Native American Elders

Charles LaRocque¹, Randella Bluehouse², Rebecca Owl Morgan², Jacqueline S. Gray¹, Carissa Malevich¹, Thomas Petros¹, Amanda Young¹

¹University of North Dakota School of Medicine and Health Sciences and ²National Indian Council on Aging, INC.

Chronic cadmium exposure in human proximal tubule cells and its effects on expression of solute carriers

Chris Larson, Brooke A. Freeberg and Seema Somji

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

Expression of GAGE2B and GAGE2C in Estrogen Receptor Positive and Negative Breast Cancer Cell lines.

Carmencita Leaf¹, Brent Voels¹

¹Cankdeska Cikana Community College 214 First Ave Fort Totten, ND

Food allergy-induced changes in indoleamine-2-3-dioxygenase expression in the intestines of β -lactoglobulin-sensitized mice: a potential role in tryptophan metabolism

Lillie L. Meduna, Nick Smith, Danielle L. Germundson, and Kumi Nagamoto-Combs

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, North Dakota

High fat diet induces Bacteroides and inhibits Prevotella in mouse gut

Eric Millette¹, Menglan Xiang², Kurt K Zhang²

¹Concordia College; ²University of North Dakota School of Medicine and Health Sciences

Acute cadmium exposure on expression of SLC39A8 and SLC39A14

Jessica Nelson, Zachary E. Hoggarth, Andrea Slusser-Nore

Department of Pathology, University of North Dakota School of Medicine & Health Sciences, Grand Forks, ND

The effect modifying role of cancer diagnosis on the association between diabetes and depression among adult individuals residing in Brazil

Christian Peltier¹, S. Cristina Oancea²

¹ Department of Pathology, School of Medicine and Health and Sciences, University of North Dakota, Grand Forks, ND, ²Department of Population Health, School of Medicine and Health and Sciences, University of North Dakota, Grand Forks, ND

Expression of INHBA and NFKB1 in hTERT cells

Karl Peterson, Danyelle B. Osowski, Swojani Shrestha, Scott H. Garrett

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

An Exploration of Forebrain Development: Vascular Microenvironment Influence and Significance of Epigenetic Modifications

Janna E. Quick¹, Jady M. Cox², Kayla M. Michelson², Rachana Trivedi², Diane C. Darland²

¹Chemistry Department College of Saint Benedict/St. John's University; ²Biology Department University of North Dakota

Maternal Weight Gain Accurately Predicts Mouse Pregnancy

Paige Relling¹, Menglan Xiang², Kurt K Zhang²

¹University of North Dakota Department of Mathematics; ²University of North Dakota School of Medicine and Health Sciences

Role of Superoxide Dismutase in Response to Kidney Proximal Tubule Cells Exposed to Cadmium

Alexandra Rios, Danyelle B. Osowski, Swojani Shrestha, Scott H. Garrett

Department of Pathology, University of North Dakota School of Medicine, Grand Forks, ND

Chronic cadmium exposure on the gene expression of SQSTM1 and NFE2L2

Justin Schafer, Danyelle B. Osowski, Swojani Shrestha, Scott H. Garrett

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

Gene expression of CAT and SOD2 under chronic cadmium exposure

Alex Schlichting, Brooke A. Freeberg, Seema Somji

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

Sex Determination using dsx Gene Expression in White Marked Tussock Moth Caterpillars

Sarai C. Seymour¹, Rebecca Simmons²

¹Chemistry Department, College of Saint Benedict/St. John's University; ²Biology Department, University of North Dakota

Effects of chronic cadmium exposure on ENO2 and KIM1 in RPTEC/TERT1 cells

Kalvin Slaubaugh, Zachary E. Hoggarth, Andrea Slusser-Nore

Department of Pathology, University of North Dakota School of Medicine & Health Sciences Grand Forks, ND

Expression of SOD1 and BCL2 in RPTEC/TERT1 cells exposed to various levels of cadmium

Ifrah Sohail, Zachary E. Hoggarth, Andrea Slusser-Nore

Department of Pathology, University of North Dakota School of Medicine & Health Sciences Grand Forks, ND

Identifying Strengths: Community and Spirituality in Northern Plains Indian Tribes

Clarissa Stenstrom¹, Jacqueline Gray², Carissa Malevich², Amanda Young², Thomas Petros² Salish Kootenai College¹, University of North Dakota²

The expression of the MT-1G and MT-1F genes when exposed to cadmium in human proximal tubule cells

Jacqueline B. Sudue, Brooke A. Freeberg and Seema Somji

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

Varying expression of SQSTM1 and NFE2L2 resulting from acute cadmium exposure

Sarah L. Wherley, Zachary E. Hoggarth, Andrea Slusser-Nore

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND

Metallothionein -1E and -2A gene expression in commercial kidney proximal tubule cell line RPTEC/TERT1 in response to long-term cadmium exposure

Jenae Wieser, Brooke A. Freeberg and Seema Somji

Department of Pathology, University of North Dakota, School of Medicine and Health Sciences, Grand Forks, ND

Effects of cadmium exposure on expression of Interleukin-1-Beta and Tumor Necrosis Factor-Alpha in RPTEC/hTERT1 cells

Benjamin Wilander, Brooke A. Freeberg and Seema Somji

Department of Pathology, University of North Dakota School of Medicine and Health Sciences, Grand Forks, ND