2016 Summer Undergraduate Poster Session Abstracts

Effect of Constitutive α_{1A} -adrenergic Receptor (α_{1A} -AR) Activation on the Expression of GriK1, GriK2, and GriK3 in Female Mouse Hippocampi

<u>Brett Alberts, Zachary O Dent, Nicholas A Smith,</u> Joseph P Biggane, Dianne M Perez, Van A Doze University of North Dakota School of Medicine & Health Sciences; Cleveland Clinic Foundation; United Tribes Technical College

Constitutive α_{1A} -Adrenergic Receptor Activation and Gene Expression of Ccnd1 Ccnd2 and Ccnd3 in the hippocampus

<u>Todd Andersen, Zachary O Dent, Nicholas A Smith, Joseph P Biggane, Dianne M Perez, Van A Doze</u> University of North Dakota School of Medicine and Health Sciences; Cleveland Clinic Foundation

The Effect of Immortalization on the mRNA Expression of HIF1A and PPP1R3C

<u>Seth Arntz</u>, <u>Alexis Antonenko</u>, <u>Brooke A. Freeberg</u>, Swojani Shrestha, Andrea Slusser-Nore, Seema Somji University of North Dakota School of Medicine & Health Sciences

Expression of LRRC19 and TSPAN1 Genes in Human Proximal Tubule Cells from Kidney

<u>Harmoni Bahr, Daniel Sayler, Zachary Hoggarth,</u> Swojani Shrestha, Andrea Slosser-Nore, and Jane Dunlevy University of North Dakota School of Medicine & Health Sciences

Diabetes Amongst AI/AN Elders by Age, Income, Cultural Practices, and Residing on/off Tribal Lands

<u>Leah Bercier</u>, Cole Ward, Paula Carter, Jacqueline S. Gray University of North Dakota School of Medicine & Health Sciences

A Preliminary Investigation into Metallothionein-3's Influence on the Expression of GAGE Antigens in MCF7 Cells

<u>Nashanda A Bercier</u>, Brent J Voels Cankdeska Cikana Community College, Fort Totten, ND

SASSI-3: Substance Abuse and Comorbidity Among Northern Plains Indians

<u>Domeequo Beston</u>, Jacqueline S. Gray, Thomas Petros, Evelyn Ayala, Amanda Young University of North Dakota School of Medicine & Health Sciences

Comparing Mouse Models for Alzheimer's Disease Pathology in the Brain and Small Intestine

Braun M, Dhawan Manocha G, Combs C

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Expression of the Inflammatory Genes IL6 and MAP2K6 in the HK-2, HK-2(MT-3), and hTERT Cells and Human Proximal Tubule Isolates

<u>Alyssa M. Brown, Danyelle B. Osowski,</u> Andrea Slusser-Nore, Swojani Shrethsa, and Scott H. Garrett University of North Dakota School of Medicine and Health Sciences; York College

Differential expression of Camk2a, Cdk5, and Trp53 in the hippocampus of constitutively active α_{1A} -Adrenergic Receptor adult female mutant mice.

<u>Natisha Corum, Zachary O Dent, Nicholas A Smith,</u> Joseph P Biggane, Dianne M Perez, Van A Doze University of North Dakota School of Medicine and Health Sciences; Cleveland Clinic Foundation

The Spatiotemporal Patterns of US Air Pollution: A Case Study of Connecticut

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Department of Civil Engineering, University of North Dakota

Nucleosome Shifting

Barry Milavetz, Ashley Dettlaff, Danielle Perley, Meera Ajeet

University of North Dakota School of Medicine & Health Sciences; University of Illinois, Urbana-Champaign

Comparison of Genetic and Morphospecies Identification Techniques to Examine a Restored Grassland Pollinator Community

<u>Flint Devine</u>, Tiffany Huwe, Leslie Yellow Hammer, Sami Swartz, Rebecca Simmons, Mia Park, Brett J Goodwin, Kathryn Yurkonis

University of North Dakota

Gene Expression in Human Proximal Tubule Cell Lines

<u>Kelsa Didier-Mills, Daniel Sayler, Zachary Hoggarth,</u> Swojani Shrestha, Andrea Slusser-Nor², Jane Dunlevy University of North Dakota School of Medicine and Health Sciences; Wayne State College

Expression of G Protein-Coupled Receptor Genes ADGRG2, ADGRF1, and ADGRF4 in HK-2, MT-3 Induced HK-2, hTERT, and Human Proximal Tubule Cells

<u>Valerie N Doze, Danyelle B. Osowski,</u> Andrea Slusser-Nore, Swojani Shrethsa, and Scott H. Garrett University of North Dakota School of Medicine and Health Sciences

Expression of KCNJ1, TRPC6 and SLC16A7 in EMT/MET

<u>Mickayla DuFresne-To</u>, <u>Alexis Antonenko</u>, <u>Brooke A. Freeberg</u>, Swojani Shrestha, Andrea Slusser-Nore, Seema Somji

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Differential Gene Expression of Grin2c, Grin2d, and Bax in the Hippocampi of Mice with Constitutive $\alpha 1A$ -Adrenergic Receptors

<u>Tyler Fahy, Zachary O Dent, Nicholas A Smith,</u> Joseph P Biggane, Dianne M Perez, Van A Doze University of North Dakota School of Medicine and Health Sciences; Cleveland Clinic Foundation; Dakota College at Bottineau

Constitutive α_{1A} -Adrenergic Receptor Activation and Gene Expression of Cycs, Casp3, and Casp6 in the Adult Female Mouse Brain

<u>Paige Freeberg, Zachary O Dent, Nicholas A Smith,</u> Joseph P Biggane, Dianne M Perez, Van A Doze University of North Dakota School of Medicine and Health Sciences; Cleveland Clinic Foundation; University of Denver

Effect of Constitutive α_{1A} -Adrenergic Receptor Activation on the Expression of Stx1b, Stxbp1, and Slc18a2 in Mouse Hippocampi

<u>Howard Fuller, Zachary O Dent, Nicholas A Smith,</u> Joseph P Biggane, Dianne M Perez, Van A Doze University of North Dakota School of Medicine and Health Sciences; Cleveland Clinic Foundation; Sinte Gleska University

Examining the Relationship between the SCL-90-R and Cardiovascular Disease among Northern Plains Tribes

<u>JoMarie B. Garcia</u>, Jacqueline S. Gray, James G. Penland, Thomas Petros, Amanda Young, Evelyn Ayala University of North Dakota School of Medicine & Health Sciences

Mast Cell Aggregation and Microglia Activation in the Central Nervous System in Response to a Food Antigen

<u>Danielle L. Germundson</u>, Andrea V. Kelsh, Kendra L. Puig, Justine E. Melvin, Sara Monette, Colin K. Combs, and Kumi Nagamoto-Combs

University of North Dakota School of Medicine and Health Sciences

Differential Expression Analysis of Serotonin Transporter Knockout and M172 Transgenic Mice and the Impact on Neuronal Pathways in the Midbrain

<u>Miranda Goodman</u>, Danielle Perley, Adam Scheidegger, Meghan Rodriquez, and L. Keith Henry University of North Dakota School of Medicine and Health Sciences; King University

Identification of Temperature Sensitive Genes Associated with the Wnt-signaling Pathway During Sex Determination in the Snapping Turtle

Paige Goodman, Turk Rhen

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Whey Protein-Sensitization Increased Expression of Intestinal Indoleamine Dioxygenase 1 in Mice

<u>Andrew Hao, Katlin Schmitz, Danielle Germundson, Lane Vendsel,</u> Colin Combs, Kumi Nagamoto-Combs University of North Dakota School of Medicine and Health Sciences; Concordia College

Expression of STAT1, IL-8, and p53 in HK-2, HK-2 MT-3, hTERT, and Human Proximal Tubule Cell Lines and Isolates

<u>Micah Kerney, Danyelle B. Osowski</u>, Andrea Slusser-Nore, Swojani Shrestha, and Scott H. Garrett University of North Dakota School of Medicine and Health Sciences; University of Mary

Expression of INHBA and SMAD7 in the HK-2, HK-2(MT-3), hTERT, and Human Proximal Tubular Isolates and Cell Lines

<u>Natasha Marama, Danyelle B. Osowski,</u> Andrea Slusser-Nore, Swojani Shrestha, and Scott H. Garrett University of North Dakota School of Medicine and Health Sciences; Dakota College at Bottineau

The Effects of PRKACB and SEMA3A on Human Kidney Cell Lines

<u>Nathalie Marama</u>, <u>Alexis Antonenko</u>, <u>Brooke A. Freeberg</u>, Swojani Shrestha, Andrea Slusser-Nore, Seema Somji University of North Dakota School of Medicine & Health Sciencesl Dakota College at Bottineau

Expression of HABP2 and ADAM9 in HK-2, HK-2 MT-3, and TERT Proximal Tubule Cell Lines

<u>Eric Millette</u>, <u>Daniel Sayler</u>, <u>Zachary Hoggarth</u>, Swojani Shrestha, Andrea Slusser-Nore, Jane Dunlevy University of North Dakota School of Medicine & Health Sciences; Condordia College

Expression of Extracellular Matrix Regulatory Proteins DCN and TGFB2 and EMT interactions with MMP7

<u>Benjamin P. Mueller, Danyelle B. Osowski,</u> Andrea Slusser-Nore, Swojani Shrestha, and Scott H. Garrett University of North Dakota School of Medicine and Health Sciences

Expression of SIK1 and LTBP2 in Human Proximal Tubule Cell Lines

<u>Brandon Narum</u>, <u>Daniel Sayler</u>, <u>Zachary Hoggarth</u>, Swojani Shrestha, Andrea Slusser-Nore, and Jane Dunlevy University of North Dakota School of Medicine & Health Sciences

Cultural Contradictions: Native Americans and the MMPI-2

<u>Kylie Parisien</u>, Colleen Kagan, Thomas Petros, Jacqueline S. Gray, Amanda Young, Evelyn Ayala University of North Dakota School of Medicine & Health Sciences

Expression of TNFSF10 and IRAK3 in HK-2, MT-3 induced HK-2, hTERT, and Human Proximal Tubular Cell Lines and Isolates

<u>Christian Peltier, Danyelle B. Osowski</u>, Andrea Slusser-Nore, Swojani Shrestha, and Scott H. Garrett University of North Dakota School of Medicine and Health Sciences

Constitutive α_{1A} -Adrenergic Receptor Activation and Gene Expression of Grin1, Grin2a, Grin2b in the Mouse Brain

<u>Cassidy Peterson</u>, <u>Zachary O Dent</u>, <u>Nicholas A Smith</u>, <u>Joseph P Biggane</u>, <u>Dianne M Perez</u>, Van A Doze University of North Dakota School of Medicine & Health Sciences; Cleveland Clinic Foundation; University of Jamestown

Expression of SEMA6D and FGF9 Within Mortal and Immortalized Proximal Tubule Cell Cultures Arianna Riley, Alexis Antonenko, Brooke A Freeberg, Swojani Shrestha, Andrea Slusser-Nore, Seema Somji University of North Dakota School of Medicine & Health Sciences

Expression of SOD2, CHRDL1, and ID4 in Human Proximal Tubule Cell Lines

<u>Nora Rimatzki, Daniel Sayler, Zachary Hoggarth,</u> Swojani Shrestha, Andrea Slosser-Nore, Jane Dunlevy University of North Dakota School of Medicine & Health Sciences

The Unique N- and C-terminal Domains of Metallothionein-3 Influence the Expression of GAGE Antigens 12H, 12G, 12C, and 2C in MCF7 Cells

<u>Ava M. Robertson</u>, Brent J. Voels Cankdeska Cikana Community College, Fort Totten, ND

The Role of SOX9 and PPP2R3A in Epithelial-Mesenchymal Transition within the Proximal Tubule Steven Russell, Alexis Antonenko, Brooke A Freeberg, Swojani Shrestha, Andrea Slusser-Nore, Seema Somji University of North Dakota School of Medicine & Health Sciences

Expression of a Fluorescent Reporter Gene, TCF/Lef:H2B-GFP, in Snapping Turtle (Chelydra serpentina) Gonad Cells During Temperature-Dependent Sex Determination

Erika Scheibe, Turk Rhen

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Tryptophan Hydroxylase Expression in Mice with Food Allergy

<u>Katlin T. Schmitz</u>, <u>Lane P. Vendsel</u>, <u>Danielle L. Germundson</u>, Colin K. Combs, Kumi Nagamoto-Combs University of North Dakota School of Medicine and Health Sciences; College of St. Benedict and St. John's University

Expression of MMP-16, COL141A, and PAPPA2 in the Human Proximal Tubule

<u>Kirsten Schumacher</u>, <u>Daniel Sayler</u>, <u>Zachary Hoggarth</u>, Swojani Shrestha, Andrea Slusser-Nore, Jane Dunlevy University of North Dakota School of Medicine and Health Sciences

Gene Expression of Gad1, Gabra1, and Gabrg2 from Mouse Hippocampal Tissue with Constitutively Activated α_{1A} -Adrenergic Receptors

<u>Sarai Seymour</u>, <u>Zachary O Dent</u>, <u>Nicholas A Smith</u>, <u>Joseph P Biggane</u>, <u>Dianne M Perez</u>, Van A Doze University of North Dakota School of Medicine and Health Sciences; Cleveland Clinic Foundation; College of St. Benedict and St. John's University

The Effect of Constitutive α_{1A} -Adrenergic Receptor Activation on Gene Expression of Inositol 1,4,5-Triphosphate Receptor Subtypes

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Expression of MMP1 and EREG Genes in HK-2 cells, HK-2 MT-3 cells, TERT Cells and Human Proximal Tubule Cell Cultures

<u>Alex Stone, Daniel Sayler, Zachary Hoggarth,</u> Swojani Shrestha, Andrea Slusser-Nore, Jane Dunlevy University of North Dakota School of Medicine & Health Sciences; Presentation College

Function of GREM1 and LRP4 in Regulation of Human Kidney Cells

Eleanor Swenson, Alexis Antonenko, Brook A Freeberg, Swojani Shrestha, Andrea Slusser-Nore, Seema Somji University of North Dakota School of Medicine & Health Sciences

Proximal Tubule Isolates

<u>Olivia Thorleifson, Daniel Sayler, Zachary Hoggarth, S</u>wojani Shrestha, Andrea Slusser-Nore, and Jane R. Dunlevy University of North Dakota School of Medicine and Health Sciences

The Important Effects and Role of SLC12A1 and CaSR on the Kidney

<u>Kayana Trottier</u>, <u>Alexis Antonenko</u>, <u>Brooke Freeberg</u>, Swojani Shrestha, Andrea Slusser-Nore & Seema Somji University of North Dakota Health and Medical Sciences; Turtle Mountain Community College

Food Allergy-Induced Changes in Histamine 3 Receptor Expression in the Mouse Brain

<u>Lane Vendsel</u>, Kendra L. Puig, Justine E. Melvin, Sara Monette, Colin K. Combs and Kumi Nagamoto-Combs University of North Dakota School of Medicine & Health Sciences

Evaluating the Expression of ACSL4, SLC27A2, SLC16A4, SLC2A3, and IGFBP2 in HK-2, HK-2(MT-3), and hTERT Cells and Human Proximal Tubular Isolates

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Depalmitovlation of the Dopamine Transporter by Acyl Protein Thioesterase 2

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Identifying PCSK6 Mutations in Atrial Septal Defect Patients Using Whole Exome and Genome Sequencing

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