2015 Summer Undergraduate Poster Session Abstracts

Evaluation of the Adjuvant Properties of BscF, a Purified Needle Protein from *Bordetella pertussis*

<u>Aardahl K</u>, Alvine TD, Knopick PL, Osei-Owusu P, Nilles ML, Bradley DS Concordia College; Department of Basic Sciences, University of North Dakota School of Medicine

Health Care Coverage among AIAN Elders by Gender and Income

Ward C, Adamsen C, Carter P Center for Rural Health, University of North Dakota, School of Medicine and Health Sciences

Evolutionary Ecology of rRNA Copy Number

<u>Waisner H</u>, Darby B Ottawa University; Department of Biology, University of North Dakota

Effect of Constitutive a_{1A} -adrenergic Receptor Activation on Gene Expression of Notch1 and Nme1 in the Adult Female Mouse Brain

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Aldh1a2 Expression in the Adult Female Mouse Brain with Constitutively Active a_{1A} -Adrenergic Receptors <u>Claymore BK¹</u>, Biggane J², Perez DM³, Doze VA²

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Constitutive a_{1A} -Adrenergic Receptor Activation and Gene Expression of Creb1 and Ascl1 in the Adult Female Mouse Brain

<u>Dent Z</u>¹, Biggane JP², Perez DM³, Doze VA² ¹Department of Pathology, University of North Dakota School of Medicine and Health Sciences, ²Department of Basic Sciences, University of North Dakota School of Medicine and Health Sciences, ³Department of Molecular Cardiology, Cleveland Clinic Foundation

Shh and Akt2 Expression in the Constitutively Active Mutant α_{1A}-Adrenergic Receptor Female Mouse Brain <u>Giermundson S¹</u>, Biggane JP², Perez DM³, Doze VA²

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Cpe and Casr Expression in Adult Female Mice with Constitutively Active Mutant α_{1A}**- adrenergic Receptors** <u>*Gregoire BR*¹</u>, *Biggane JP*², *Perez DM*³, *Doze VA*²

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Expression of the Apolipoprotein E (APOE) Gene in Constitutively Active Mutant α_{1A} -Adrenergic Receptor (CAM α_{1A} -AR) Adult Mice

<u>McDonald R¹</u>, Biggane JP², Perez DM³, Doze VA²

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Expression of Npas-3 and Aldh1a1 in Adult Female Mice with Constitutively Active Mutant α_{1A} -Adrenergic Receptors

<u>Ryberg AJ¹</u>, Biggane JP², Perez DM³, Doze VA²

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Expression of Brain-Derived Neurotrophic Factor (Bdnf) and Cyclin E1 (Ccne1) in Adult Female Mice with Constitutively Activated a_{1A} -Adrenergic Receptors

<u>Smith NA¹</u>, Biggane JP², Perez DM³, Doze VA²

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Expression of Noggin in Adult Female Mice with Constitutively Active Mutant α_{1A} **- Adrenergic Receptors** <u>*Zimmer TN*¹, Biggane JP², Perez DM³, Doze VA²</u>

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Fibronectin Splicing in Human Proximal Tubule Cells Exposed to High Concentrations of Glucose

<u>Boike S</u>, Evanoff ER, Slusser-Nore A, Dunlevy JR Department of Basic Sciences, University of North Dakota, School of Medicine and Health Sciences

Differential Expression of Fibronectin Splice Variants in Breast Cancer Cell Lines

<u>Grosgebauer K</u>, Slusser-Nore A, Evanoff ER, Garrett SH, Somji S, Sens DA, Dunlevy JR Departments of Basic Sciences and Pathology, University of North Dakota School of Medicine & Health Sciences

Expression of ITGAV and ITGB3 in Arsenic and Cadmium Transformed UROtsa Cells <u>Hoggarth Z</u>, Slusser A, Evanoff E, Dunlevy J Department of Basic Sciences, University of North Dakota, School of Medicine and Health Sciences

ITGA9 and ITGA3 Expression in Arsenite (As⁺³)- and Cadmium (Cd⁺²)-Transformed UROtsa Cells

<u>Norton RA</u>, Slusser A, Evanoff E, Dunlevy, J. Department of Basic Sciences, University of North Dakota, School of Medicine and Health Sciences

Put a little "metal" in it: CD44 and ITGB6 Expression in Cadmium (Cd²⁺) and Arsenic (As³⁺) Transformed UROtsa Cells

<u>Osowski D</u>, Evanoff E, Slusser A, Dunlevy JR Departments of Basic Sciences and Pathology, University of North Dakota School of Medical and Health Sciences

Gene Expression of ITGA4 and ITGB1 in Cd²⁺ and As³⁺-transformed UROtsa Cells

<u>Piper T</u>, Slusser A, Evanoff ER, Dunlevy JR Departments of Basic Sciences and Pathology, University of North Dakota School of Medicine & Health Sciences

Fibronectin Splice Variants are Differentially Expressed in Cultured Human Proximal Tubule Cells <u>Redman WK</u>, Slusser-Nore A, Evanoff ER, Dunlevy JR Departments of Basic Sciences and Pathology, University of North Dakota School of Medicine & Health Sciences

Expression of ITGA5 and ITGA8 in Arsenite (As+3) and Cadmium (Cd+2) Transformed UROtsa Cells

<u>Rone A</u>, Slusser A, Evanoff E, Dunlevy J Departments of Basic Sciences and Pathology, University of North Dakota School of Medical and Health Sciences

Expression of Stem Cell Biomarker Genes ALDH1A1, CD44, and PROM1/CD133 and Doming in Proximal Tubule Cells

<u>Boeshans D</u>, Davis B, Shrestha S, Somji S, Sens DA, Garrett S Bismarck State College; Department of Pathology, University of North Dakota School of Medicine & Health Sciences

Expression of the TGF- Family of Cytokines and Their Receptors in Human Proximal Tubular Cells <u>Brink B</u>, Davis B, Sens DA, Garrett SH Department of Pathology, University of North Dakota School of Medicine and Health Sciences

Exploring the Roles of MT-3, Gelsolin, and DPYSL3 in the Renal Epithelial-to-Mesenchymal Transition <u>Ganje AJ,</u> Davis B, Slusser A, Shrestha S, Dunlevy J, Sens DA, Garrett SH Depts. of Basic Sciences and Pathology, University of North Dakota School of Medicine & Health Sciences

Expression of Sox4, Sox6, BATF3, and CEBPB in Human Proximal Tubule and HK-2 Isolates

<u>Marasinghe L</u>, Davis B, Shrestha S, Garrett S Department of Pathology, University of North Dakota – School of Medicine & Health Sciences

Expression of SEMA 3C, SEMA 3F, SEMA 5A, and SEMA 5B in Human Proximal Tubule and HK-2 Cell Lines

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Expression of WNT3a, WNT5a, & Their Receptors FZD1, & FZD2 in MT3-induced Mesenchymal-to-Epithelial Transition in Renal Proximal Tubule Cells

<u>Nelson N</u>, Davis B, Shrestha S, Garrett SH, Sens DA Department of Pathology, University of North Dakota School of Medicine & Health Sciences

Expression of ARHGDIA, EPHB2, TRIB1, and PIK3R3 Genes in the Immortalized Cell Line HK-2, HK-2 MT-3 Cells and in Mortal Cultures of Human Proximal Tubular Cells Savage C, Davis B, Shrestha S, Sens DA, Garrett. SH

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Expression of N-Cadherin, E-Cadherin, and K-Cadherin Genes in HK-2 cells, HK-2 MT-3 cells and HPT Cells

<u>Sayler D</u>, Davis B, Sens DA, Garret SH Department of Pathology, University of North Dakota School of Medicine and Health Sciences

Expression of MMP1 and DCN in HK-2, MT-3, and HPT Cell Lines

<u>Sinamo T</u>, Davis B, Sens DA, Garrett SHG Department of Pathology, University of North Dakota School of Medicine & Health Sciences

Expression of the Proapoptotic Genes CASP2 and BAX in the HK-2 Cells, HK-2 MT-3 Cells and Human Proximal Tubular Isolates

<u>Tarvestad S</u>, Davis B, Shrestha S, Sens DA, Garrett SH Department of Pathology, University of North Dakota School of Medicine and Health Sciences

Technology Use among American Indian/Alaskan Native Elders

<u>Azure WB¹</u>, Wheeler M¹, Gray JS¹, Bluehouse R², Gomez T², Owl Morgan R² ¹Center for Rural Health, University of North Dakota School of Medicine and Health Sciences ²National Indian Council on Aging, Inc.

Contributing Factors to American Indian/Alaskan Native Elders' Quality of Life

<u>Lyons L</u>¹, Wheeler M¹, Gray JS¹, Bluehouse R², Owl Morgan R² ¹Center for Rural Health, University of North Dakota School of Medicine and Health Sciences, ²National Indian Council on Aging

Identity Theft among American Indian and Alaskan Native Elders

<u>Riley D</u>, Wheeler M, Gray, J, Bluehouse R, Gomez T, Owl Morgan R Center for Rural Health, University of North Dakota, School of Medicine and Health Sciences

Turtle Mountain Leech Genome Project: Relating Morphology to Genetic Barcodes for Several Glossiphoniidae and Erpobdella Species

Hunter D, LaVallie A, <u>Parisien A</u>, <u>Bercier L</u>, <u>Nadeau J</u>, <u>St. Pierre M</u>. Turtle Mountain Community College, Belcourt, ND

Turtle Mountain Leech Genome Project: Relating Morphology to Genetic Barcodes for Several Glossiphoniidae, Haemopidae, and Macrobdellidae Species

Hunter D, LaVallie A, <u>Parisien A</u>, <u>LaRocque C</u>, <u>Beston D</u>, <u>Counts D</u> Turtle Mountain Community College, Belcourt, ND

Changes in Histone Modifications during the Initiation of Transcription

<u>Nuñez BAL¹</u>, Christensen KM², Wood BDs², Milavetz B² ¹Department of Biology and Chemistry, Los Angeles Harbor College ²Department of Biochemistry and Molecular Biology, University of North Dakota

The *cis***-regulation of** *Cebpa* **During Macrophage-Neutrophil Differentiation** <u>*Tuineau M*</u>, *Krueger S*, *Repele A*, *Manu M*

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Expression of Tyrosine Hydroxylase in Microglial Cell Cultures: Catecholamines as Potential Gliotransmitters

Melvin JE, Manocha GD, Puig KL, Combs CK, Nagamoto-Combs K Depts. of Basic Sciences and Pathology, University of North Dakota School of Medicine & Health Sciences

Developing a Reporter Assay of Wnt Pathway Activity and Comparing its Expression in Male and Female Snapping Turtles (*Chelydra serpentina*)

<u>Molinar K</u>, Miller A, Rhen T New Mexico Highlands University; Department of Biology, College of Arts and Sciences, University of North Dakota

Effects of Atrazine and Estrogen on Gene Expression within the Hypothalamus of Male and Female Snapping Turtles (*Chelydra serpentina*) <u>Oestreich E</u>, Russart KG, Rhen T

University of Washington, Seattle; Department of Biology, University of North Dakota

Genetic Diversity of Pollinators in a Space Plot System in Mekinock, North Dakota <u>Devine R</u>, Huwe T, Yellow Hammer L, Swartz S, Simmons R, Park M, Goodwin BJ, Yurkonis K. Department of Biology, College of Arts and Sciences, University of North Dakota

Genetic Diversity of the Invasive Gypsy Moth, *Lymantria dispar dispar* (Lepidoptera: Erebidae: Lymantriinae)

Longie PN, Ranawaka NK, Simmons RB Department of Biology, College of Arts and Sciences, University of North Dakota

Expression of ALDH1A1 in Arsenide(As+3) and Cadmium (Cd+2) Transformed UROtsa Cells

<u>Antonenko AM</u>, Van Gieson JL, Garrett SH, Sens DA, Somji S Department of Pathology, University of North Dakota School of Medicine & Health Sciences

Expression of Vimentin in UROtsa Parent, Arsenite, and Cadmium –transformed Cell Lines and Urospheres <u>Freeberg B</u>, Van Gieson JL, Sens DA, Somji S Department of Pathology, University of North Dakota, School of Medicine and Health Sciences

CD44 Expression In A Model of As+3 and Cd+2 Induced Bladder Cancer

<u>Grosz JL</u>, Van Gieson JL, Garrett SH, Sens DA, Somji S Department of Pathology, University of North Dakota School of Medicine & Health Sciences

Differential Expression of N-Cadherin (CDH2) in Arsenic (As3+) and Cadmium (Cd2+) Transformed UROtsa Cells and UROspheres: A Study of the Expression Levels of Neural Cadherin as a Potential Biomarker for Aggressive Bladder Cancers. <u>McLean RAS</u>, Van Gieson JL, Somji, S Department of Pathology, University of North Dakota School of Medicine & Health Sciences

Expression of CDH1 in Cd⁺² and As³⁺Transformed UROtsa cells and in UROsphere Derived from these Transformed Cell Lines

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Variation of OCLN Expression in As³⁺ and Cd²⁺-transformed UROtsa and Corresponding Putative Cancer Stem Cells

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Expression of TWIST1 in UROtsa parent and Arsenite and Cadmium Transformed Cell Lines and **Urospheres**

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Expression of SNAI1 in Cd²⁺ and As³⁺ Induced Bladder Cancer using a UROtsa Model

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Expression of SNAI2 in UROtsa Parent, and Arsenite and Cadmium Transformed Cell Lines and Urospheres

Warren D, Van Gieson JL, Sens DA, Somji S Department of Pathology, University of North Dakota, School of Medicine and Health Sciences

A Preliminary Investigation into Metallothionein-3's Influence on the Expression of GAGE Antigens in MCF7 Cells Bercier N, Voels B

Cankdeska Cikana Community College, Ft. Totten,ND

The Unique N- and C-Terminal Domains of Metallothionein-3 Influence the Expression of GAGE Antigens in MCF7 Cells. Black D, Voels B. Cankdeska Cikana Community College, Ft. Totten, ND