



# BIOGRAPHICAL SKETCH

**NAME: NICOLE J. PORITSANOS**

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**POSITION TITLE:**

**Assistant Professor (Tenure Track)**

**EDUCATION/TRAINING**

INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
University of Manitoba, Faculty of Science, Winnipeg, MB, Canada	Bachelor of Science	05/2003	Microbiology
University of Manitoba, Faculty of Science, Winnipeg, MB, Canada	Master of Science	02/2006	Microbiology (Biocontrol)
University of Manitoba, Department of Physiology, Faculty of Medicine, Winnipeg, MB, Canada.	Doctorate (Ph.D.)	02/2011	Physiology (Diabetes Research Group, Neuroendocrinology)
University of Manitoba, Manitoba Institute of Child Health, Women`s Outpatient Clinic, Winnipeg, MB, Canada.	Doctoral Student Researcher (Volunteer)	2009-2010	Physiology & Clinical Research
University of Manitoba, Department of Physiology, Spinal Cord Research Group- Diabetes, Faculty of Medicine – National Research Council of Canada (Institute of Biodiagnostics), MB, Canada.	Post-Doctoral Fellow	2010-2012	Human Adipose-derived Stem Cell Therapy in Peripheral Artery Disease, Neuroendocrinology & Obesity
Texas A&M University, College of Pharmacy, Health Sciences Center, Kingsville, TX, USA.	Post-Doctoral Trainee	2013	Preeclampsia and Epigenetics
University of Tennessee, Health Sciences Center, Memphis, TN, USA.	Post-Doctoral Trainee	2013-2014	PPAR $\gamma$ & mTORC1 Signaling in Adipogenesis and Obesity
Del Mar College, Certified Nurse Aide (CNA), Corpus Christi, TX, USA.	CNA Student	2014	Certified Nurse Aid (CNA) Certification
Retama Manor Nursing Center - Del Mar College	CNA Clinical Intern	2014	Health Care
Johns Hopkins Bloomberg School of Public Health	Graduate Student	2019-Present	Global Health Management (Certificate)

## A. Positions

### Positions and Employment

- 2019-Present      **Teaching Assistant Professor (tenure track)**, Department of Biology, University of Mary Hardin-Baylor, Belton, TX, USA. Courses taught: Human Anatomy and Physiology I & II, Microbiology, Genetics, General Biology, and Global Health Ethics.  
On-site teaching (lectures and laboratories). Teaching Hours Per Week: 30; Advising & Tutoring Hours Per Week: 10
- Institutional Service:**
- 2021 - Present: Faculty Advisor/Sponsor for the Mu Eta Beta Chapter for the Beta Beta Beta - Biology Honor Society at the University of Mary Harding-Baylor.
  - 2019 - Present: Academic Advisor for the Department of Biology, Premedical Students
  - 2020 - Present: Faculty Representative from the School of Natural Sciences for the Curriculum Committee at the University of Mary Harding-Baylor.
  - FY2021-2022: Co-chair for the Curriculum Committee at the University of Mary Harding-Baylor.
- 2016 - 2019      **Clinical Laboratory Scientist/Medical Technologist**, Newborn Check-in and Newborn Screening Diagnostics, Division of Prevention and Preparedness, Department State Health Services Laboratory, Health and Human Services, Austin, TX, USA. Immunofluorescence and data analysis for high volume screening of human specimens (~3000 specimens/day) in endocrine critical diseases. Adherence to CAP, CDC, and CLIA regulations for laboratory testing of human specimens.
- 2015 - 2017      **Medical Liaison Officer**, Kleberg County, TX, USA.
- 2015 - 2017      **American Heart Association Instructor**, Basic Life Support-CPR-AED-HealthCare Provider-First Aide, TX, USA.
- 2014 - 2016      **Teaching Assistant Professor (Full-time)**, Department of Biological & Health Sciences, Coastal Bend College, Alice, TX, USA.  
Lead Department of Biological & Health Sciences Professor for the courses: Human Anatomy and Physiology I & II, Introduction to Anatomy and Physiology, Fundamentals of Nutrition, Principles of Biology, and Microbiology. Number of Students: ~202/term; No. Classroom Hours Per Week: 35; Advising Hours Per Week: 10-15  
Distance Learning (Blackboard) and On-site teaching (lectures and laboratories)
- 2014 - 2016      **Academic Advisor (Full-time)**, Coastal Bend College, Alice TX, USA.  
Provided academic advice, degree planning, & course selection for all science and arts credit degree programs in accordance with the Texas educational standards. Guided students in creating in creating their MEP (My Educational Plan) within their first semester of college.
- 2015 - 2016      **American Heart Association Instructor, Basic Life Support-CPR-AED-HealthCare Provider-First Aide** (for Coastal Bend College), TX, USA.
- 2015 - 2016      **Faculty Senate President**, Coastal Bend College, TX, USA.
- 2014 - 2014      **Full-time Science Instructor, Upward Bound Developmental Youth Program** (High School Students), Texas A&M University-Kingsville. Grant-based educational program supported by the United States Department of Education. Texas A&M University, Kingsville, TX, USA. Served as an Academic Advisor to high school students in alignment with their career goals.  
University Preparatory Courses: **(1) Chemistry, (2) Physics, (3) Human Anatomy, and (4) Environmental Factors & Human Diseases**. Number of Students: ~30; No. Classroom Hours Per Week: 40.

- 2013 - 2014 **Post-Doctoral Research Trainee**, Department of Physiology, University of Tennessee Health Science Center, USA.
- 2013 **Post-Doctoral Research Associate**, Department of Pharmaceutical Sciences, Irma Lerma Rangel College of Pharmacy, Texas A&M University-HSC, Kingsville, TX, USA.
- 2013 **Post-Doctoral Research Associate – Instructor and Examiner** (single session), PharmD P3 students, Department of Pharmacy Practice, Irma Lerma Rangel College of Pharmacy, Texas A&M University-HSC, USA.  
**Lecture: Immunomodulators.** Number of Students: ~98; No. Hours: 3.
- 2012 **Sessional Instructor and Examiner**, Department of Microbiology, Faculty of Science, University Manitoba, CANADA.  
**MBIO 2230: Introductory Biogeochemistry (in-class and online, Angel);** Number of Students: ~90; No. Classroom Hours Per Week: 10; Total Contact Hours/semester: 160.
- 2012 **Post-Doctoral Fellow (part-time)**, Department of Physiology (Neuroendocrinology and Diabetes Research Group), Faculty of Medicine, University Manitoba, CANADA.
- 2012 **Sessional Instructor and Examiner** (2 courses), Department of Biological Sciences, Faculty of Science, University Manitoba, CANADA.  
**BIOL1030-Biology 2: Biological Diversity, Function and Interactions;** Number of Students: ~119; No. Classroom Hours Per Week: 20; Total Contact Hours/semester: 240.  
**BIOL 1010-Biological Diversity and Interaction;** Number of Students: ~30; No. Classroom Hours Per Week: 10; Total Contact Hours/semester: 120.
- 2012 **Sessional Instructor and Examiner** (1 course at 3 different locations), Licensed Practical Nurse Program (Indigenous/First Nations), School of Health & Human Services, Assiniboine Community College, CANADA.  
**SCIE-0005 Anatomy & Physiology 1 & 2;** Number of Students: ~12; No. Total Classroom Hours:~52; Total Contact Hours/semester: 64.  
**SCIE-0006 Anatomy & Physiology (online course, Moodle);** Number of Students: ~50; No. Total Classroom/Contact Hours:~ 64
- 2011 **Post-Doctoral Fellow**, Department of Physiology (Neuroscience and Spinal Cord Research Group), Faculty of Medicine, University Manitoba, CANADA.
- 2011 - 2012 **Sessional Instructor** for online lectures and laboratory materials, Licensed Practical Nurse Program, School of Health & Human Services, Assiniboine Community College, CANADA. **SCIE-0006 Anatomy & Physiology (online course, Moodle);** Number of Students: ~10; No. Total Contact Hours: ~120.
- 2010 - 2011 **Post-Doctoral Fellow**, Department of Physiology (Cardiac Studies), Faculty of Medicine, University Manitoba, and the National Research Council of Canada - Institute of Biodiagnostics (Winnipeg), CANADA.

### Positions and Course Development

- 2020 **Assistant Professor** (tenure track), Department of Biology, University of Mary Hardin-Baylor, Belton, TX, USA. Developed and presented course material for a new elective. Course Title: **Global Health Ethics.**
- 2014 Full-time **Science Instructor**, Upward Bound Developmental Youth Program (High School Students), Texas A&M University-Kingsville. Grant-based educational program supported by the United States Department of Education. Course Title: **Human Anatomy, Environmental Factors and Human Diseases** (Biomedical Science).

2012 **Sessional Instructor and Examiner**, Licensed Practical Nurse Program, School of Health & Human Services, Assiniboine Community College, Peguis, MB, CANADA.  
Course Title: **Human Anatomy and Physiology** for the Licensing Practitioner Nursing program taught at the Peguis First Nation Training Center.

### Positions and Honors

2021 **Judge** for Undergraduate Poster Presentations at the **Texas Academy of Science (TAS)**, TX, USA (Virtual Attendance).

2019 - Present **Committee Member and Reviewer**, Clinical Informatics Committee (CIC) Clinical Content, **Society for Maternal-Fetal Medicine**, USA.

2018 - Present **Court Appointed Special Advocate (CASA)/Guardian Ad Litem (GAL)** for Children (Casework Volunteer), Travis County CASA, Austin, TX, USA (Appointed Volunteer).

2017 **Judge** for Resident (Internal Medicine) Poster Presentations at the **American College of Physicians**, Texas Chapter Annual Meeting, San Antonio, TX, USA.

2016 **Judge** for Medical Student Poster Presentations at the **American College of Physicians**, Texas Chapter Annual Meeting, Houston TX, USA.

2015 - 2016 **Association of the United States Army** – Member, TX, USA.

2015 - 2016 **Faculty Senate President**, Coastal Bend College, TX, USA.

2015 - 2016 **Medical Liaison Officer**, Kleberg County, TX, USA (1<sup>st</sup> Court Appointed -Volunteer).

2015 - 2016 **Caseworker**, Service to the Armed Forces & Disaster Relief, American Red Cross Serving the Central and South Texas Region, San Antonio, TX, USA.

2015 - 2017 **Co-chair, Legislative Advocacy Team** to CASA, TX, USA (Appointed Volunteer).

2014 - 2016 **Court Appointed Special Advocate (CASA)** Casework Volunteer, Brush Country CASA, Kingsville, TX, USA (Appointed Volunteer).

2014 - 2015 National Post-Doctoral Association **Outreach/Advocacy Committee**, Member, USA (Appointed Volunteer).

2014 Recognition Award – **Most Active Postdoctoral Member**, from Post-Doctoral Association and Post-Doctoral Office, University of Tennessee, Health Sciences Center, Memphis TN, USA.

2014 Post-Doctoral Association Representative and Co-Host to Dr. Hemin Chin, Program Officer/Associate Director for Ophthalmic Genetics, National Eye Institute; National Institute of Health.

2013 - 2014 Post-Doctoral Association, **Treasurer-Secretary**, University of Tennessee-Health Science Center (HSC), Memphis, TN, USA.

2013 - 2014 **Director of Community Services** (Diabetes, Obesity, Metabolic Syndrome, Maternal & Child Health), Rotary International (District 5930) - Kingsville Sunrise Rotary Club, Kingsville, TX, USA.

2013 **Mentor** to Doctor of Pharmacy (PharmD) students (three P1 and one P2), Irma Lerma Rangel College of Pharmacy, Texas A&M University Health Science Center, USA.

2013 **Mentor** to High School students (six), Texas A&M Health Science Center & Upward Bound Math and Science Summer Program - Urban Texas A&M University-Kingsville, USA.

2009 - 2010 **Graduate Student Representative**, Winnipeg Chapter Society for Neuroscience, CANADA.

2009 Canada-Wide Science Fair **Judge** (Canadian Institute of Health Research Synapse Program), University of Manitoba, CANADA.

2009 Doctoral Student Research Presentations, Winnipeg Chapter of the Society for Neuroscience, CANADA.

2008 Science Fair **Judge** (Canadian Institute of Health Research Synapse Program), St Emily School, CANADA.

2007 - 2008 **Children's Ward Assistant**, Burnt Unit Ward, Health Sciences Centre, CANADA.

2005 Best Graduate Student Presentation Awards, Canadian Phytopathological Society CANADA.

2000 **Bill Presenting Minister**, Western Canada Youth Parliament, CANADA.

2000 **Minister** of External Affairs and Public Relations, Youth Parliament of Manitoba CANADA.

1999 **Parliamentary Secretary** to Sessional Affairs, Youth Parliament of Manitoba, CANADA.

1998 **Delegate High School Participant**, University of Manitoba Model United Nations Association (MUNA).

1998 **Parliamentary Female Whip**, Youth Parliament of Manitoba, CANADA.

## **B. Other Experience and Professional Memberships**

2021 - Present Texas Academy of Science (TAS). Member (PhD), USA.

2020 - Present American Society for Microbiology, Member (PhD), USA.

2019 - 2020 American Bar Association, Affiliate Professional (PhD), USA.  
Section forums (membership sections vary by year): Litigation, International Law, Health Law, Business Law, Dispute Resolution, Civil Rights and Social Justice.

2019 - present Society for Maternal-Fetal Medicine, Member, USA.

2019 - present Society for Maternal-Fetal Medicine, CIC Clinical Content Subcommittee, Member, USA.

2018 - 2019 Society of Clinical Research Associates (SOCRA), Member, USA.

2018 - 2019 American Society for Clinical Pathology, Clinical Scientist Member, USA.

2018 - Present The American Society of Law, Medicine & Ethics, Doctoral Member, USA.

2017 - 2018 Texas-State Medical Operations Center (SMOC), Logistics Member, USA.

2016 Medical Reserve Corps, Harris County, TX, USA.

2016 - 2017 American Neurological Association, Member, USA.

2016 - 2017 Association of Clinical Research Professionals, Member, USA.

2016 - Present American College of Physicians (Internal Medicine), Affiliate Member & Judge, TX, USA.

2015 - Present Association of the United States Army – Member (Brooke Army Medical Center), TX, USA.

2015 - 2017 American Heart Association Instructor: BLS, CPR, AED, FIRST AID, TX, USA.

2015 - 2016 The National Homeland Security Association, Member, USA.

2015 - 2016 American Red Cross, Volunteer – Service to the Armed Forces & Emergency Response, USA.

2014 - 2016 American Red Cross, Volunteer – Disaster Relief & Emergency Response, USA.

2014 - Present American Association for the Advancement of Science, Member, USA.

2014 - 2015 Outreach-Advocacy Member, National Postdoctoral Association, USA.

2014	Member, Neuroscience Institute, University of Tennessee Health Science Center, USA.
2014	National Postdoctoral Association (NPA) 12th Annual Meeting, Washington University in St. Louis, School of Medicine in St. Louis, MO, USA.
2014	10th Annual Postdoc Scientific Symposium, Washington University in St. Louis, School of Medicine in St. Louis, MO, USA.
2013 - 2014	Officer, Treasurer-Secretary, Postdoctoral Association, University of Tennessee-HSC, USA.
2013	Rotary International/Kingsville Sunrise Rotary Club, USA.
2012	Science Fair Judge, Canadian Institutes of Health Research Synapse Program, CANADA.
2009	Canada-Wide Science Fair Judge, Canadian Institutes of Health Research Synapse Program, CANADA.
2008	Science Fair Judge, Canadian Institutes of Health Research Synapse Program, CANADA.

### C. Selected Peer-reviewed Publications

1. Officials urge caution against Zika. The Kingsville Record and Bishop News. **Dr. Poritsanos** was one of two Kleberg County officials interviewed by The Kingsville Record and Bishop News. May 25, 2016 (front page newspaper article).
2. Officials ask residents to help prevent Zika virus. **Dr. Poritsanos** was one of three Kleberg County officials interviewed by The Kingsville Record and Bishop News. March 16, 2016 (front page newspaper article).
3. **Dr. Nicole Poritsanos**. Recent Therapeutic and Diagnostic Advances in the Biomedical Research and Clinical fields for Type 1 Diabetes. 10th Annual Vishal Bhagat Memorial Golf Tournament, TX, USA. November 14, 2015.
4. Stillwell C, Wang J, Wang F, Deng J, **Poritsanos NJ**, Freed DH, Arora RC, Tian G. Chapter 15. Adipose- Derived Stem Cells for Myocardial Regeneration, pp. 335-362 (28) Series: Cell Biology Research Progress. **Nova Biomedical** 2012.
5. **Poritsanos NJ**, Lew PS, Fischer J, Mobbs CV, Nagy JI, Wong D, R  ther U, Mizuno TM. Impaired hypothalamic Fto expression in response to fasting and glucose in obese mice. **Nutrition & Diabetes**. 2011 [PMID: 23154321].
6. Leckstrom A, Lew PS, **Poritsanos NJ**, Mizuno TM. Central melanocortin receptor agonist reduces hepatic lipogenic gene expression in streptozotocin-induced diabetic mice. **Life Sciences**. 2011 [PMID: 21315740].
7. Leckstrom A, Lew PS, **Poritsanos NJ**, Mizuno TM. Treatment with a melanocortin agonist improves abnormal lipid metabolism in streptozotocin-induced diabetic mice. **Neuropeptides**. 2011 [PMID: 21216462].
8. **Poritsanos NJ**, Lew PS, Mizuno TM. Relationship between blood glucose levels and hepatic Fto mRNA expression in mice. **Biochem Biophys Res Commun**. 2010 [PMID: 20816934].
9. Selin C, Habibian R, **Poritsanos N**, Athukorala SN, Fernando D, de Kievit TR. Phenazines are not essential for *Pseudomonas chlororaphis* PA23 biocontrol of *Sclerotinia sclerotiorum*, but do play a role in biofilm formation. **FEMS Microbiology & Ecology**. 2010 [PMID: 19889032].
10. **Poritsanos NJ**, Mizuno TM, Lautatzis ME, Vrontakis M. Chronic increase of circulating galanin levels induces obesity and marked alterations in lipid metabolism similar to metabolic syndrome. **International Journal of Obesity**. 2009 [PMID: 19773738].
11. **Poritsanos NJ**, Wong D, Vrontakis ME, Mizuno TM. Regulation of hepatic PPARgamma2 and lipogenic gene

expression by melanocortin. **Biochem Biophys Res Commun.** 2008 [PMID: 18789887].

12. **Poritsanos N**, Selin C, Fernando WG, Nakkeeran S, de Kievit TR. A GacS deficiency does not affect *Pseudomonas chlororaphis* PA23 fitness when growing on canola, in aged batch culture or as a biofilm. **Can J Microbiol.** 2006 [PMID: 17473887].

#### **D. Refereed Conference Proceedings/Oral Presentations.**

1. **Title:** The importance of microbiology in health and disease. **Dr. Nicole Poritsanos\***, Texas A&M University System, Houston TX, USA. July 26, 2016. **\*Presenting Author** for the invited podium presentation.
2. **Title:** The Anatomy & Physiology of the Nephron. **Dr. Nicole Poritsanos\***, Odessa College, Odessa, TX, USA. July 20, 2016. **\*Presenting Author** for the invited podium presentation.
3. **Title:** Community Response to Zika Virus Disease – Saving Lives & Improving Quality of Life. **Dr. Nicole Poritsanos\*\***, Medical Liaison Officer-Kleberg County. Texas A&M University-Kingsville, TX, USA. June 29, 2016. **\*\*Main presenter** for the public forum.
4. **Title:** Nerve conduction in health and disease. **Dr. Nicole Poritsanos\***, University of Texas at Arlington, TX, USA. May 16, 2016. **\*Presenting Author** for the invited podium presentation.
5. **Title:** Zika Virus. Recognizing & Preparing Against an Emerging Disease. **Dr. Nicole Poritsanos**, Rotary Club, Alice, TX, USA. April 27, 2016.
6. **Dr. Nicole Poritsanos.** Podium presentation in Honor of Child Abuse Awareness Month, Kleberg County Candlelight Vigil. Hosted by the Kleberg County's Child Welfare Board, CPS & Brush Country CASA (Court Appointed Special Advocates), Kingsville, TX, USA. April 12, 2016.
7. **Title:** National TRIO Day – Coastal Bend College. Three consecutive seminar sessions. **Dr. Nicole Poritsanos**, Alice, Coastal Bend College, TX, USA. February 26, 2016.
8. **Title:** Zika Virus. Recognizing & Preparing Against an Emerging Disease. **Dr. Nicole Poritsanos**, Border Patrol-Kingsville Station, TX, USA. February 12, 2016
9. **Title:** Zika Virus. Recognizing & Preparing Against an Emerging Disease. **Dr. Nicole Poritsanos**, Community Action Corporation of South Texas, Mathis, TX, USA. February 9, 2016
10. **Title:** Zika Virus. Recognizing & Preparing Against an Emerging Disease. **Dr. Nicole Poritsanos**, Community Action Corporation of South Texas, Alice, TX, USA. February 9, 2016
11. **Title:** Centers of Disease Control update on flu vaccinations and other protective measures against current pathogens (Zika and Influenza virus). **Dr. Nicole Poritsanos**, Kleberg County Courthouse and Emergency Operations Center, Kingsville, TX, USA. February 2, 2016.
12. **Title:** Recent Therapeutic and Diagnostic Advances in the Biomedical Research and Clinical fields for Type 1 Diabetes. **Dr. Nicole Poritsanos\***, 10th Annual Vishal Bhagat Memorial Golf Tournament, TX, USA. November 14, 2015. **\*Presenting Author** for the invited podium presentation.
13. **Title:** Why is the study of microbiology important. **Dr. Nicole Poritsanos**. Tarrant County College, NE Campus, Hurst, TX. March 24, 2015
14. **Title:** Preventive Measures for Ebola Virus Disease, **Dr. Nicole Poritsanos\***, Rotary Sunrise-Kingsville Club, Kingsville, TX, USA. November 13, 2014. **\*Presenting Author** for the invited podium presentation.

15. **Title:** Current advances in therapeutic interventions for Type 1 Diabetes. **Dr. Nicole Poritsanos\***, 9th Annual Vishal Bhagat Memorial Golf Tournament, TX, USA. November 8, 2014. **\*Presenting Author** for the invited podium presentation.
16. **Title:** Preventive Measures for Ebola Virus Disease, **Dr. Nicole Poritsanos\***, Kleberg County Courthouse and Emergency Operations Center, Kingsville, TX, USA. November 7, 2014. **\*Presenting Author** for the invited podium presentation.
17. **Title:** Prevention of Diabetes Mellitus and Obesity. **Dr. Nicole Poritsanos\***, Lions Club, Kingsville, TX, USA. June 11, 2014. **\*Presenting Author** for the invited podium presentation.
18. **Title:** Diabetes Risk Factors and Disease Management. **Dr. Nicole Poritsanos\***, Rotary Sunrise-Kingsville Club, Kingsville, TX, USA. May 22, 2014. **\*Presenting Author** for the invited podium presentation.
19. **Title:** The involvement of the gut microbiota-brain axis in nutrition and health. **Dr. Nicole Poritsanos\***, St. Lawrence University, Canton, NY, USA. May 27, 2014. **\*Presenting Author** for the invited podium presentation.
20. **Title:** Non-communicable Diseases: Diabetes, Cardiovascular Disease and Hypertension. **Dr. Nicole Poritsanos\***, Moberly Area Community College, Hannibal, MI. May 2, 2014. **\*Presenting Author** for the invited podium presentation.
21. **Title:** Inactivation of the Tsc1/2 complex is a major contributing factor towards the development of adipogenesis and the early onset of obesity. **Dr. Nicole Poritsanos\***, and Dr. Dave E. Bridges Department of Physiology, University of Tennessee Health Sciences Center Department of Pediatrics, Le Bonheur Children's Hospital. Memphis TN, USA. PhDA Research Days, December 2013. **\*Presenting Author** for the podium presentation.
22. **Title:** Inactivation of the Tsc1/2 complex is a major contributing factor to the development of adipogenesis and obesity disease. **Dr. Nicole Poritsanos\***, and Dr. Dave E. Bridges Department of Physiology, University of Tennessee Health Sciences Center Department of Pediatrics, Le Bonheur Children's Hospital. Memphis TN, USA. PhDA Research Days, December 2013. **\*Presenting Author** for the poster presentation.
23. Mahua Choudhury<sup>1</sup>, Hua Li<sup>2</sup>, **Nicole J Poritsanos<sup>1</sup>**, Sean Harshman<sup>3</sup>, Stingo C Francesco<sup>4</sup>, Michael Frietas<sup>3</sup>, Lorraine Dugoff<sup>5</sup> Texas A&M Health Sciences Center, Texas A&M University, Ohio State University, MD Anderson, and University of Pennsylvania, Philadelphia, PA First trimester biomarkers in pre-eclampsia- a novel epigenetic and micro-RNA regulation. **Epigenomics, Sequencing & SNIps-2013 Meeting, Harvard Medical School**, USA July 10-11, 2013. **\*Presenting Author** for the podium presentation.
24. Mahua Choudhury<sup>1</sup>, Hua Li<sup>2</sup>, **Nicole J Poritsanos<sup>1</sup>**, Sean Harshman<sup>3</sup>, Stingo C Francesco<sup>4</sup>, Michael Frietas<sup>3</sup>, Lorraine Dugoff<sup>5</sup> Texas A&M Health Sciences Center, Texas A&M University, Ohio State University, MD Anderson, and University of Pennsylvania, Philadelphia, PA First trimester biomarkers in pre-eclampsia- a novel epigenetic and micro-RNA regulation. **2013 Research Colloquium, Irma Lerma Rangel College of Pharmacy**, Texas A&M Health Sciences Center. USA June 27, 2013. **\*Presenting Author** for the podium presentation.
25. Jason Chau<sup>1</sup>, **Nicole J Poritsanos\*<sup>1</sup>**, Andrix Arguelles<sup>1</sup>, Robert B Rucker<sup>2</sup>, Mahua Choudhury<sup>1</sup>. <sup>1</sup>Department of Pharmaceutical Sciences, Texas A&M HSC Rangel College of Pharmacy, <sup>2</sup>Department of Nutrition, University of California Davis. Apoptosis, Autophagy and Antioxidants – an innovative perspective from a novice researcher. **2013 Research Colloquium, Irma Lerma Rangel College of Pharmacy**, Texas A&M Health Sciences Center. USA June 27, 2013. **\*Co-Presenting Author** for the public presentation.
26. Andrix Arguelles<sup>1</sup>, **Nicole J Poritsanos\*<sup>1</sup>**, Jason Chau<sup>1</sup>, Robert B Rucker<sup>2</sup>, Mahua Choudhury<sup>1</sup>. <sup>1</sup>College of Pharmacy, Texas A&M Health Science Center, <sup>2</sup>Department of Nutrition, University of California Davis. **Co-**



**Presenting Author** for the public presentation. Mitochondrial Respiratory chain complex- old fact, new idea from an upcoming researcher. **2013 Research Colloquium, Irma Lerma Rangel College of Pharmacy, Texas A&M Health Sciences Center.** USA June 27, 2013. **\*Co-Presenting Author** for the public presentation.

27. **Title:** Fto expression in obesity, and diabetic conditions. . **Dr. Nicole Poritsanos\***, The Buck Institute, CA, USA. October 15, 2012. **\*Presenting Author** for the invited podium presentation.
28. **Title:** Impaired glucose-induced Fto expression in obesity. **Dr. Nicole Poritsanos\***, Sherbrook University, QC, CANADA. October 10, 2011. **\*Presenting Author** for the invited podium presentation.
29. **Title:** Central Fto and Melanocortin signaling in lipid metabolism, diabetes and obesity. **Dr. Nicole Poritsanos\***, University of Cincinnati, OH, USA. October 7, 2011. **\*Presenting Author** for the invited podium presentation.
30. **Nicole J. Poritsanos\***, Pei San Lew, Davie Wong, Julia Fischer, Ulrich Ruther, Tooru M. Mizuno. Regulation of hypothalamic Fto expression by glucose in mice Department of Physiology, University of Manitoba, Institute for Animal Developmental and Molecular Biology, Heinrich Heine University *ENDOCRINE JOURNAL*, 57: 5427-5428, 2010. **International Congress of Endocrinology, JAPAN** March 26-31, 2010. **\*Presenting Author** for the public presentation.
31. **Nicole J. Poritsanos\***, D. Wong, A. Leckstrom, P.S. Lew, and Mizuno T.M. (2009). Central melanocortin signalling and lipid metabolism. Doctoral Student Research Presentations. **Brain Awareness Week 2009, Winnipeg Chapter of the Society for Neuroscience.** CANADA April 8-9, 2009. **\*Presenting Author** for the podium presentation.
32. **Nicole J. Poritsanos\***, P.S. Lew, and Mizuno T.M., Central administration of a melanocortin antagonist stimulates hepatic lipogenic gene expression independent of changes in body weight. **37th Society for Neuroscience Annual Meeting.** San Diego, CA, USA. October 21, 2007. **\*Presenting Author** for the public presentation.
33. **Nicole J. Poritsanos\*** (2005), Identification of a Novel Transcriptional Regulator Essential for *Pseudomonas chlororaphis* PA23 Secondary Metabolite Production and Biocontrol. **Presenting Author** for the podium presentation. Second place winner (1st runner-up), **Annual Meeting of Manitoba Regional Section of the Canadian Phytopathological Society, CANADA.** **\*Presenting Author** for the podium presentation.
34. **Nicole J. Poritsanos\*** (2005), *Pseudomonas chlororaphis* PA23 GacS-Mediated Regulation of Secondary Metabolite Production and Biocontrol. **Presenting Author** for the podium presentation. Second place winner (1st runner-up), **Annual Meeting of Manitoba Regional Section of the Canadian Phytopathological Society, CANADA.** **\*Presenting Author** for the podium presentation.

## **E. Mentorship Activities/Trainees**

1. Advisor and Sponsor for the Mu Eta Beta Chapter for the Beta Beta Beta - Biology Honor Society at the University of Mary Harding-Baylor (August 2021-present).
2. Academic Advisor to Premedical Biology Majors, Department of Biological, University of Mary Hardin-Baylor, TX, USA (August 2019-present).
3. Assistant Professor research advisor to 13 undergraduate Teaching Assistants, Department of Biological, University of Mary Hardin-Baylor, TX, USA (August 2019-present).
4. Academic Advisor and Assistant Professor to ~ 620 students, Biological Sciences, Coastal Bend College, TX, USA (2014 - 2016).
5. Ms. Serina Heuston (Biological Sciences student). Mentorship activities included grading student assignments, examinations and input of data into the Blackboard Online teaching, Laboratory Assistant (2014 - 2016).
6. Mr. Andrix O. Arguelles (PharmD student, P1), Mr. Jason Q. Chau (PharmD student, P1), Mr. Adam Villarreal (PharmD student, P1), and Ms. Christine L. Kim (PharmD student, P2) [2013]: Mentorship activities included teaching molecular techniques in western blotting and cell culture, as well as providing research support to enable students to compete in refereed poster competition for the 2013 Research Colloquium, Irma Lerma Rangel College of Pharmacy, Texas A&M University, USA (2<sup>nd</sup> Place Winners and Honorable Mention).
7. Iliana Suarez, Joseph Rivera, David Rodriguez, Genesis Soto, Gabriel Sifuentes, and Lupita Ramos (Grade 9 and 12 High School students) [June-July 2013]: Mentorship activities included teaching level 2 laboratory safety, regulations, and molecular techniques, such as western blotting and cell culture. Students were prepared for an oral power point presentation and a poster competition for the 2013 Health Science Center and Upward Bound Math and Science Summer Program - Urban Texas A&M University-Kingsville, USA (Division: Biology, 3<sup>rd</sup> Place Winners).
8. Ms. Rohini Billakanti: Mentorship activities germane to her academic and research activities including thesis writing (September 2011-December 2011).
9. Ms. Cecilia Nguyen: established training efforts for molecular/animal studies (December 2010-July 2011). Current Position: Nursing student, Canada.
10. Mr. Takafumi Yamaguchi: Trained him as an undergraduate summer student. Duration of training: May 2008- August 2008.
11. Mr. Siew Cheong Wong: Trained him as a co-op student. Duration of training: January 2008-April 2008.
12. Dr. Davie Wong: Trained him as an undergraduate summer student. Duration of training: May 2006-August 2006; May 2007-August 2007.
13. Dr. Carrie L. Selin: Trained her as an undergraduate Co-op student. Duration of training: September 2004- May 2005.
14. Ms. Sema Pal: Trained her as an undergraduate Co-op student. Duration of training: September 2003-May 2004.

## **F. Expertise in research, instruments and techniques**

### **Experience in Quality Management and Creation of Regulatory Documents:**

- Drafting of animal study protocols in compliance with IACUC and federal policies and regulations governing the care and use of animals in research.
- Creation and subsequent establishment of several Standard Operating Procedures (SOPs), in vivo and in vitro experimental design protocols
- Familiarity with Internal Quality Audit assessment program utilizing Corrective and Preventive Action (CAPA), Management Review and Key Performance Indicators
- Proficiency testing, use of intra-assay and inter-assay controls, assessment of analytical sensitivity and specificity to avoid type 1 errors (false positive) & type 2 errors (false negative).
- Use of Quality Management Systems, & Document Control.
- Development and use of Quality Control and Quality Assurance plan. Ensured tests had analytic sensitivity (lower detection limit), precision (repeatability) and linearity (analytical measurement range).
- Defining analytical measurement range using manufacturer standards, calibrators, and reference limits.
- Validating the use of new equipment and performance of new testing protocols using linear regression analysis.
- Electronic document maintenance for clinical and basic research
- Competencies to prioritize, multitask and meet government deadlines with public health data acquisition and

submission

**Microscopy:** Dissecting microscopy, light microscopy, fluorescent confocal microscopy, and laser capture microdissection.

**Molecular biology:** BSL-2, Molecular cloning/transgenic construct, Tn5 transposon mutagenesis, genomic libraries, *in vitro* transfection (viral, short-hairpin interfering RNA), DNA & RNA extraction, cDNA synthesis, gene sequence analysis, transfection, transduction, primer design, shRNA design, quantitative real-time RT-PCR, microarray qPCR, western blotting, northern blotting, & Southern blotting, ELISA cell/tissue culture [hypothalamic (mHyp 2/30), liver (HepG2), mouse embryonic fibroblasts (MEFs), 3T3-L1 preadipocytes].

**Histological analysis:** Oil Red O staining & haematoxylin-eosin staining of paraffin embedded sections (liver, & adipose), Cryosectioning (microns thick), immunohistochemistry (brain sections) with fluorescent and *in situ* hybridization, and radiography (P<sup>32</sup>-labelled probes for Northern blot analysis).

**Metabolic studies:** Glucose tolerance testing, indirect calorimetry, magnetic resonance imaging, diet treatments (high fat diet, flax and isocaloric diets; fasting and re-feeding studies), measurement of lipid (LDL, HDL, Triglyceride, & Total Cholesterol), hormone and glucose levels.

**Animal surgeries:** Stereotaxic surgery, intracerebroventricular (i.c.v.) injections, femoral vein ligation (hindlimb ischemia), and left anterior descending artery ligation (myocardial ischemia).

**Blood collection:** Decapitation, cardiac puncture, tail vein and tail snip, and retro orbital sinus.

**Injection methods:** Subcutaneous, intraperitoneal, intracerebral and intravenous (tail) injections.

**Rodent Behavioral Tests:** Open field test (locomotor activity, anxiety and habituation) & Hindpaw footprint (testing for motor coordination & balance), and Tail flick test and foot or tail pressure test (assessing pain tolerance and time of response).

**Additional Laboratory Duties:** (1) Established a Biosafety Level II laboratory (two separate locations within the department), and ensured compliance with governmental regulations and accreditation. (2) Set-up of new-laboratory accounts with life science and biotechnology companies, prepared laboratory start-up list of equipment and supplies, responsible for inventory management, as well as, negotiated and made purchases with company representatives. (3) Assisted in laboratory budgetary matters, and was responsible for coming in direct contact with Administrative Secretaries and Purchasing Coordinators. (4) Mentored Graduate and PharmD students.

**Computer Programs, Bioinformatics and Statistics:** Proficient in both PC and Mac Computers, Microsoft Office (word, power point, excel) and Outlook. At the Department of State Health Services (DSHS) Laboratory experienced with Perkin Elmer Laboratory Information Management System (MediaLab, Lifecycle & Specimen Acquisition) for New Born Screening. Knowledgeable with the use of Illumina Data Base, query molecular databases, Ingenuity Pathway Analysis, JMP (SAS software), GraphPad Prism, DMAIC quality improvement, Adobe Illustrator (figure & poster generation), Western Blot Quantification with LI-COR Image Studio Lite, Image Studio Analysis Software, and ImageJ software (cell counting, adipocyte quantitation & densitometry analysis).

**Clinical: Certified Nurse's Assistant- Patient Care trainee:** Practiced respectful bedside manner, took vital signs (respiration, body temperature, pulse, and blood pressure) and provided basic medical patient care.

**Clinical Chemistry Newborn Biochemistry and Genetics Screening:** Checked and verified the accuracy of work performed by other members of the team. Prepared human specimens and CDC samples for testing. Processed human blood specimens for requested repeats in support of confirmatory purposes, performed unsatisfactory and abnormal specimen analysis, as well as, for packaging and delivery. Served as support system to management in the investigation and mitigation of errors and discrepancies. Conducted the experimentation of high volume (~3000/day) specimen analysis and subsequently submitted daily data summary reports in accordance with CDC & CAP mandates. Used various Laboratory information management system (LIMS) and Perkin Elmer computer systems to enter test requests, patient demographic

information and track information for cataloging and auditing purposes. Conducted and documented equipment maintenance, Quality Control review and Proficiency Testing in accordance with the DSHS, CDC and CLIA procedures.

**Public Health Ethical Standards:** While forging collaborative efforts among other clinical researchers at Texas DSHS and the University of Manitoba, Faculty of Medicine, I adhered to high ethical standards governed by the International Council of Harmonization (Quality, Safety, Efficacy and Multidisciplinary Guidelines), Good Laboratory Practices, Good Clinical Practices, CAP and CLIA regulations for laboratory testing of human specimens. I functioned as a Health and Human Services employee while fulfilling all requirements for strict adherence to clinical, legal, and ethical codes pertaining to patient confidentiality and privacy of health information (HIPAA, State Statutes, FDA, Health Canada, and Health & Human Services policies and regulations).

## G. Research Support

- 2021 Supporting Structures grants program - Innovative Collaborations to Enhance STEM Research at Council for Christian Colleges and Universities (CCCU) Member Institutions. Applied as one of three nominated junior Faculty Fellows to represent the University of Mary Hardin-Baylor.  
Project Area: Investigate the factors contributing to the transgenerational passage of maternal phenotypes to the offspring, including the impact of nutrition, gut-brain nutrient sensing and gut microbiota.  
PI: Dr. Nicole J. Poritsanos (not funded)
- 2010 - 2011 H.L. Holmes Awards Post-Doctoral Studies National Research Council Canada  
Project Title: The therapeutic use of adipose-derived stem cells (ASC) labelled with nanoparticles for the treatment of patients with critical limb ischemia (CLI) – the CLEAR REGENERATIVE (Critical Limb ischEmia Adipose derived stem cell REGENERATIVE therapy) Study  
PI: Dr. Nicole J. Poritsanos (not funded)
- 2010 Student Travel Award, Health Sciences Graduate Student's Association, CANADA. PI: Nicole J. Poritsanos (funded)
- 2010 Student Travel Award, Canadian Association for Women in Science-Phyllis McAlpine Travel Award, CANADA.  
PI: Nicole J. Poritsanos (funded)
- 2010 Student Travel Award, University of Manitoba Faculty of Graduate Studies, CANADA.  
PI: Nicole J. Poritsanos (funded)
- 2010 Faculty of Graduate Studies Travel Award, University of Manitoba, CANADA.  
PI: Nicole J. Poritsanos (funded)
- 2009 - 2010 Doctoral Graduate Studentship, Manitoba Health Research Council, CANADA.  
Project Title: Nutritional Regulation of Central Fat Mass and Obesity-Associated (FTO) Expression, and its Biological Role in Obesity.  
PI: Nicole J Poritsanos, Supervisor: Dr. Tooru M. Mizuno (funded)
- 2006 - 2008 Doctoral Graduate Studentship, Manitoba Health Research Council, CANADA.  
Project Title: Roles of central melanocortin system in the regulation of hepatic lipid metabolism.  
PI: Nicole J Poritsanos, Supervisor: Dr. Tooru M. Mizuno (funded)

## H. Patents Affiliated with Intellectual Property Rights / Copyrights Awarded

1. **Nicole J. Poritsanos.** Nutritional Regulation of Central Fat Mass and Obesity-Associated (FTO) Expression, and its Association with the Central Melanocortin Signaling in the Regulation of Energy Homeostasis. MSpace, University of Manitoba. Faculty of Graduate Studies, Ph.D. Electronic Theses and Dissertations November 22, 2010.
2. **Nicole J. Poritsanos.** Molecular mechanisms involved in secondary metabolite production and biocontrol of *Pseudomonas chlororaphis* PA23. MSpace, University of Manitoba. Faculty of Graduate Studies, Master's Electronic Theses and Dissertations December 13, 2005.
3. de Kievit, T.R., **Poritsanos, N.** and Fernando, D. NCBI Gene Sequence: *Pseudomonas chlororaphis* strain PA23 two-component histidine kinase (*gacS*) gene, complete cds. ACCESSION DQ386697 (Master's work).
4. de Kievit, T.R., Selin, C.L., **Poritsanos, N.J.** and Fernando, D. NCBI Gene Sequence: *Pseudomonas chlororaphis* strain PA23 RpoS gene, complete cds. ACCESSION DQ525801 (Master's work).

## I. Conferences/Professional Associations

- 2021 Texas Academy of Science (TAS), TX, USA (Virtual Attendance).
- 2021 2021 FDA Science Forum, Science as the Foundation for Protecting and Promoting Public Health. Areas of FDA research, including: 1) improving clinical and post-market evaluation, 2) substance use, misuse, and addiction, 3) product development and manufacturing, and 4) medical countermeasures (MCMs), infectious disease and pathogen reduction technologies.
- 2021 ENDO 2021 Conference, Endocrine Society, USA (Virtual Attendance).
- 2019 American Bar Association, 12th Annual Arbitration Training Institute, Philadelphia, PA
- 2018 American College of Physicians, Texas Chapter Annual Meeting, Austin, TX.
- 2018 Texas Digital Government Summit, Austin TX (invited to attend)
- 2018 American College of Physicians, Internal Medicine Meeting, New Orleans, LA.
- 2018 11th Annual Pediatric Conference on Keeping Central Texas Children Well: Advocacy for Children, Dell Medical School, Austin, TX
- 2018 Texas Health Summit: Health Today, Health Care Tomorrow, Austin, TX.
- 2017 American College of Physicians, Texas Chapter Annual Meeting, Houston TX.
- 2017 - 2018 State Medical Operations Center (SMOC), TX, USA
- 2016 American College of Physicians, Texas Chapter Annual Meeting, Houston TX.
- 2016 - 2018 American Society for Clinical Pathology, Medical Laboratory Scientist course test material.
- 2016 Legislative Advocacy Team (LAT) Retreat, Austin, TX.
- 2016 STARZ - State of Texas Action Response to Zika Conference. Texas Department of State Health Services, Hidalgo, TX.
- 2016 Texas Health Catalyst 2016-17, Dell Medical School University of Texas at Austin. AT&T Executive Education and Conference Center, Austin, TX 78705
- 2016 2016 Governing Texas Leadership Forum. 500 East 4th Street, Austin, TX 78701 (invited to attend)
- 2016 Go Red For Women Luncheon, American Heart Association, Corpus Christi, TX, USA. (invited to attend)
- 2016 Child Welfare Primer & Champion Recognition Luncheon with Texas Legislative Advocacy and Texas Governor Greg Abbott, Austin TX, USA.
- 2015 Co-Chair Legislative Advocacy Team-Brush Country CASA
- 2015 Texas CASA Conference, San Marcos, TX, USA.

- 2015 11th Annual Diabetes Conference July 2015, Texas A&M Health Sciences Center, Coastal Bend Health Education Center, Corpus Christi, TX
- 2015 Prevention, Protection, Mitigation, Response, and Recovery. 9th annual National Homeland Security Conference, June 9 - 11, 2015 at the Henry B. Gonzalez Convention Center, San Antonio TX, USA.
- 2015 Tropical & Infectious Diseases Impacting Texas, Texas A&M Health Sciences Center, Coastal Bend Health Education Center, Corpus Christi, TX.
- 2015 Community College Day 2015, Austin, TX, USA
- 2014 -Present FEMA, NCBRT & TEEEX emergency management-healthcare trainings.
- 2014 - 2016 American Red Cross trainings: SAF, Disaster Relief & Emergency Response.
- 2014 Certified Nursing Assistant (National Council of State Boards of Nursing, TX, USA).
- 2014-2016 Health Care Provider First Aid/CPR/AED (American Heart Association).
- 2014 Grantsmanship Strategy workshop. Dr. Israel A. Goldberg, PhD. (President, Health Research Associates, & former NIH Research Administrator).
- 2014 HIPPA (Health Insurance Portability and Accountability Act) and FERPA (Family Educational Rights and Privacy Act)
- 2013 Drop by Drop: No One is Immune From Bias
- 2013 Gene Expression Omnibus
- 2013 Texas A&M Health Sciences Center, Coastal Bend Health Education Center, 9<sup>th</sup> Annual Diabetes Conference.
- 2011 DRG and E&MD Workshop in Diabetes and Metabolic Diseases. *Increasing basic biomedical and clinician scientist collaborations in Manitoba*
- 2006 Clinical Research Ethics. Presented by St. Boniface General Hospital Office of Clinical Research.

## **K. Languages**

English and Greek (modern): proficient in writing, reading, and speaking