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# **Objective**

I wish to contribute to the medical field, particularly in the areas of neuroscience and physiology, by obtaining a DO/PhD degree and becoming a physician-scientist, practicing and teaching at a hospital affiliated university, and performing research to expand medical treatment options and enhance medical procedures in order to better serve patients.

# **Education**

May 2020-2023 Doctor of Osteopathic Medicine/PhD in Biomedical Sciences, University of North Texas Health Science Center – Texas College of Osteopathic Medicine, Fort Worth, TX

(Projected Graduation)

Graduated: May 2015

Honors Bachelor of Science, University of Texas at Arlington, Arlington, TX

Major: Biology

Minors: Chemistry, Leadership (Certificate), and Psychology

Honors College Graduate

Achievements:

• Summa Cum Laude

- 2014-2015 Who's Who Among Students in American Universities & Colleges Recipient
- 2014-2015 Carolyn A. Barros Founding Dean Scholarship Recipient
- 2014 Josephine Porter Endowed Scholarship
- 2013-2014 Who's Who Among Students in American Universities & Colleges Recipient
- 2012-2013 William L. and Martha Hughes Award Recipient
- 2012 Dr. Judith J. Carrier Scholarship Recipient
- 2012 Duncan Robinson Essay Contest First Place Winner

#### Research/ Career-Related Experience

# UNT Health Science Center, Fort Worth, TX (Department of Physiology & Anatomy)

Fall 2017-Present, Graduate School of Biomedical Sciences PhD Student

- Continuing research investigating the neuroanatomy and cardioprotective role of estrogen receptors
  on catecholaminergic neurons in the Nucleus Tractus Solitarius (NTS), in the context of the
  Hypothalamic Paraventricular Nucleus-NTS pathway and cardiovascular response to stress, under
  the supervision of Dr. Steve Mifflin.
- Assist in studies involving how different receptors contribute to intermittent hypoxia-induced hypertension.
- Research Articles:

Lei A. Wang, Dianna H. Nguyen, Steve W. Mifflin

CRHR2 (Corticotropin-Releasing Hormone Receptor 2) in the Nucleus of the Solitary Tract Contributes to Intermittent Hypoxia-Induced Hypertension

-Hypertension (2018) doi.org/10.1161/HYPERTENSIONAHA.118.11497

#### • Poster Presentation:

Lei Wang, **Dianna Nguyen**, Stephanie Cross, Steve Mifflin Corticotropin-Releasing Hormone Receptor 2 in the Nucleus of the Solitary Tract Contributes to the Intermittent Hypoxia Induced Hypertension. *Experimental Biology 2018, 21-25 April 2018, San Diego, California* 

#### Dianna H. Nguyen, Lei Wang, Steve Mifflin

Estrogen Receptor Alpha on Catecholaminergic Neurons in the Nucleus Tractus Solitarius Research Appreciation Day (RAD) 2018, 6 April 2018, University of North Texas Health Science Center, Fort Worth, Texas

# UNT Health Science Center, Fort Worth, TX (UNTHSC Health Institutes – TCOM Summer Research Rotation)

June 2017, Student Research Assistant – Institute for Cardiovascular and Metabolic Diseases

 Participated in research investigating the neuroanatomy of estrogen receptors on catecholaminergic neurons in the Nucleus Tractus Solitarius (NTS), in the context of the Hypothalamic Paraventricular Nucleus-NTS pathway and cardiovascular response to stress, under the supervision of Dr. Steve Mifflin.

# • Oral Presentation:

## Dianna H. Nguyen, Lei Wang, Steve Mifflin

Estrogen Receptor Alpha on Catecholaminergic Neurons in the Nucleus Tractus Solitarius UNTHSC Health Institutes-TCOM Summer Research Rotation Presentation Day, 30 June 2017, University of North Texas Health Science Center, Fort Worth, Texas

# UNT Health Science Center, Fort Worth, TX (Institute for Cardiovascular and Metabolic Diseases) May 2016- Summer 2017, Student Research Assistant

• Participated in research investigating connectivity between Nucleus Tractus Solitarius and Hypothalamic Paraventricular Nucleus under the supervision of Dr. Steve Mifflin.

#### • Poster Presentation:

**Dianna H. Nguyen**, Mirza I. Beig, Sharon Ellazar, Steve Mifflin Quantification of Nucleus Tractus Solitarius neurons projecting to Hypothalamic Paraventricular Nucleus

Research Appreciation Day (RAD) 2017, 7 April 2017, University of North Texas Health Science Center, Fort Worth, Texas

# UT Southwestern Medical Center, Dallas, TX (Department of Psychiatry)

January 2016- May 2016, Research Technician II – Psychiatry/Neuroscience

- Participated in research investigating alcohol-induced behaviors in *Drosophila melanogaster* under the supervision of Dr. Adrian Rothenfluh.
- Acquired skills of performing behavioral assays (preference/tolerance), Western blots, sorting flies, and maintaining fly stock for experiments
- Focused on investigating *Drosophila melanogaster* preference for alcohol, caffeine, cocaine, and amphetamine in wild type and mutant flies.

#### University of Pittsburgh, Pittsburgh, PA (McGowan Institute for Regenerative Medicine)

June 2015- June 2015, Regenerative Medicine Summer School Program Scholar

- Attended lectures and workshops on regenerative medicine under the supervision of Course Director, Dr. Bryan Brown
- Acquired skills of cell culturing, tissue decellularization, and 3D printing

# University of Texas at Arlington, Arlington, TX (Texas Health Arlington Memorial Pre-Med Preceptorship)

January 2015- May 2015, Preceptorship Recipient

• Observed and shadowed hand surgeon, Dr. Shushan Jacob, M.D.

• Presented case-study over Carpal Tunnel Syndrome

#### University of Texas at Arlington, Arlington, TX (ASSURE Program)

January 2015- Present, Program Undergraduate Research Assistant and Mentor

- Mentored a group of students in the program on their research project focused on investigating antimicrobial activity of secondary metabolites found in the sea anemone *Stichodactyla helianthus*
- Acquired skills for mentoring a research group, metabolite extraction, rotary evaporation, and column chromatography

#### • Poster Presentation:

Christine Le, Cherokee Sauer, Andres Urias, Thaddeus Veranga, Dananjaya Kalu Appulage, **Dianna Nguyen**, Kevin Schug, Laura Mydlarz, Jorge Pinzon

Antimicrobial activity of secondary metabolites found in the sea anemone *Stichodactyla helianthus* 

Student Research Symposium 2015, 4 May 2015, University of Texas at Arlington, Arlington, Texas

#### UT Southwestern Medical Center, Dallas, TX (SURF Program)

June 2014- August 2014, Summer Undergraduate Research Fellow

- Participated in research investigating alcohol-induced behaviors in *Drosophila melanogaster* under the supervision of Dr. Adrian Rothenfluh
- Acquired skills of performing behavioral assays (preference/tolerance), Western blots, sorting flies, and maintaining fly stock for experiments

# University of Texas at Arlington, Arlington, TX (UTTER Program)

April 2013- May 2015, Program Scholar

- Participated in interdisciplinary research in Biology and Mathematics under the supervision of Dr. Hristo Kojouharov, Dr. James Grover, Dr. Laura Gough, Dr. Laura Mydlarz, and Dr. Christopher Kribs
- Acquired skills for coding and simulations in MATLAB, Mathematica program, and other skills necessary for mathematical modeling

#### • Poster Presentations:

Michael DeBellevue, **Dianna Nguyen**, Zengxing Pang, Van Nguyen, Hristo Kojouharov, James Grover

Modeling the Effectiveness of Integrated Pest Management in Discrete Time Annual Celebration of Excellence by Students (ACES) Research Symposium 2014, 26 March 2014, University of Texas at Arlington, Arlington, Texas

#### • Oral Presentation:

**Dianna Nguyen**, Michael DeBellevue, Isheanesu Nyangani, Christopher Kribs Determining Optimal Vaccination Strategies for the BCG Vaccine in Combating Tuberculosis with a Mathematical Model of Resistance and Altered Diagnosis.

Annual Celebration of Excellence by Students (ACES) Research Symposium 2015, 25 March 2015, University of Texas at Arlington, Arlington, Texas

Michael DeBellevue, **Dianna Nguyen**, Isheanesu Nyangani, Christopher Kribs Determining Optimal Vaccination Strategies for the BCG Vaccine in Combating Tuberculosis with a Mathematical Model of Resistance and Altered Diagnosis.

NIMBios 6<sup>th</sup> Annual Undergraduate Research Conference at the Interface of Mathematics & Biology, 1-2 November 2014, University of Tennessee, Knoxville, Tennessee

# University of Texas at Arlington, Arlington, TX (Regenerative Neurobiology Laboratory) January 2012- May 2015, Undergraduate Research Assistant

• Participated in directed research in the Bioengineering Department at UTA under the supervision of Dr. Mario Romero-Ortega

 Acquired skills of animal handling, surgery on rodent models, animal colony maintenance and breeding, transcardial perfusions, tissue harvesting/sectioning, cell culturing, bacterial transformation/ restriction enzyme digestion, microscopy, and immunohistochemistry

#### • Research Articles:

Sanjay Anand, Vidhi Desai, Nesreen Alsmadi, Aswini Kanneganti, **Dianna Huyen-Tram Nguyen**, Martin Tran, Lokesh Patil, Srikanth Vasudevan, Cancan Xu, Yi Hong, Jonathan Cheng, Edward Keefer, Mario I. Romero-Ortega

Asymmetric Sensory-Motor Regeneration of Transected Peripheral Nerves Using Molecular Guidance Cues

-Scientific Reports (2017) doi:10.1038/s41598-017-14331-x

Shaun M. Logan, Mario I. Romero, **Dianna H. Nguyen**, M. Douglas Benson Ephrin-B2 expression in the proprioceptive sensory system *-Neuroscience Letters (2013)* doi:10.1016/j.neulet.2013.04.025

## Poster Presentations:

**Dianna Nguyen**, Sanjay Anand, Srikanth Vasudevan, Vidhi Desai, Jonathan Cheng, Edward Keefer, Mario Romero

Surrogate Muscle Targets Enrich Motor Axons into Regenerative Peripheral Nerve Interfacing

UNT North Texas Life Science Research Symposium, 2 November 2013, University of North Texas Health Science Center, Fort Worth, Texas

**Dianna Nguyen**, Sanjay Anand, Martin Tran, Srikanth Vasudevan, Jonathan Cheng, Edward Keefer, Mario Romero

Targeted Segregation for Axonal Subtype Neural Interfacing

Undergraduate Research Day at the Capitol Poster Session, 26 April 2013, The Texas Capitol Building, Austin, Texas

**Dianna Nguyen**, Swarup Dash, Eduardo Martinez, Parisa Lotfi, Mario Romero Modeling of Growth Factor Release within Peripheral Nerve Conduits of Complex Material Composition for Efficient Nerve Regeneration

GradFest 2012 Undergraduate Research Poster Session, 17 October 2012, University of Texas at Arlington, Arlington, Texas

#### • Oral Presentation:

**Dianna Nguyen**, Sanjay Anand, Srikanth Vasudevan, Vidhi Desai, Jonathan Cheng, Edward Keefer, Mario Romero-Ortega

Peripheral Nerve Guidance Using Muscle and Skin Targets for Neural Interfacing.

Annual Celebration of Excellence by Students (ACES) Research Symposium 2014, 26 March 2014, University of Texas at Arlington, Arlington, Texas

**Dianna Nguyen**, Sanjay Anand, Hector Tejeda, Samarendra Mohanty, Mario Romero Neuronal Subtype Specific Stimulation Using Optogenetics.

Annual Celebration of Excellence by Students (ACES) Research Symposium 2013, 27 March 2013, University of Texas at Arlington, Arlington, Texas

#### **Texas State Board of Pharmacy**

August 2011-Present, Certified Pharmacy Technician

• Certified as a pharmacy technician by the Texas State Board of Pharmacy

#### Ray's Pharmacy, Mansfield, TX (Retail and Mail-Order Department)

March 2011-June 2011, Student Extern

- Retail department—gained experience with patients and customer handling, pill counting, preparing medication, etc.
- Mail-order department—prepared medication for nursing homes

#### **Volunteer Activities**

#### Catholic Medical Association of Students (CMAS) Clinic for the Homeless

January 2017-Present, Volunteer

 Volunteered with CMAS at the monthly clinics serving homeless patients by triaging, performing physicals, etc.

## **RISE Adaptive Sports**

October 2016-Present, Volunteer

May 2018-Present, TCOM Liaison

• Volunteered with RISE Adaptive Sports assisting and supporting wheelchair athletes during their sporting events.

## Mission Arlington, Arlington, TX

May 2010-Present, Volunteer

• Volunteered at the Mission Arlington Medical and Dental clinics that provide medical and dental care to economically disadvantaged individuals in Tarrant County.

# Vietnamese Martyrs Catholic Church, Arlington, TX

August 2007-Present, Volunteer

• Volunteered as a teaching assistant for Vietnamese/Bible classes and retreat leader

# Marian Days, Carthage, MO

August 2007-Present, Volunteer

Volunteered at the first-aid clinic and assisted the physicians and nurses as they helped the patients.
 Non-healthcare related duties include facilitating prayer sessions, assisting with concessions, and information booths.

# **DatLanh Performing Group**

July 2011-July 2016, Volunteer

• Volunteered with DatLanh Performing Group, a non-profit performing group holding shows for local fundraisers and charity events.

# **Extra-Curricular Activities**

## **UNT Health Science Center – Graduate School of Biomedical Sciences (GSBS):**

• Graduate Student Association, GSA

Fall 2018-Present, GSA Traditional Student Representative

#### **UNT Health Science Center – Texas College of Osteopathic Medicine:**

• Texas College of Osteopathic Medicine (TCOM) Class of 2020

Fall 2016-Present, TCOM 2020 Class Secretary

• Academy<sup>V</sup> Member

Summer 2017-Summer 2018, TCOM Representative

• American Osteopathic College of Physical Medicine and Rehabilitation (AOCPMR)

Summer 2018-Present, National Student Executive Council, Midwest Membership Regional Director January 2017-May 2018, President

Fall 2016-January 2017, First-Year Representative

Catholic Medical Association of Students (CMAS)

March 2017-May 2018, Secretary

Fall 2016-March 2017, First-Year Representative

## • Clinical and Scientific Research Club (CSRC)

March 2017-May 2018, *President* Fall 2016-March 2017, *First-Year Representative* 

# • Neurology Club

Spring 2017-May 2018, Secretary

#### • Neurosurgery Interest Society (NIS)

Spring 2017-Summer 2018, Secretary

## • Student American Osteopathic Association of Sports Medicine (SAOASM)

Summer 2018-Present, National Student Executive Board, Midwest Regional Representative

# • Texas Osteopathic Medical Association – Student Organization (TOMA-SO)

April 2017-May 2018, Activity Coordinator

## • TCOM Beyer Advisory College

Fall 2016-Spring 2016, Dean's Cup Challenge Committee, Beyer Representative

#### • UNTHSC Sustainability Committee

Fall 2016-Fall 2017, TCOM Student Representative, Lab Efficiency Action Program (LEAP) Sub-Committee Member

#### The University of Texas at Arlington:

• **Arlington City Council Forum**, city-wide event hosted by Dr. Allan Saxe for candidates and constituents to interact through Q&A.

April 2012, Forum Organizing Committee Member in charge of contacting the candidates from each district

• Freshmen Leaders On Campus (FLOC), a select organization for incoming freshmen at UTA each year with a mission to promote membership involvement in student governance and community service early on.

August 2011-May 2012, Committee Co-Chair

• Health Occupations Students of America (HOSA), a national career/technical student organization that promotes career opportunities in health care through developing understanding of health issues, having guest speakers, and participating in competitions.

1 of 4 Founding Officers for HOSA chapter at UTA

January 2012-August 2013, Vice President/Secretary

August 2013-May 2014, Volunteer Chair

- **Honors College Council (HCC)**, student-led, governing body of the Honors College at UTA Fall 2011-May 2015, *Honors Advocate*
- National Society of Collegiate Scholars (NSCS), an honor society that invites high-achieving first and second year college students and promotes leadership opportunities and personal growth. October 2012-May 2015, *Member*
- National Society of Leadership and Success (NSLS), a national organization that helps students discover and achieve their goals through providing lectures, leadership training, and networking teams.

September 2012-May 2015, Committee Secretary

• **Phi Kappa Phi**, Honor Society for all academic disciplines April 2013-Present, *Member* 

# **Special Skills**

## Languages aside from English:

- Spanish
- Vietnamese (fluent)

# Teaching:

- Mentored student team CCAT in their unique antimicrobial drug discovery research project in sea anemone, *Stichodactyla helianthus*, as part of ASSURE URA
- Participated in STEP 1 and 2 of the UTeach Arlington Program, obtaining field experience of teaching elementary and middle school students in Science
- Volunteered as a teaching assistant for Vietnamese and Bible classes at Vietnamese Martyrs Catholic Church
- Volunteered as retreat leader for confirmation students at Vietnamese Martyrs Catholic Church
- Volunteered as a tutor for H.O.P.E Tutoring, helping students in grades 3-8 with homework, reading, math, and study skills