**Megan R. Wise de Valdez, M.S., Ph.D.**

Associate Professor and Program Coordinator - Biology

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**EDUCATION**

* Ph.D. in Zoology – Colorado State University – 2005
  + Dissertation Title: Parasitoid-induced behavioral alterations in *Aedes aegypti* mosquito larvae infected with mermithid nematodes (Nematoda: Mermithidae)
* M.S. in Biology – University of Nebraska-Lincoln – 1998
  + Thesis Title: Host specificity in *Metamera sillisenorum*, N. Sp. a gregarine parasite of the leech *Helobdella triserialis* with notes on transmission dynamics
* B.S. in Biology – University of Nebraska-Lincoln – 1995

**ACADEMIC and PROFESSIONAL POSITIONS**

* Associate Professor – Biology: Texas A&M University – San Antonio 2010-current
  + Awarded tenure September, 2016
* Program Coordinator – Biology: Texas A&M University – San Antonio 2011-current
* Post-Doctoral Researcher: Colorado State University – Department of Microbiology, 2005-2010

Immunology, and Pathology.

* Instructor: Colorado State University – Department of Biology 2002-2005
* Adjunct Faculty: Frontrange Community College, Fort Collins, CO 2002-2009

Department of Natural Sciences

* Graduate Teaching Assistant: Colorado State University – Department of Biology 2000-2005
* Research Scientist II: Schering-Plough Animal Health Research & Development 1998-2000

Poultry Parasite & Virus Vaccine Development

* Volunteer Faculty: Metropolitan Community College, Omaha, NE 1999-2000
* Graduate Teaching Assistant: University of Nebraska-Lincoln – Department of 1994-1998

Biological Sciences

**COURSES TAUGHT**

**Texas A&M University-San Antonio 2010 - present**

|  |  |  |
| --- | --- | --- |
| Courses Taught   * BIOL 3104 – Research Experience in Biology * BIOL 3402 – Evolutionary Theory (face-to-face & on-line) * BIOL 3375 – Economic Entomology * BIOL 3401 – Invertebrate Zoology with lab * BIOL 2411 – Genetics with lab (face-to-face & on-line) * BIOL 3407 – Ecology with lab | * BIOL 4304 – Research Projects in Biology * BIOL 4409 – Biology of Disease Vectors * BIOL 4430 – Parasitology with lab * BIOL 1306 – General Biology I – Attributes of Living systems * BIOL 1307 – General Biology II – Organismal Biology * BIOL 1308 – Life Sciences I – Non majors * BIOL 1309 – Life Sciences II – Non majors | |
| **Colorado State University – 2000-2005** | **Front Range Community College - 2002-2009** |
| Lecture Courses Taught  - Principles of Animal Biology  - Biology of Organisms – Animals and Plants  Laboratory Courses Taught  - Honors General Biology  - Principles of Animal Biology  - Invertebrate Zoology | Courses Taught  - General College Biology with lab  **-** General College Biology with lab – Online hybrid course  - Biology for non-majors Biology with lab |
| **University of Nebraska-Lincoln – 1994 – 1998** | **Metropolitan Community College-Omaha, Nebraska – 1999** |
| Laboratory Courses Taught  - Introductory Zoology  - Invertebrate Zoology  - Parasitology  - Biodiversity | Courses Taught  **-** English as a second language (ESL)  - GED preparation tutoring |

**RESEARCH**

**Mosquito Ecology**

**Current: Establish effective Zika vector surveillance techniques in large U.S. metropolitan area.** Because San Antonio lacks a mosquito control/surveillance program, is the seventh largest city in the United States and is in close proximity to areas where mosquito-vectored diseases such as Dengue Fever, West Nile, Chikungunya, and now Zika are endemic, assessing the presence of mosquitoes known to vector these human diseases is important. In addition to establishing the most effective trapping techniques that target these vector species in a cost-effective way across a large landscape, we are also assessing the relationship of weather patterns with mosquito population size and species distribution. Because these studies are being conducted city-wide with collection sites ranging from urban, suburban, to rural residences, we will be able to assess how species distribution and abundance across these residential habitat types. Finally, we are also monitoring vectors of West Nile Virus and are looking for patterns of local extinction of a resident species*, Aedes aegypti*.

**2005 - 2010**: **Genetic control of *Aedes aegypti* mosoquitoes using the RIDL (Release of Insects carrying a Dominant Lethal) strategy -** I was funded under a grant to the Regents of the University of California from the Foundation for the National Institutes of Health through the Grand Challenges in Global Health initiative. The research we conducted was on novel methods of controlling *Aedes aegypti* in order to reduce the transmission of Dengue Viruses, these include biological control and transgenic lines that are resistant to Dengue or have a dominant lethal. I was the lead scientist in Phase II of this grant (large laboratory cage experiments), in which I evaluated the control methods for their potential use in field cage trials in Tapachula, Mexico. I completed two large cage trials: 1) using *Aedes* densonucleosis virus as a method of biocontrol, and 2) the release of *Ae. aegypti* males carrying a dominant lethal gene (RIDL). In the RIDL release experiment I created a homozygous line of RIDL introgressed into a genetically diverse background representative of the geographic area and showed that the RIDL strategy can drive a local caged population to extinction. I was then involved in setting up the large field cage trials in Tapachula, MX in association with UC-Davis and the Instituto National de Salud Publica.

**2000 - 2005**: **Parasitoid-induced behavioral alterations in *Aedes aegypti* mosquito larvae infected with mermithid nematodes (Nematoda: Mermithidae)**. I investigated the effects of different species of nematodes on *Aedes aegypti* larval behavior as well as effects of parasite infection on predator avoidance behaviors of these mosquito larvae. Mermithid nematodes do not affect larval behavior.

**Parasitology**

**2013-2015 – Feral Hog Intestinal Helminth Survey.** Feral hogs, or *Sus scrofa*, are known widely throughout Texas as an overall pest to land management and livestock enterprises in general. Close to half of the nation’s feral hog population resides in Texas potentially creating a health risk for domesticated livestock; for this reason knowing more about the intestinal helminthes of feral hogs is important. We currently collect approximately 6-8 feral hog large and small intestines on day of slaughter from a USDA processing facility in south Texas. We aim to continue this as a long-term study to evaluate patterns of intestinal helminthes. Currently, parasites collected included six *Ascaris spp*., 31 *Macracanthorhynchus hirudinaceus*, five smaller, yet to be identified, Acanthocephalans, and 375 yet to be identified hookworms. With a potentially unlimited supply of feral hogs, we will be able to continue these studies indefinitely which will give us multiple opportunities to investigate any trends in this host-parasite system.

**2012-2014 Calling behavior of male *Acheta domesticus* crickets infected with *Paragordius varius* (Nematomorphoa: Gordiida)** as part ofan ROA awarded toNSF grant DEB DEB-0950066: “Collaborative Research: Unraveling a Gordian knot: Biodiversity of Gordian worms, phylum Nematomorpha, in the New World” 08/01/2010 – 07/31/2013. I am interested in gaining a better understanding of the process of parasitoid-induced behavioral alterations in the nematomorph-cricket parasite-host relationship. Specifically, 1 ) What is the extent of the behavioral modifications of crickets induced by nematomorph worms? 2) Are these behavioral alterations evolutionary adaptations of the nematomorph to increase its survival? We found that calling was decreased. The next step is to establish if this reduced calling increases cricket survival by reducing predation rates.

**1998-2000** **Parasite (coccidial) vaccine development for poultry**. As a scientist with Schering-Plough Animal Health I helped in the development and testing of parasite, bacterial, and viral vaccines in poultry. Namely, I conducted vaccine efficacy field trials of coccidiosis vaccines at various sites across the U.S. I was also involved in pre-production and testing of a multi-viral recombinant vaccine.

**1996-1998** **Host specificity in *Metamera sillisenorum*, N. Sp. a gregarine parasite of the leech *Helobdella triserialis* with notes on transmission dynamics**.I described a new species of gregarine from leeches and studied their host specificity and transmission dynamics. I determined that *M. sillisenorum* was host specific to the leech *Helobdella triserialis*.

**1994-1995** **Locomotion of eugregarine (phylum Apicomplexa) parasites in the beetle *Tenebrio molitor***. As a recipient of a Howard Hughes Undergraduate Research Grant: I studied aspects of the locomotion of eugregarine (phylum Apicomplexa) parasites in the beetle *Tenebrio molitor*. I found that the shedding of the glycocalyx (outer secretion) occurred faster than the rate at which the gregarine moved forward and was thus not likely to be the only mechanism of locomotion.

**PUBLICATIONS**

* Skinner, K. and M.R. **Wise de Valdez** 2018. Survey of intestinal helminths from feral hogs in Texas. Southwestern Naturalist. 64(2)
* **Wise de Valdez, M.R**. 2017. Mosquito species distribution across urban, suburban, and semi-rural residences in San Antonio, Texas.  *Journal of Vector Ecology* 42:1-5
* Barquin, A., B. McGehee, R. T. Sedam, W. L. Gordy, B. Hanelt, and **M. R. Wise de Valdez** 2015. Calling behavior of male *Acheta domesticus* crickets infected with *Paragordius varius* (Nematomorphoa: Gordiida). Journal of Parasitology 101: 001-005
* **Wise de Valdez, M. R**., D. Nimmo, H-F. Gong, A. A. James, L. Alphey, W. C. Black, IV. 2011 Genetic elimination of dengue vector mosquitoes. PNAS 108:4772-4775.
* Facchinelli L., L. Valerio, G. Bond Campeón, **M. R. Wise de Valdez**, L. C. Harrington, J. M. Ramsey, M. Casas-Martínez, T. W. Scott. 2011 Development of a semi-field system for Contained Field Trials with Aedes aegypti in Southern Mexico. American Journal of Tropical Medicine and Hygiene. 85:248-256
* **Wise de Valdez, M. R**., E. Suchman, J. O. Carlson, W. C. Black IV. 2010. A large scale laboratory cage investigation of Aedes densonucleosis Virus (AeDNV). Journal of Medical Entomology. 47:392-399
* Suchman, E. L., Piper, J., **Wise de Valdez, M. R**., Plake, E., Klecker, B., Black W. C. IV, Carlson, J. 2009. *Aedes aegypti* densonucleosis virus(AeDNV) is able to amplify, spread and persist in mosquito populations. Journal of Medical Entomology. 46(4):909-918
* **Wise de Valdez, M. R**. 2007 Predator avoidance behavior of *Aedes aegypti* mosquito larvae infected with mermithid nematodes (Nematoda: Mermithidae). Journal of Vector Ecology 32:150-153
* **Wise de Valdez, M. R**. 2006 Parasitoid-induced behavioral alterations in *Aedes aegypti* mosquito larvae infected with mermithid nematodes (Nematoda: Mermithidae). Journal of Vector Ecology 31:344-354
* Poulin, R., **Wise, M.R**., and Moore, J. K. 2003 A comparative analysis of adult body size and its correlates in acanthocephalan parasites. International Journal for Parasitology 33: 799-805
* **Wise, M. R**., Janovy, J. Jr., and Wise, J. C. 2000 Host specificity in *Metamera sillisenorum*, N. Sp. a gregarine parasite of the leech *Helobdella triserialis* with notes on transmission dynamics. Journal of Parasitology 86: 602-606

**GRANTS & CONTRACTS**

* City of San Antonio Metropolitan Health District, **$12,049** Subaward as part of the City Mosquito management plan in response to threat of Zika transmission. June 30, 2018 – Dec. 31, 2018
* City of San Antonio Metropolitan Health District, **$25,000** Subaward as part of the City Mosquito management plan in response to threat of Zika transmission. June 30, 2017 – June 30, 2018
* U.S. Department of Energy – Lawrence Livermore National Laboratory, Award #B625453, **$19,734** Subaward to Dr. Megan Wise de Valdez as part of the “Integrated Biosurveillance Test Bed for Detecting and Predicting Emergence of Mosquitoes”. Oct. 31, 2018 – June 30, 2019
* U.S. Department of Energy – Lawrence Livermore National Laboratory, Award #B625453, **$20,000** Subaward to Dr. Megan Wise de Valdez as part of the “Integrated Biosurveillance Test Bed for Detecting and Predicting Emergence of Mosquitoes”. Oct. 31, 2017 – June 30, 2018
* U.S. Department of Energy – Lawrence Livermore National Laboratory, Award #B618988, **$20,000** Subaward to Dr. Megan Wise de Valdez as part of the “Integrated Biosurveillance Test Bed for Detecting and Predicting Emergence of Mosquitoes”. July 7 – June 30, 2017
* Metropolitan Health District **- $4000 –** Panel of Experts for Zika virus.Purchase of BG-sentinel traps and accessoriesPresident’s Circle Faculty Research Grant – Texas A & M University – San Antonio. $8900 2013-2015
* Research Opportunity Award – NSF **$25,000**. Collaborative Research with University of New Mexico: Unraveling a Gordian knot: Biodiversity of Gordian worms, phylum Nematomorpha, in the New World. 2013

**PRESS BASED ON RESEARCH**

* Featured on KSAT News: 10/16/2018 <https://www.ksat.com/news/does-the-cold-snap-mean-the-end-of-mosquito-season-maybe-not>
* Featured on Fox news, San Antonio <http://foxsanantonio.com/news/local/local-experts-share-zika-warning-after-6-pregnant-women-in-houston-area-test-positive> (June, 2017)
* Featured in **San Antonio Express News** <http://www.mysanantonio.com/news/local/article/Professor-in-San-Antonio-gears-up-to-study-11134281.php> (May, 2107)
* Feature in **USA Today** (and all other papers owned by Gannet) – “Texas Researchers on Front Line in the Battle to stop Zika Spread in US” August 22, 2016 <http://www.usatoday.com/story/news/nation/2016/08/20/zika-research-san-antonio-texas-am/89045424/>
* Featured in **San Antonio Express News** (two stories) – 1) “Zika Virus: Separating Fact from Speculation” February 15, 2016<http://www.expressnews.com/news/local/article/Zika-virus-separating-fact-from-speculation-6832110.php> 2) “A safe tire site that is not precisely safe” July 30, 2016 <http://www.mysanantonio.com/opinion/commentary/article/A-safe-tire-site-that-is-not-precisely-safe-8708403.php> 3) “Southside Tire Dump Caught in Bureaucratic Snarl” July 21, 2016
* Featured on **San Antonio’s News 4** (two stories): 1) “Local Zika Virus Researcher Needs Help Trapping Mosquitoes” April 28th, 2016 <http://news4sanantonio.com/news/local/local-zika-virus-researcher-needs-help-trapping-mosquitoes> 2) “Mosquito Patrol - Tracking Zika Carriers” June 15th, 2016 http://news4sanantonio.com/news/local/tamusa-mosquito-patrol-tracking-zika-capable-insects
* Invited panel guest: **NPR’s On Point with Tom Ashbrook**: February 10th, 2016: “Dealing with the Zika Threat”. <http://onpoint.wbur.org/2016/02/10/zika-virus-brazil-cdc-threat>
* Invited contributor: **Yahoo.com en Español** – two stories: 1) “¿por qué los mosquitos pican más a algunas personas? “ <https://es-us.noticias.yahoo.com/zika-por-qu%C3%A9-los-mosquitos-pican-m%C3%A1s-a-algunas-220644995.html> 2) ”Zika: Replentes Naturales” <https://es-us.noticias.yahoo.com/zika-repelentes-naturales-165633720.html>
* Feature Article for Press Release: Calling behavior of male *Acheta domesticus* crickets infected with *Paragordius varius* (Nematomorphoa: Gordiida), was selected as the featured article for the August 2015 issue.
* Featured in the **Wildlife Society on-line Magazine** September 1, 2015 – based on an interview and my research with parasite-induced changes in cricket behavior
* Featured in **Scientific American** November 2011 Issue – The Wipe Out Gene by Bijal Trivedi. Featured in the article for the work I completed on laboratory based trials of genetically modified *Aedes aegytpi* mosquitoes.

**AWARDS and HONORS**

* San Antonio Women’s Chamber of Commerce Constellation of Stars – “Rising Star” 2018: This category of award was “to honor those that have a small sphere of influence, but go out of their way to Advocate, Connect, or Empower others in that circle”.
* Military Affairs Student Veteran coin – 2016 Presented by a student to a professor who has been their mentor, role model, and support.
* Jaguar Excellence Award – 2016 - Texas A&M-San Antonio: Modeling courage and leading the way for our faculty, staff and students.
* Chancellor’s Coin – 2016 – Presentation on Zika for Chancellor’s Century Council – March 4, 2016
* Excellence in Teaching Award – The National Society of Leadership and Success: Sigma Alpha Pi – 2013
* Faculty Excellence Award – Spring 2012: A Stipend of $10,000 to conduct faculty-lead undergraduate research in Parasitology.
* E. Kika de la Garza Fellow – United States Department of Agriculture: Hispanic Serving Institutions. 2-week fellowship in Washington, D.C. June 26 – July 13, 2011
* Teaching Excellence Award from the Texas A & M University System – Fall 2010 and Spring 2011
* Marc Dresden Travel Grant from American Society of Parasitology - 2003
* Graduate Teaching Assistant Award Department of Biology (CSU) – 2002 – 2003
* Student Paper Presentation Award – Society of Vector Ecology National Meeting 2002
* Colorado State University Department of Biology Travel Grant – 2000-2003
* University of Nebraska - Ashton Cuckler Parasitology Scholarship – 1997
* University of Oregon - R. C. Terwilleger Invertebrate Zoology Scholarship (one time: $500) – 1995
* Mortar Board National Senior Honor Society - Historian 1995
* Golden Key National Honor Society - Event Coordinator 1994 – 1995

## PROFESSIONAL DEVELOPMENT

* Southwestern Branch of the Society of Entomologists annual Meeting – Tyler, TX February 23-25th, 2016
* Society of Vector Ecology Meetings 2002-2003, 2015-2016
* Texas Mosquito Control Association Annual Meetings, 2014-2016
* American Society of Parasitologists Annual National Meetings 2014, 2015, 2017
* Southwest Association of Parasitologists Annual Meetings – Lake Texoma, OK Yearly: 2012 - 2017
* American Society of Tropical Medicine and Hygiene Annual Meeting 2006, 2007, 2009, 2013
* Southwest Teaching and Learning Conference: Texas A&M University-San Antonio 2013. – Workshop presenter
* Quality Education for Minorities (QEM) Network. Professional Development Workshop for Minority-serving Institutions and their K-12 Partners focused on the NSF MSP Program October 19-20, 2012
* Hispanic Association of Colleges and Universities (HACU) National Annual Conference: Latino Leadership Institute and Workshop. Fall 2011
* Strategies for teaching large undergraduate science classes with team-based learning and CCRS: 2-day conference hosted by Science Faculty Collaborative and the Texas Higher Education Coordinating Board – Spring 2011
* CCRIFC Mathematics & Science Summit – sponsored by the Texas Higher Education Coordinating Board: September 23-24, 2010
* Teacher Enrichment Activities and Mentoring – (Spring 2004)
* Teachers Helping Teachers Training for Faculty/Instructors – (Spring 2004
* Curriculum development Workshops – “Backward Design” – (Spring 2004)

## PROFESSIONAL SOCIETIES & SERVICE WITHIN

* Zika Task force for mosquito control – City of San Antonio: 2016-Present
* Texas Mosquito Control Association 2014 – present
  + Board Member – 2017 – present
  + Secretary – 2017 - present
* American Society of Parasitologists – 1995-2000, 2013 – present
  + Lectureship Committee
  + Nominating Committee at the Annual Meeting
  + Serving on the Student Competition Committee, 2014, 2015
* Southwestern Association of Parasitologists – 1995-2003, 2012 – present
  + Chair: Sexual Harassment Policy development committee
  + President - 2015
  + President Elect 2014-2015
* Society of Vector Ecology 2002 – 2008, 2015 - present
* American Association for the Advancement of Science (AAAS) 2014
* American Mosquito Control Association 2014 – 2016, 2018
* Society of Southwestern Entomologists 2015 - 2016
* Association of Tropical Medicine and Hygiene – 2006 – 2009, 2013
* National Association of Biology Teachers – 2003 – 2004

**PRESENTATIONS**

* Poster-Presentation - National meeting of the Society for Vector Ecology (October 2018) – Yosemite, CA: **Poster**: Adult mosquito distribution associated with premise condition index and socioeconomics of neighborhoods in San Antonio, TX
* Oral presentation – “Residential surveillance of mosquito vectors in a large metropolitan area: Challenges and interpretations”. Southwestern Association of Parasitologists, Lake Texoma, OK April 2017
* **Invited Speaker** – “Residential surveillance of mosquito vectors in a large metropolitan area using CDC autocidal gravid ovitraps”. UTSA Vector-borne diseases symposium. June, 2017
* (San Antonio, TX – June) –
* **Invited Speaker** – Texas State Biology Department Friday Symposia – Distribution of the primary vectors of Zika and West Nile viruses in residential backyards across San Antonio, Texas: New information and challenges in a city without vector control. February, 2017
* Poster-Presentation: City-Wide residential Zika vector surveillance in large U.S. metropolitan area using CDC autocidal gravid ovitraps. Megan Wise de Valdez, Michelle Ximenez, and Joshua Darden, Society of Vector Ecology Meeting (National), Anchorage, AK September 2016.
* Oral presentation - Mosquito species distribution across urban, suburban, and semi-rural residences in San Antonio, TX. Diseases in Nature Infectious to Man (regional) – San Antonio, Texas – May 25th-27th , 2016
* **Invited Speaker** – Symposium on Urban Entomology at the Southwestern Branch of the Entomological Society of America – February 2016
* Zika Virus Update: To Faculty/Staff Texas A&M-San Antonio – February 2016.
* **Invited Speaker** - Presentation on Zika for Texas A&M Chancellor’s Century Council – March 4, 2016 San Antonio, TX
* Poster-Presentation: Mosquito species distribution in urban, suburban, and semi-rural residences in San Antonio, Texas. Megan Wise de Valdez, Joshua Darden, and Benjamin McGehee. Society of Vector Ecology Meeting (National), Albuquerque, NM September 2015.
* Southwest Teaching and Learning Conference Workshop: “Modifying Team-Based Learning (TBL) to Make it Work for You.” Spring 2013
* **Invited Speaker** – University of New Mexico Parasitology Department: Parsitoid-induced behavioral alterations and Transgenic mosquitoes , September 2016
* Faculty Speaker Series – Mosquitoes of Texas: Know Your Enemy – Disease, Behavior, and Control – April 2011
* Annual Meeting of the American Society for Tropical Medicine and Hygeine – Nov. 2009 Title: A large scale laboratory cage investigation of the release of mosquitoes carrying a dominant lethal gene (RIDL®) for the control of *Aedes aegypti* mosquitoes.
* Annual Meeting of the American Society for Tropical Medicine and Hygeine – Nov. 2007 Title: A large scale laboratory cage investigation of Aedes Densonucleosis Virus (AeDNV) as a sustainable biocontrol method of *Aedes aegypti* mosquitoes.
* **Invited Speaker** National Meeting of the Entomological Society of America – Nov. 2004: Symposium: Using principles of Ecology to Understand Populations and Communities of Container Dwelling Mosquitoes. Title: Predator Avoidance Behavior of *Aedes aegypti* Mosquito Larvae Infected with Mermithid Nematodes
* National meeting of the Society of Vector Ecology – Oct. 2003 Title:Predator Avoidance Behavior of *Aedes aegypti* Mosquito Larvae Infected with Mermithid Nematodes
* National meeting of the American Society of Parasitologists – Aug. 2003 Title: Predator Avoidance Behavior of *Aedes aegypti* Mosquito Larvae Infected with Mermithid Nematodes
* National Meeting of the Society of Vector Ecology – Sept. 2002 Title: Behavioral Alterations in Mosquito Larvae Infected with Mermithid Nematodes : ***Presentation Award Winner****.*
* Regional Meeting of the Southwestern Association of Parasitologist – Apr. 2002 Title: Behavioral Alterations in Mosquito Larvae Infected with a Mermithid Nematode
* National Meeting of the American Society of Parasitologists – Aug. 2000Title: Coccidiosis Vaccines for Broiler Chickens
* Regional Meeting of the Southwestern Association of Parasitologists – Apr. 1998Title: Host specificity in *Metamera sillisenorum*, N. Sp. a gregarine parasite of the leech *Helobdella triserialis*

**STUDENT PRESENTATIONS (co-authored)**

* Texas Mosquito Control Association Annual Meeting (Victoria, TX) – 2018 – Attitudes and Personalities Associated with Mosquitoes and Mosquito-borne Diseases. Amy Senger and Megan Wise de Valdez
* Texas Mosquito Control Association Annual Meeting (Victoria, TX) – 2018 – Knowledge, attitudes, and practices survey associated with mosquitoes, mosquito-borne diseases, and the premise condition index. Lisset Martinez-Berman and Megan Wise de Valdez
* Pathways Undergraduate Research Symposium – 2017 – Effects of Climate on Mosquito Density in San Antonio, Texas. Nacera Benslamine
* Pathways Undergraduate Research Symposium – 2017 – Socioeconomics, Neighborhood “Quality”, and Mosquitoes in San Antonio, Texas. Jannelle Gonzales
* Pathways Undergraduate Research Symposium – 2017 – Efficacy of three insecticides applied by mist and ultra-low volume vehicle-mounted sprayers at an abandoned tire site in South San Antonio, Texas. Krista Lazo
* Texas Mosquito Control Association Meeting, Fredricksburg, TX – 2017. Mosquito Abundance and Distribution Associated with Socioeconomic Status and Premise Condition Index of Neighborhood in San Antonio, TX. Joel Obregon and Estefany Moya Aguilar.
* CIMA 4rd Annual Symposium for undergraduate research – 2017 - Efficacy of three insecticides applied by mist and ultra-low volume vehicle-mounted sprayers at an abandoned tire site in South San Antonio, Texas. Alexandra Barba
* Southwestern Association of Parasitologists Meeting, Lake Texoma, OK – 2017. “Distribution and abundance of mosquito vectors of heartworm (*Dirofilaria immitis*) in San Antonio, Texas.” Estefany Moya Aguilar
* Texas Mosquito Control Association Meeting, Corpus Christi, TX – 2016. Zika vector surveillance in San Antonio, Texas using CDC autocidal gravid ovitraps. Michelle Ximenez
* Texas Mosquito Control Association Meeting, Corpus Christi, TX – 2016. The effect of precipitation on mosquito populations across four different ecotones in San Antonio, Texas. Joshua Darden
* Pathways Undergraduate Research Symposium – 2016 – Does neighborhood socio-economic status affect the distribution of the primary Zika vector, Aedes aegypti, in San Antonio, Texas? Crystal Serrano
* Pathways Undergraduate Research Symposium – 2016 – Distribution and abundance of mosquito vectors of heartworm (*Dirofilaria immitis*) in San Antonio, Texas. Estefany Moya-Aguilar
* CIMA 3rd Annual Symposium for undergraduate research: Evaluation of different water infusions to attract ovipositing female *Aedes aegypti*, the primary vector of Zika Virus in the Americas. Ariana Alvarez. August, 2016
* Regional meeting Texas Mosquito Control Association Meeting, Kerrville, TX October 2015 - Mosquito species distribution in urban, suburban, and semi-rural residences in San Antonio, Texas. Michelle Ximenez.
* Pathways Undergraduate Research Symposium – 2015 – Influence of precipitation and temperature on mosquito vectors in residential areas of San Antonio, Texas. Joshua Darden and Alfonso Vazquez
* Pathways Undergraduate Research Symposium – 2015 – Mosquito species distribution and diversity across urban, suburban, and semi-rural residences in San Antonio, Texas. Alma Ruiz.
* Pathways Undergraduate Research Symposium – 2015 – Mosquito abundance and diversity captured with CDC mini light traps and BG-Sentinel traps in San Antonio, Texas. Sofia Andujo
* CIMA 2nd Annual Symposium for undergraduate research: Influence of precipitation and temperature on mosquito populations in residential areas of San Antonio, Texas, Joshua Darden and Megan Wise de Valdez, August 2015
* CIMA 2nd Annual Symposium for undergraduate research: Distribution of mosquito disease vectors in residential areas of San Antonio, Texas Dominique Hernandez and Megan Wise de Valdez, August 2015
* National meeting of the American Association of Parasitologists June, 2015, Omaha, NE. A survey of intestinal parasites of feral hogs in Texas. Kalin Skinner and Megan Wise de Valdez
* National meeting of the American Association of Parasitologists June, 2015, Omaha, NE. Potential vectors of Dirofilaria immitis in San Antonio, Texas. Amarillys Barquin and Megan Wise de Valdez
* Regional meeting Southwestern Association of Parasitologists April 2015, Lake Texoma, OK. A survey of intestinal parasites of feral hogs in Texas. Kalin Skinner and Megan Wise de Valdez
* Regional meeting Southwestern Association of Parasitologists April 2015, Lake Texoma, OK. Potential vectors of *Dirofilaria immitis* in San Antonio, Texas. Amarillys Barquin and Megan Wise de Valdez
* Regional meeting Texas Mosquito Control Association Regional Meeting 2014 - Mosquito species distribution in residential areas across San Antonio, Texas. Alfonso Vasquez, Michelle Mendoza, Marissa Lightsey, and Megan Wise de Valdez
* Regional meeting Southwestern Association of Parasitologists Regional Meeting 2014 - Calling behavior of adult male *Acheta domesticus* crickets infected with *Paragordius varius* (Nematomorpha: Gordiida). B. McGehee, A. Barquin, Y. Rodriguez, J. Garza, J. Herrera, B. Hanelt\*, and M. Wise de Valdez
* National meeting of the American Society of Parasitologists National Meeting 2014 - Calling behavior of adult male *Acheta domesticus* crickets infected with *Paragordius varius* (Nematomorpha: Gordiida). A. Barquin, B. McGehee, Y. Rodriguez, J. Garza, J. Herrera, B. Hanelt\*, and M. Wise de Valdez
* Regional meeting Southwestern Association of Parasitologists Regional Meeting 2014or Refuge-seeking behavior and activity level of *Acheta domesticus* infected with *Paragordius varius*. J. Garza, A. Howard, C. Downen, A.T. Judd, Y. Rodriguez, J. Herrera, B. Hanelt\*, and M. Wise de Valdez.
* Regional meeting Southwestern Association of Parasitologists Regional Meeting 2014 Effect of cricket age on infection status with *Paragordius varius* (Nematomorpha:Gordiida). A. Howard and M. Wise de Valdez.
* Regional meeting Southwestern Association of Parasitologists Regional Meeting 2103 - Identification of reservoir hosts of *Trypanosoma cruzi* at Joint Base San Antonio-Lackland, San Antonio, Texas. T. Luepke1, C. Soria1, M. Kramm1, M. Gutierrez1, M. Wise de Valdez2 and R. Lopez1. 1Department of Wildlife and Fisheries, Texas A&M University.

**SERVICE TO THE UNIVERSITY**

Leadership Positions

* Program Coordinator – Biology Program 2011 – current
* Chair: Faculty Evaluation Committee for Department of Science and Math – 2017 - current
* Chair: Undergraduate Research as a High Impact Practice – 2016-2018
* Arts & Sciences Faculty Representative to Master Plan Steering Committee – 2016
* Lead: Biology faculty Science Technology Building design – 2016 – 2018
* Arts & Sciences Faculty Representative to Science & Technology Programming committee – 2015-2016
* Chair: Search Committee for Tenure-track Faculty position – Developmental Biology – Spring 2017
* Chair: Search Committee for Tenure-track Faculty position – Immunology – Spring 2016
* Chair: Search Committee for Tenure-track Faculty position – Population Genetics – Spring 2016
* Chair: Core Curriculum Committee – Natural Sciences courses – Fall 2014
* Advisor: Biology Club – 2011 - present
* Immediate Past President: Faculty Senate: 2013-2014
* President: Faculty Senate – 2012-2013
* Vice President/President-Elect: Faculty Senate – 2011-2012
* Faculty Representative to President’s Leadership Council – 2011-2013
* Chair: Search Committee for Tenure-Track Biology Faculty in Animal Physiology – Spring 2013
* Chair: Search Committee for Laboratory Manager – Fall 2011
* Chair of SACS Physical Resource Committee – 2011.
* Coordinator - Biology Adjunct Hiring – 2010-present
* Faculty Advisor of TAMUSA Biology Club - 2010-present
* Chair: Curriculum Committee – 2011-2012
* Secretary: Colloquium of Life Sciences at Colorado State University: Secretary – 2002-2003
* President: Graduate Student Association in Department of Biology – Colorado State 2001-2002
* Student Representative to Executive Committee – American Society of Parasitologists: 2002
* Vice President and Treasurer – Student Alumni Association: University of Nebraska. 1993-1995
* Senator - Association of Students at the University of Nebraska 1995.

Committee Membership and General Service

* Search Committee Biology – Systematist
* Search Committee Tutoring Center – professional biology tutor.
* Biology Master’s/Ph.D. Program committee
* SaM Tenure & Promotion: SaM Committee
* SaM Faculty Evaluation Committee
* SaM Faculty Science and Technology Building Committee
* University Admission Standard committee
* University Outstanding Senior Award committee
* First-Year Experience: Family First Series. Gave a presentation to parents of first-year students entitled: “Expectation of Students & Support from Family. A Faculty Member’s Perspective”
* Biology Search Committee: T/T Developmental Biologist – 2017-2018
* Biology Search Committee: Lecturer Anatomy Physiology – 2017-2018
* Biology Master’s/Ph.D. Program committee – 2017-2018
* SaM Tenure & Promotion Committee – 2017-2018
* University Faculty Senate Ad Hoc HIP Committee
* University Outstanding Senior Award committeeAcademic Calendar Committee – Spring 2017
* Academic Plan Committee – 2016-2017
* High Impact Practices Chairs Committee – 2016-2017
* Search Committee Director of First Year Experience – Spring 2016
* Search Committee Biology Lecturer – Wildlife Biology Spring 2016
* Search Committee Biology Lecturer – Anatomy Physiology Spring 2016
* Downward Expansion Super Group – Summer 2015 - present
  + Admissions Subcommittee
  + Definitions Subcommittee
  + Jaguar Tracks Subcommittee
  + Budget Subcommittee
* Speaker Series Core Team Member - 2015
* Student Government Association Election Review - 2015
* Council on Assessment, Planning and Budgeting (CAPB) - 2014
* STEM-ulate – Science Showcases: Hosted a booth for TAMUSA Biology Program 2013 & 2014
* Environmental Health and Safety Committee – Advisor to new staff position: 2014 - present
* Animal Care and Use Creation Committee – 2014-present
* Central Academic Building – planning & advising of new biology labs: 2012 - 2014
* Science and Technology Building – STEM programming team (first round): 2013 - 2014
* Search Committee for Tenure-Track Chemistry – Fall 2014
* Search Committee for Laboratory Manager – Summer 2013
* Search Committee for Tenure-Track Biology Faculty in Microbiology – Spring 2013
* Search Committee for Vice President of Student Affairs – Fall 2012
* Search Committee for School Head of Arts & Sciences – Spring 2012
* Biology Program Update Presentation – to Alamo Colleges Advisors Fall 2012
* International Delegate with Texas A&M University San Antonio Trade and Cultural Mission to Israel. Tel Aviv, Bersheva, and Jersulam, Israel. May 2012
* Water Conservation and Technology Committee – science faculty representative 2011- present
* Faculty Senate Constitution committee: Drafted the first Faculty Senate Constitution of TAMUSA – 2011
* Contact person for Texas A & M Agrilife Extension future programs 2011
* Liason – Medical School Recruiting: Universidad Autonoma De Guadalajara School of Medicine (an HSI) 2011-present
* Development of future academic involvement in the Irrigation Research Center planned for the new campus of TAMUSA - 2011
* Search Committee for Department of Biology Chair Colorado State University – 2002-2003
* Nebraska Cornhuskers Football Recruiter – 1992 – 1995
* Alpha Phi International Fraternity 1992 – 1995

**SERVICE BASED ON PROFESSIONAL EXPERTISE**

* Educator – Master Vector-borne diseases certification management course: Introduction to Mosquito Biology. September, 2017
* Invited Speaker – University Club – “Genetic Modification in mosquitoes”. August 2018
* **Invited Speaker** - San Antonio Women’s Chamber of Commerce: Smart Women Series **-** “Smart Women know the facts about Zika” – October – 2016
* **Invited Speaker** - San Antonio Public Library Science Series: Cody Public Library “Important facts about Zika and the mosquitoes that transmit” September 2016
* Panel of Experts: Metropolitan Health District – Zika Task Force 2016 – Current
* Coordinator and Mentor – NSF-CIMA (Ciencia, Ingeniería, y Matemáticas Aliados) Undergraduate Research Grant in collaboration with the Alamo Colleges 2015 – current
* Grant Review Panel – United States Department of Agriculture Hispanic-Serving Institutions (HSI) Education Grants Program – 2014 – 2016
* USDA Outreach and Assistance for Socially Disadvantaged Farmers and Ranchers Grant Scholarship – TAMUSA advisor: 2014
* CORE 4 STEM – Science Olympiad Workshop and Presentation – UTSA November 10, 2012
* Reviewer for Journal of Vector Ecology – 2011
* TAMU-SA Liaison for Native Plant Society of Texas – San Antonio Chapter: Landscape Certification Program 2012
* TAMU-SA Liaison for PEER Perspectives – Partnership for Environmental Education and Rural Health 2012 – Agricultural Teachers Workshop
* Liaison - AgriLife Extension Renewable and Natural Resources for placement of Student Interns. 2011-

**SERVICE TO THE COMMUNITY**

* Director: San Antonio Regional Science Olympiad held yearly at TAMU-SA – 2012 – present
* Volunteer – Book Fairs (Steubing Elementary and Stevenson Middle School NISD) – 2011-2018
* Volunteer – Career Day – Scobee Elementary 2016
* Steubing Elementary School PTA -
  + Parliamentarian 2015-2016
  + Secretary 2014-2015
  + Vice President-Legislative Action 2012-2014
* Volunteer with biology club members at Bootanica at the San Antonio Botanical Gardens – 2010, 2011, 2014
* Visiting Entomologist – KinderCare Learning Center, August 2012
* Volunteer at the State Competition for the Science Olympiad, College Station Texas. May 2011
* Virtual Lab Presentations to each 5th grade class at Steubing Elementary School – 2011
* Science Fair presentation to students and parents at Elm Creek elementary school – 2010, 2011
* Science Fair judge at Elm Creek elementary school – 2010
* Elementary School Science Fair Judge – St. Joseph’s Catholic School, Fort Collins, CO – 2010
* Visiting Science and Physical Education Teacher – 3rd and 4th Grade at Putnam Elementary School, Fort Collins, CO Funded through NIH Science Education Partnership Award (SEPA) Program - 2003

**STUDENTS MENTORED IN UNDERGRADUATE RESEARCH**

**Academic Year 2017-2018**

\*Poster presentation \*\*oral presentation at regional or national conference

¥ co-author on manuscript (in prep) § co-author on published manuscript

Amy Senger\*\*(award winner) Lisset Martinez-Berman\*\*(award winner)

**Academic Year 2016-2017**

\*Poster presentation \*\*oral presentation at regional or national conference

¥ co-author on manuscript (in prep) § co-author on published manuscript

|  |  |  |  |
| --- | --- | --- | --- |
| Humberto Garcia | Keren Hernandez | Nacera Benslamine\* |  |
| Krista Lazo\* | Jannelle Gonzales\* |  |  |
|  |  |  |  |

**Academic Year 2015-2016**

\*Poster presentation \*\*oral presentation at regional or national conference

¥ co-author on manuscript (in prep) § co-author on published manuscript

|  |  |  |  |
| --- | --- | --- | --- |
| Jessica Buitron | Joel Obregon\*\*¥ | Estefany Moya-Aguilar\* (award winner) |  |
| Crystal Serrano\* | Jonathan Hernandez | Trina Fenning |  |
| Alejandra Moya | Dylan Aldrete | Michelle Ximenez\*\*¥ |  |

**Academic Year 2014-2015**

\*Poster presentation \*\*oral presentation at regional or national conference

¥ co-author on manuscript (in prep) § co-author on published manuscript

|  |  |  |  |
| --- | --- | --- | --- |
| Amarillys Barquin\*\*§ | Benjamin McGehee § | Kalin Skinner\*\*¥§ (award winner) | Elizabeth Gallardo |
| Alfonso Vazquez\* | Tessa Owens\* | Alma Ruiz\* (award winner) |  |
| Sofia Andujo\* | Jordan Pierce | Michelle Ximenez\* (award winner) |  |

**Academic Year 2013-2014**

\*Poster presentation \*\*oral presentation at regional or national conference

¥ co-author on manuscript (in prep) § co-author on published manuscript

|  |  |  |  |
| --- | --- | --- | --- |
| Amarillys Barquin\* | Benjamin McGehee\*\*\* | Juliana Herrera | Kalin Skinner |
| Alfonso Vazquez\*\* | Michelle Ximenez\*\*¥ | Amanda Block | Marissa Lightsey |
| Yvette Rodriguez |  |  |  |

**Academic Year 2012-2013**

\*Poster presentation \*\*oral presentation at regional or national conference

¥ co-author on manuscript (in prep) § co-author on published manuscript

|  |  |  |  |
| --- | --- | --- | --- |
| Yvette Rodriguez | Aaron Howard\* | Juliana Herrera | Jessica Garza\* |
| Haley Wilhelm | Troy Luepke\*\* |  |  |

NSF/CIMA Students from Alamo Colleges

* **Alexandra Barba** (St. Phillips College) – Summer 2017
  + Conducted a study on insecticide efficacy in killing mosquito populations at an abandoned tire facility.
  + Presented poster at the CIMA symposium
* **Ariana Alvarez** (Palo Alto College) – summer 2016
  + Conducted a study on which organic hay infusion would best attract *Aedes aegypti* mosquitoes.
  + Presented poster at the CIMA symposium
* **Joshua Darden** (St. Phillips College) – summer 2015
  + Co-author of manuscript in prep – to be submitted to Journal of the American Mosquito Control Association Spring 2016
  + Conducted summer survey of mosquito distribution across San Antonio in 2015
  + Presented poster: Influence of precipitation and temperature on mosquito populations in residential areas of San Antonio, Texas at the CIMA student fellowship colloquium
* **Dominique Hernandez** (Palo Alto College) – summer 2015
  + Conducted summer survey of mosquito distribution across San Antonio in 2015
  + Presented poster: Distribution of mosquito disease vectors in residential areas of San Antonio, Texas at the CIMA student fellowship colloquium