

CURRICULUM VITAE  
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**EDUCATION**

2007 Ph.D. Civil Engineering (Environmental), Texas A&M University  
2002 M.S. Civil Engineering (Water Resources), Texas A&M University  
2000 B.S. Civil Engineering, Instituto Politécnico Nacional

**PROFESSIONAL EXPERIENCE**

2019- Assistant Professor, Department of Environmental & Occupational Health,  
School of Public Health, Texas A&M University  
2016-2019 Research Assistant Professor, Department of Environmental & Occupational  
Health, School of Public Health, Texas A&M University  
2012-2015 Assistant Professor, ESIA, IPN, México  
2010-2012 Research Assistant Professor, Tufts University  
2009-2010 Postdoctoral Research, Texas A&M University  
2007-2009 Postdoctoral Research, Michigan State University

**SHORT COURSES AND WORKSHOPS**

2018 Teaching by the case, Harvard School of Public Health  
2018 Exploring classroom management strategies for student engagement, Texas A&M  
University  
2016 Grant Proposal Writing. Selected and sponsored by Texas A&M University

**HONORS AND AWARDS**

2020 Texas Water Research Institute Faculty Fellow  
2020 Texas A&M Inclusive Teaching Faculty Fellow  
2019 ADVANCE Scholar  
2019 Honorable mention- Delta Omega Award for Innovative Public Health Curriculum

**PUBLICATIONS**

**Peer-reviewed manuscripts** @, indicates corresponding author;\*, indicates doctoral trainee; #, indicates master's trainee; &, indicates undergraduate trainee.

1. Pérez-Valdespino, A., R. Pircher<sup>#</sup>, C.Y. Pérez-Domínguez<sup>&</sup>, and **Mendoza-Sanchez, I.** @ (2020). "Impact of flooding on urban soils: Changes in antibiotic resistance and bacterial community after Hurricane Harvey." *Science of the Total Environment*, doi:10.1016/j.scitotenv.2020.142643

2. **Mendoza-Sanchez, I.** ©, R.L. Autenrieth, T.J McDonald, and J.A. Cunningham (2018), "Biological limitations of dechlorination of cis-dichloroethene during transport in porous media" *Environmental Science & Technology*, doi: 10.1021/acs.est.7b04426
3. Bonasia, R., Areu-Rangel, O. S., Tolentino, D., **Mendoza-Sanchez, I.**, González-Cao, J., Klapp, J. (2018). "Flooding hazard assessment at Tulancingo (Hidalgo, Mexico). *Journal of Flood Risk Management*, doi:10.1111/jfr3.12312
4. Yang, L., X. Wang, **I. Mendoza-Sanchez**, and L. Abriola (2018), "Modeling the influence of coupled mass transfer processes on mass flux downgradient of heterogeneous DNAPL source zones" *Journal of Contaminant Hydrology*, doi:10.1016/j.jconhyd.2018.02.003
5. Xue, Y., Lu, S., Fu, X., Sharma, V. K., **Mendoza-Sanchez, I.**, Qiu, Z., Sui, Q. (2018). "Simultaneous removal of benzene, toluene, ethylbenzene and xylene (Btex) by CaO<sub>2</sub> based Fenton system: Enhanced degradation by chelating agents" *Chemical Engineering Journal*, doi:10.1016/j.cej.2017.08.099
6. Liu, J., Q. Ruijuan, Z. Wang, **I. Mendoza-Sanchez**, and V. K. Sharma (2017), "Thermal- and photo-induced degradation of perfluorinated carboxylic acids: Kinetics and mechanism" *Water Research*, doi:10.1016/j.watres.2017.09.003
7. Zhang, H., **I. Mendoza-Sanchez**, E.L. Miller, and L.M. Abriola (2015), "Manifold regression framework for characterizing source zone architecture" *IEEE Transactions on geoscience and remote sensing*, doi: 10.1109/TGRS.2015.2448086
8. Aghasi A., **I. Mendoza-Sanchez**, E.L. Miller, A. Ramsburg and L.M. Abriola (2013), "A geometric approach to joint inversion with applications to contaminant source zone characterization" *Inverse Problems*, doi:10.1088/0266-5611/29/11/115014
9. **Mendoza-Sanchez, I.**, M.S. Phanikumar, J. Niu, J.R. Masoner, I. Cozzarelli, and J.T. McGuire (2013), "Quantifying wetland-aquifer interactions in a humid subtropical climate region: An integrated approach" *Journal of Hydrology*, doi:10.1016/j.jhydrol.2013.06.022
10. **Mendoza-Sanchez, I.** and J.A. Cunningham (2012), "Efficient algorithms for modeling transport and biodegradation of chlorinated ethenes in groundwater", *Transport in Porous Media*, doi: 10.1007/s11242-011-9896-5
11. **Mendoza-Sanchez, I.**, Autenrieth, R. L., McDonald, T. J., Cunningham, J. A. (2010). "Effect of pore velocity on biodegradation of cis-dichloroethene (DCE) in column experiments" *Biodegradation* doi:10.1007/s10532-009-9307-6
12. **Mendoza-Sanchez, I.**, Cunningham, J. (2007). "Efficient algorithm for modeling transport in porous media with mass exchange between mobile fluid and reactive stationary media" *Transport in Porous Media*, doi:10.1007/s11242-006-9047-6
13. Cunningham, J. A., and **I. Mendoza-Sanchez** (2006), "Equivalence of two models for biodegradation during contaminant transport in groundwater", *Water Resources Research*, 42(2), W02416, doi:10.1029/2005WR004205, ISSN: 0043-1397
14. Durmusoglu, E., **I. Mendoza-Sanchez**, and M. Y. Corapcioglu (2006) Permeability and compression characteristics of municipal solid waste samples", *Environmental Geology*, doi: 10.1007/s00254-006-0249-6

## GRANTS

### Submitted in 2020

- 2021-2025 National Science Foundation, DISES: Multi-Scale Human Impacts and Solutions for Dynamic Concentrations of Arsenic and Fluoride in Over-Exploited Aquifer Systems. Total award \$1,599,957 Co-Investigator (PI Peter Knappett)
- 2021-2022 Robert Wood Johnson Foundation (RWJF) Health Data for Action, Social and environmental factors associated with community-acquired methicillin-resistant *Staphylococcus aureus* infections. Total award \$100,000. Principal Investigator
- 2020-2021 Center for Environmental Health Research. Pilot project. Influence of human exposure to bioaerosols on incidence rates of methicillin-resistant *Staphylococcus aureus*. Not granted. Total award \$50,000 Principal Investigator

### Current Funding

- 2019-2024 National Institute of Environmental Health Sciences P30 ES029067, Texas A&M Center for Environmental Health Research. Integrative Health Sciences Facility Core (IHSFC) \$217,974 – IHSFC Other Personnel (PI David Threadgill)

#### Internal awards

- 2020-2021 Texas A&M T3 Award. Antibiotic resistance in soils after flooding events. Total award \$30,000 – Principal Investigator
- 2020-2021 Center for Environmental Health Research. Pilot project. Health Risks and Hazard Perception of Airborne Toxic Metals: Vulnerable Populations Neighboring the Houston Ship Channel. Total award \$50,000 Co-Investigator (PI Shankar Chellam)

### Past Funding

- 2017-2019 NIOSH-Southwest Center for Agricultural Health, Injury Prevention, and Education. UT Health. Farmworkers risk of exposure to antibiotic-resistance bacteria in soils. Total award \$18,500 Principal investigator

#### Internal awards

- 2017-2019 Texas A&M - CONACYT Mexico Collaborative Grant Program. Spread of contaminant antibiotics and antibiotic-resistance in soils due to extreme weather events. Total award \$24,000 – Principal Investigator
- 2017-2019 Texas A&M PESCA Grant Program. Influence of contaminant antibiotics on antibiotic-resistance in soils. Total award \$25,000 – Principal Investigator
- 2017-2018 Texas A&M School of Public Health Delta Omega Research Enhancement and Development Initiative Award. Bacterial kinetics and antibiotic-resistance in soils due to antibiotic contamination. Total award \$25,000 – Principal Investigator
- 2017-2018 Center for Translational Environmental Health Research. Temporal occurrence of antibiotic-resistance genes in public areas impacted by hurricane Harvey. Total award \$25,000 - Principal investigator.
- 2017-2018 Texas A&M Center for Teaching Excellence. Alumni ex machina: Putting students center stage in the aggie public health core Total award \$10,000 – Principal Investigator

**Presentations at National/International Conferences** \*, indicates doctoral trainee; #, indicates master's trainee; &, indicates undergraduate trainee.

1. **Mendoza-Sanchez, I.** and A. Perez-Valdespino (2020), "Impact of flooding on antibiotic-resistance in soils from public parks", *NIEHS PEPH 2020 Annual Meeting: Past, Present, and Future*, February 2020, Durham, NC
2. **Mendoza-Sanchez, I.** and A. Perez-Valdespino (2019), "Antibiotic-resistance genes in soils from parks impacted by hurricane Harvey", *One health: Building resilience in a changing world*, September 2019, Houston, TX
3. **Mendoza-Sanchez, I.** and A. Perez-Valdespino (2019), "Occurrence of antibiotic-resistance genes in public areas impacted by hurricane Harvey", *Association of Environmental Engineering and Science Professors*, May 2019, Tempe, AZ
4. **Mendoza-Sanchez, I.**, A. Fairchild, R. Danko, and G. Carrino (2019), "Team teaching in the core curriculum of public health", *Transformational Teaching and Learning Conference*, TAMU April 2019, College Station, TX
5. **Mendoza-Sanchez, I.**, A. Perez-Valdespino, and B. Lynch& (2018), "Influence of tetracycline on antibiotic-resistance genes occurrence in farming soils", *American Geophysical Union*, Fall 2018, Washington D.C.
6. **Mendoza-Sanchez, I.**, J. Ross, R. Danko, P.B. Huynh, and A. Fairchild (2018), "Alumni ex machina: the design of an integrative core with students center stage in the Aggie public health", *American of Schools and Programs of Public Health*, Annual Meeting, March 2018, Arlington, VA.

## INVITED TALKS AND WEBINARS

### National/International

- 2020 Public health education integrated to the core, Delta Omega 2019 Innovative Curriculum Award Webinars
- 2020 Session Co-Chair. Geological Society of America. "Water, Health and Wealth in a Changing World"

## TEACHING

Term	Course ID	Course Title	Credit Hours	Role in Course	No. of Student
Spring 2017	PHEO 681	Seminar in Environmental & Occupational Health	1	Course Co-Director	10
Fall 2017	PHEO 621	Transport of contaminants in the environment	3	Course Director	7
Spring 2018	PHEO 330	Environmental & Public Health	3	Course Director	113
Fall 2018	SOPH 602	Investigation and Control: Acute Public Health Events	3	Course Co-Director	13
	SOPH 603	Assessment and Intervention: Wicked Problems in Public Health	3	Course Co-Director	13
	PHLT 491	Directed Research Undergraduate	1	Course Co-Director	1
Spring 2019	PHEO 691	Directed Research Graduate	1	Course Director	2

	PHLT 491	Directed Research Undergraduate	1	Course Co-Director	1
Fall 2019	SOPH 601	Thinking in Populations: The Public Health Mindset	2	Course Director	87
	SOPH 601	Thinking in Populations: The Public Health Mindset Distance Education Section	2	Course Director	22
	SOPH 602	Investigation and Control: Acute Public Health Events	3	Course Director	87
	SOPH 602	Investigation and Control: Acute Public Health Events Distance Education Section	3	Course Director	22
	SOPH 603	Assessment and Intervention: Wicked Problems in Public Health	3	Course Director	87
	SOPH 603	Assessment and Intervention: Wicked Problems in Public Health Distance Education Section	3	Course Director	22
Spring 2020	SOPH 604	Framing and Persuasion: Public Health in the Public Sphere	1	Course Director	87
	SOPH 604	Framing and Persuasion: Public Health in the Public Sphere Distance Education Section	1	Course Director	22
	PHEO 685	Directed Studies	1	Course Co-Director	1
Fall 2020	SOPH 601	Thinking in Populations: The Public Health Mindset	2	Course Director	101
	SOPH 601	Thinking in Populations: The Public Health Mindset Distance Education Section	2	Course Director	41
	SOPH 602	Investigation and Control: Acute Public Health Events	3	Course Director	101
	SOPH 602	Investigation and Control: Acute Public Health Events Distance Education Section	3	Course Director	41
	SOPH 603	Assessment and Intervention: Wicked Problems in Public Health	3	Course Director	101
	SOPH 603	Assessment and Intervention: Wicked Problems in Public Health Distance Education Section	3	Course Director	41

Spring 2021	SOPH 604	Framing and Persuasion: Public Health in the Public Sphere	1	Course Director	101
	SOPH 604	Framing and Persuasion: Public Health in the Public Sphere Distance Education Section	1	Course Director	41
	PHEO 686	Directed Research	3	Course Co- Director	1
	PHLT 491	Research	1	Course Co- Director	1
	SOPH 680	Public Health Capstone	3	Course Co- Director	1

### **Invited Guest Lectures**

Spring 2021. CVEN 406 Environmental Protection & Public Health. "Antimicrobials in the environment"

Spring 2020. CVEN 406 Environmental Protection & Public Health. "Antimicrobials in the environment"

Fall 2019. Broad Street Lecture. "Antimicrobial resistance in Texas and other environmental issues"

### **MENTORING**

#### **Doctoral Committee Member**

1. Yibin Huang, Ph.D. Geology. In progress
2. Shengquan Zeng, Ph.D. Biological and Agricultural Engineering. Graduated December 2020
3. Cole Gray. DrPH Public Health. Graduated December 2019

#### **Masters Committee Chair**

#### **Masters Committee Member**

1. Zehao Chen. MS Thesis Water Management and Hydrological Science. In progress.
2. Christopher Perez. MS Thesis Water Management and Hydrological Science. In progress.
3. Yinuo Wang. MS Thesis Water Management and Hydrological Science. In progress.

#### **MPH Directed Studies Research Advisor**

1. Gargi Deshpande. In progress.
2. William Davis. In progress.
3. Ryan Pircher. Graduated December 2019. Working as environmental specialist with the City of Dallas
4. Heather Warfield. Graduated December 2019

#### **Undergraduate Thesis Advisor**

#### **Undergraduate Directed Studies Research Advisor**

1. Sophie Gonzalez. Bioenvironmental Sciences major with a Public health minor, graduating in May 2021. Accepted to start MPH at University of Minnesota.
2. Denise Pedraza. Biology. In progress
3. Kaythlyn Salmons. Graduated December 2019. Pursuing MPH at University of Texas-Houston
4. Brian Lynch. Geology. December 2018

#### **High School Student Research Advisor**

1. Brittany De Leon, South Texas High School for Health Professions. Summer 2019

### **SERVICE**

#### **Professional Memberships**

International Society of Exposure Science, 2020 – present

Association of Environmental Engineering and Science Professors, 2018 – present

American Geophysical Union, 2007- present

#### **Journal Reviewer**

- *Environmental Science and Technology*
- *Water Resources Research*
- *Water Research*

- *Biodegradation*
- *AIMS Environmental Science*

### **Proposal Reviewer**

Idea Network of Biomedical Research Excellence, NIH 2018-19

PESCA program, Division of Research, Texas A&M University 2018, 2019

TAMU-CONACyT program, Division of Research, Texas A&M University 2018, 2020

### **University Committees**

#### **School of Public Health Committees**

Faculty Co-Advisor, Environmental Sustainability Group, 2018-present

Core Curriculum Development Committee, 2017-2018