

CURRICULUM VITAE
MAIA LARIOS-SANZ, PH.D.
Professor and Chair of Biology
Division of Natural Sciences, Engineering and Mathematics
School of Arts and Sciences, University of St. Thomas, Houston, Texas 77006
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EDUCATION

University of Houston, Houston, Texas	Ph.D.	May 2003	Biochemistry
University of Houston, Houston, Texas	M.S.	December 1997	Biology
Schreiner University, Kerrville, Texas	B.A.	May 1993	Biology

RESEARCH AND PROFESSIONAL EXPERIENCE

7/2026-present	Dean, Division of Natural and Behavioral Sciences and Engineering, UST HOU
8/2025-6/2026	Interim Dean, Division of Natural Sciences, Engineering and Mathematics, UST HOU
8/2024-8/2025	<i>Associate Dean</i> , Division of Natural Sciences, Engineering and Mathematics, UST HOU
8/2023-present	<i>Full Professor</i> , Department of Biology, UST HOU
8/2023-6/2026	<i>Smith Cullen Endowed Research Chair of Biology</i> , Department of Biology, UST HOU
5/2019-1/2025	<i>Chair</i> , Biology, Division of Natural Sciences, UST HOU
8/2016-6/2020	<i>Associate Dean</i> , School of Arts and Sciences, UST HOU
5/2011-7/2023	<i>Associate Professor</i> , Department of Biology, UST HOU
5/2014-6/2020	<i>Smith Cullen Endowed Research Chair of Biology</i> , Department of Biology, UST HOU
8/2007-5/2011	<i>Assistant Professor</i> , Department of Biology, UST HOU
1/2007-12/2007	<i>Research Assistant Professor</i> , Department of Biology and Biochemistry, University of Houston
1/2005-1/2007	<i>National Library of Medicine Postdoctoral Fellow</i> , Laboratory of Dr. Janet Siefert, Department of Statistics, Rice University
8/2006-5/2007	<i>Adjunct Professor of Biology</i> , UST HOU
2/2004-1/2005	<i>Post-Doctoral Fellow</i> , Laboratory of Dr. Michael Travisano, Department of Biology and Biochemistry, University of Houston
02/2003-1/2004	<i>Post-Doctoral Fellow</i> , Laboratory of Dr. George E. Fox, Department of Biology and Biochemistry, University of Houston

HONORS AND AWARDS

2023-2024	MOER (Microbiology Open Education Resource) Fellow (NSF-funded program)
2022	University of St. Thomas candidate for Piper Professor Award, State of Texas
2021-2022	St. Thomas Aquinas Excellence in Teaching Award
2021-2022	Nominated for the St. Thomas Aquinas Excellence in Teaching and the Joseph M. McFadden Excellence in Service awards, UST HOU
2015-2020	Smith-Cullen Endowed Chair of Biology, Department of Biology, UST HOU
2015	Joseph M. McFadden Excellence in Service Award, UST HOU
2012-2016	Selected as a participant, NSF Advance Project ASAP ADVANCE, sponsored by Gonzaga University
2005-2007	National Library of Medicine Postdoctoral Fellowship
2002	Space Medicine Branch Young Investigator Award Finalist, Aerospace Medical Association
1997	Departmental Teaching Excellence Award, Department of Biology and Biochemistry, University of Houston, Houston, Texas
1996	University of Houston University-Wide Teaching Excellence Award, University of Houston, Houston, Texas

PEER-REVIEWED PUBLICATIONS

- Hernandez, A., Silguero, M., Pham, F., Strobel, S., Le, A., Najarro, M., Ngo, A., Gonzalez, P., Brittain, D., Rosell, R. C. and Larios-Sanz, M. (in preparation). Characterization of Viral Communities Carried by Male and Female *Aedes* Mosquitos Collected in Houston. To be submitted to Bios, Beta Beta Beta Biological Honor Society Journal.
- Larios-Sanz, M. and Rosell, R.C. (in preparation). Mind Maps as Student-Generated Learning and Study Tools.
- Nam, E. A., Ribes-Zamora, A., Simmons Nout, A. D., Amin, S., Villares, G. J., Bagnall, R. A., Rosell, R. C., and Larios-Sanz, M. (2018). *Comprehensive Inclusion of an Active and Inquiry-based Curriculum Increases Retention and Persistence in Biology*. In EduLEARN Proceedings, International Conference on Education and New Learning Technologies, pp. 5457-5464. IATED Academy, 2018.
- Cara, L., Baitemirova, M., Follis, J., Larios-Sanz, M., & Ribes-Zamora, A. The ATM- and ATR-related SCD domain is over-represented in proteins involved in nervous system development. *Scientific Reports*, 6, 19050., 2016.
- Cara, L., Baitemirova, M., Duong, F., Larios-Sanz, M., and Ribes-Zamora, A. *SCDFinder, a Web-based tool for the identification of putative novel ATM and ATR targets*. *Bioinformatics* 30(23):3394-3395, 2014 (Epub ahead of print Aug 14, 2014).
- Simmons, A., Larios-Sanz, M., and Rosell, R. *Using mini-reports to teach scientific writing skills*. *Journal of the National Association of Biology Teachers (NABT)* 76(8):551-555, 2014.
- Ribes-Zamora, A., Amin, S., Simmons, A.D., Larios-Sanz, M., and Rosell, R.C. Bringing research into laboratory courses. *EDULEARN13 Proceedings*, pages: 5913-5918, 2013.
- Larios-Sanz, M., Simmons, A., Bagnall, R.A., and Rosell, R. *Implementation of a Service-Learning Module in Medical Microbiology and Cell Biology*. *Journal of Microbiology and Biology Education (JMBE)* 12(1):29-37, 2011.
- Larios-Sanz, M., Kourantzi, K.E., Warmflash, D., Jones, J., Willson, R.C., Pierson, D.L. & Fox, G.E. *16S rRNA beacons for bacterial monitoring in craft and habitat modules in human space missions*. *Aviation, Space, and Environmental Medicine*, Vol. 78, No. 4, Section II:A43-A47, 2007.
- Warmflash, D., Larios-Sanz, M., Jones, J., Fox, G.E., and McKay, D.S. *Biohazard potential of putative Martian organisms during missions to Mars*. *Aviation, Space, and Environmental Medicine*, Vol. 78, No. 4, Section II:A79-A88, 2007.
- Hury, J., Nagaswamy, U., Larios-Sanz, M., and Fox, G.E. *Ribosome origins: the relative age of 23S rRNA domains*. *Orig Life Evol Biosph.* 36(4):421-429, 2006.
- Nagaswamy, U., Larios-Sanz, M., Zhang, Z., Huang, H.-C., and G.E. Fox. Non-canonical interactions in RNA. *Recent Devel. Nucleic Acids Res.*, 1:103-129, 2004.
- D'Souza, L.M., Larios-Sanz, M., Setterquist, R.A., Willson, R.C. and G.E. Fox. *Small RNA sequences are readily stabilized by inclusion in a carrier rRNA*. *Biotechnology Progress*, 19(3):734-738, 2003.
- Warmflash, D., Larios-Sanz, M., Fox, G.E., and McKay, D.S. *Progress in the use of Rapid Molecular Techniques to Detect Life Forms in Soil: Implications for Interplanetary Astrobiology Missions*. *Lunar and Planetary Science XXXIII*, 2002.
- Starikov, D., Boney, C., Medelci, N., Um, J-W., Bensaoula, A., Larios-Sanz M., and G.E. Fox. Experimental simulation of integrated optoelectronic sensors based on III nitrides. *Journal of Vacuum Science Technology B*, 20(5):1815-1820, 2002.
- Nagaswamy, U., Larios-Sanz, M., Hury, J., Collins, S., Zhang, Z., Zhao, Q., and G.E. Fox. *NCIR: A database of non-canonical interactions in known RNA structures*. *Nucleic Acid Research*, 30(1):395-397, 2002.
- Siefert, J.L., Larios-Sanz, M., Nakamura, L.K., Slepecky, R.A., Paul, J.H., Moore, E.R.B., Fox, G. E., and P. Jurtshuk, Jr. *Phylogenetic position of marine Bacillus isolates from the Gulf of Mexico*. *Current Microbiology*, 41(2):84-8, 2000.

BOOKS

- Larios-Sanz, M., and Sanz, T. (In preparation) *Biología, la Ciencia de la Vida (Biology, the Science of Life)*. Biology Textbook for Junior High School level to be published in Mexico. Secretary of Education (Mexico).

BOOK CHAPTERS

- Larios-Sanz, M., Jordan, A., Kruger, K., Colon, P., Abbs, T., and Seipelt-Thiemann, R. TWiM #233: Antivirals Made by Bacteria. In Podcast Annotation and Resources in Microbiology by Rebecca Seipelt-Thiemann; Nancy Boury; Gwendolyn S. Knapp; Amaya Garcia Costas; and Patrick Armstrong, Iowa State University Digital Press 701 Morrill Rd, Ames, Iowa 50011, United States, 2025.
- Larios-Sanz, M., Vu, N., Zuniga, H., Hernandez, M., York, K.P., and Seipelt-Thiemann, R. TWiM #263: Lavender and Catheters. In Podcast Annotation and Resources in Microbiology by Rebecca Seipelt-Thiemann; Nancy Boury; Gwendolyn S. Knapp; Amaya Garcia Costas; and Patrick Armstrong, Iowa State University Digital Press 701 Morrill Rd, Ames, Iowa 50011, United States, 2025.
- Larios-Sanz, M., Desai, A., Lei, E., Pung, J., Streett, L., Pham, K., McMillan, F., Arredondo, N., Nguyen, HT, Seipelt-Thiemann, R., and Schlarman, M. TWiM #239: The Phoenix of Bacteria. In Podcast Annotation and Resources in Microbiology by Rebecca Seipelt-Thiemann; Nancy Boury; Gwendolyn S. Knapp; Amaya Garcia Costas; and Patrick Armstrong, Iowa State University Digital Press 701 Morrill Rd, Ames, Iowa 50011, United States, 2025.
- Larios-Sanz, M., Hundley, E., Lopez Salinas, L., Nguyen, H., Orjuela, G., and Seipelt-Thiemann, R. TWiM #241: What Does Flu Do to Your Poo? In Podcast Annotation and Resources in Microbiology by Rebecca Seipelt-Thiemann; Nancy Boury; Gwendolyn S. Knapp; Amaya Garcia Costas; and Patrick Armstrong, Iowa State University Digital Press 701 Morrill Rd, Ames, Iowa 50011, United States, 2025.
- Larios-Sanz, M., Longoria, M., Matta, I., Ortega, M., Rathinam, J., Podnecky, N.L., and Seipelt-Thiemann, R. TWiM #258: A Tick's Meal. In Podcast Annotation and Resources in Microbiology by Rebecca Seipelt-Thiemann; Nancy Boury; Gwendolyn S. Knapp; Amaya Garcia Costas; and Patrick Armstrong, Iowa State University Digital Press 701 Morrill Rd, Ames, Iowa 50011, United States, 2025.
- Gonzalez, A.-L., Faletta, J.-P., et al. *Not Just in My Neighborhood: Service-Learning in Higher Education on a Local and Global Scale*. Chapter 11 in *Service-Learning in Higher Education: Building Community Across the Globe*. Phylis Lan Lin, Mark R. Wiegand, & Antoinette R. Smith-Tolken, Editors. University of Indianapolis Press, 2014.
- Larios-Sanz, M., and Sanz, T. El Arte de Enseñar Ciencia (The Art of Teaching Science). Chapter in *Colección Formación y Práctica Pedagógica (Pedagogical Training and Practice Collection)*, Limusa Wiley, Noriega Editors, Mexico City, Mexico (2006).
- Larios-Sanz, M., Kourrentzi, K.D., Murphy, J.C., Maillard, K.I., Pearson, D.L., Willson, R.C., and G.E. Fox. *Molecular tools for monitoring microbial populations in space environments*. Chapter 13 in: *Diagnóstico Molecular en Medicina*, 1ª Edición, Editorial Manual Moderno SA de CV, Mexico City, Mexico, pp. 293-311, 2003.
- Larios-Sanz, M., and M. Travisano. *Experimental evolution of an essential Bacillus gene in an E. coli host*. Chapter 16 in *Horizontal Gene Transfer: Genomes in Flux, Methods in Molecular Biology*, vol. 532. M.B. Gogarten et al. (eds.). Springer Protocols. Humana Press, pp. 269-287, 2009.
- Nagaswamy, U., Larios-Sanz, M., Zhang, Z., Huang, H.-C., and G.E. Fox. *Non-canonical interactions in RNA*. In: *Recent Developments in Nucleic Acids Research*, Trans World Research Network, 1:103-129, 2004.

TECHNICAL BOOK TRANSLATIONS (ENGLISH TO SPANISH)

- Los Porques De Nuestro Mundo. (Why in the World, technical revision and adaptation, Larios Aznar, P., edited by Sanz, MT, technical translation Larios-Sanz, M.). *Colección Libros del Rincón*, Astrolabio, Secretaría de Educación Pública, Promociones Don D'Escrito, México, DF, MX, 2002.
- Los Animales Hacen Cosas Asombrosas. (The Amazing Things Animals Do, by Susan Mcgrath; technical translation Larios Sanz, M). *Books for Great Explorers Collection*, National Geographic Society, Stampley Enterprises, Charlotte, NC, 1995.
- Nuestra Tierra Violenta. (Our Violent Earth, by Nancy Watson; technical revision and adaptation, Larios Aznar, P., edited by Sanz, M.T., technical translation Larios Sanz, M.). *Books for Great Explorers Collection*, National Geographic Society, Stampley Enterprises, Charlotte, NC, 1994.

- Exploración del Sistema Solar. (Exploration of the Solar System, by Elizabeth Rathbun; technical translation by Larios-Sanz, M.). Books for Great Explorers Collection, National Geographic Society, Stampley Enterprises, Charlotte, NC, 1993.
- Mensajeros al Cerebro: Nuestros Fantásticos Sentidos. (Messengers to the Brain: Our Fantastic Five Senses, by Paul D. Martin; technical translation Larios Sanz, M.). Books for Great Explorers Collection, National Geographic Society, Stampley Enterprises, Charlotte, NC, 1994.
- Secretos Del Pasado. (Secrets from the Past, by Gene S. Stuart; technical translation Larios-Sanz, M.). Books for Great Explorers Collection, National Geographic Society, Stampley Enterprises, Charlotte, NC, 1994.
- Grandes Misterios De Nuestro Mundo (Great Mysteries of Our World, by Catherine O'Neill; technical revision and adaptation, Larios Aznar, P., edited by Sanz, MT, technical translation Larios-Sanz, M.). Books for Great Explorers Collection, National Geographic Society, Stampley Enterprises, Charlotte, NC, 1993.

GRANT HISTORY

- 2026 Tirumalai, M. (PI), Larios-Sanz, M. (Co-PI), and Widger, W. (Co-PI). Genomic and biochemical characterization of microbiota along the Houston ship channel route. Port of Houston Community Grants Program (\$40,000, submitted March 2026)
- 2025 Larios-Sanz, M. 2025 Microbial Genomics SMRT Grant program. Free metagenomics sequencing for awarded research projects (\$5000, submitted June, 2025, not funded).
- 2025 Manrique Huarte, B., De Luis Margarit, A., Larios-Sanz, M., Monroy, C. and Stockton, H.J. ICUSTA Mobility Grant to support faculty mobility between UST and Catholic University of Valencia (\$2000, submitted May 2025, funded).
- 2025 Jordan, A. et al (students), Rosell R. and Larios-Sanz, M. (PIs). Characterization of viral collections carried by mosquitos in Houston. UST Committee for Student Research (\$1,696.65, funded).
- 2025 Chandra, R., Larios-Sanz, M. and Moreno, G. 2025 Clare Boothe Luce Program for Women in STEM Application (\$750,000, submitted March 2025, not funded).
- 2023 Palasota, J. (PI), Larios-Sanz, M. (Co-PI), and Steiger, M (Co-PI). NSF IUSE HSI Pilot Project: UST STEM Familia (submitted, August 2023, not funded).
- 2023 Meier-Marquis, J., Larios-Sanz, M., Gichuri, A. Healthy Eating Research Initiative (\$125,000, not funded).
- 2022 Strobel, S. (student) and Larios-Sanz, M. (PI). Beta Beta Beta Biological Honor Society Undergraduate Research Grant (funded, \$370).
- 2021 Monroy, C (lead PI), Larios-Sanz, M. (co-PI), Ribes-Zamora, A (co-PI), Jermaine CM (Rice co-PI), and Nakhleh, L (Rice co-PI) (2021) NSF 21-533 - (Award number 2131293) Collaborative Research: CISE-MSI: RPEP: III: celtSTEM Research Collaborative: Catapulting MSI Faculty and Students into Computational Research, in collaboration with Rice University. (\$1.19M for 3 years, funded).
- 2021 Larios-Sanz, M. (lead PI) and Gomez, C. (Co-PI). Increasing Houston's Hispanic STEM Professionals (HOU-STEM) Program. Department of Education HSI-STEM and Articulation grant (DHSI program) (\$966,369, not funded).
- 2015 Siefert, J. (lead PI), Larios-Sanz, M. (Co-PI), and Hartshorn, T. (Co-PI). EAGER: Collaborative Research: Microbial Populations as Biosignatures for Evaluating Long Term Effects of Urbanization. National Science Foundation/EAGER Program (funded, \$22,000 for 2 years).
- 2014 Larios-Sanz, M.(PI), Steiger, M. (Co-PI) and Waggoner, S. (Co-PI). "The UST STEM Scholars (S2) Program". National Science Foundation, Scholarships in Science, Technology, Engineering and Mathematics (S-STEM) Program. (renewal, \$500,000, not funded).
- 2010 Steiger, M. (PI), Larios-Sanz, M.(Co-PI), and Waggoner, S. (Co-PI). "The UST STEM Scholars (S2) Program". National Science Foundation, Scholarships in Science, Technology, Engineering and Mathematics (S-STEM) Program (funded, \$600,000, 5 years).

- 2010 Larios-Sanz, M. "Experimental Study on the Impact of Horizontal Gene Transfer on Genome Evolution". Texas Higher Education Coordinating Board, Norman Hackerman Advanced Research Program. (\$142,000, finalist, but not funded).
- 2009 Larios, M., Bagnall, R.A., and Rosell, R. "Development of Team-Based Learning Modules for Biology Courses". Teaching Enhancement Grant, Center for Faculty Excellence, UST. (\$2667, funded).
- 2008 Malloy T. A. (lead) and Steiger M., supported by faculty of Chemistry Math, and Biology as Co-PIs. "The Elements Project". Two integral parts of this grant involve a summer bridge program for incoming freshmen and a collaborative undergraduate summer research effort involving students and faculty from both UST and HCC. Department of Education, CCRAA-HSI. Awarded October 2008 . \$2.37 million.
- 2008 G. A. Slaughter (lead) and Hiral Gilbert, Baylor College of Medicine supported by faculty of Chemistry and Biology at UST. Working in support of this grant, sponsored by Baylor College of Medicine in collaboration with several area colleges, provides postdoctoral scholars training in teaching and the opportunities to teach undergraduate courses in sciences at UST. Houston Education and Research Training Program (HEART) Institutional Research and Academic Career Development Award (IRACDA), NIH. Awarded September 2008.
- 2007 Frohlich, D., Bagnall, R.A., Rosell, R., Bramblett, D., Palasota, J., and Steiger, M. "Integration of Undergraduate Research and Inquiry-Based Learning into the Science Curriculum at the University of St. Thomas (UST), Houston: A First Step". Not a PI, but fully participated in the planning, organizing and writing of this grant. HHMI Undergraduate Science Education Program. (\$1,493,120, not funded).
- 2007 Larios-Sanz, M. (PI), Siefert, J. (Co-PI), and Travisano, M. (Co-PI). "Collaborative Research: Experimental Studies of Horizontal Gene Transfer in Bacteria". National Science Foundation, Population and Evolutionary Processes (PEP) Program. (\$388,239, not funded).
- 2006 Siefert, J., Larios-Sanz, M., and Travisano, M. Research trip to Cuatro Ciénegas, Mexico. National Astrobiology Institute, ROSES Grant funds. (funded, \$15,000).
- 2005 Larios-Sanz, M. "Determination of the Mechanisms of Horizontal Gene Transfer: An Experimental and Computational Approach". National Library of Medicine Postdoctoral Fellowship, Biomedical Informatics Training Program funded through the Keck Center for Bioinformatics Research, Gulf Coast Consortia at Rice University. Postdoctoral mentors: Dr. Janet Siefert, Dr. Dan Graur, Dr. George Fox, Dr. Michael Travisano (\$40,000/yr, funded and renewed for 2 years).
- 2005 Siefert, J., Fofanov, Y., Fox, G., Gogarten, P., Larios-Sanz, M., Rohwer, F., Solis, C., Souza, V., Travisano, M. "Shared Genomic Resources in Genome Evolution". National Science Foundation Frontiers in Integrative Biological Research (FIBR) Program. (\$800,000, not funded).
- 2005 Siefert, J., Larios-Sanz, M., Fox, G., Travisano, M., Rohwer, F., Elser, J., and Souza, V. "Phosphorus as an Organizing Force in Living Systems: Ecosystem Evolution at Cuatro Cienegas, Mexico". National Astrobiology Institute (NAI) Research on Space and Earth Sciences (ROSES). (\$225,000, not funded).

GRANT-FUNDED ACTIVITIES

- Title V CORE Program (2024-2025)
 - Faculty success leader, participated in training on topics of student inclusion and cultural awareness/ cultural assets, and growth/fixed mindset
 - Developed faculty workshop (held April 2025) and staff development workshop (held May 2025)
- MOER Faculty Fellow (Spring 2024)
 - Introduced use of podcasts and primary literature for development of student-generated open-access microbiology teaching materials

- Texas Higher Education Coordinating Board (THECB) Accelerate Implementation Grant and US Department of Education Title V Grant (summer and Fall 2023)
 - Faculty Ambassador: Completed training to use Watermark AVISO, Student Success and Engagement System
- NSF CISE-MSI: RPEP: III: celtSTEM Research Collaborative (2021-present)
 - weekly meetings with students, PI and Co-PIs to evaluate project progress and advance projects
 - co-instructor, Computational Research Methods class (meets weekly, offered both Fall and Spring semesters)
- UST STARS Program: Support, Train, Advise, Retain, Systematize (US Department of Education STEM Grant (Award Number P031C160188):
 - 2017-2022, STEM Undergraduate Research Leader for two different projects
 - 2020, Development of a Teaching Module on Microscopy and Bacterial Staining Techniques (for use in Micro lab course)
 - 2019, Development of a guided tutorial for use of grant-acquired stereoscope and camera systems
 - 2017-2018, Development of Online Teaching Module: Transcription, Translation and DNA replication (for use with Intro Bio courses)

MEDIA APPEARANCES

Local News

- Univision interview - Story regarding the transportation to Harris County of wastewater used to extinguish an industrial fire in Ohio, and the possible effects (3/2/23)
- Univision interview – Story that addresses the effects of pipeline leaks used by petrochemical companies. The story stems from allegations of ground pollution from residents of Dayton, Texas (2/3/23)
- ¿Cómo el uso de algunos protectores solares está acelerando la muerte de miles de corales en Texas? Te explicamos (Effect of suntan lotions on coral reefs, air date 06/13/2022, Univision)
<https://www.univision.com/local/houston-kxln/uso-protectores-solares-esta-acelerando-la-muerte-de-miles-de-corales-en-houston-te-explicamos>
- ¿Qué es la creosota y por qué está relacionada al cáncer que padecen varios residentes en Houston? Te explicamos (Creosote contamination in the Houston 5th Ward, air date 05/17/2022, Univision)
<https://www.univision.com/local/houston-kxln/creosota-relacionada-cancer-union-pacific-residentes-houston>
- Eclipse solar 2017: ¿Qué tanto se podrá ver el fenómeno en Houston? (The total solar eclipse of 2017 – how to view it safely, air date 08/20/2017, Univision)
<https://www.univision.com/local/houston-kxln/eclipse-solar-2017-que-tanto-se-podra-ver-el-fenomeno-en-houston>
- Microbes on your shopping cart – how safe are they? Sam Saucedo, Investigative Reporter, Local 11 News Houston, air date: May 1992 (link not available)

National News

- Las nuevas cepas de COVID (New COVID strains, air date 7/01/2021)
<https://www.usanetwork.com/hoy-dia/video/un-estudio-sugiere-que-la-variante-delta-puede-ser-mas-resistente-a-un-sistema-ya-inmunizado/4392858?lang=es>
- COVID-19: ¿adolescentes recibirán las dos dosis de vacuna? (COVID and vaccines – are they safe for children? Air date 5/11/2021, Hoy Día Morning Show, Noticias Telemundo)
<https://www.youtube.com/watch?v=wcwx6g6UD4Q>

- ¿Qué es el pasaporte de salud por COVID-19? ¿Cómo funciona y qué beneficios tiene? (story on the COVID Passport and vaccination records. Air date 03/04/21, Hoy Día Morning Show, Noticias Telemundo)
<https://www.telemundo.com/shows/hoy-dia/coronavirus/video/que-es-el-pasaporte-de-salud-por-covid-19-como-functiona-y-que-beneficios-tiene-tmvo9744772>
- Señales de alerta del coronavirus que indican que debes ir a la sala de emergencias (COVID – Signs you need to head to the ER. Air date 2/4/2021, Un Nuevo Día Morning Show, Noticias Telemundo)
<https://www.telemundo.com/shows/un-nuevo-dia/coronavirus/senales-de-alerta-del-coronavirus-que-indican-que-debes-ir-la-sala-de-emergencias-tmna3863983>
- Planifica tu vacuna: farmacias y supermercados de EE.UU. empezarán a vacunar contra el COVID-19 (information on the COVID vaccine rollout and vaccine safety. Air date 02/11/2021, Un Nuevo Día Morning Show, Noticias Telemundo)
<https://www.telemundo.com/shows/un-nuevo-dia/coronavirus/video/planifica-tu-vacuna-farmacias-y-supermercados-de-eeuu-empezaran-vacunar-contr-el-covid-19-tmvo9721247>

Interviewed and Quoted as Expert in Scientific Articles

- RNA Viruses: Biology's Dark Matter? Article by David Warmflash, posted May 5, 2022, Neo.Life (<https://neo.life/2022/05/rna-viruses-biologys-dark-matter/>)
- New Tech for Gene Therapy Could Advance Longevity. Article by David Warmflash, posted, October 5, 2022, Neo.Life (<https://neo.life/2022/10/new-tech-for-gene-therapy-could-advance-longevity/>)

UST News

- Larios-Sanz, M. Tips to Stay Healthy During COVID. Article written to inform the UST community on how to stay healthy and safe during the pandemic (3/20/2020) <https://news.stthom.edu/tips-to-stay-healthy-from-a-biologist/>

CONFERENCE/SYMPOSIUM PRESENTATIONS

- Larios-Sanz, M. *The Human Genome and the Promise of Personalized Medicine*. TEDx UST Houston, Diversity and Progress in the 21st Century. April 24, 2015.
- Larios-Sanz M. *Emergent viral diseases – Understanding Viral Diversity*. Keynote Speaker, 4th Annual STEM Research Symposium, Houston Community College, Houston TX, Oct. 22, 2014.
- Faletta, J.P., Garcia-Contreras, R., Gonzalez, A.L., Heard, T. L., Krustchinsky, R., Larios-Sanz, M., LeBlanc, R.M., Rosell, R.C., and Soffer, R. *Not Just in My Neighborhood: Service-Learning in Higher Education on a Local and Global Scale*. 5th International Symposium on Service-Learning, Stellenbosch, South Africa, Nov 20-22, 2013.
- Ribes-Zamora A., Lauver A., Simmons-Nout A., Larios-Sanz M. and Rosell, R. C. *Bringing research into laboratory courses*. EDULEARN13, 5th annual International Conference on Education and New Learning Technologies, Barcelona Spain, July 1-3, 2013.
- Larios-Sanz, M. *DNA as a shared resource: Experimental studies of horizontal gene transfer in bacteria*. Invited Speaker, Harry Crate Lecture Series, Schreiner University. Kerrville, TX, February 2, 2012.
- Larios-Sanz, M. *Genome Evolution*. UH Alumni Lecture Series, University of Houston, Houston TX, February 28, 2012.
- Larios-Sanz, M. *Teaching to Promote Active Learning*. National IRACDA Conference. Houston, TX, June 19-21, 2011.
- Frohlich, D.R., Bagnall, R.A., Starner, J.W., Rosell, R. C., Flores, J.Y., and Larios-Sanz, M. Formation and Implementation of a Bioinformatics Major at a Small Undergraduate Liberal Arts Institution. First RECOMB Satellite Conference on Bioinformatics Education (RECOMB-BE), San Diego, California, March 14-15th, 2009.
- Larios-Sanz, M., and Rosell, R. What's yours is mine: DNA sharing and bugs in bugs. Presentation at the Seekers and Sages Luncheon, University of St. Thomas, October 8th, 2008.

- Larios-Sanz, M. *Bridging the gap between the lab and Nature: community dynamics, resource sharing and genome evolution*. In: Life on Earth: from Code to Community. Gordon Research Conference – Origin of Life. Lewiston, Maine, July 23-28, 2006.
- Larios-Sanz, M. *Elucidation of rules governing HGT and its effects on global gene expression: an experimental and computational approach*. Invited speaker, Ecology and Evolution Seminar Series, Department of Biology and Biochemistry, University of Houston, September 15, 2005.
- Larios-Sanz, M. *Microbial contaminants in crew habitat modules during exploration class human space missions: monitoring potential pathogens*. Module in “Environmental Health Issues for Martian Surface Exploration” Panel. 73rd Aerospace Medical Association Annual Scientific Meeting. Montreal, Canada, May 5-9, 2002.
- Larios-Sanz, M. *Monitoring bacterial populations using molecular tools*. In: The Many Facets of Microbiology Research Symposium. Sponsored by the American Society for Microbiology. SACNAS National Conference. Portland, Oregon, October 7-10, 1999.
- Larios-Sanz, M., Travisano, M., Fox, G. E., Graur, D., and Siefert, J. L. (2006). Following the fate of a transferred gene: characterizing horizontal gene transfer events in the laboratory. 106th General Meeting of the American Society for Microbiology, Orlando, Florida, May 21-25, 2006.
- Larios-Sanz, M., Travisano, M., Fox, G. E., Graur, D., and Siefert, J. L. (2006). Mechanisms of horizontal gene transfer: an experimental and computational approach. American Society for Microbiology Conference on Mobile DNA, Banff, Canada, February 24-March 1st, 2006.
- Larios-Sanz, M., Travisano, M., Fox, G. E., Graur, D., and Siefert, J. L. (2005). Mechanisms of horizontal gene transfer: an experimental and computational approach. Keck 15th Annual Research Conference, Houston, TX, October 6-7, 2005.
- Larios-Sanz, M., Kourentzi, K., Zhang, Z., Willson, R.C., Pierson, D.L., Tucker, D.L., and Fox, G.E. Molecular tools to monitor microbial ecosystem contaminants during long-term exploration class missions. 103rd General Meeting of the American Society for Microbiology, Washington, D.C., May 18-22, 2003.
- Larios-Sanz, M., Setterquist, R.A., D'Souza, L., Willson, R.C., and G.E. Fox. Small RNA sequences are readily stabilized by inclusion in a carrier RNA. 225th American Chemical Society National Meeting, New Orleans, LA, March 23-27, 2003.
- Larios-Sanz, M., Kourentzi, K., Fox, G.E. and R.C. Willson. Microbial identification using “Signature Probes”. 225th American Chemical Society National Meeting, New Orleans, LA, March 23-27, 2003.
- Larios-Sanz, M., Kourentzi, K., Zhang, Z., Willson R.C., Pierson, D.L., and G.E. Fox. Molecular tools to monitor microbial contaminants during long-term exploration class missions. World Space Congress, 34th Scientific Assembly of the Committee on Space Research (COSPAR) and the 53rd International Astronautical Congress (IAC) of the International Astronautical Federation (IAF), International Academy of Astronautics (IAA), and International Institute of Space Law (IISL). Houston, TX, October 10-19, 2002.
- Kourentzi, K., Larios-Sanz, M., Fox, G.E., and R.C. Willson. Microbial identification targeting ribosomal RNA and artificial RNA labels. Division of Biochemical Technology, 224th ACS National Meeting, Boston, MA, August 18-22, 2002.
- Hury, J., Nagaswamy, U., Larios-Sanz, M., and G.E. Fox. Ribosome Origins: The Relative Age of 23S rRNA Domains. Second Astrobiology Science Conference. NASA AMES Research Center, Moffett Field, California, April 7-11, 2002.
- Warmflash, D., Larios-Sanz, M., Fox, G.E., Willson, R.C., and D.S. McKay. Progress in the use of rapid molecular techniques to detect life forms in soil: implications for interplanetary astrobiology missions. 33rd Lunar and Planetary Science Conference. Houston, Texas, March 11-15, 2002.
- Starikov, D., Boney, C., Medelci, N., Um, J.-W., Bensaoula, A., Larios-Sanz, M., and G.E. Fox. Development of integrated multifunctional optical sensors based on III-nitrides. Session on Photonic Materials: Applications and Processing. 48th International Symposium of the American Vacuum Society. San Francisco, California, October 28-November 2, 2001.
- Kourentzi, K., Larios-Sanz, M., Setterquist, R.A., Fox, G.E., and R.C. Willson. Environmental monitoring of microorganisms using rRNA labels and hybridization assays. Applied and Environmental Microbiology. Gordon Research Conference. Connecticut College, New London, July 3-8, 1999.

- Larios-Sanz, M., Setterquist, R.A., D'Souza, L., Willson, R.C., and G.E. Fox. Small RNA sequences are readily stabilized by inclusion in a carrier RNA. The Fourth Annual Meeting of the RNA Society. University of Edinburgh, Scotland, June 23-27, 1999.
- Kourentzi, K.D., Walia, R.P., Murphy, J.C., Wibbenmeyer, J.A., Larios-Sanz, M., Fox, G.E., and R.C. Willson. Environmental Monitoring of Microorganisms using Artificial rRNA Labels and Molecular Beacons. 217th National Meeting, American Chemical Society. Anaheim, California, March 21-25, 1999.
- Kourentzi, K.D., Walia, R.P., Murphy, J.C., Wibbenmeyer, J.A., Larios-Sanz, M., Fox, G.E., and R.C. Willson. Environmental monitoring of microorganisms using artificial rRNA labels and molecular beacons. 17th Annual Houston Conference on Biomedical Engineering. Houston, Texas, Feb. 11-12, 1999.
- Larios-Sanz, M., Wibbenmeyer, J., Kourentzi, K., Murphy, J.C., Fox, G.E., and R.C. Willson. Microbial monitoring technology for long duration space flights. 1st Biennial Space Biomedical Investigators' Workshop. League City, Texas, January 11-13, 1999.
- Larios-Sanz, M., Wibbenmeyer, J.A., Maillard, K., Willson, R.C., Pierson, D.L., and G.E. Fox. Monitoring bacteria in Space. Lost Pines Molecular Biology Conference. Smithville, Texas, October 9-11, 1998.
- Larios-Sanz, M., Wibbenmeyer, J.A., Kourentzi, K., Willson, R.C., and G.E. Fox. Monitoring Microbial Populations in Space Environments. 14th Annual American Society for Gravitational and Space Biology Annual Meeting. Gravitational and Space Biol. Bull. 12:50. Houston, Texas, October 28-31, 1998.
- Larios-Sanz, M., Wibbenmyer, J.A., Willson, R.C. and G.E. Fox. DNA probe design for preflight and inflight microbial monitoring. National Space Biomedical Research Institute June Retreat. Conroe, Texas, June 8-11, 1998.
- Larios-Sanz, M., McKinnley, M.M., and P. Jurtshuk, Jr. Comparative cytochrome oxidase and nitrogenase studies on free-living members of the family Azotobacteraceae and other diazotrophs. 98th General Meeting of the American Society for Microbiology. Atlanta, Georgia, May 17-21, 1998.
- Larios-Sanz, M., Stuchell C.S., and P. Jurtshuk, Jr. Taxonomic and phenotypic diversity in the Azotobacteraceae and other free-living diazotrophs as reflected by cytochrome oxidase analyses. 97th General Meeting of the American Society for Microbiology. Miami Beach, Florida, May 4-8, 1997.
- Larios-Sanz, M., and P. Jurtshuk, Jr. Cytochrome oxidase analyses on free-living, nitrogen-fixing organisms. 96th General Meeting of the American Society for Microbiology. New Orleans, Louisiana, May 19-23, 1996.
- Larios-Sanz, M., and P. Jurtshuk, Jr. Comparative cytochrome oxidase analyses on free-living nitrogen fixers. Lost Pines Molecular Biology Conference. Smithville, Texas, October 27-30, 1995.

INVITED SPEAKING ENGAGEMENTS/PANELS/WORKSHOPS/LECTURE SERIES

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- Larios-Sanz, M., Meier-Marquis, J., and Banderas, U. Creating a Welcoming Environment for all Students, a Workshop for Faculty. Sponsored by the Title V CORE grant, UST Houston, April 4 2025.
 - Larios-Sanz, M. On the Shoulders of (Sometimes Invisible) Giants – my career in STEM. Women in Science, Empowering Journeys. HCC Central SLAC and Science Club Event, HCC Central Campus, Houston, Texas, March 27, 2025.
 - Larios-Sanz, M. Panelist, STEM Careers in Academia. STEGG-Interact Postbacc Program, Department of Biology and Biochemistry, University of Houston (<https://www.uh.edu/nsm/biology-biochemistry/news-events/stegg-interact/>), (2/4/25).
 - Larios-Sanz, M. Trends in Translational Medicine, Science Seminar Series, Women's Institute of Houston (11/17/22-12/15/22)
 - Larios-Sanz, M. The Human Body and the Marvels of Modern Medicine: Organ Transplants and Autoimmune Disease, Science Seminar Series, Women's Institute of Houston (5/19/22)
 - Larios-Sanz, M. The Human Body and the Marvels of Modern Medicine: Stem Cells and Gene Therapies, Women's Institute of Houston (4/21/22)
 - Larios-Sanz, M. The Future of Cancer Detection and Treatment, Science Seminar Series, Women's Institute of Houston (3/24/22)

- Larios-Sanz, M. Hormone Systems and Replacement Therapy, Science Seminar Series, Women's Institute of Houston (2/17/22)
- Larios-Sanz, M. Updates on COVID-19 and Vaccines and Boosters, Science Seminar Series, Women's Institute of Houston (1/20/22)
- Larios-Sanz, M. *Trends in Biotech*. Weekly seminar series, Women's Institute of Houston (10/26/21-11/16/21)
- Larios-Sanz, M. *Coronavirus - Understanding this Pandemic through the Lens of Biology*. Live Online Webinar, Women's Institute of Houston (5/19/20)
- Larios-Sanz, M. *Science in the News* – Six-week general science topics seminar series, Women's Institute of Houston (2/6/20-3/26/20)
- Larios-Sanz, M. *Big Questions in Biology* – Eight-week seminar series, Women's Institute of Houston (9/12/19-10/31/19)
- Larios-Sanz, M. *Unlock Your Code* – Six-week seminar series on genetics, Women's Institute of Houston (2/14/19-4/4/19)
- Larios-Sanz, M. *The Strength Behind Soft Skills*. Workshop for STEM students hosted by the UST STEM Success Center, University of St. Thomas, Houston, Texas, September 27, 2017.
- Larios-Sanz, M. Panelist, Professional Development Workshop: *Getting Your First Academic Faculty Job*. Diverse Scholar Postdoc Conference, University of Houston, Houston, Texas, July 14-15, 2017.
- Larios-Sanz, M. and Rosell, R.C. *Active Learning Strategies and Choosing Resources For Your Classroom*, Workshop Co-Leader For IRACDA Post-Doctoral Fellows. Baylor College of Medicine, Feb. 19, 2016.
- Amin, S., Larios-Sanz, M., and Rosell, R.C. *"Turbo-Charging" Undergraduate Curriculum Through The Consistent Development Of Inquiry Based Labs*. Workshop at 2015 National IRACDA Conference, Waves of Change: Research, Teaching and Diversity. San Diego, CA June 14-16, 2015.
- Larios-Sanz, M. and Rosell, R.C. *Active Learning Strategies and Choosing Resources For Your Classroom*, Workshop Co-Leader For IRACDA Post-Doctoral Fellows. Baylor College of Medicine, (Jan 21, 2014, Feb. 9, 2015).
- Larios-Sanz, M. *Session Chair, "Life on Earth: From Code to Community"*, Gordon Research Conference - *Origin of Life*. July 27th, 2006.

UNDERGRADUATE STUDENT RESEARCH PRESENTATIONS AND PUBLISHED ABSTRACTS – NATIONAL CONFERENCES

- Gnaïm, C., Jordan, A., Barandiaran, A., Valenzuela, D., McGhee, A., Parker, E., Tran, A., Rosell, R. C., and Larios-Sanz, M. Viruses Identified by Metagenomics in Houston (TX) Mosquitos. 2025 ABRCMS Conference, San Antonio, Texas, November 19-22, 2025.
- Navarro, B, Coxic, K., Lama, C., Rieser, A., Ogilvie, H., Thangaraj, C., Ribes-Zamora, A., Rosell, R.C., Larios-Sanz, M., Monroy, C.A. ABRCMS Annual Conference, Mosquito Virus Mosaic: A Scalable Computational Workflow for Metagenomic Sequence Analysis in Mosquitoes. ABRCMS Annual Meeting, Phoenix, Arizona, November 15-19, 2023.
- Carbajal, C., Bello, M., Atiq, N., Chavez, J., Rieser, A., Thangaraj, C., Ribes-Zamora, A., Rosell, R.C., Larios-Sanz, M., Monroy, C.A. ABRCMS Annual Meeting, "Motif Cluster Domains, a Sequence Signature Playing Roles in DNA Damage Response and Cell Cycle Control Pathways. ABRCMS Annual Meeting, Phoenix, Arizona, November 15-19, 2023.
- Najarro Torres, M., Ngo, M., Maldonado, W.A., Jordan, A.E., Faridi, N., Barandiaran, A., Rosell, R.M., and Larios-Sanz, M. An Exploration into the Viral Strains Carried by *Aedes* Mosquitos Using Metagenomics. ABRCMS Annual Meeting, Phoenix, Arizona, November 15-19, 2023.
- Ngo, A., Jordan, A.E., Najarro Torres, M., Maldonado, W.A., Faridi, N., Barandiaran, A., Rosell, R.M., and Larios-Sanz, M. Metagenomics Analysis of Viral Families Carried by *Aedes* Mosquitos in the Greater Houston Area. Entomological Society of America Annual Meeting, National Harbor, Maryland, November 5-9, 2023.
- Le, A., Strobel, S., Ngo, A., Najarro, M., Gonzalez, P., Maldonado, W., Silguero, M., Pham, F., Hernandez, A., Brittain, D., Rosell, R. C., and Larios-Sanz, M. Metagenomic Analysis of Viral Families

Carried by Aedes Mosquitos in Houston. Tri Beta South Central Regional Convention, Mount Lebanon, Cedar Hill, TX, March 31-April 2, 2023.

- Strobel, S., Le, A., Ngo, A., Najarro, M., Gonzalez, P., Maldonado, W., Silguero, M., Pham, F., Hernandez, A., Brittain, D., Rosell, R. C., and Larios-Sanz, M. Metagenomic Analysis of Viral Families Carried by Aedes Mosquitos in Houston. 2022 Joint Annual Meeting of Entomological Society of America (ESA), Entomological Society of Canada (ESC), and the Entomological Society of British Columbia (ESBC). Vancouver, British Columbia, November 13-16, 2022.
- Silguero, M., Pham, F., Hernandez, A., Strobel, S., Le, A., Witt, L., Najarro, M., Ngo, A., Gonzalez, P., Larios-Sanz, M., and Rosell, R. C. Metagenomics Analysis of Viral Families Carried by Aedes Mosquitos in Houston. 2022. The FASEB Journal 36 (S1)
<https://doi.org/10.1096/fasebj.2022.36.S1.0R234>.
- Silguero, M., Pham, F., Hernandez, A., Strobel, S., Le, A., Najarro, M., Ngo, A., Gonzalez, P., Rosell, R.C., and Larios-Sanz, M. Metagenomics Analysis of Viral Families Carried by Aedes Mosquitos in Houston Experimental Biology Conference, American Society for Biochemistry and Molecular Biology (ASBMB), Pennsylvania Convention Center, Philadelphia, Pennsylvania, USA (April 2-5, 2022).
- Silguero, M., Pham, F., Hernandez, A., Strobel, S., Le, A., Witt, L., Najarro, M., Gonzalez, P., Rosell, R. C. and Larios, M. Metagenomics analysis of viral families carried by Aedes mosquitos in Houston, ABRCMS 2021, American Society of Microbiology, Virtual (November 8, 2021).
- Silguero, M., Brittain, D., Tran, V., Davalos, S., Pham, F., Silguero, M., Strobel, S., Hernandez, A., Rosell, R. C., and Larios-Sanz, M. Characterization of Viral Communities Carried by Male and Female Aedes Mosquitos Collected in Houston. ePOSTER presentation at ABRCMS 2020: The Virtual Experience, November 9 – 13, 2020.
- Pham, F., Britain, T., Tran, V., Silguero, M., Hernandez, A., Strobel, S., Larios-Sanz, M., and Rosell, R.C. Development of a BLAST Pipeline for the Analysis of Viral Metagenomic Data from Aedes aegypti mosquitos in Houston. Entomological Society of America Annual meeting, November 16-29, 2020, Virtual.
- Brittain, D., Tran, V., Alshaarba, A., Hasan, A., Silva, S., Irfan, A., Davalos, S., Pham, F., Silguero, M., Rosell, R. C., and Larios-Sanz, M. Characterization of Viral Communities Carried by Male and Female Aedes Mosquitos Collected in Houston. Entomological Society of America Annual meeting, November 17-20, 2019, St. Louis MO.
- Hasan, A., Silva, S., Alshaarba, A., Quiroz, M., Irfan, A., Tran, V., Rosell, R., and Larios-Sanz, M. Metagenomics Allows for the Characterization of Viral Communities Carried by Mosquitos in the Greater Houston Area. Schull Institute Annual Invitational Conference, Houston Texas, March 15-19, 2019. Winner, Best Student Oral Presentation.
- Alshaarba, A., Quiroz, M., Hasan, A., Silva, S., Irfan, A., Tran, V., Larios-Sanz, M., and Rosell, R. Metagenomics Allows for the Characterization of Viral Communities Carried by Mosquitos in the Greater Houston Area. International Congress of Entomology, Vancouver, Canada, November 11-14, 2018.
- Pham, A., Benitez, M., Garcia, C., Ufomadu, E., Knepper, N., Fields, A., Menendez, S., McWhinney D, Famuyiwa, I., Larios-Sanz M., and Rosell, R.C. 2016. Metagenomics allows for the characterization of viral communities carried by mosquitos in the Greater Houston area. International Congress of Entomology, [doi: 10.1603/ICE.2016.112664](https://doi.org/10.1603/ICE.2016.112664).
- Gonzales, S., Larios-Sanz, M., Siefert, J. L., Hill, P., Boddy, C., Hartshorn, A., and Ortiz, S. Soil Memory: Microbial Populations as Biosignatures for Evaluating Long Term Effects of Urbanization. The American School on Oriental Research (ASOR) Annual Meeting, San Antonio, TX, November 16-19, 2016.
- Bartemirova, M., Cara, L., Follis, J., Larios-Sanz, M., and Ribes-Zamora, A. The ATM- And ATR-Related SCD Domain Is Over-Represented In Proteins Involved In Nervous System Development. Annual Biomedical Research Conference for Minority Students. Seattle WA, November 11-14, 2015.
- Cara, L., Baitemirova, M., Duong, F., Larios-Sanz, M., and Ribes-Zamora, A. SCDFinder: A bioinformatics tool to identify putative novel genes involved in the DNA damage response. National Conference on Undergraduate Research, University of Kentucky, Lexington, KY, April 3-5, 2014.

- Manalo, J., Guzman, B., Nguyen, V., Larios-Sanz, M., and Ribes-Zamora, A. Using yeast-two hybrid to investigate the molecular mechanism of Ku70's 2nd region. 5th Annual REACH IRACDA Symposium, Baylor College of Medicine, Houston, TX, May 19, 2014.
- Cara, L., Baitemirova, M., Duong, F., Larios-Sanz, M., and Ribes-Zamora, A. SCDFinder: A bioinformatics tool to identify putative novel genes involved in the DNA damage response. 5th Annual REACH IRACDA Symposium, Baylor College of Medicine, Houston, TX, May 19, 2014
- Calles, I., Anokwuru, C., Chilcott, T., Hysi, E., Menendez, S., Bagnall, R.A., Rosell R.C., McWhinney, D., Ward, P., and Larios-Sanz, M. *The Initiation of an Undergraduate Research Project involving a Metagenomic Study of Viral Populations Carried by Mosquitos in the Houston Area*. Houston Global Health Collaborative Connect Conference, Houston, TX, March 22-23, 2014. Winner, Best Poster Overall.
- Manalo, J., Guzman, B., Nguyen, V., Larios-Sanz, M., and Ribes-Zamora, A. Using yeast-two hybrid to investigate the molecular mechanism of Ku70's 2nd region. Beta Beta Beta Southcentral Regional Convention, University of Oklahoma, Lake Texoma, OK, April 4-6, 2014.
- Brown, S.*, Andrade, D., Uribe, G., McCleskey, S. *, Ticas, D., Zaibaq, J., Griffin, R., Sen, P., Jain, R., Simmons, A., Frohlich, D., Rosell, R., McWhinney, D., and Larios, M. Isolation and Characterization of Bacterial Phage: Metagenomics Study of Phage Population from Texas Gulf Coast Region. American Society for Microbiology (ASM) Regional Meeting, San Marcos, TX., October 28-30, 2010. (Students denoted with (*) are collaborators from HCC who participated in the STEM Summer Research Institute funded by the CCRAA Department of Education grant to UST-HCC).
- Ghaziyani, S., Simon, L., Turrubiarres, L., Frohlich, D., Starnier, J., and Larios-Sanz, M. The Operon Architecture Database. RECOMB Satellite Conference on Bioinformatics Education (RECOMB-BE), San Diego, California, May 22-23, 2010.
- Ghaziyani, S., Simon, L., Turrubiarres, L., Frohlich, D., Starnier, J., and Larios-Sanz, M. The Operon Architecture Database. Second Annual Reach IRACDA Symposium, Baylor College of Medicine, May 18, 2010.
- Han, H., Le, M., Nguyen, A., Pham, A., Pham, M., and Larios-Sanz, M. Isolation, Identification and Characterization of the Mode of Resistance of Multi-Drug Resistant Microorganisms. Tri-Beta Southcentral Regional Conference, University of Oklahoma, Lake Texoma, OK, March 26-28, 2010.
- Han, H., Le, M., Nguyen, A., Pham, M., and Larios-Sanz, M. Isolation and Identification of Antibiotic-Resistant Microorganisms in a Lake Environment. Tri Beta Southcentral Regional Convention, University of Oklahoma, Lake Texoma OK. April 1-3, 2009.

STUDENT RESEARCH PRESENTATIONS – UST RESEARCH SYMPOSIUM AND UST BIOLOGY RESEARCH SYMPOSIUM (BEARS)

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- Nayab, D., Hall, A., Trinh, C., and Larios-Sanz, M. Contamination Unleashed: A Microbial Mystery in Dog Water. UST Research Symposium, April 23-24, 2026.
 - Calonia, M., Barbosa, B., Gaytan, E., and Larios-Sanz, M. From Tongue to Bowl: Identifying Unknown Microbes in Canine Drinking Water. UST Research Symposium, April 23-24, 2026.
 - Nguyen, T., Pham, C., Pham, E., Vo, S., and Larios-Sanz, M. Uncovering the Superpowers of Unknown Pond Microbes. UST Research Symposium, April 23-24, 2026.
 - Dinh, T., Huynh, D., Nishimoto, F., Romero, A., and Larios-Sanz, M. From the Ground Up: Microorganisms in Houston Garden soil. UST Research Symposium, April 23-24, 2026.
 - Duenez, A., Reyes, S., Azeem, S., Figueroa, K., and Larios-Sanz, M. The Secret Life of Your Kitchen Sponge. UST Research Symposium, April 23-24, 2026.
 - Lopez Salinas, L., Wences, L., Ortiz, K., Stubbett, R., and Larios-Sanz, M. Characterization of Antibiotic-Producing Bacteria from Soil. UST Research Symposium, April 23-24, 2026.
 - Oritz, K., Wences, L., Lopez Salinas, L., Larios-Sanz, M., Stubbett, R. Extraction and characterization of antimicrobial secondary metabolites in soil dwelling bacteria. UST Research Symposium, April 23-24, 2026.
 - Luna, E., Troxler, J., Galvan, R., Vu, L., Ribes-Zamora, A., Larios-Sanz, M., and Monroy, C. Optimizing Parallel Batch Processing Pipelines: A Benchmark Study Using BLASTn. UST Research Symposium, April 23-24, 2026.

- Galvan, R., Smith, J., Melendez, R., Larios-Sanz, M., Ribes-Zamora, A., and Monroy, C. Visualization and Clustering of Motifs Cluster Domains (MCDs) in Proteins. UST Research Symposium, April 23-24, 2026.
- Gnaïm, C., Jordan, A., Barandiaran, A., Valenzuela, D., McGhee, A., Parker, E., Tran, A., Rosell, R. C., and Larios-Sanz, M. Viruses Identified by Metagenomics in Houston (TX) Mosquitos. UST Research Symposium, April 23-24, 2026.
- Knebusch, N., Aragon, K., and Larios-Sanz, M. Identification of an Unknown Microorganism from a Soil Sample. BEARS Symposium, UST, December 1st, 2025.
- Rathinam, J., Carreon, V., Lozoya, D., Jasso, B., and Larios-Sanz, M. The Case of the Mystery Microbes. BEARS Symposium, UST, December 1st, 2025.
- Sossaman, V., Elgar, K., Wells, C., and Larios-Sanz, M. Groundbreakers: Discovering the Invisible Life Beneath our Feet. BEARS Symposium, UST, December 1st, 2025.
- Stanley, A.N., Marr, T., Huynh, V., Pham, B., and Larios-Sanz, M. Antibiotic Resistance in the Wild: Soil Microbe of a Preserved Costal Prairie. BEARS Symposium, UST, December 1st, 2025.
- Troxler, J., Galvan, R., Melendez, R., Ribes-Zamora, A., Larios-Sanz, M., and Monroy, C. bioAquaduct: A Scalable Cloud-based and Distributed Data Pipeline for Processing Biological Data. Student oral presentation, UST Research Symposium, April 24-25th, 2025.
- Luna, E., Galvan, R., Smith, J., Chavez, J., Larios-Sanz, M., Ribes-Zamora, A., Monroy, C. Taming the Proteome: Towards a Representation of Motif Cluster Domains in Graph Neural Network. Student oral presentation, UST Research Symposium, April 24-25th, 2025.
- Atiq, N., Chavez, J., Vu, L., Smith, J., Luna, E., Larios-Sanz, M., Ribes-Zamora, A., Monroy, C. mcdMiner: An Engine for Clustering Motifs in Proteins. Student oral presentation, UST Research Symposium, April 24-25th, 2025.
- Williams, H., Leal, D., Valenzuela, D., Tork, P., and Larios-Sanz, M. Beefing with Bacteria: Grass-Fed vs Grain-Fed Showdown, Dr. Maia Larios-Sanz. UST Research Symposium, April 24-25th, 2025.
- Kruger, K., Marin, S., Sequeira, C., and Larios-Sanz, M. Comparing Microbial Isolates from Pre-Sliced Cantaloupe and Freshly Cut Cantaloupe. UST Research Symposium, April 24-25th, 2025.
- Granados, J., Barragan, W., Leauvano, J., Ramon, A., and Larios-Sanz, M. The Bacteria Battle: Cultivated vs Untamed Soil. UST Research Symposium, April 24-25th, 2025.
- Barandiarán, A., Aguilar, E., McGhee, A., Addam, A., and Larios-Sanz, M. We Didn't Cut the Cheese... But Here's What We Found. UST Research Symposium, April 24-25th, 2025.
- Arredondo, N., Nguyen, A., Shaik, A., and Larios-Sanz, M. Does Pre-Packaged Lettuce Contain Greater Levels of Bacteria Than Fresh Lettuce? UST Research Symposium, April 24-25th, 2025.
- Jordan, A., Gnaïm, C., Barandiaran, A., Valenzuela, D., McGhee, A., Parker, E., Tran, A., Rosell, R., and Larios-Sanz, M. Viruses Identified by Meta-genomics in Houston (TX) Mosquitos. UST Research Symposium, April 24-25th, 2025.
- Ngo, A., Najarro, M., Maldonado, W., Jordan, A., Barandiaran, A., Faridi, N., Rosell, R., and Larios-Sanz, M. Characterizing Viral Strains Carried by Mosquitos in the Greater Houston Area via Metagenomics. UST Research Symposium, April 25-26th, 2024.
- Burris E., Delgado S., Garcia M., Simmons J., Larios, M. What's in your makeup brush? Microbiology lab semester project, Fall 2023. Biology Education and Research Symposium, University of St. Thomas, Houston, November 28, 2023.
- Gonzalez L., Herrera N., Romo C., Varghese A., Larios, M. Microbial Identification Methods for Organisms in a Houston Residential Lake. Microbiology lab semester project, Fall 2023. Biology Education and Research Symposium, University of St. Thomas, Houston, November 28, 2023.
- Carrion, E., Cerio, J., Chhea, R., and Larios, M. Determining Unknown Bacteria from the Bottom of a Shoe! Microbiology lab semester project, Fall 2023. Biology Education and Research Symposium, University of St. Thomas, Houston, November 28, 2023.
- Cao, R., Lam, D., Chu, M., French, S., Larios, M. Exploring Unknown Bacterial Species from Ankle Microbiota. Microbiology lab semester project, Fall 2023. Biology Education and Research Symposium, University of St. Thomas, Houston, November 28, 2023.
- Ramirez, B., Cortez, M., Larios-Sanz, M. A Study and Identification of *S. marcescens* in Soil, and its Potential Use in Agriculture. UST Research Symposium. April 20, 2023.

- Gonzalez, N., Perez, T., Najarro, M., Cao, C., Larios-Sanz, M. Characterizing Antibiotic-Resistant Bacteria from Soil. UST Research Symposium. April 20, 2023.
- Huynh, S., Nickl, K., Rizk, G., Vu, H., Larios-Sanz, M. Characterizing Potential Antibiotic Producing Bacteria from Soil. UST Research Symposium. April 20, 2023.
- Lopez, O., Luu, K., Vallogamesa, C., Larios-Sanz, M. Examining Bacterial Growth in Reusable Water Bottle. UST Research Symposium. April 20, 2023.
- Diaz, J., Le, A., Sebok, J., Pham, M., Larios-Sanz, M. Exploring different microbes found in the soil of the greater Houston area UST Research Symposium. April 20, 2023.
- Mena, G., Romero, M., Faridi, N., Larios-Sanz, M. Identification of Unknown Soil Bacteria and their Antibiotic Production. UST Research Symposium. April 20, 2023.
- Silguero, M., Pham, F., Hernandez, A., Strobel, S., Le, A., Ngo, A., Najarro, M., Gonzalez, P., Maldonado, W., Brittain, D., Rosell, R., and Larios-Sanz, M. Metagenomics Analysis of Viral Families Carried By *Aedes* Mosquitos in Houston. USTT Research Symposium, April 28-29th, 2022.
- Brittain, D., Rosell, R. C., and Larios, M. (Research Leader). Characterization of Viral Communities Carried by Male and Female *Aedes* Mosquitos Collected in Houston, Senior capstone presentation UST Research Symposium (April 22, 2021).
- Brittain, D., Silguero, M., Davalos, S., Pham, F., Strobel, S., Hernandez, A., Rosell, R. C., and Larios, M. (Research Leader). Characterization of Viral Communities Carried by Male and Female *Aedes* Mosquitos Collected in Houston, UST Research Symposium (April 22, 2021).
- Ghaziyani, S., Turrubiarres, L., Simon, L., AL-Jumah, R., Obeid, R., Camacho, A., Mulanovich, E., Frohlich, D., Starner, J. Larios-Sanz, M. The Operon Architecture Database. Oral Presentation, Research Symposium, University of St. Thomas, April 8-9th, 2011.
- Ghaziyani, S., Turrubiarres, L., AL-Jumah, R., Larios-Sanz, M., and Starner, J. Using ODBC and Microsoft Access to automate our Operon Architecture Database. Research Symposium, University of St. Thomas, April 8-9th, 2011.
- Simon, L., ALJumah, R., Camacho, A., Ghaziyani, S., Mulanovich, E., Obeid, R., Turrubiarres, L., Frohlich, D., Starner, J., and Larios, M. The Operon Architecture Database: Data Mining. Research Symposium, University of St. Thomas, April 8-9th, 2011.
- Turrubiarres, L., Ghaziyani, S., Simon, L., Frohlich, D., Starner, J., and Larios-Sanz, M. Operon Architecture Database: The Entity-Relationship Modeling. Research Symposium, University of St. Thomas, April 9-10, 2010.
- Camacho, A., Foulkes, A., Meier-Marquis, J.A., Hahn, P.D., Larios-Sanz M, and Simmons, A. International Intercollegiate Evolution Opinion Survey. Research Symposium, University of St. Thomas, April 9-10, 2010.
- Calasanz, E., Larios-Sanz, M., Hall, T. and Rosell, R. Troubleshooting Technical Difficulties in the Identification of Primary and Secondary Endosymbionts in Whiteflies. Research Symposium, University of St. Thomas, April 9-10, 2010.
- Ghaziyani, S., Simon, L., Turrubiarres, L., Frohlich, D., Starner, J., and Larios-Sanz, M. The Operon Architecture Database. Research Symposium, University of St. Thomas, April 9-10, 2010.
- Han, H., Le, M., Nguyen, A., Pham, A., Pham, M., and Larios-Sanz, M. Isolation, Identification and Characterization of the Mode of Resistance of Multi-Drug Resistant Microorganisms. Research Symposium, University of St. Thomas, April 9-10, 2010.
- Ade-Fosudo, S., Rojas, H., Turrubiarres, L., Meier-Marquis, J., and Larios-Sanz, M. The Progress of Medical Bioinformatics in Clinical Settings. Research Symposium, University of St. Thomas, April 17-18, 2009.
- Ali, H., Ali, S., Siefert, J., and Larios-Sanz, M. Phylogenetic Characterization of Environmental Isolates of *Exiguobacterium*. Research Symposium, University of St. Thomas, April 17-18, 2009.
- Ali, S., Ali, H., Siefert, J., and Larios-Sanz, M. Microbial Characterization of Bacterial Isolates from Water Samples from Egypt. Research Symposium, University of St. Thomas, April 17-18, 2009.
- Han, H., Le, M., Nguyen, A., Pham, M., and Larios-Sanz, M. Isolation and Identification of Antibiotic-Resistant Microorganisms in a Lake Environment. Research Symposium, University of St. Thomas, April 17-18, 2009.

- Calasanz, E., Chacko, R., Roberts, K., Wilhelm, R., Larios-Sanz, M. and R. Rosell. Searching for a read-through domain in Begomoviruses that could interact with GroEL from *Bemisia tabaci* endosymbionts. Research Symposium, University of St. Thomas, April 11-12, 2008.

OUTREACH/SERVICE ACTIVITIES

Service to the Community

- Judge, ABRCMS Research Poster Session, 2025 ABRCMS Conference (San Antonio, Texas, November 2025)
- Interviewed by and served as advisor to Westside high school students (Houston) for a semester research project on the effects of plastics on wildlife and the biosphere (Spring 2024)
- Mentor, MentorNet. Mentor for young women interested in careers in the STEM fields. 2006-2012.
- American Society for Microbiology Minority Mentoring Program – Volunteer Translator’s Network (1997-2000)
- Reviewer for “Microbiology – An Evolving Science” by Slonczewski and Foster, Second Edition. Norton Publishers, 2010.
- Reviewer, Journal for Microbiology and Biology Education (2011 – present)
- Reviewer, National Association for Biology Teachers (2011-present)
- Participant in MR5, The 5th Comprehensive Review of the Medical College Admission Test (MCAT) - science content review, for the Association of American Medical Colleges (AAMC), Spring 2010.
- Invited speaker, “Learning for Life” Program sponsored by the Houston Museum of Natural Science, in collaboration with higher learning institutions in Houston, providing Junior and Senior high school students with hands-on science-related activities, and one on one contact with scientists to encourage their interest in science careers. June, 2007.
- Designed and held a workshop at the Sally Ride Science Festival entitled “Exploring Life”. The festival offers hands-on science workshops for young girls (grades 5-8) to support and encourage their interests in science and math. October 27th 2007.
- *Astrobiology Planetarium Shows for the Public (in Spanish)*. Spanish translator and narrator of five planetarium shows ("Fantasy Worlds: Exploring the Limits of Life", "Earth's Wild Ride", "Lucy's Cradle", "Ice Worlds" and "Night of the Titanic"). Produced in collaboration with the Houston Museum of Natural Science, the Discovery Dome at the Rice Space Center, Rice University, University of Houston, University of Houston Downtown, and the Astrobiology Institute (2004-2006).
- *Mentor, Summer Undergraduate Research Fellowship (SURF) Program, University of Houston*. Mentoring and training of undergraduate student participating in a focused 10-week research project (1998-2003).
- *Invited speaker, Hominid Evolution*. In: Astrobiology Lecture Series, Open Community Lecture Series for K-12 Teachers, Rice University, March 2004.
- Speaker, Project GRAD/Communities in School Program, Houston ISD (1997-2003).
- *Mentor, American Society for Microbiology (ASM) Minority Mentoring Program*. Online mentoring for undergraduate minority students interested in pursuing further study and careers in the life sciences (ongoing)
- Girls Engaging in Math and Science (GEMS) Program Mentor (1997-2000).
- *Developer, Monitoring Microorganisms during Space Flight. Microbiology Teaching Resource Module*. Teaching resource accessed from <http://www.spacebio.net/modules/index.html>. Larios-Sanz, M., Warmflash, D., Willson, R.C., and G.E. Fox. In: Space Biology: An Educator’s Resource, funded by the NASA Life Sciences Outreach program (developed 2003).
- Oversaw implementation of service learning in the curriculum in the Department of Biology at UST (2008).
- Instructor, DREME@UST STEM Summer Camp (July 2012, July 2013) – designed and implemented hands-on science camp experience for students from the Greater Third Ward area interested in STEM.
- Developer, learning modules to support equity for STEM students from underrepresented minorities (2017-2019)

- Science Fair Judge, Poe Elementary (1994-2003), university of Houston Charter School (2008-2018).
- Science education lecture series for the community delivered Spring and Fall at the Women's Institute of Houston (ongoing)
- Spanish Language COVID Town Hall with Houston in Action (9/2/21)
- Spanish Press Briefing - COVID and Vaccines Q&A with Houston in Action (9/28/21)
- Young Women's College Preparatory Academy Kolbe/STEM/& Nursing College Tour – hands-on DNA isolation from bananas and career talk for student visitors (March 2022, March 2023).

Service at UST

- Merit and Mission Scholar Invitational, instructor in STEM group (02/2026)
- Freshman Symposium Instructor (Fall 2026)
- First Year Experience Advisor (08/08 – present)
- Undergraduate research mentor (08/06-present)
- ASBMB Accreditation Committee (2017-present)
- University of St. Thomas Science and Math Advisory Council (01/08 – 05/10)
- Mathematics and Natural Sciences Career Forum Organizational Committee (Fall 2008)
- Core Curriculum Reform Subcommittee on the Synthesis of Philosophy and Theology with the Major (Fall 2008)
- General Biology Co-Coordinator, Lecture and Laboratory (2009 – 2011)
- Microbiology lab coordinator (2008-present)
- Showcase Saturday supporting Admissions (2008-2011). Sample class “Learning about Biology at UST”
- Ph.D. Defense Committee Chair for Daniel Wagner defending “The Aristotelian Foundations of the Good of the Human Person”, Center for Thomistic Studies (4/27/2018)
- Service Learning Coordinator for Department of Biology (2008 – 2018)
 - started the effort to include Service Learning in Biology courses, oversaw student surveys
- Watermark System Advisory Task Force (6/23-12/24)

University Committees/Work Groups

- Student success visioning team (02/2026-present)
- Freshman Symposium Planning Committee (01/26-present)
- Academic Committee (08/16-present, Chair 05/18-5/2024)
- Call Towards Tomorrow, Strategic Planning Work Group on Academics (Spring 2018)
- Retention Committee (08/10 – 05/12)
- UST School of Nursing Founding Class Admissions Committee (1/12-5/12)
- Faculty Leadership (05/12 – 05/14)
 - Faculty Senate Vice Chair (05/12 – 05/13)
 - Faculty Senate Chair (05/13 – 05/14)
 - Faculty Senate Past-Chair (05/14-05/15)
- University Coordinating Committee, UCC (05/12-05/14)
 - UCC Chair (05/14 – 05/15)
- University Planning Council (8/12 – 5/13)
- University Search Committees
 - Chemistry Tenure-Track Position (10/08 - 05/09)
 - Women's Basketball Coach (06/10 - 1/11)
 - Nursing Faculty Position (8/11-5/12)
 - Biology Tenure-Track Position (11/10 - 03/11)
 - Registrar (Summer, 2017)
 - VPAA (12/17 - 05/18)
 - Dean of School of Arts and Sciences (05/19 – 10/19)
 - Biochemistry (11/21 – 4/22)
 - Chemistry Assistant Professor (11/22-5/23)
 - Biology Assistant Professor (A&P position) (8/23-1/24)

- Retention Committee (08/10 – 05/12)
- Faculty Leadership (05/12 – 05/15)
 - Faculty Senate Vice Chair (5/12 – 5/13)
 - Faculty Senate Chair (05/13 – 05/14)
 - Immediate past-Chair (05/14 – 05/15)
- University Coordinating Committee (05/12 – 05/15)
 - UCC Chair (05/14 – 05/15)
- University Planning Council (08/12 – 05/13)
- Grievance Committee (05/17-05/18, 08/2024-present)
- Faculty Affairs Policy Committee, Chair (8/17-5/18)
- SACSCOC Faculty Policy Review Task Force (10/23-2/24)

PROFESSIONAL MEMBERSHIPS

- National Association of Biology Teachers (NABT)
- Association for Women in Science (AWIS)
- American Association for the Advancement of Science (AAAS)
- American Society for Microbiology (ASM)
- ASM-Texas Branch
- Society for the Advancement of Chicanos and Native Americans in Science (SACNAS)
- Entomological Society of America (ESA)