

Dr. Charlotte M Vines
The University of Texas at El Paso
Associate Professor
Biological Sciences
Biology, Biomedicine
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Professional Positions

Review Editor, Frontiers in Cell and Developmental Biology. (October 1, 2021 - Present).
Review Editor, Frontiers in Molecular and Cellular Oncology. (August 2, 2021 - Present).
Associate Professor, The University of Texas at El Paso. (September 1, 2019 - Present).
Minisymposia Co-Chair, American Society of Cell Biology. (July 15, 2022 - December 5, 2022).
Executive Council Member, Autumn Immunology Conference. (November 27, 2013 - April 27, 2022).
Assistant Professor, University of Texas at El Paso. (July 1, 2013 - August 31, 2019).
Co-Director, A-PRIME TIME. (June 1, 2014 - June 1, 2019).
Member, American Association of Immunology Minorities Affairs Committee. (July 2015 - July 2018).
Undergraduate Coordinator, Autumn Immunology Conference. (July 1, 2016 - January 14, 2018).
Work with a scientist program Scientist, NSF. (January 5, 2015 - August 1, 2016).
Assistant Professor, University of Kansas Medical Center. (January 1, 2005 - June 30, 2013).

Education

Ph D, Harvard University, 1997.
Major: Cell and Developmental Biology
Dissertation Title: Cloning, Localization, & Expression of Rat Brain Cytoplasmic Dynein heavy Chain

Licensures and Certifications

Teaching on Line Certification, The University of Texas at El Paso. (May 31, 2020 - Present).
DEA, DEA. (May 26, 2020 - Present).
Teaching with Video, The University of Texas at El Paso. (February 11, 2020 - Present).
DEA, Drug Enforcement Agency. (May 30, 2014 - Present).
Renewed DEA License, The University of Texas at El Paso. (April 7, 2016 - May 31, 2017).

Professional Memberships

American Association of Cancer Research.
American Association of Immunologists.
Member, American Society of Cell Biology.
Member, Society of Leukocyte Biology. (January 1, 2000 - Present).
Council Member, Autumn Immunology Conference. (November 17, 2015 - July 29, 2022).

Awards and Honors

COURI Mentor of Honorable Mention for the Life and Biomedical Sciences Category, COURI. (September 11, 2022).

Undergraduate Student Choice for Outstanding Teacher of the Year, College of Science. (May 9, 2017).

Registered Student Organization Gold Faculty Advisor of 2017, Medical Professions Organization. (April 19, 2017).

Undergraduate Student Choice Award for Outstanding Teaching, The University of Texas at El Paso. (May 10, 2016).

Proffered paper at European Society of Medical Oncologists, European Society of Medical Oncologists. (July 1, 2014).

Integrated Biomedical Sciences Teacher of the Year, University of Kansas Medical Center. (May 2012).

Consulting

For Profit Organization, Gilead, Foster City, California. (December 17, 2020 - Present).

Media Appearances and Interviews

How to build Diversity Inclusion and Equity in your classroom. (April 2021).

MiniCAST Night of the Museum Ignites. (October 21, 2016).

KTEP. (January 17, 2016).

Publications

Bill, C. A., Allen, C. M., & Vines, C. (2022). *C-C Chemokine Receptor 7 in Cancer*. 11(4). CELLS.
<https://doi.org/10.3390/cells11040656>

Brissette, M. A., Cardona, C. I., Bill, C. A., & Vines, C. (2022). *Class II Phosphatidylinositol-3-kinases Promotes CCR7 Recycling to the Cell Membrane in Human T-Cells*. 208.
<https://doi.org/10.4049/jimmunol.208.Supp.45.11>

Cervantes, J. A., Vines, C., Knight, C. D., Gehre, M. D., & Bill, C. A. (2022). *ERK5 and CCL19 Regulate the Secondary Immune Response in Mice*. 208. <https://doi.org/10.4049/jimmunol.208.Supp.55.23>

Torres, A., Vazquez, A., Glenn, S., Fuentes, Z., Chacon, J., Bill, C. A., & Vines, C. (2022). *Abstract LB015: CCR7-expressing T-cell acute lymphoblastic leukemia mouse model provides a platform for developing novel anti-CCR7 therapies to prevent CNS invasion*. 82. <https://doi.org/10.1158/1538-7445.AM2022-LB015>

Brissette, M. A., Cardona, C. I., Bill, C. A., & Vines, C. (2022). *Class II Phosphatidylinositol-3-kinases Promotes CCR7 Recycling to the Cell Membrane in Human T-Cells*. 208.
<https://doi.org/10.4049/jimmunol.208.Supp.45.11>

Cervantes, J., Vines, C., Knight, C. D., Gehre, M., & Bill, C. A. (2022). *ERK5 and CCL19 Regulate the Secondary Immune Response in Mice*. 208, 55.23. <https://doi.org/10.4049/jimmunol.208.Supp.55.23>

Bill, C. A., Allen, C., & Vines, C. M. (2022). *C-C Chemokine Receptor 7 in Cancer*. 11(4), 50.
<https://doi.org/10.3390/cells11040656>

Campbell, A., Gutierrez, D. A., Knight, C., Vines, C., Heydarian, R., Philipovski, A., Varela-Ramirez, A., & Boland, T. (2021). *Combinatorial Strategy Using Thermal Inkjet Bioprinting, Chemotherapy, and Radiation on Human Breast Cancer Cells; an In-Vitro Cell Viability Assessment*. 14(24), 7864.
<https://doi.org/10.3390/ma14247864>.

- Campbell, A., Gutierrez, D. A., Knight, C., Vines, C., Heydarian, R., Philipovski, A., Varela-Ramirez, A., & Boland, T. (2021). *Novel Combinatorial Strategy Using Thermal Inkjet Bioprinting, Chemotherapy, and Radiation on Human Breast Cancer Cells; an In-Vitro Cell Viability Assessment*. 14(24), 7864.
- Campbell, A., Gutierrez, D. A., Knight, C., Vines, C., Heydarian, R., Philipovski, A., Varela-Ramirez, A., & Boland, T. (2021). *Novel Combinatorial Strategy Using Thermal Inkjet Bioprinting, Chemotherapy, and Radiation on Human Breast Cancer Cells; an In-Vitro Cell Viability Assessment*. 14(24), 7864. <https://doi.org/10.3390/ma14247864>
- Malek, R., Bill, C. A., & Vines, C. (2021). *Clinical drug therapies and biologicals currently used or in clinical trial to treat COVID-19*. 144. <https://doi.org/10.1016/j.biopha.2021.112276>
- Vines, C., & Bill, C. (2020). Phospholipase C. In M. S. Islam (Ed.), *Calcium Signaling: Vol. 1131*. Calcium Signaling, Advances in Experimental Medicine and Biology. https://doi.org/10.1007/978-3-030-12457-1_1
- Conde, D. A., Ibarra-Mejia, G., Moore, J. S., Browne, K. L., & Vines, C. (2020). *Association of a Repetitive Manual Task on Inflammatory Biomarker Expression, Heart Rate Variability and Rating of Perceived Exertion*. ProQuest. <http://0-search.proquest.com.lib.utep.edu/dissertations-theses/association-repetitive-manual-task-on/docview/2425610497/se-2?accountid=7121>
- Vines, C., Cervantes, J., Vazquez, A., & Bill, C. A. (2020). *CC Chemokine Receptor 7 Differentially Regulates Trafficking of T Cells to the Bone Marrow During the Adaptive Immune Response*. 204, 77.18–77.18. <https://doi.org/10.4049/jimmunol.204.Supp.77.18>
- Bill, C., Sanchez, A., Amparan, J., & Vines, C. (2020). *Role of β -Adrenergic Receptor Kinases in the Internalization of C-C Chemokine Receptor Seven (CCR7) in Mammalian T Cells*. 204, 59.3. <https://doi.org/10.4049/jimmunol.204.Supp59.3>
- Flores-Montoya, M. G., Bill, C. A., Vines, C., & Sobin, C. A. (2019). *Early chronic low-level lead exposure reduced C-C chemokine receptor 7 in hippocampal microglia*. 314, 106–116. <https://doi.org/10.1016/j.toxlet.2019.07.015>
- Brissette, M. A., Bill, C. A., & Vines, C. (2019). *Trafficking of Chemokine Receptor 7 (CCR7) to the Trans-Golgi Network After Stimulation of CCL19 and CCL21*. ABRCAMS Proceeding.
- Johnson, H., Garcia-Hernandez, P., Diaz-Erives, J., Bill, C. A., Bill, C. A., & Vines, C. (published). *Characterization of the Role of Olfactory Receptor Family 7 Subfamily C Member 1 (OR7C1) in Stemness of Pediatric Leukemia cells*. ABRCAMS Proceedings.
- Uribe, M., Moreno, D., Gehre, M., Bill, C., & Vines, C. (2019). *CCR7/CCL19 mediated T cell migration via ERK5 upregulation*. COURI.
- Flores-Montoya, M. G., Bill, C. A., Vines, C., & Sobin, C. (2019). *Early chronic low-level lead exposure reduced C-C chemokine receptor 7 in hippocampal microglia*. 10(314), 106–116.
- Garcia-Hernandez, P., Diaz-Erives, J., Johnson, H., Bill, C. A., Bill, C. A., & Garcia, P. (2019). *Olfactory Receptor Family 7 Subfamily C Member 1 and its Correlation to Stemness in Pediatric Leukemia*.
- Ahmed, H., Espinoza, J. S., Jeon, D., Jauregui, A., Bill, C. A., Parada, Z., Paz, D., Hernandez, A., Kirken, R. A., Bill, C. A., & Vines, C. (2019). *Olfactory Receptor Family 7 Subfamily C Member 1 as a potential prognostic marker for pediatric T-cell acute lymphoblastic leukemia patients*. 33(S1), 647.1–647.1. https://doi.org/https://doi.org/10.1096/fasebj.2019.33.1_supplement.647.1
- Ahmed, H., Espinoza, J., Jeon, D. C., Jauregui, A., Bill, C., Parada, Z., Paz, D., Hernandez, A., Kirken, R., Bill, C. A., & Vines, C. (2019). *Olfactory Receptor Family 7 Subfamily C Member 1 Expression in T-cell Acute Lymphoblastic leukemia Identifies a Potential Stem Cell Sub-population*. Proceedings of Experimental Biology.
- Vines, C., Jeon, D., Silva Espinoza, J. C., Ahmed, H., Bill, C. A., & Vines, C. M. (2019). *Olfactory Receptor Family 7 Subfamily C Member 1 Expression in T-cell Acute Lymphoblastic leukemia Identifies a Potential Stem Cell Sub-population*. Experimental Biology Proceedings.

- Flores-Montoya, M. G., Vines, C., Bill, C. A., & Sobin, C. A. (2018). *Early chronic lead exposure reduces C-C chemokine receptor 7 in hippocampal microglia in young mice*. 67, 90–90.
- Winebrenner, C. T., Wagener, B. M., Islam, S., Bill, C. A., Soto, O. B., Kaiser, B., Welch, T. P., Pothapragada, T. M., Cunningham, H. D., Bill, C. A., & Vines, C. (2016). *GRK2 and GRK3 Regulate Differential Internalization of CC Chemokine Receptor 7 and Chemotaxis in T cells*. Gordon Research Conference.
- Bill, C. A., Cervantes, J., Cunningham, H., & Vines, C. (published). *Role of C-C Chemokine Receptor 7 (CCR7) Expression in Reducing Metastasis of Mammary Tumors to the Lungs*. Gordon Research Conferences. Rm 4.124 Bioscience Res Bldg
- Alvara, C., Cervantes, J., Bill, C., & Vines, C. (2016). *CCR7 Regulates Antibody Titers During the Secondary Immune Response*. Gordon Research Conference.
- Sobin, C. A., Vines, C., Basgen, J., & Montoya, Mayra Gisel Flores. (2015). *Do peripheral inflammatory responses link early chronic low-level lead exposure and later psychiatric disease?*. 49, 116–116. <https://doi.org/10.1016/j.ntt.2015.04.056>
- Wu, L., Chen, X., Zhao, J., Martin, B., Zepp, J. A., Ko, J. S., Gu, C., Towne, J., Ouyang, W., Sen, G., Stark, G., Su, B., Vines, C. M., Tournier, C., Vidimos, A., Gastman, B., Liu, C., & Li, X. (2015). *A novel IL-17 signaling pathway through the TRAF4-ERK5 axis for keratinocyte proliferation and tumorigenesis*. 212(10), 1571–1587. <https://doi.org/10.1084/jem.20150204>
- Vines, C., & Bill, C. A. (2015). Phospholipases. In *Encyclopaedia Library Service (eLS)*. eLS. <https://doi.org/10.1002/9780470015902.a0001394.pub3>
- Sobin, C. A., Vines, Basgen, J., & Flores Montoya, M. G. (2015). *Do peripheral inflammatory responses link early chronic low-level lead exposure and later psychiatric disease?*. 46.
- Bassuk, D., Soto, O., Bill, C. A., & Vines, C. (2014). *CCR7 levels in T cells as a strategy to prevent in the autoimmune destruction of the myelin sheath in the CNS: Vol. 43* (p. 174). Autumn Immunology Conference. www.autumnimmunology.org/program.php
- Soto, O., Bill, C. A., & Vines, C. (2014). *CCR7/CCL19 Promotes Upregulation of GLUT1 Glucose Transporter: Vol. 43*. Autumn Immunology Conference. www.autumnimmunology.org/program.php
- Bill, C. A., Vines, C. M., & Cervantes, J. A. (2014). *Mice Lacking ERK5 in Their T Cells Have an Enhanced Antibody Production*. Autumn Immunology Conference.
- Knight, C. D., Hinojoza, B. E., Bill, C. A., & Vines, C. M. (2014). *Using Transcription Activator-like Effector Nucleases to inhibit C-C Chemokine Receptor 7 gene expression in Experimental Autoimmune Encephalomyelitis: Vol. 43* (p. 163). Autumn Immunology Conference. www.autumnimmunology.org/program.php
- Hinojoza, B. E., Bill, C. A., Vines, C. M., & Knight, C. D. (2014). *Using Transcription Activator-like Effector Nucleases to Inhibit Human C-C Chemokine Receptor 7 gene expression to Enhance Antibody Production: Vol. 43* (p. 163). Autumn Immunology Conference. www.autumnimmunology.org/program.php
- Northrup, L., Sestak, J., Sullivan, B., Thati, S., Hartwell, B., Siahaan, T., Vines, C., & Berkland, C. (2014). *Co-delivery of autoantigen and B7 pathway modulators suppresses experimental autoimmune encephalomyelitis*. 6(November 16, 2014), 10. <https://doi.org/10.1208/s12248-014-9671>
- Cunningham, H. D., Kim, E. D., Vines, C., & August, K. (2014). *Novel single chain antibodies to inhibit CCR7 mediated-entry of pediatric T-cell acute lymphoblastic leukemia into the CNS*. Annals of Oncology.
- Vines, C. (2014). Phospholipase C Isoform Functions in Immune Cells. In *Phospholipases in Health and Disease, Advances in Biochemistry in Health and Disease: Vol. 10*. Springer Science and Business Media. https://doi.org/10.1007/978-1-4939-0464-8_13
- Sestak, J., Sullivan, B., Thati, S., Northrup, L., Hartwell, B., Antunez, L., Forrest, M. L., Vines, C. M., Siahaan, T. J., & Berkland, C. (2014). *Codelivery of antigen and an immune cell adhesion inhibitor is necessary for efficacy of soluble antigen arrays in experimental autoimmune encephalomyelitis*. 1(14008), 9. <https://doi.org/10.1038/mtm.2014.8>

Chittasupho, C., Shannon, L. J., Siahaan, T. J., Vines, C. M., & Berkland, C. (2014). *Hyaluronic acid graft polymers displaying peptide antigen modulate dendritic cell response in vitro.* 11(1), 6.
<https://doi.org/10.1021/mp4003909>

Presentations

Vines, C., Medical College of Wisconsin, "Chemokine Regulation of the Secondary Immune Response," Medical College of Wisconsin, Milwaukee, WI. (May 10, 2023).

Sanchez, A. (Author Only), Vazquez, A. (Presenter & Author), Valenzuela, J. (Author Only), Stanley, S. (Author Only), Bill, C. A., Vines, C. (Author Only), American Association of Cancer Research 2023, "Inhibition of CCR7 Extends Survival Rate in a Murine Model of T-cell Acute Lymphoblastic Leukemia," American Association of Cancer Research, New Orleans, LA. (April 2023).

Vines, C., University of Pennsylvania Perelman School of Medicine, "Chemokine Regulation of the Secondary Immune Response," University of Pennsylvania Perelman School of Medicine, San Antonio, TX. (May 2022).

Brissette, M. (Presenter & Author), Cardona, C. I. (Author Only), Bill, C. A. (Author Only), Vines, C., American Association of Immunologists, "Class II Phosphatidylinositol-3-kinases Promotes CCR7 Recycling to the Cell Membrane in Human T-Cells," American Association of Immunologists, Portland, Oregon. (May 1, 2022).

Brissette, M. (Presenter & Author), Cardona, C. I. (Author Only), Bill, C. A. (Author Only), Vines, C., American Association of Immunologists, "Class II Phosphatidylinositol-3-kinases Promotes CCR7 Recycling to the Cell Membrane in Human T-Cells," American Association of Immunologists, Portland, Oregon. (May 1, 2022).

Cervantes, J. (Presenter & Author), Vines, C., Knight, C. D. (Author Only), Gehre, M. (Author Only), Bill, C. A. (Author Only), American Association of Immunologists, "ERK5 and CCL19 Regulate the Secondary Immune Response in Mice," American Association of Immunologists, Portland Oregon. (May 1, 2022).

Bill, C. A. (Author Only), Sanchez, A. (Author Only), Amparan, J. D. (Presenter & Author), Vines, C., American Association of Immunologists, "Role of β -Adrenergic Receptor Kinases in the Internalization of C-C Chemokine Receptor Seven (CCR7) in Mammalian T Cells," American Association of Immunologists, Online. (May 1, 2022).

Torres, A. (Presenter & Author), Vazquez, A. (Author Only), Bill, C. A. (Author Only), Vines, C. M. (Author Only), American Association of Cancer Research 2022, "CCR7-expressing T-cell acute lymphoblastic leukemia mouse model provides a platform for developing novel anti-CCR7 therapies to prevent CNS invasion.," American Association of Cancer Research, New Orleans. (April 8, 2022).

Vazquez, A. (Presenter & Author), Torres, A. (Author Only), Fuentes, Z. (Author Only), Bill, C. A., Vines, C. (Author Only), American Association of Cancer Research, "CCR7-expressing T-cell acute lymphoblastic leukemia mouse model provides a platform for developing novel anti-CCR7 therapies to prevent CNS invasion.," American Association of Cancer Research, New Orleans, LA. (March 2022).

Vines, C., University of Texas at San Antonio, "Chemokine Regulation of the Secondary Immune Response," University of Texas at San Antonio, San Antonio, TX. (January 2022).

Lesser, L. M., Espinoza, P. P., Gates, A. C., Golding, P., Nunez-Mchiri, G., Santiago, I., Vines, C., Picture a Scientist: Roundtable Discussion on Women in Academia, Center for Faculty Leadership and Development (UTEP Edge). (October 1, 2020).

Vines, C. (Presenter & Author), Cervantes, J. (Author Only), Vazquez, A. (Author Only), Bill, C. A. (Author Only), American Association of Immunologists, "C C Chemokine Receptor 7 Differentially Regulates Trafficking of T Cells to the Bone Marrow During the Adaptive Immune Response," American Association of Immunologists, Online. (May 1, 2020).

Vines, C. (Presenter & Author), Border Biomedical Research Conference, "CCR7 in homeostasis and Disease," Border Biomedical Research Conference, The University of Texas at El Paso. (September 7, 2018).

- Vines, C., Winebrenner, C. T. (Author Only), Bill, C. A. (Author Only), Sanchez, A. (Author Only), Wagener, B. (Author Only), Bill, C. A. (Author Only), American Association of Immunologists, "G protein Coupled Receptor Kinase 2 Levels Regulate Differential Internalization of C-C Chemokine Receptor 7 (CCR7) in Primary Mouse T Cells," American Association of Immunologists, Austin, TX. (May 1, 2018).
- Vines, C. (Presenter & Author), New Mexico State University Visit, "CCR7 in homeostasis and Cancer Metastasis," Las Cruces, NM. (April 13, 2018).
- Vines, C. (Presenter & Author), Morehouse School of Medicine, "CCR7 in homeostasis and disease," Morehouse School of Medicine, Atlanta Georgia. (February 12, 2018).
- Fuentes, Z. (Presenter & Author), Bill, C. A. (Author Only), Vines, C. M. (Author Only), Vazquez, A. E. (Author Only), Glenn, S. (Author Only), Garcia, C. (Author Only), COURI Spring, "CCR7," COURI, UTEP. (March 27, 2017).
- Vines, C., 3RD Annual Infectious Disease Symposium, "Chemokine Regulation of the Secondary Immune Response," Texas Tech Paul Foster School of Medicine, Texas Tech Paul Foster School of Medicine. (November 2, 2015).
- Sobin, C. A. (Presenter & Author), Vines, C. (Author Only), John, B. (Author Only), Flores Montoya, M. (Author Only), Neurobehavioral Teratology Society/International Neurotoxicology Society, "Do peripheral inflammatory responses link early chronic low-level lead exposure and later psychiatric disease?," Montreal, Canada. (June 30, 2015).
- Bassuk, D. (Presenter & Author), Soto, O. (Author Only), Bill, C. A. (Author Only), Vines, C. (Author Only), Autumn Immunology Conference, "Use of CRISPR-Cas9 gene editing to reduce CCR7 levels in T cells as a strategy to prevent autoimmune destruction of the myelin sheath in the CNS," NIH-NIAID, Chicago, IL. (November 29, 2014).
- Bassuk, D. (Presenter & Author), Soto, O. (Author Only), Bill, C. A. (Author Only), Vines, C. (Author Only), Autumn Immunology Conference, "Use of CRISPR-Cas9 gene editing to reduce CCR7 levels in T cells as a strategy to prevent autoimmune destruction of the myelin sheath in the CNS," NIH-NIAID, Chicago, IL. (November 29, 2014).
- Colin, K. (Presenter & Author), Brenda, H. (Author Only), Bill, C. A. (Author Only), Vines, C. (Author Only), Autumn Immunology Conference, "Using transcription activator-like effector nucleases to inhibit human C-C Chemokine Receptor 7 gene expression in experimental autoimmune encephalomyelitis," NIH-NIAID, Chicago, IL. (November 29, 2014).
- Colin, K. (Presenter & Author), Brenda, H. (Author Only), Bill, C. A. (Author Only), Vines, C. (Author Only), Autumn Immunology Conference, "Using transcription activator-like effector nucleases to inhibit human C-C Chemokine Receptor 7 gene expression in experimental autoimmune encephalomyelitis," NIH-NIAID, Chicago, IL. (November 29, 2014).
- Hinojoza, B. (Presenter & Author), Colin, K. (Author Only), Colin, B. (Author Only), Vines, C. (Author Only), Autumn Immunology Conference, "Using transcription activator-like effector nucleases to inhibit human C-C Chemokine Receptor 7 gene expression to enhance antibody production," NIH-NIAID, Chicago, IL. (November 29, 2014).
- Hinojoza, B. (Presenter & Author), Colin, K. (Author Only), Colin, B. (Author Only), Vines, C. (Author Only), Autumn Immunology Conference, "Using transcription activator-like effector nucleases to inhibit human C-C Chemokine Receptor 7 gene expression to enhance antibody production," NIH-NIAID, Chicago, IL. (November 29, 2014).
- Cervantes, J. (Presenter & Author), Bill, C. A. (Author Only), Vines, C. (Author Only), Autumn Immunology Conference, "Mice lacking ERK5 in their T cells have an Enhanced Antibody Production," NIH-NIAID, Chicago, IL. (November 27, 2014).
- Soto, O. (Presenter & Author), Bill, C. A. (Author Only), Vines, C. (Author Only), Autumn Immunology Conference, "Promotes Upregulation of GLUT1 glucose transporter," NIH-NIAID, Chicago, IL. (November 27, 2014).
- Cunningham, H. D. (Presenter & Author), Kim, E. (Author Only), August, K. (Author Only), Vines, C. M. (Author Only), European Society of Molecular Oncology, "Novel single chain antibodies to inhibit CCR7

mediated-entry of pediatric T-cell acute lymphoblastic leukemia into the CNS," EMSO, Madrid, Spain. (September 29, 2014).

Contract, Fellowships, Grants and Sponsored Research

- Vines, C. (Principal), "R03: TARGETED THERAPY TO PREVENT CNS INVASION OF PEDIATRIC T-ALL," Sponsored by NIH - NATIONAL CANCER INSTITUTE (FED), Federal, \$169,000.00. (December 15, 2022 - December 31, 2024).
- Bill, C. A. (Co-Principal), Vines, C. M. (Co-Principal), "Development of a Mouse Model to Study Targeted Therapy to Prevent CNS Invasion by Pediatric T-ALL," Sponsored by NIH - National Cancer Institute. (December 15, 2022 - November 30, 2024).
- Vines, C. (Principal), "R03: DEVELOPMENT OF A MOUSE MODEL TO STUDY TARGETED THERAPY TO PREVENT CNS INVASION BY PEDIATRIC T-ALL," Sponsored by NIH - NATIONAL CANCER INSTITUTE (FED), Federal, \$153,500.00. (December 15, 2022 - November 30, 2024).
- Vines, C. (Principal), "CCR7 Chemotaxis Regulates Memory T Cell Localization," Sponsored by National Institutes of Health, \$1,510,000.00. (April 1, 2020 - March 30, 2024).
- Vines, C., Bill, C. A. (Supporting), "CCR7 Regulates Memory T Cell Localization," Sponsored by National Institutes of Health, Government, \$1,510,000.00. (February 1, 2020 - January 31, 2024).
- Vines, C. (Principal), "SC1: CCR7 CHEMOTAXIS REGULATES MEMORY T CELL LOCALIZATION," Sponsored by NIH - NATL INST OF NEUROLOGICAL DISO & S (FED), Federal, \$1,170,250.00. (July 1, 2015 - January 31, 2024).
- Vines, C., "International Union of Immunological Societies," Sponsored by American Association of Immunologists, \$2,500.00. (November 28, 2023 - December 3, 2023).
- Vines, C. (Principal), "PRODRUG METABOLISM BY PHOSPHOLIPASES C AND D OR SPHINGOMYELINASES," Sponsored by GILEAD SCIENCES (COMM), Commercial Business, \$307,880.00. (March 25, 2021 - November 29, 2021).
- Vines, C. (Principal), Bill, C. A. (Supporting), Li, C. (Supporting), "CCL19 Regulation of the Secondary Immune Response," Sponsored by NAT INST OF ALLERGY & INFECTIOUS DISEASE, Federal, \$1,510,000.00. (July 1, 2015 - March 31, 2019).
- Vines, C. (Principal), "SC1: CCL19 REGULATION OF THE SECONDARY IMMUNE RESPONSE," Sponsored by NIH - NATL INST ON MINORITY HEALTH & H D (FED), Federal, \$1,472,250.00. (July 1, 2014 - March 31, 2019).
- Gosselink, K. (Co-Principal), Ekal, D. (Principal), Wells, M. D. (Supporting), Vines, C. (Co-Principal), "A-PRIME TIME," Sponsored by UT SYSTEM, State, \$336,115.00. (September 2013 - August 2016).

Intellectual Property

- Vines, C., Bill, C. "CCR7 based vaccine adjuvant." (Submitted: October 10, 2014, Application: November 14, 2014).

Research Activity

- "C C Chemokine Receptor 7 Differentially Regulates Trafficking of T Cells to the Bone Marrow During the Adaptive Immune Response" (Writing Results).
Peer reviewed manuscript to be submitted in February 2023
- "G Protein-Coupled Receptor Kinase Family 4 (GRK-4, 5, 6)-Mediated Regulation Of Chemotaxis And Internalization Through G Protein-Coupled Receptor (GPCR) CCR7 In Human Pediatric T-Cell Acute Lymphoblastic Leukemia (T-ALL)" (On-Going).
- "GPCR-PEn: GPCR prediction ensemble (gpcr.utep.edu)." (On-Going).
A computational pipeline is developed in this project to predict whether a given protein, based on its

amino acid sequence information only, is likely to be a GPCR and if yes, which GPCR family it belongs to. GPCRs are a large and diverse superfamily of membrane receptor proteins. They are of great interest to researchers as it is estimated that 50-60% of all pharmacological drugs target GPCRs. Our pipeline utilizes sequence similarity, transmembrane structure, and dipeptide composition to determine if a protein sequence is a GPCR. A BLAST search determines if a given sequence bears close sequence similarity to known sequences (from the curated Uniref database), operating under the assumption that sequence similarity may indicate sequence homology. To this, we added other statistical and machine learning approaches to function as an ensemble that further improved the prediction and classification accuracy.

"Role of b-Adrenergic Receptor Kinases in the Internalization of C-C Chemokine Receptor Seven (CCR7) in Mammalian T Cells" (Writing Results).
Manuscript for peer review to be submitted in Feb-March 2023

"THE ROLE OF C-C CHEMOKINE RECEPTOR 7, ITS LIGAND CCL19 AND EXTRACELLULAR REGULATED KINASE 5 DURING THE SECONDARY IMMUNE RESPONSE IN MICE" (Writing Results).
Manuscript was submitted to the Journal of Immunology and rejected. We plan to revise, according to the reviewer's comments and will resubmit in Feb-March 2023

"Translational Studies of Effects on Brain and Behavior of Early Chronic Low-Level Lead Exposure" (On-Going).
We study effects on brain and behavior of early chronic low-level lead exposure. Our child studies provided new evidence that the hPEPT2*2 genetic variant increases blood lead burden and predicts a specific pattern of motor deficits in young males. In a translational mouse model we duplicated the low exposure levels of our child participants, quantified loss of microglia in dentate gyrus, and are attempting to characterize behavioral effects. Via interdisciplinary collaboration, we are studying additional genetic factors and organs altered by lead exposure that impact brain health and resilience.

Teaching Experience

BIOL 6398, section 26280, Dissertation. 3 credit hours. 0 enrolled.

BIOL 6399, section 26360, Dissertation. 3 credit hours. 2 enrolled.

HON 4396, section 21005, Honors Senior Thesis. 3 credit hours. 0 enrolled.

BIOL 6390, section 26325, Independent Research. 3 credit hours. 1 enrolled.

BIOL 6590, section 28209, Independent Research. 5 credit hours. 1 enrolled.

BIOL 4388, section 20719, Mammalian Physiology. 3 credit hours. 323 enrolled.

BIOL 1108, section 23944, Organismal Biology Laboratory. 1 credit hours. 14 enrolled.

BIOL 5302, section 20159, Resrch Biological Science. 3 credit hours. 1 enrolled.

BIOL 4298, section 20133, Special Problems. 2 credit hours. 1 enrolled.

BIOL 4398, section 20262, Special Problems. 3 credit hours. 0 enrolled.

BIOL 4398, section 24113, Special Problems. 3 credit hours. 0 enrolled.

BIOL 5398, section 28278, Thesis. 3 credit hours. 1 enrolled.

BIOL 5399, section 26308, Thesis. 3 credit hours. 1 enrolled.

BIOL 5399, section 28313, Thesis. 3 credit hours. 0 enrolled.

RSRC 4033, section 22352, Undergraduate Research. 0 credit hours. 3 enrolled.

BIOL 6398, section 17886, Dissertation. 3 credit hours. 1 enrolled.

BIOL 6399, section 17582, Dissertation. 3 credit hours. 1 enrolled.

BIOL 6390, section 11882, Independent Research. 3 credit hours. 1 enrolled.

BIOL 6690, section 11883, Independent Research. 6 credit hours. 1 enrolled.

BIOL 4388, section 17576, Mammalian Physiology. 3 credit hours. 42 enrolled.

BIOL 5302, section 11875, Resrch Biological Science. 3 credit hours. 0 enrolled.

BIOL 5398, section 17863, Thesis. 3 credit hours. 1 enrolled.

BIOL 1107, section 11354, Topics in Study of Life I. 1 credit hours. 23 enrolled.

RSRC 4033, section 12122, Undergraduate Research. 0 credit hours. 6 enrolled.

HON 4396, section 33156, Honors Senior Thesis. 3 credit hours. 0 enrolled.

BIOL 4388, section 34451, Mammalian Physiology. 3 credit hours. 79 enrolled.

BIOL 4398, section 30356, Special Problems. 3 credit hours. 1 enrolled.

RSRC 4033, section 32828, Undergraduate Research. 0 credit hours. 3 enrolled.

BIOL 6398, section 28004, Dissertation. 3 credit hours. 1 enrolled.

HON 4396, section 21092, Honors Senior Thesis. 3 credit hours. 0 enrolled.

BIOL 6390, section 28056, Independent Research. 3 credit hours. 1 enrolled.

BIOL 4388, section 20787, Mammalian Physiology. 3 credit hours. 198 enrolled.

BIOL 1108, section 23689, Organismal Biology Laboratory. 1 credit hours. 15 enrolled.

BIOL 5302, section 20177, Resrch Biological Science. 3 credit hours. 1 enrolled.

BIOL 4398, section 22441, Special Problems. 3 credit hours. 1 enrolled.

RSRC 4033, section 22570, Undergraduate Research. 0 credit hours. 2 enrolled.

BIOL 4319, section 15990, G Protein-Coupled Recept Biol. 3 credit hours. 15 enrolled.

BIOL 5319, section 15989, G Protein-Coupled Recept Biol. 3 credit hours. 6 enrolled.

BIOL 6319, section 20472, G Protein-Coupled Recept Biol. 3 credit hours. 3 enrolled.

BIOL 6390, section 13376, Independent Research. 3 credit hours. 2 enrolled.

BIOL 6690, section 13388, Independent Research. 6 credit hours. 2 enrolled.

BIOL 5302, section 13353, Resrch Biological Science. 3 credit hours. 1 enrolled.

BIOL 5399, section 13359, Thesis. 3 credit hours. 1 enrolled.

BIOL 1107, section 14209, Topics in Study of Life I. 1 credit hours. 18 enrolled.

RSRC 4033, section 14139, Undergraduate Research. 0 credit hours. 6 enrolled.

BIOL 6399, section 30130, Dissertation. 3 credit hours. 0 enrolled.

BIOL 6399, section 31615, Dissertation. 3 credit hours. 0 enrolled.

BIOL 6399, section 32109, Dissertation. 3 credit hours. 0 enrolled.

HON 4396, section 33449, Honors Senior Thesis. 3 credit hours. 0 enrolled.

BIOL 6190, section 34443, Independent Research. 1 credit hours. 0 enrolled.

BIOL 6190, section 34484, Independent Research. 1 credit hours. 0 enrolled.

BIOL 6190, section 34524, Independent Research. 1 credit hours. 0 enrolled.

BIOL 6390, section 31522, Independent Research. 3 credit hours. 0 enrolled.

BIOL 6390, section 31549, Independent Research. 3 credit hours. 0 enrolled.

BIOL 6390, section 34552, Independent Research. 3 credit hours. 0 enrolled.

BIOL 6490, section 34587, Independent Research. 4 credit hours. 0 enrolled.

BIOL 6490, section 34628, Independent Research. 4 credit hours. 0 enrolled.

BIOL 6490, section 34668, Independent Research. 4 credit hours. 0 enrolled.

BIOL 6590, section 34703, Independent Research. 5 credit hours. 0 enrolled.

BIOL 6590, section 34743, Independent Research. 5 credit hours. 0 enrolled.

BIOL 6590, section 34784, Independent Research. 5 credit hours. 0 enrolled.

BIOL 6690, section 31949, Independent Research. 6 credit hours. 0 enrolled.

BIOL 6690, section 34831, Independent Research. 6 credit hours. 0 enrolled.

BIOL 6690, section 34871, Independent Research. 6 credit hours. 0 enrolled.

BIOL 4388, section 35139, Mammalian Physiology. 3 credit hours. 34 enrolled.

BIOL 5302, section 31310, Resrch Biological Science. 3 credit hours. 0 enrolled.

BIOL 5302, section 31340, Resrch Biological Science. 3 credit hours. 0 enrolled.

BIOL 5302, section 34300, Resrch Biological Science. 3 credit hours. 0 enrolled.

BIOL 5502, section 32012, Resrch in Biological Sciences. 5 credit hours. 0 enrolled.

BIOL 5502, section 32054, Resrch in Biological Sciences. 5 credit hours. 0 enrolled.

BIOL 5502, section 34410, Resrch in Biological Sciences. 5 credit hours. 0 enrolled.

BIOL 4198, section 31158, Special Problems. 1 credit hours. 0 enrolled.

BIOL 4198, section 31182, Special Problems. 1 credit hours. 0 enrolled.

BIOL 4198, section 34200, Special Problems. 1 credit hours. 0 enrolled.

BIOL 4298, section 31225, Special Problems. 2 credit hours. 0 enrolled.

BIOL 4298, section 31258, Special Problems. 2 credit hours. 0 enrolled.

BIOL 4298, section 34221, Special Problems. 2 credit hours. 0 enrolled.

BIOL 4398, section 30430, Special Problems. 3 credit hours. 1 enrolled.

BIOL 4398, section 31287, Special Problems. 3 credit hours. 0 enrolled.

BIOL 4398, section 34245, Special Problems. 3 credit hours. 0 enrolled.

BIOL 5398, section 31383, Thesis. 3 credit hours. 0 enrolled.

BIOL 5398, section 31986, Thesis. 3 credit hours. 0 enrolled.

BIOL 5398, section 34345, Thesis. 3 credit hours. 0 enrolled.

BIOL 5399, section 31457, Thesis. 3 credit hours. 0 enrolled.

BIOL 5399, section 31478, Thesis. 3 credit hours. 0 enrolled.

BIOL 5399, section 34389, Thesis. 3 credit hours. 0 enrolled.

RSRC 4033, section 33014, Undergraduate Research. 0 credit hours. 0 enrolled.

BIOL 6398, section 24478, Dissertation. 3 credit hours. 0 enrolled.

BIOL 6399, section 23208, Dissertation. 3 credit hours. 0 enrolled.

BME 5194, section 25010, Graduate Research. 1 credit hours. 0 enrolled.

BME 5294, section 26295, Graduate Research. 2 credit hours. 0 enrolled.

BME 5394, section 26298, Graduate Research. 3 credit hours. 0 enrolled.

HON 4396, section 21397, Honors Senior Thesis. 3 credit hours. 0 enrolled.

BIOL 5102, section 26222, Independent Research. 1 credit hours. 0 enrolled.

BIOL 5202, section 26259, Independent Research. 2 credit hours. 0 enrolled.

BIOL 6190, section 23185, Independent Research. 1 credit hours. 1 enrolled.

BIOL 6290, section 24444, Independent Research. 2 credit hours. 0 enrolled.

BIOL 6390, section 24453, Independent Research. 3 credit hours. 2 enrolled.

BIOL 6490, section 24464, Independent Research. 4 credit hours. 0 enrolled.

BIOL 6590, section 23220, Independent Research. 5 credit hours. 0 enrolled.

BIOL 6690, section 24471, Independent Research. 6 credit hours. 2 enrolled.

BIOL 1108, section 25243, Organismal Biology Laboratory. 1 credit hours. 12 enrolled.

BIOL 1108, section 29424, Organismal Biology Laboratory. 1 credit hours. 15 enrolled.

BIOL 5302, section 23159, Resrch Biological Science. 3 credit hours. 0 enrolled.

BIOL 5502, section 24434, Resrch in Biological Sciences. 5 credit hours. 0 enrolled.

BIOL 4198, section 23139, Special Problems. 1 credit hours. 0 enrolled.

BIOL 4298, section 23144, Special Problems. 2 credit hours. 1 enrolled.

BIOL 4398, section 23154, Special Problems. 3 credit hours. 0 enrolled.

BIOL 5398, section 24339, Thesis. 3 credit hours. 0 enrolled.

BIOL 5399, section 23175, Thesis. 3 credit hours. 2 enrolled.

BME 5398, section 26301, Thesis. 3 credit hours. 0 enrolled.

BME 5399, section 26304, Thesis. 3 credit hours. 0 enrolled.

BIOL 4395, section 27578, Topics in Biology. 3 credit hours. 13 enrolled.

RSRC 4033, section 23380, Undergraduate Research. 0 credit hours. 6 enrolled.

BIOL 4321, section 15943, Developmental Biology. 3 credit hours. 16 enrolled.

BIOL 6398, section 13366, Dissertation. 3 credit hours. 0 enrolled.

BIOL 6399, section 12873, Dissertation. 3 credit hours. 0 enrolled.

BIOL 5102, section 17164, Independent Research. 1 credit hours. 1 enrolled.

BIOL 5202, section 19962, Independent Research. 2 credit hours. 2 enrolled.

BIOL 6190, section 13358, Independent Research. 1 credit hours. 0 enrolled.

BIOL 6290, section 13363, Independent Research. 2 credit hours. 0 enrolled.

BIOL 6390, section 13365, Independent Research. 3 credit hours. 2 enrolled.

BIOL 6490, section 13370, Independent Research. 4 credit hours. 0 enrolled.

BIOL 6590, section 13375, Independent Research. 5 credit hours. 0 enrolled.

BIOL 6690, section 13377, Independent Research. 6 credit hours. 2 enrolled.

BIOL 5302, section 13342, Resrch Biological Science. 3 credit hours. 0 enrolled.

BIOL 5502, section 13353, Resrch in Biological Sciences. 5 credit hours. 0 enrolled.

BIOL 5302, section 21161, Resrch Biological Science. 3 credit hours. 0 enrolled.

BIOL 5502, section 24723, Resrch in Biological Sciences. 5 credit hours. 0 enrolled.

BIOL 4192, section 23815, Senior Seminar. 1 credit hours. 59 enrolled.

BIOL 4198, section 22945, Special Problems. 1 credit hours. 0 enrolled.

BIOL 4298, section 24640, Special Problems. 2 credit hours. 0 enrolled.

BIOL 4398, section 22190, Special Problems. 3 credit hours. 5 enrolled.

BIOL 5398, section 24708, Thesis. 3 credit hours. 0 enrolled.

BIOL 5399, section 24714, Thesis. 3 credit hours. 0 enrolled.

BIOL 4192, section 17213, Senior Seminar. 1 credit hours. 32 enrolled.

BIOL 4398, section 11157, Special Problems. 3 credit hours. 2 enrolled.

BIOL 1107, section 14684, Topics in Study of Life I. 1 credit hours. 25 enrolled.

BIOL 1107, section 14685, Topics in Study of Life I. 1 credit hours. 23 enrolled.

BIOL 1107, section 14686, Topics in Study of Life I. 1 credit hours. 27 enrolled.

BIOL 1107, section 15041, Topics in Study of Life I. 1 credit hours. 23 enrolled.

BIOL 1107, section 15575, Topics in Study of Life I. 1 credit hours. 23 enrolled.

BIOL 1107, section 15576, Topics in Study of Life I. 1 credit hours. 26 enrolled.

BIOL 1107, section 16174, Topics in Study of Life I. 1 credit hours. 25 enrolled.

BIOL 1107, section 17769, Topics in Study of Life I. 1 credit hours. 23 enrolled.

ZOOL 4380, section 13139, Vertebrate Physiology. 3 credit hours. 108 enrolled.

Directed Student Learning

Dissertation Committee Chair. (August 2023 - Present).

Advised: Michael Brissette

Master's Thesis Committee Chair. (August 24, 2022 - Present).

Advised: Vivian Torres

Dissertation Committee Member. (July 9, 2021 - Present).

Advised: Diana Prospero

Master's Thesis Committee Member. (February 11, 2021 - Present).

Advised: Solmaz Sigaroodi

Dissertation Committee Member. (April 19, 2019 - Present).

Advised: Colin Knight

Master's Thesis Committee Member. (November 29, 2018 - Present).

Advised: Samuel Castillo

Doctoral Advisory Committee Chair. (August 2017 - Present).

Advised: Anahi Sanchez

Doctoral Advisory Committee Chair. (August 2017 - Present).

Advised: Jaisel Cervantes

Master's Thesis Committee Chair. (August 23, 2019 - December 5, 2023).

Advised: Sylvia Ward

Doctoral Advisory Committee Member. (March 2020 - December 1, 2023).
Advised: Owusu Dankwah

Master's Thesis Committee Chair. (August 24, 2020 - August 2023).
Advised: Michael Brissette

Dissertation Committee Member. (April 8, 2016 - April 9, 2023).
Advised: Mireya Ramos

Master's Thesis Committee Chair. (September 1, 2019 - January 30, 2023).
Advised: Angel Torres

Doctoral Advisory Committee Member. (December 1, 2019 - November 11, 2022).
Advised: Adam Vera

Master's Thesis Committee Chair. (August 24, 2018 - May 5, 2022).
Advised: Eduardo Chaib

Doctoral Advisory Committee Member. (September 2019 - May 3, 2022).
Advised: Rosa Perez

Dissertation Defense Committee Member. (January 2016 - April 1, 2021).
Advised: Mireya Ramos

Master's Thesis Committee Chair. (August 2017 - August 1, 2020).
Advised: Zachary Parada

Dissertation Committee Member. (October 1, 2018 - May 26, 2020).
Advised: Daniel Conde

Master's Thesis Committee Member. (September 5, 2018 - May 6, 2020).
Advised: Frederic Ayivor

Dissertation Defense Committee Member. (March 2019 - May 1, 2020).
Advised: Daniel Conde

Master's Thesis Committee Member. (March 4, 2016 - March 2020).
Advised: Natzidielly Lerma

Dissertation Defense Committee Member. (February 3, 2017 - February 18, 2020).
Advised: Ashley Lopez

Dissertation Committee Member. (August 1, 2017 - January 6, 2020).
Advised: Khodeza Begum

Doctoral Advisory Committee Member. (July 16, 2014 - April 2019).
Advised: Paloma Valenzuela

Dissertation Committee Member. (September 1, 2017 - January 2019).
Advised: Juan Carlos Silva

Internship Advisor, "Cloning of Olfactory Receptor 7 Subfamily C1 into pCR2.1." (May 23, 2018 - November 16, 2018).
Advised: Alexia Jauregui

Internship Advisor, "Developing a Bioluminescent T-ALL line for in vivo studies." (May 23, 2018 - August 16, 2018).
Advised: Sharon Joseph

Dissertation Committee Member. (March 28, 2018).
Advised: Ashley Lopez

Postdoctoral Research Supervision, "Defining the role of CCL19 in T cell biology." (August 15, 2016 - August 15, 2017).
Advised: Murilo Bueno

Doctoral Advisory Committee Chair, "Thesis work defining role of low level lead in behavior and learning."
(January 20, 2015 - August 15, 2017).
Advised: Mayra Gisela

Master's Thesis Committee Chair. (August 21, 2016 - August 1, 2017).
Advised: Veronica Suarez

Dissertation Committee Chair, "GRK regulation of CCR7 signaling via two independent ligands." (August 28, 2015 - August 1, 2017).
Advised: Olga Soto

Doctoral Advisory Committee Member, "A Novel Proline-Directed Serine Protein Kinase Regulates Prohibitin 2 Activity and T cell function." (June 19, 2014 - August 1, 2017).
Advised: Elisa Robles

Undergraduate Honors Thesis. (November 1, 2015 - May 15, 2017).
Advised: Velia Martinez

Dissertation Defense Committee Chair. (August 5, 2016 - May 9, 2017).
Advised: Salvador Dominguez

Supervised Teaching Activity. (January 11, 2016 - July 28, 2016).
Advised: Violette Ramirez, Jonathan Beltran, Julian Najera, Stephanie Moreno, Lauryn Torres, Dana Licon, Angelika Broussard, Gabriel Brambila

Undergraduate Honors Thesis, "Honors undergraduate thesis." (August 28, 2015 - May 15, 2016).
Advised: Cynthia Reyes

Master's Thesis Committee Member, "Examination of the Role of low level lead in Learning and Behavior."
(November 10, 2015 - December 7, 2015).
Advised: Miguel Cervantes, Mayra Gisela

Master's Thesis Committee Member. (January 1, 2014 - August 1, 2015).
Advised: Stephanie Moreno

Non-Credit Instruction Taught

Continuing Education, NIH, 10 participants. (August 20, 2017 - Present).

Seminar, 8 participants. (August 29, 2016 - Present).

Guest Lecture, 10 participants. (February 29, 2016 - Present).

Review Course, Student Government_Immunology Review, 10 participants. (October 5, 2015 - Present).

Interprofessional Practice and Education, BUILD- NIH, 200 participants. (May 6, 2023).

Workshop, American Association of Immunology, 12 participants. (May 4, 2023).

Guest Lecture, UTEP-RISE PROGRAM, 15 participants. (February 7, 2023 - February 9, 2023).

Workshop, American Association of Immunologists, 500 participants. (May 6, 2018).

COURI Poster Judge, 300 participants. (April 21, 2018).

Poster Judging, Texas Tech University School of Medicine, 5 participants. (April 4, 2018).

Continuing Education, Procotored MCAT-Medical Professions Organization, 100 participants. (November 11, 2017).

Poster Judge, EXPO, 200 participants. (November 9, 2017).

Tutoring, SARP Symposium, 50 participants. (October 25, 2017).

Tutoring, The University of Texas Louis Stokes Alliance for Minority Participation, 100 participants. (September 8, 2017).

Tutoring, Medical Professions Organization, 35 participants. (August 13, 2017 - August 18, 2017).

COURI Judge, COURI, 1000 participants. (April 29, 2017).

Workshop, NSF, 8 participants. (January 9, 2016 - July 29, 2016).

Review Course, 15 participants. (January 28, 2015 - May 5, 2015).

Faculty Development Activities Attended

Workshop, "JSU RCMI-CHDR 2023 Fall Bioinformatics Workshop on RNA-Seq," RCMI, El Paso, TX, United States. (October 20, 2023).

Continuing Professional Education, "Embracing ChatGPT: ChatGPT strategies to support student learning," UTEP. (August 9, 2023).

Self-Study Program, "Teaching Hybrid Academy," UTEP, El Paso, TX, United States. (April 22, 2023).

Conference Attendance, "American Society of Cell Biology/European Molecular Biology Organization," American Society of Cell Biology/European Molecular Biology Organization, Washington DC, United States. (December 3, 2022 - December 7, 2022).

Continuing Professional Education, "U-RISE G-RISE Mentoring Workshop," El Paso, Texas, United States. (August 18, 2022).

Conference Attendance, "Chemotactic Cytokines Gordon Research Conference," Gordon Research Conference, Les Diablalets, Switzerland. (June 12, 2022 - June 17, 2022).

Conference Attendance, "American Association of Immunologists," American Association of Immunologists, Portland, OR, US. (May 6, 2022 - May 10, 2022).

Conference Attendance, "American Association of Cancer Research Annual Meeting," American Association of Cancer Research, New Orleans, LA, United States. (April 8, 2022 - April 13, 2022).

Continuing Professional Education, "NRMN," National Research Mentoring Network, Fort Worth, TX, United States. (January 20, 2022).

Workshop, "DEI Workshop," UTEP, El Paso, TX, USA. (January 2021 - April 2021).

Workshop, "CORE LEADERSHIP," UTEP, El Paso, TX, United States. (May 26, 2020 - 2020).

Workshop, "Retention," Center for Faculty Leadership and Development, El Paso, TX, United States. (February 4, 2020 - 2020).

Workshop, "Teaching with videos," The University of Texas at El Paso, El Paso, TX, United States. (February 11, 2020 - 2020).

Conference Attendance, "Annual Meeting of the American Society of Cell Biology," American Society of Cell Biology, Online, TX, United States. (December 2, 2020 - December 16, 2020).

Self-Study Program, "Teaching Online Academy," UTEP, El Paso, TX, USA. (May 2, 2020 - May 29, 2020).

Conference Attendance, "Autumn Immunology Spring Conference," El Paso, TX, United States. (January 10, 2020 - January 12, 2020).

Continuing Professional Education, "Transform Teaching and Learning with Blackboard Learn," 1961, El Paso, TX, United States. (January 6, 2020 - January 10, 2020).

Conference Attendance, "Autumn Immunology Conference," Chicago, IL, USA. (November 16, 2018 - November 19, 2018).

Conference Attendance, "Chemotactic Cytokines," Gordon Research Conference, Maine, USA. (June 1, 2018 - June 8, 2018).

Conference Attendance, "American Association of Immunologists," Austin, TX, USA. (May 4, 2018 - May 8, 2018).

Workshop, "Mentoring Matters," UTEP EDGE, El Paso, TX, USA. (February 8, 2018).

Workshop, "Performance Evaluation Training," UTEP-Edge, El Paso, TX, USA. (January 10, 2018).

Workshop, "Hospice Orientation with the A PRIME Students," El Paso Hospice, El Paso, TX, USA. (January 8, 2016 - January 8, 2018).

Continuing Professional Education, "Neuroinflammation: Causes, Concepts and Consequences," Keystone Symposia, El Paso, TX, USA. (December 12, 2017).

Conference Attendance, "American Society for Cell Biology/European Molecular Biology Organization Annual Meeting," American Society for Cell Biology, Philadelphia, PA, USA. (December 2, 2017 - December 4, 2017).

Conference Attendance, "SCORE Investigator's Conference," NIH, Bethesda, MD, United States. (November 30, 2017 - December 1, 2017).

Workshop, "ACSScellence Research2Innovation Orientation," NSF, El Paso, TX, USA. (October 13, 2017 - December 1, 2017).

Conference Attendance, "Research Centers for Minority Institutions," NIH, Washington, DC, United States. (October 27, 2017 - November 1, 2017).

Continuing Professional Education, "I-CORPS Regional Program," NSF, El Paso, TX, 79968. (August 8, 2017 - August 25, 2017).

Tutorial, "Commercialization Presentation," UTEP, El Paso, TX, USA. (June 29, 2017).

Workshop, "Regional CPRIT Grant Strategy," MCA Cardwell Collaborative, El Paso, TX, USA. (June 16, 2017).

Workshop, "Entrepreneurship and Business Mentoring workshop," UT MD Anderson Office of Career & Entrepreneurship Advancement, El Paso, TX, USA. (June 14, 2017).

Workshop, "Entrepreneurship Presentation -," CTX Equity Startup Partners, El Paso, TX, United States. (June 13, 2017).

Conference Attendance, "American Association of Immunology," American Association of Immunology, Washington, DC, USA. (May 11, 2017 - May 16, 2017).

Continuing Professional Education, "Spanish Level II for Faculty and Professional Students," El Paso, TX, USA. (February 7, 2017 - April 15, 2017).

Workshop, "BUILD Training for RDCs," NIH, El Paso, TX, USA. (2016).

Conference Attendance, "SBIR Conference," ORSP, El Paso, TX, USA. (September 15, 2016).

Conference Attendance, "Chemotactic Cytokines," Gordon Research Conference, Girona, Catalonia, Spain. (May 29, 2016 - June 3, 2016).

Conference Attendance, "American Association of Immunology," American Association of Immunology, Seattle, Washington, USA. (May 13, 2016 - May 17, 2016).

Workshop, "Master Mentoring Workshop Facilitated by Dr Harlan Jones with the NRMN," El Paso Sun Conference, El Paso, TX. (March 18, 2016).

Conference Attendance, "Innovations Conference," University of Texas Systems, Austin, TX, USA. (February 18, 2016 - February 19, 2016).

Conference Attendance, "American Society of Cell Biology Annual meeting," American Society of Cell Biology, San Diego, CA, USA. (December 12, 2015 - December 16, 2015).

Conference Attendance, "Autumn Immunology conference," Autumn Immunology, Chicago, IL, United States. (November 20, 2015 - November 23, 2015).

Conference Attendance, "TIME academy Semi-annual Meeting," TIME-Academy Organizational meeting, Austin, TX, United States. (September 20, 2015 - September 22, 2015).

Conference Attendance, "American Association of Immunology," AAI, New Orleans, LA, United States. (May 8, 2015 - May 12, 2015).

Conference Attendance, "Innovations Conference," The University of Texas system, Austin, TX, United States. (February 19, 2015 - February 20, 2015).

Conference Attendance, "TAMEST," The Academy of Medicine Engineering and Sciences of Texas, Houston, Tx, US. (January 22, 2015 - January 23, 2015).

Conference Attendance, "Autumn Immunology conference," Autumn Immunology, Chicago, IL, United States. (November 19, 2014 - November 22, 2014).

Workshop, "Faculty Grant writing Workshop," NIH-NIGMS, Lexington, KY, USA. (May 12, 2014 - May 14, 2014).

Conference Attendance, "2014 Sun Conference on Teaching and Learning Celebrating Teaching and Learning," UTEP, El Paso, TX, USA. (March 5, 2014 - March 7, 2014).

University Service

Committee Member, Institutional Biosafety Committee. (January 20, 2023 - Present).

Committee Member, Graduate Curriculum Committee. (October 24, 2022 - Present).

Committee Member, Standing Panel (UTEP). (April 22, 2021 - Present).

Member, Black Affinity Group. (June 2020 - Present).

Attendee, Meeting, Residence Life Gala. (February 16, 2017 - Present).

Faculty Advisor, Medical Professions Organization. (October 10, 2016 - Present).

Attendee, Graduation, Graduation. (May 15, 2014 - Present).

Committee Member, CPRIT Cancer Research Committee Meeting. (December 1, 2023 - December 31, 2023).

Committee Member, Attending Veterinarian Search. (November 10, 2023 - December 31, 2023).

Committee Member, SEA Change (AAAS). (October 23, 2023 - December 31, 2023).

Attendee, Meeting, Interdisciplinary Colloquium Series. (September 12, 2023 - December 31, 2023).

Grant Proposal Reviewer, Internal, Weekly Grant Review Committee (College of Science). (January 2018 - May 2023).

Faculty Mentor, BUILDING SCHOLARS Welcome and Orientation Ceremony. (May 5, 2023).

Faculty Mentor, VizInC competition. (April 28, 2023).

Committee Member, Woman's Advisory Council. (November 2020 - August 2022).

Committee Chair, University Research Institute Committee. (September 1, 2020 - August 31, 2022).

Committee Member, Faculty Search Committee - School of Pharmacy _ UTEP. (December 2021 - May 2022).

Committee Member, Faculty Search Committee - Bioinformatics. (January 1, 2022 - April 1, 2022).

Attendee, Convocation, Graduation Attendee. (May 12, 2018).

Committee Member, Medical Professions Institute Director Search. (January 1, 2017 - March 2018).

Committee Member, Medical Professions Institute Director Search. (January 8, 2018 - January 12, 2018).

Committee Member, Faculty Senate. (September 1, 2015 - August 1, 2017).

Faculty Mentor, Professional Identity Formation Direct. (August 1, 2015 - August 1, 2017).

Faculty Mentor, A PRIME TIME. (May 1, 2014 - April 2017).

Attendee, Award Ceremony, Top Ten Seniors Banquet. (April 25, 2017).

Faculty Advisor, EXPO Committee. (August 20, 2016 - November 11, 2016).

Poster Judge, Louis Stokes Alliance for Minority Participation. (September 16, 2016).

Professional Service

Chair, Symposia, American Association of Immunologists Programming Chair, Chicago, IL. (December 8, 2023 - Present).

Editorial Review Board Member, Frontiers In Immunological Research, El Paso, TX. (August 23, 2016 - Present).

Editorial Review Board Member, Vaccination Research, Fairfax, VA. (January 5, 2016 - Present).

Reviewer, Journal Article, Rheumatology Journal. (May 11, 2015 - Present).

Reviewer, Manuscript, Oncotarget. (May 2015 - Present).

Reviewer, Manuscript, Journal of Pharmacy and Pharmacology. (March 2015 - Present).

Reviewer, Grant Proposal, National Institutes of Health, Bethesda, Maryland. (October 25, 2023 - October 27, 2023).

Reviewer, Research Proposal, National Science Foundation. (October 10, 2023 - October 13, 2023).

Reviewer, Grant Proposal, National Institutes of Health. (June 22, 2023).

Committee Member, American Association of Immunologists, Washington DC, District of Columbia. (May 4, 2023 - May 10, 2023).

Chair, Symposia, American Association of Immunologists, Washington DC, District of Columbia. (January 10, 2023 - May 10, 2023).

Reviewer, Research Proposal, National Science Foundation. (April 26, 2023 - April 28, 2023).

Reviewer, Research Proposal, National Science Foundation. (April 12, 2023 - April 14, 2023).

Reviewer, Research Proposal, National Institutes of Health. (November 2, 2022 - November 4, 2022).

Reviewer, Research Proposal, National Science Foundation. (September 21, 2022 - September 23, 2022).

Reviewer, Grant Proposal, National Institutes of Health. (July 14, 2022 - July 15, 2022).

Committee Member, Faculty search committee- University of Texas San Antonio, San Antonio, Texas. (December 2021 - April 2022).

Officer, Treasurer, Autumn Immunology Conference, Chicago, IL. (January 1, 2017 - April 2022).

Reviewer, Research Proposal, National Science Foundation. (September 28, 2020 - September 30, 2020).

Committee Member, NSF, Arlington, VA. (October 2019 - January 22, 2020).

Reviewer, Research Proposal, NSF, El Paso, TX. (December 2018 - January 2019).

Committee Member, American Association of Immunology Minorities Affairs Committee, Washington, DC. (January 1, 2015 - August 31, 2018).

Reviewer, Grant Proposal, National Science Foundation-Virtual Panel, El Paso, Texas. (January 8, 2018 - March 28, 2018).

Undergraduate Program Coordinator, Autumn Immunology Conference, Chicago, IL. (January 13, 2017 - December 14, 2017).

Reviewer, Grant Proposal, The Ohio State University Grant Committee, El Paso, TX. (April 22, 2017 - May 20, 2017).

Reviewer, Grant Proposal, National Science Foundation, Bethesda, MD. (March 29, 2016 - March 31, 2016).

Reviewer, Book, New York, New York. (December 1, 2014 - December 8, 2014).

Discussant, Conference, Autumn Immunology Conference, Chicago, IL. (November 27, 2014 - November 29, 2014).

Public Service

Committee Member, Project MOVE, El Paso, TX. (February 24, 2018).

Chapin High school Science Day, El Paso, Texas. (May 5, 2016).

Science Fair Judge, Sun County Science Fair Judge, El Paso, TX. (February 22, 2014).

Science Fair Judge, El Paso Independent School District, El Paso, TX. (February 1, 2014).