

CURRICULUM VITAE

Floyd L. Wormley Jr., Ph.D.

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ACADEMIC TRAINING:

- 2002-2005 **Doctoral Fellowship**, Infectious Diseases
Duke University Medical Center, Durham, NC
Interdisciplinary Research Training Program in AIDS
Program in Microbial Pathogenesis of *Cryptococcus neoformans*
Research Project: Study of host-pathogen interactions during *Cryptococcus neoformans* infection.
Fellowship Advisor: John R. Perfect, M.D.
- 1998-2001 **Doctor of Philosophy**, Microbiology/Immunology
Louisiana State University Health Sciences Center, New Orleans, LA
Dissertation Title: Cell Mediated Immunity Against Experimental
Candida albicans Vaginitis.
Dissertation Advisor: Paul L. Fidel Jr., Ph.D.
- 1995-1998 **Master of Science**, Microbiology/Immunology
Louisiana State University Health Sciences Center, New Orleans, LA
Thesis Title: Evidence for a Unique CD4 Protein on Murine Vaginal CD4⁺ T
Cells.
Thesis Advisor: Paul L. Fidel Jr., Ph.D.
- 1990-1995 **Bachelor of Science**, Cellular and Molecular Biology
Tulane University, New Orleans, LA.

EMPLOYMENT:

2019-Present Associate Provost for Research and Dean of Graduate Studies, Texas Christian University, Fort Worth, TX

Role and Responsibility – Promote the advancement of research within the institution and administer key compliance programs through which we promote the responsible conduct of research and integrity. I oversee all research policies and procedures, institutional research compliance committees, and research technology and innovation. I also oversee services and programs for those who seek financial support for their scholarly endeavors from inception of idea through submission and award of research/scholarly project. I coordinate university wide activities aimed at the awarding of financial aid and improving graduate student recruitment, selection, development, retention, and degree attainment.

2018-2019 Interim Chair, Department of Physics & Astronomy, The University of Texas at San Antonio, San Antonio, TX

Role and Responsibility – Chief administrator for the Department of Physics & Astronomy (P&A). Responsible for P&A undergraduate and graduate student success, P&A faculty recruitment, promotion and tenure, promoting research excellence within P&A, etc.

2014-2019 Associate Dean for Research and Graduate Studies, College of Sciences, The University of Texas at San Antonio, San Antonio, TX

Role and Responsibility - Promote the advancement of research in the college and lead efforts that assure services integral to advancing our college's research are coordinated and aligned with the current and emerging research growth aims of the COS. Direct oversight of processes affecting research performance and growth to align practices with the strategic initiatives of the COS and University for efforts undertaken by our faculty including faculty development, development of research service core assets, and the development and growth of diverse research programs. Coordinate college wide activities aimed at improving graduate student recruitment, selection, development, retention, and degree attainment with a particular emphasis on doctoral student preparation. Direct oversight of processes affecting graduate student degree programs from entry to completion and engaging in those activities requiring review and coordination through COS.

2014-2019 Associate Program Director, UTSA Research Centers in Minority Institutions (RCMI) Program

Role and Responsibility - Oversee research programming and outreach activities within RCMI Program.

2013-2014 Associate Dean for Research, College of Sciences, The University of Texas at San Antonio, San Antonio, TX

Role and Responsibility - Promote the advancement of research in the college and lead efforts that assure services integral to advancing our college's research are coordinated and aligned with the current and emerging research growth aims of the COS. Direct oversight of processes affecting research performance and growth to align practices with the strategic initiatives of the COS and University for efforts undertaken by our faculty including faculty development, development of research service core assets, and the development and growth of diverse research programs.

- 2015-2019 Professor, Department of Biology, The University of Texas at San Antonio, San Antonio, TX
- 2010-2016 Associate Director, South Texas Center for Emerging Infectious Diseases (STCEID)
- Role and Responsibility - Promote ongoing research and educational collaborations within Center. Oversee fiscal management and outreach activities within center.*
- 2010-2015 Associate Professor (with tenure), Department of Biology, The University of Texas at San Antonio, San Antonio, TX
- 2005-2010 Assistant Professor, Department of Biology, The University of Texas at San Antonio, San Antonio, TX
- 2002-2005 Postdoctoral Research Fellow, Department of Medicine/Division of Infectious Diseases, Duke University Medical Center, Durham, NC.
- 1998 Instructor, Department of Biology, Xavier University, New Orleans, LA.
- 1996-2001 Graduate Research Associate, Department of Microbiology, Immunology, and Parasitology, Louisiana State University Health Sciences Center, New Orleans, LA.

HONORS AND FELLOWSHIPS:

- 2019 Fellow, American Association for the Advancement of Sciences (AAAS)
- 2017 Fulbright Scholar, Fulbright International Education Administrators Program in France
- 2016 Fellow, American Academy of Microbiology, American Society for Microbiology (ASM)
- 2016 UTSA Microsoft President's Endowed Professor
- 2012-2014 American Society for Microbiology Branch Lecturer
- 2014-2016 President: The Honor Society of Phi Kappa Phi; UTSA Chapter
- 2012-2013 President-Elect: The Honor Society of Phi Kappa Phi; UTSA Chapter
- 2010-2011 President: Medical Mycological Society of the Americas
- 2009-2010 President-Elect: Medical Mycological Society of the Americas
- 2007 Microbiology Hidden Jewels Top 10 - Protection Against Cryptococcosis using a Murine Interferon-gamma Producing *Cryptococcus neoformans* Strain. Wormley FL, Perfect JR, Steele C, Cox GM Infection and Immunity 75(3)
- 2002-2005 Postdoctoral Research Fellowship, AIDS Interdisciplinary Institutional Research Training Grant (T32), Department of Medicine, Division of Infectious Diseases, Duke University Medical Center, Durham, NC
- 2002 NIH Loan Repayment Program for Clinical Research

- 2002 Chancellor's Superior Graduate Student Award, LSU Health Sciences Center, New Orleans, LA
- 2000 Who's Who Among Students In American Universities & Colleges
- 1997-2000 NIH Minority Supplement for Underrepresented Minorities Grant

BIBLIOGRAPHY:

Journal Articles

1. JE Leigh, C Steele, **FL Wormley Jr.**, W Luo, RA Clark, W Gallaher, PL Fidel Jr. (1998). Th1/Th2 cytokine expression in saliva of HIV-positive and HIV-negative individuals: a pilot study in HIV-positive individuals with oropharyngeal candidiasis. *J Acquir Immune Defic Syndr Hum Retrovirol.* 19(4):373-80.
2. **FL Wormley Jr.**, M Scott, W Luo, M Baker, J Chabain, and PL Fidel, Jr. (2000) Evidence for a unique CD4 protein on murine vaginal CD4⁺ T cells. *Immunology.* 100: 300-308.
3. KA Kelly, HL Gray, JC Walker, RG Rank, **FL Wormley Jr.**, and PL Fidel Jr. (2001) *Chlamydia trachomatis* infection does not enhance local cellular immunity against concurrent *Candida* vaginal infection. *Infection and Immunity.* 69(5): 3451-3454.
4. **FL Wormley Jr.**, C Steele, K Wozniak, K Fujihashi, JR McGhee, and PL Fidel Jr. (2001) Resistance of TCR δ chain deficient mice to experimental *Candida* vaginitis. *Infection and Immunity.* 69(11): 7162-7164.
5. **FL Wormley Jr.**, J. Chaiban, and P.L. Fidel Jr. (2001) Cell adhesion molecule and lymphocyte activation marker expression during experimental vaginal candidiasis. *Infection and Immunity.* 69(8): 5072-5079.
6. PL Fidel Jr., **FL Wormley Jr.**, J Chaiban, RR Chesson, and V Lounev. (2001) Analysis of the CD4 protein on human vaginal T lymphocytes. *American Journal of Reproductive Immunology.* 45: 200-204.
7. L Cárdenas-Freytag, C Steele, **FL Wormley Jr.**, E Cheng, JD Clements, PL Fidel Jr. (2002) Partial protection against experimental vaginal candidiasis after mucosal vaccination with heat-killed *Candida albicans* and the mucosal adjuvant LT(R192G). *Med Mycol.* 40(3):291-9.
8. KL Wozniak, **FL Wormley Jr.**, PL Fidel. (2002) *Candida*-specific antibodies during experimental vaginal candidiasis in mice. *Infection and Immunity.* 70(10): 5790-5799.
9. JE Leigh, C Steele, **FL Wormley Jr.**, PL Fidel Jr. (2002) Salivary cytokine profiles in the immunocompetent individual with *Candida*-associated denture stomatitis. *Oral Microbiol Immunol.* 17(5):311-4.
10. **FL Wormley Jr.**, J Cutright, and PL Fidel Jr. (2003) Multiple experimental designs to evaluate the role of T-cell-mediated immunity against experimental vaginal *Candida albicans* infection. *Med Mycol.* 41(5): 401-9.
11. JR Blankenship, **FL Wormley Jr.**, MK Boyce, WA Schell, SG Filler, JR Perfect, J. Heitman. (2003) Calcineurin is essential for *Candida albicans* survival in serum and virulence. *Eukaryotic Cell.* 2(3): 422-30.

12. C Onyewu, **FL Wormley, Jr.**, JR Perfect, and J. Heitman. (2004) Calcineurin target Crz1 functions in azole-tolerance but is not required for virulence of *Candida albicans*. *Infection and Immunity*. 72(12): 7330-7333.
13. **FL Wormley, Jr.**, GM Cox, and JR Perfect. (2005) Evaluation of host immune responses to pulmonary cryptococcosis using a temperature-sensitive *C. neoformans* Calcineurin A mutant strain. *Microbial Pathogenesis*. 38: 113-123.
14. **FL Wormley, Jr.**, G Heinrich, JL Miller, JR Perfect, and GM Cox. (2005) Identification and characterization of an *SKN7* homologue in *Cryptococcus neoformans*. *Infection and Immunity*. 73(8).
15. **FL Wormley, Jr.**, JR Perfect, C Steele, and GM Cox. (2007) Protection against cryptococcosis using a murine Interferon-gamma-producing *Cryptococcus neoformans* strain. *Infection and Immunity*. 75(3): 1453-62.
16. CG Pierce, P Uppuluri, AR Tristan, **FL Wormley Jr.**, E Mowat, G Ramage, JL López-Ribot. (2008) A simple and reproducible 96 well plate-based method for the formation of fungal biofilms and its application to antifungal susceptibility testing. *Nature Protocols*. 3:1494-1500.
17. S Ravi, C Pierce, C Witt, and **FL Wormley Jr.** (2009). Biofilm formation by *Cryptococcus neoformans* under distinct environmental conditions. *Mycopathologia*. (6): 307-14.
18. M Young, S Macias, D Thomas, **FL Wormley, Jr.** (2009). A proteomic-based approach for the identification of immunodominant *Cryptococcus neoformans* proteins. *Proteomics*. 9(9):2578-88.
19. K Wozniak, S Macias, S Ravi, ML Young, MA Olszewski C Steele, and **FL Wormley Jr.** (2009) Insights into the mechanisms of protective immunity against *Cryptococcus neoformans* infection using a mouse model of pulmonary cryptococcosis. *PLOS One*. 4(9): e6854.
20. SE Hardison, S. Ravi, KL Wozniak ML Young, MA Olszewski, **FL Wormley Jr.** (2010) Pulmonary infection with an interferon-gamma-producing *Cryptococcus neoformans* strain results in classical macrophage activation and protection. *American Journal of Pathology*. 176(2):774-85.
21. SE Hardison, KL Wozniak, JK Kolls, **FL Wormley Jr.** (2010) IL-17 is not required for classical macrophage activation in a pulmonary mouse model of *Cryptococcus neoformans* infection. *Infection and Immunity*. 78(12):5341-51.
22. K Wozniak, S Hardison, JK Kolls, **FL Wormley Jr.** (2011) Role of IL-17A on resolution of pulmonary *C. neoformans* infection. *PLOS One*. 6(2): e17204.
23. K Wozniak, M Young, **FL Wormley, Jr.** (2011) Protective immunity against experimental pulmonary cryptococcosis in T cell depleted mice. *Clinical and Vaccine Immunology*. 18(5):717-23.
24. AK Chaturvedi, AL Lazzell, SP Saville, **FL Wormley Jr.**, C Monteagudo, JL Lopez-Ribot. (2011) Validation of the tetracycline regulatable gene expression system for the study of the pathogenesis of infectious disease. *PLOS One*. 6(5):e20449.

25. CJ Walraven, SA Lee, SE Hardison, **FL Wormley Jr.**, SR Lockhart, JR Harris, A Fothergill, B Wickes, J Gober-Wilcox, L Massie, TS Ni Ku, C Firactive, W Meyer, W Gerstein. (2011) Fatal disseminated *Cryptococcus gattii* infection in New Mexico. *PLOS One*. 6(12): e28625.
26. SE Hardison, G Herrera, M L Young, C Hole, KL Wozniak, and **FL Wormley Jr.** (2012) Protective immunity against pulmonary cryptococcosis is associated with STAT1 mediated classical macrophage activation. *Journal of Immunology*. 189(8):4060-8.
Author's Choice Article
27. J Yano, JK Kolls, KI Happel, **FL Wormley Jr.**, KL Wozniak, PL Fidel. (2012) The acute neutrophil response mediated by S100 alarmins during vaginal *Candida* infections is independent of the Th17-pathway. *PLOS One*. 7(9): e46311
28. C Hole, H Bui, SM Levitz, **FL Wormley Jr.**, and KL Wozniak. (2012) Mechanisms of Dendritic cell Lysosomal Killing of *Cryptococcus*. *Scientific Reports*. 2:739
29. K Wozniak, JK. Kolls, **FL Wormley, Jr.** (2012) Depletion of neutrophils in a protective model of pulmonary cryptococcosis results in increased IL-17A production by gamma/delta T cells. *BMC Immunology*; 13:65. **Highly Accessed Article**
30. AK Chaturvedi, ST Weintraub JL Lopez-Ribot, **FL Wormley Jr.** (2013) Identification and characterization of *Cryptococcus neoformans* protein fractions that induce protective immune responses. *Proteomics*. Dec; 13 (23-24):3429-41.
31. KL Wozniak, CR Hole, J Yano, PL Fidel, Jr., and **FL Wormley Jr.** (2014) Characterization of IL-22 and Antimicrobial Peptides in Mice Protected Against Pulmonary *Cryptococcus neoformans* Infection. *Microbiology*. 160(Pt 7):1440-52.
32. M Feretzaki, SE Hardison, **FL Wormley Jr.** and J Heitman. (2014) *Cryptococcus neoformans* hyperfilamentous strain is hypervirulent in a murine model of cryptococcal meningoencephalitis. *PLOS One*. 9(8): e104432.
33. AK Chaturvedi, RS Hameed, KL Wozniak, CR Hole, CM Leopold-Wager, ST Weintraub, JL Lopez-Ribot and **FL Wormley Jr.** (2014) Vaccine-mediated immune responses to experimental pulmonary *Cryptococcus gattii* infection in mice. *PLOS One*. 9(8): e104316.
34. CM Leopold Wager, CR Hole, KL Wozniak, MA Olszewski, **FL Wormley Jr.** (2014) STAT1 signaling is essential for protection against *Cryptococcus neoformans* infection in mice. *Journal of Immunology*. 193(8):4060-71.
35. HS Rane, S Hardison, C Botelho, SM Bernardo, **FL Wormley Jr.**, and SA Lee. (2014) Pre-vacuolar secretion contributes to differing aspects of epithelial and mucosal pathogenesis in *Candida albicans*. *Virulence*. 17; 5(8):810-8.
36. AJ Eastman, X He, Y Qiu, MJ Davis, P Vedula, DM Lyons, Y-D Park, SE Hardison, A Malachowski, **FL Wormley Jr.**, PR Williamson, MA Olszewski. (2015) Cryptococcal HSP70 homologue Ssa1 contributes to pulmonary expansion of *C. neoformans* during afferent phase of the immune response by promoting macrophage M2 polarization. *Journal of Immunology*. 194(12):5999-6010.

37. CM Leopold Wager, CR Hole, KL Wozniak, MA Olszewski, M Mueller, **FL Wormley Jr.** (2015) STAT1 signaling within macrophages is required for anti-fungal activity against *Cryptococcus neoformans*. *Infection and Immunity*. Dec;83(12):4513-27
38. B Zhai, KL Wozniak, JMS Upadhyay, C Hole, A Rivera, **FL Wormley Jr.**, and X Lin. (2015) The development of protective inflammation and cell-mediated immunity against *Cryptococcus neoformans* after exposure to hyphal mutants. *MBio*. Oct 6; 6(5). pii: e01433-15. (Co-Senior Author)
39. TA Van Laar, C Hole, SL Rajasekhar Karna, CL Miller, R Reddick, **FL Wormley Jr.**, J Seshu. (2016) Statins reduce spirochetal burden and modulate immune responses in the C3H/HeN mouse model of Lyme disease. *Microbes Infect*. Jun; 18(6):430-5.
40. CR Hole, CM Leopold Wager, AS Mendiola, KL Wozniak, A Campuzano, X Lin, **FL Wormley Jr.** (2016) Antifungal activity of plasmacytoid dendritic cells against *Cryptococcus neoformans in vitro* requires expression of Dectin-3 (CLEC4D) and reactive oxygen species. *Infection and Immunity*. Sep; 84(9):2493-504.
41. A Campuzano, N Castro-Lopez, KL Wozniak, CM Leopold Wager, FL Wormley Jr. (2017) Dectin-3 is not required for protectin against *Cryptococcus neoformans* infection. *PLOS One*. 2017 Jan 20; 12(1): e0169347.
42. K Ost, S Esher, C Leopold Wager, L Walker, J Wagener, C Munro, **FL Wormley Jr.** and JA Alspaugh (2017) Rim pathway-mediated alterations in the fungal cell wall influence immune recognition and inflammation. *mBio*. Jan 31;8(1). pii: e02290-16.
43. NP Wiederhold, TF Patterson, A Srinivasan, AK Chaturvedi, AW Fothergill, **FL Wormley Jr.**, AK Ramasubramanian, JL Lopez-Ribot. (2017) Repurposing aurano-fin as an antifungal: In vitro activity against a variety of medically important fungi. *Virulence*. Feb 17; 8(2):138-142.
44. MC Caballero Van Dyke, AK Chaturvedi, SE Hardison, CM Leopold Wager, N Castro-Lopez, C Hole, KL Wozniak, **FL Wormley Jr.** (2017) Induction of Broad-Spectrum Protective Immunity against Disparate *Cryptococcus* Serotypes. *Frontiers in Immunology*. Oct 30; 8:1359.
45. SK Esher, KS Ost, MA Kohlbrenner, KM Pianalto, CL Telzrow, A Campuzano, CB Nichols, C Munro, **FL Wormley Jr.**, JA Alspaugh. (2018) Defects in intracellular trafficking of fungal cell wall synthases lead to aberrant host immune recognition. *PLOS Pathogens*. Jun 4; 14(6): e1007126.
46. G Wall, AK Chaturvedi, FL Wormley Jr., NP Wiederhold, HP Patterson, JL Lopez-Ribot. (2018) Screening a repurposing library for inhibitors of multi-drug resistant *Candida auris* identifies ebselen as a repositionable candidate for antifungal drug development. *Antimicrobial Agents Chemotherapy*. Aug 13. pii: AAC.01084-18.
47. CM Leopold Wager, CR Hole, A Campuzano, N. Castro-Lopez, KL Wozniak, H. Cai, Y Wang, **FL Wormley Jr.** (2018) IFN- γ Immune Priming of Macrophages *in vivo* Induces Prolonged STAT1 Binding and Protection against *Cryptococcus neoformans*. *PLOS Pathogens*. Oct 10; 14(10): e1007358.
48. CR Hole, CM Leopold Wager, A Campuzano, N. Castro-Lopez, H. Cai, KL Wozniak, Y Wang, **FL Wormley Jr.** (2019) Induction of Memory-like Dendritic Cell Responses *in vivo*. *Nature Communications*. Jul 4;10(1):2955.

49. TE Guess, J Rosen, N Castro-Lopez, **FL Wormley Jr.**, EE McClelland., (2019) An Inherent T cell Deficit in Healthy Males to *C. neoformans* Infection may begin to Explain the Sex Susceptibility in Incidence of Cryptococcosis. *Biol Sex Differ.* Sep 2;10(1):44.
50. CL Telzrow, CB Nichols, N Castro-Lopez, **FL Wormley Jr.**, JA Alspaugh., (2019) A Fungal Arrestin Protein Contributes to Cell Cycle Progression and Pathogenesis. *mBio.* Nov 19;10(6). pii: e02682-19.
51. A Campuzano, N Castro-Lopez, AJ Martinez, MA Olszewski, A Ganguly, C Leopold Wager, CY Hung, **FL Wormley Jr.**, (2020) CARD9 Is Required for Classical Macrophage Activation and the Induction of Protective Immunity against Pulmonary Cryptococcosis. *mBio.* Jan 7;11(1)

Book Chapters and Review Articles (Peer Reviewed)

1. **FL Wormley Jr.** and JR Perfect. (2005) Immunology of infection owing to *Cryptococcus neoformans*, in *Antifungal Agents: Methods and Protocols* (E.J. Ernst and P.D. Rogers, eds.), Humana, Totowa, NJ.
2. KL Williams, **FL Wormley Jr.**, S Guenes-Boyer, JR Wright, GB Huffnagle. (2010). "Pulmonary innate and adaptive defenses against *Cryptococcus*" in *Cryptococcus: from human pathogen to model yeast* (J. Heitman, T.Kozel, J. Kwon-Chung, J. Perfect, and A. Casadevall, eds.), ASM Press, Washington D.C.
3. **FL Wormley Jr.** (2011) Immune based approaches and vaccine strategies for the management of cryptococcal disease. *The Journal of Invasive Fungal Infections* 5(3): 65-72.
4. KL Wozniak, S Hardison, M Olszewski, and **FL Wormley Jr.** (2011) Induction of protective immunity against cryptococcosis. *Mycopathologia* 173(5-6):387-94.
5. KL Wozniak, M Olszewski, and **FL Wormley Jr.** (2012) "Host immune responses against pulmonary fungal pathogens" in *Pulmonary Infection* (Amal Amer editor), InTech Open Access.
6. C Steele and **FL Wormley Jr.** (2012) Immunology of fungal infections: lessons learned from animal models. *Current Opinion in Microbiology* 15(4):413-9.
7. C Hole and **FL Wormley Jr.** (2012) Vaccine and immunotherapeutic approaches for the prevention of cryptococcosis: lessons learned from animal models. *Frontiers in Fungi and Their Interactions* 3:291.
8. AK Chaturvedi and **FL Wormley Jr.** (2013) *Cryptococcus* antigens and immune responses: implications for a vaccine. *Expert Reviews of Vaccines.* Nov; 12(11):1261-72.
9. CM Leopold-Wager and **FL Wormley Jr.** (2014) Classical versus alternative macrophage activation: The ying and the yang in host defense against pulmonary fungal infections. *Mucosal Immunology.* 7(5):1023-35
10. KL Wozniak, M Olszewski, and **FL Wormley Jr.** (2015) Molecules at the interface of *Cryptococcus* and the host that determine disease susceptibility. *Fungal Genetics and Biology.* Nov 1. pii: S1087-1845(14)00198-4.

11. CM Leopold-Wager and **FL Wormley Jr.** (2015) Is Development of a vaccine against *C. neoformans* feasible? *PLoS Pathogens*. Jun 18; 11(6):e1004843.
12. CM Leopold-Wager, CR Hole, KL Wozniak, and **FL Wormley, Jr.** (2016) *Cryptococcus* and phagocytes: Complex interactions that influence disease outcome. *Frontiers in Microbiology: Fungi and Their Interactions*. Feb 9; 7:105.
13. C Hole and **FL Wormley Jr.** (2016) Innate host defenses against *Cryptococcus neoformans*. *Journal of Microbiology*. Mar; 54(3):202-11.
14. AK Chaturvedi and **FL Wormley Jr.** (2017) Methodology for anti-cryptococcal vaccine development. *Methods Mol Biol*. 2017; 1625:129-140. doi: 10.1007/978-1-4939-7104-6_10.
15. MC Caballero Van Dyke, and FL Wormley Jr. (2018) A call to arms: Quest for a cryptococcal vaccine. *Trends in Microbiology*. Nov 2. pii: S0966-842X(17)30229-9.
16. A Campuzano and **FL Wormley Jr.** (2018) Innate Immunity against *Cryptococcus*, from recognition to elimination. *Journal of Fungi*. Mar 7;4(1). pii: E33. doi: 10.3390/jof4010033.
17. A Campuzano and **FL Wormley Jr.** (2020) How innate immune receptors see fungal pathogens *PLoS Pathogens*. (In Revision).

Meeting Abstracts (2005 – Present)

1. **FL Wormley Jr.**, JR Perfect, and GM Cox. (2005) Protection against cryptococcosis using a cytokine secreting *Cryptococcus neoformans* strain. *Cryptococcus & Cryptococcosis Tri-annual Meeting*.
2. **FL Wormley Jr.**, JR Perfect, C Steele, and GM Cox. (2006) Protection against cryptococcosis using a murine Interferon-gamma-producing *Cryptococcus neoformans* strain. The 16th Congress of the International Society for Human and Animal Mycology.
3. **FL Wormley** and J Lopez-Ribot. (2007) Biofilm formation by *Cryptococcus neoformans* preferentially occurs under conditions encountered outside of the mammalian host. 107th General Meeting of the American Society for Microbiology.
4. ML Young, S Macias, D Thomas, and **FL Wormley Jr.** (2008) A proteomics-based approach for the identification of putative immune protective *Cryptococcus neoformans* antigens. 108th General Meeting of the American Society for Microbiology (**Medical Mycological Society of the Americas Travel Award Recipient**).
5. S Ravi, J Lopez-Ribot, C Pierce, and **FL Wormley Jr.** (2008) Potential role of cAMP signal transduction pathway in the regulation of *Cryptococcus neoformans* biofilm formation. 108th General Meeting of the American Society for Microbiology.
6. M Young, S Ravi, S. Macias, and **FL Wormley Jr.** (2009) Induction of protective immune responses against pulmonary cryptococcosis in mice with suppressed T cell-mediated immunity. 109th General Meeting of the American Society for Microbiology (**The American Society for Microbiology Travel Award Recipient**).
7. SE Hardison, S Ravi, M Young, and **FL Wormley, Jr.** (2009). Induction of classical macrophage activation and protection in mice against pulmonary cryptococcosis using an interferon-gamma producing *Cryptococcus neoformans* strain. 109th General Meeting

of the American Society for Microbiology (**Medical Mycological Society of the Americas Travel Award Recipient**).

8. M Hernandez, C Pierce, and **FL Wormley Jr.** (2009) High-throughput screening of small molecule libraries for *Cryptococcus neoformans* growth inhibitors. 109th General Meeting of the American Society for Microbiology.
9. KL Wozniak, S Ravi, ML Young, S Macias, and **FL Wormley Jr.** (2009) Evaluation of host immune responses in mice protected against pulmonary *Cryptococcus neoformans* infection. 109th General Meeting of the American Society for Microbiology.
10. G Herrera, SE Hardison and FL Wormley, Jr. (2010) Induction of Classical Macrophage Activation During Experimental Pulmonary *C. neoformans* Infection in Immunized Mice. UTSA College of Sciences Research Day.
11. SE Hardison, KL Wozniak, and **FL Wormley, Jr.** (2010) IL-17 is not required for classical macrophage activation in a pulmonary mouse model of *Cryptococcus neoformans*. 110th General Meeting of The American Society for Microbiology.
12. KL Wozniak, H Bui, C Hole, SM Levitz, and **FL Wormley Jr.** (2010) Mechanisms of dendritic cell lysosomal killing of *Cryptococcus* strains. 110th General Meeting of the American Society for Microbiology.
13. KL Wozniak, SE Hardison, JK Kolls, and **FL Wormley Jr.** (2010) Impact of IL-17A on clearance of pulmonary *Cryptococcus neoformans* infection. 110th General Meeting of The American Society for Microbiology.
14. SE Hardison, GM Herrera, KL Wozniak, ML Young, **FL Wormley Jr.** (2011) Protective Immunity Against Pulmonary Cryptococcosis is Associated with STAT-1 Mediated Classical Macrophage Activation. Gordon Research Conference: Immunology of Fungal Infections
15. M Feretzaki, M Ni, SE Hardison, **FL Wormley Jr.**, and J Heitman (2011) Role of hyphal development in virulence of human fungal pathogen *Cryptococcus neoformans*. 26th *Fungal Genetics Conference at Asilomar*
16. X He, J Dayrit, Y Qui, Y Zhang, F Wang, SE Hardison, **FL Wormley Jr.**, YD Park, A Adler, P Williamson, and MA Olszewski. (2011) Cryptococcal virulence factor Ssa1 induces alternative activation of macrophages (AAM) but not classical activation of macrophages (CAM) *in vivo* and *in vitro*. 8th International Conference on Cryptococcus and Cryptococcosis
17. M Feretzaki, M Ni, SE Hardison, **FL Wormley Jr.**, and J Heitman. (2011) Role of hyphal development in virulence of human fungal pathogen *Cryptococcus neoformans*. 8th *International Conference on Cryptococcus and Cryptococcosis*
18. SE Hardison, G Herrera, KL Wozniak, ML Young, and **FL Wormley Jr.** (2011) STAT-1 Mediated Classical Macrophage Activation is Associated with Protective Immunity Against Pulmonary Cryptococcosis. 4th *FEBS Advanced Lecture Course on Human Fungal Pathogens: Mechanisms of Host-Pathogen Interactions and Virulence*
19. SE Hardison, G Herrera, KL Wozniak, and **FL Wormley Jr.** (2011) Induction of Classical Macrophage Activation During Experimental Pulmonary *C. neoformans* Infection in Immunized Mice. 111th General Meeting of the American Society for Microbiology.

20. KL Wozniak, CG. Lessani, **FL Wormley Jr.** (2011) IL-22 Production in Mice Protected against Pulmonary *Cryptococcus neoformans* Infection. 111th General Meeting of the American Society for Microbiology.
21. AK Chaturvedi, M Young, KL Wozniak, and **FL Wormley Jr.** (2011) Fractionation and Selection of Proteins that Induce Protective *C. neoformans*-specific Immune Responses. 111th General Meeting of the American Society for Microbiology.
22. SE Hardison, GM Herrera, KL Wozniak, ML Young, **FL Wormley Jr.** (2011) STAT-1 Mediated Classical Macrophage Activation is Associated with Protective Immunity Against Pulmonary Cryptococcosis. 8th International Conference on *Cryptococcus* and *Cryptococcosis*
23. KL Wozniak, HV Bui, CR Hole, A Chaturvedi, SM Levitz, **FL Wormley Jr.** (2011) Insights into the Mechanisms of Dendritic Cell Lysosomal Killing of *Cryptococcus*. 8th International Conference on *Cryptococcus* and *Cryptococcosis*.
24. AK Chaturvedi, M Young, KL Wozniak, and **FL Wormley Jr.** (2011) Identification of Protein Fractions that Induce Protective *Cryptococcus neoformans*-specific Immune Responses. 8th International Conference on *Cryptococcus* and *Cryptococcosis*.
25. SE Hardison, G Herrera, KL Wozniak, ML Young, and **FL Wormley Jr.** (2011) STAT1 Mediated Classical Macrophage Activation is Associated with Protective Immunity Against Pulmonary Cryptococcosis 8th International Conference on *Cryptococcus* and *Cryptococcosis*.
26. AK Chaturvedi, I Cleary, KL Wozniak, and **FL Wormley Jr.** (2012) *In vivo* Evaluation of Protein Fractions which Induce Protective *C. neoformans*-specific Immune Responses. 112th General Meeting of the American Society for Microbiology.
27. **FL Wormley Jr.**, I Cleary, KL Wozniak, and AK Chaturvedi (2012) *In vivo* Evaluation of Protein Fractions which Induce Protective Immune Responses Against *C. neoformans*. 13th RCMI International Symposium.
28. CR Hole, CM Leopold Wager, KL Wozniak, and **FL Wormley Jr.** (2013) STAT1 Activation is Critical to the Recruitment of Plasmacytoid Dendritic Cells During the Protective Immune Response to Experimental Pulmonary *Cryptococcus neoformans* Infection. Gordon Research Conference: Immunology of Fungal Infections.
29. CM Leopold Wager, CR Hole, KL Wozniak, and **FL Wormley Jr.** (2013) Pulmonary Macrophage STAT1 Signaling is Essential for Protection against *Cryptococcus neoformans* Infection in Mice. Gordon Research Conference: Immunology of Fungal Infections.
30. KL Wozniak. CR Hole, SE Hardison, J Yano, PL Fidel, Jr., and **FL Wormley Jr.** (2013) Induction of Antimicrobial Peptides in Mice Protected against Pulmonary *Cryptococcus neoformans* Infection, Gordon Research Conference: Immunology of Fungal Infections.
31. KL Wozniak, CR Hole, CM Leopold Wager, and **FL Wormley, Jr.** (2013) Protection Against *C. neoformans* Pulmonary Infection in the Absence of Adaptive Immunity. South Central Medical Mycology Conference.
32. CM Leopold Wager, CR Hole, KL Wozniak, MA Olszewski, and **FL Wormley, Jr.** (2013) Signal Transducer and Activator of Transcription 1 (STAT1)-Mediated Classical

Macrophage Activation of Pulmonary Macrophages is Required for Protection Against *Cryptococcus neoformans* in Mice. South Central Medical Mycology Conference.

33. CR Hole, CM Leopold Wager, KL Wozniak, and **FL Wormley Jr.** (2013) STAT1 Activation is Critical to the Recruitment of Plasmacytoid Dendritic Cells During the Protective Immune Response to Experimental Pulmonary *Cryptococcus neoformans* Infection. South Central Medical Mycology Conference.
34. B Zhai, KL Wozniak, S Upadhyay, L Wang, D Foyle, S Zhang, **FL Wormley Jr.**, and X Lin. (2013) A master morphogenesis regulator, Znf2, interferes with cryptococcal neurotropism and offers protection against fatal cryptococcosis. Fungal Genetics Conference at Asilomar.
35. KL Wozniak, CR Hole, CM Leopold Wager, and **FL Wormley Jr.** (2014) Protection Against *C. neoformans* Pulmonary Infection in the Absence of Adaptive Immunity. 9th International Conference on *Cryptococcus* and Cryptococcosis.
36. CM Leopold Wager, CR Hole, KL Wozniak, MA Olszewski, and **FL Wormley Jr.** (2014) STAT1-Induced Classical Macrophage Activation is Essential for Protection against *Cryptococcus neoformans* in Mice. 9th International Conference on *Cryptococcus* and Cryptococcosis.
37. KL Wozniak, CR Hole, CM Leopold Wager, and **FL Wormley Jr.** (2014) Protection Against *C. neoformans* Pulmonary Infection in the Absence of Adaptive Immunity. 9th International Conference on *Cryptococcus* and Cryptococcosis.
38. CM Leopold Wager, CR Hole, KL Wozniak, and **FL Wormley, Jr.** (2015) STAT1 Signaling in Macrophages is required for Protection against *Cryptococcus neoformans*. Gordon Research Conference: Immunology of Fungal Infections.
39. KL Wozniak and **FL Wormley Jr.** (2015) A Novel Anti-cryptococcal Antibody Complex Enhances in vitro Killing of *C. neoformans*. Gordon Research Conference: Immunology of Fungal Infections.
40. Hole, CR Hole, CM Leopold Wager, KL Wozniak, and **FL Wormley Jr.** (2015) Characterization of Dendritic Cell Phenotype during a Protective Immune Response to Experimental *Cryptococcus neoformans* Infection. American Society of Microbiology General Meeting.
41. KL Wozniak and **FL Wormley Jr.** (2015) A Novel Anti-cryptococcal Antibody Complex Enhances in vitro Killing of *C. neoformans*. American Society for Microbiology 115th Annual Meeting.
42. CM Leopold Wager, CR Hole, KL Wozniak, and **FL Wormley Jr.** (2015) Epigenetic Remodeling in Macrophages is Associated with Vaccine-Mediated Protection against *Cryptococcus neoformans*. American Society for Microbiology 115th Annual Meeting.
43. CM Leopold Wager, CR Hole, KL Wozniak, and **FL Wormley Jr.** (2015) Epigenetic Remodeling in Macrophages is Associated with Vaccine-Mediated Protection against *Cryptococcus neoformans*. San Antonio Vaccine Development Center Symposium.
44. N Castro-Lopez and **FL Wormley Jr.** (2015) The Role of Eicosanoids in *Cryptococcus* Virulence. College of Science Research Day.
45. A Campuzano, CM Leopold Wager, CR Hole, **FL Wormley Jr.** (2015) Defining Macrophage MAPK signaling for Protective Immune Response to Pulmonary *Cryptococcus neoformans* Infection. College of Sciences Research Conference.

46. CM Leopold Wager, CR Hole, KL Wozniak, and **FL Wormley Jr.** (2015) Epigenetic Remodeling in Macrophages is Associated with Vaccine-Mediated Protection against *Cryptococcus neoformans*. College of Sciences Research Conference.
47. M Cortez, A Campuzano, C Mendoza, H Gutierrez, and **FL Wormley Jr.** (2015) Generation of an Attenuated *Cryptococcus neoformans* Strain for the Induction of Protective Immunity against Cryptococcosis. SACNAS General Meeting.
48. M Van Dyke, A Chaturvedi, CM Leopold Wager, CR Hole, N Castro-Lopez, KL Wozniak, and **FL Wormley Jr.** (2015) Induction of Protective Immunity against Cryptococcosis Caused by Disparate Cryptococcal Serotypes. SACNAS General Meeting.
49. AK Chaturvedi and **FL Wormley Jr.** (2015) Label Free Quantitative Proteome Analysis of Cell Wall Associated Proteins of *Cryptococcus* Treated with Caspofungin. Fungal Cell Wall 2015 Conference.
50. M Caballero Van Dyke, AK Chaturvedi, CM Leopold Wager, KL Wozniak, N Castro-Lopez, C Hole, and **FL Wormley Jr.** (2016) Induction of Broad-Spectrum Protective Immunity against Disparate *Cryptococcus* Serotypes. College of Science Conference.
51. N Castro-Lopez, A Campuzano and **FL Wormley Jr.** (2016) Fungal eicosanoids: a potential drug target for cryptococcal infections. College of Sciences Research Conference.
52. N Castro-Lopez, A Campuzano and **FL Wormley Jr.** (2016) Fungal eicosanoids: a potential drug target for cryptococcal infections. SAVE Vaccine Conference.
53. CM Leopold Wager, CR Hole, KL Wozniak, A Campuzano, N Castro-Lopez, and **FL Wormley Jr.** (2016) Epigenetic Remodeling in Macrophages is Associated with Vaccine-Mediated Protection against *Cryptococcus neoformans*. Keystone Symposia on Molecular and Cellular Biology: Cytokine JAK-STAT Signaling in Immunity and Disease.
54. AJ Martinez, A Campuzano, CM Leopold Wager, AS Mendiola, SM Cardona, A Cardona, and **FL Wormley Jr.** (2016) Determining Putative Enhanced Microglia Responses Against Pulmonary Cryptococcosis. College of Sciences Research Conference.
55. AJ Martinez, A Campuzano, CM Leopold Wager, AS Mendiola, SM Cardona, A Cardona, and **FL Wormley Jr.** (2016) Determining Putative Enhanced Microglia Responses Against Pulmonary Cryptococcosis. Annual Biomedical Research for Minority Students Conference.
56. A Campuzano, N Castro-Lopez, AK Chaturvedi, and **FL Wormley Jr.** (2016) Protection against Cryptococcosis is enhanced Following Engagement of Mincle Receptor. College of Sciences Research Conference.
57. M Caballero Van Dyke, AK Chaturvedi, C Leopold Wager, Karen L. Wozniak, Natalia Castro-Lopez, Camaron Hole, and **Floyd L. Wormley, Jr.** (2017) Induction of Broad-Spectrum Protective Immunity against Disparate *Cryptococcus* Serotypes. SACNAS General Meeting.
58. M Caballero Van Dyke, AK Chaturvedi, C Leopold Wager, KL Wozniak, N Castro-Lopez, C Hole, and **FL Wormley, Jr.** (2017) Induction of Broad-Spectrum Protective Immunity against Disparate *Cryptococcus* Serotypes. Bridging the Career Gap: Promoting Diversity in Biomedical Research Conference.
59. M Caballero Van Dyke, AK Chaturvedi, C Leopold Wager, K L Wozniak, N Castro-Lopez, C Hole, and **FL Wormley, Jr.** (2017) Induction of Broad-Spectrum Protective Immunity against Disparate *Cryptococcus* Serotypes. College of Science Conference.

60. M Caballero Van Dyke, AK Chaturvedi, C Leopold Wager, KL Wozniak, N Castro-Lopez, C Hole, and **FL Wormley, Jr.** (2017) Induction of Broad-Spectrum Protective Immunity against Disparate *Cryptococcus* Serotypes. Gordon Research Conference: Immunology of Fungal Infections, Fundamental Insights and Therapeutic Potential.
61. M Caballero Van Dyke, AK Chaturvedi, C Leopold Wager, KL Wozniak, N Castro-Lopez, C Hole, and **FL Wormley, Jr.** (2017) Induction of Broad-Spectrum Protective Immunity against Disparate *Cryptococcus* Serotypes. Gordon Research Seminar: Immunology of Fungal Infections, Exploring the Hosts' Weaknesses.
62. A Campuzano, N Castro-Lopez, C Leopold Wager and **FL Wormley, Jr.** (2017) CARD9 Adaptor Molecule is Indispensable for Protection Against Cryptococcosis" College of Science Conference, The University of Texas at San Antonio, San Antonio, TX
63. A Campuzano, N. Castro-Lopez, AK Chaturvedi, and **F.L. Wormley, Jr.** (2017) 10th International Conference on Cryptococcus and Cryptococcosis, Foz do Iguacu, BR Protection Against Cryptococcosis is Enhanced Following Engagement of Mincle Receptor
64. A Campuzano, N. Castro-Lopez, AK Chaturvedi, and **FL Wormley, Jr.** (2017) Protection Against Cryptococcosis is Enhanced Following Engagement of Mincle Receptor". Immunology of Fungal Infections, Gordon Research Conference, Galveston, TX
65. KL Wozniak and **FL Wormley, Jr.** (2017) Differential interactions of primary human macrophage subsets with *Cryptococcus neoformans*. Gordon Research Conference: Immunology of Fungal Infections
66. C Mendoza, N Castro-Lopez, A Campuzano, and **FL Wormley Jr.** (2017) Establishment of Murine Immune Reconstitution Inflammatory Syndrome (IRIS) Model Against Cryptococcosis. College of Science Conference.
67. C Mendoza, N Castro-Lopez, A Campuzano, and **FL Wormley Jr.** (2017) Establishment of Murine Immune Reconstitution Inflammatory Syndrome (IRIS) Model Against Cryptococcosis. San Antonio Vaccine Conference.
68. N Castro-Lopez, A Campuzano, C Hole, C Leopold Wager, K Wozniak, and **FL Wormley Jr.** (2017) The Protective Role of CXCL11 against Pulmonary Cryptococcosis. Immunology of Fungal Infections. Gordon Conference. Galveston, TX.
69. N Castro-Lopez, A Campuzano, and **FL Wormley Jr.** (2017) Fungal eicosanoids: a potential drug target for cryptococcal infections. 10th International Conference on *Cryptococcus* and Cryptococcosis. Foz do Iguacu, Brasil.
70. N Castro-Lopez, A Campuzano, C Hole, C Leopold Wager, K Wozniak, and **FL Wormley Jr.** (2017) The Protective Role of CXCL11 against Pulmonary Cryptococcosis. 2017 San Antonio Military Health System and Universities Research Forum (SURF). San Antonio, TX.
71. N Castro-Lopez, A Campuzano, and **FL Wormley Jr.** (2017) Fungal Eicosanoids: a Potential Drug Target for Cryptococcal Infections. COS Research Conference. San Antonio, TX
72. AK Chaturvedi, G Wall, JL Lopez-Ribot and **FL Wormley Jr.** (2017) Repurposing FDA-approved Ebselen and Auranofin as anti-Cryptococcal drugs: teaching old drugs new tricks. 10th International Conference on *Cryptococcus* and Cryptococcosis. Foz do Iguacu, Brasil.

73. AK Chaturvedi, G Wall, JL Lopez-Ribot and FL Wormley Jr. (2017) Repurposing FDA-approved Ebselen and Auranofin as anti-fungal drugs: teaching old drugs new tricks. IIMS/CTSA 8th Annual Frontiers of Translational Science Research Day.
74. CM Leopold Wager, CR Hole, A Campuzano, N Castro-Lopez, KL Wozniak, **FL Wormley, Jr.** (2017) Epigenetic Remodeling in Macrophages is Associated with Vaccine-Mediated Protection against *Cryptococcus neoformans*. The University of Texas at San Antonio College of Sciences Research Conference.
75. CM Leopold Wager, CR Hole, KL Wozniak, and **FL Wormley, Jr.** (2017) Epigenetic Remodeling in Macrophages is Associated with Vaccine-Mediated Protection against *Cryptococcus neoformans*. San Antonio Postdoctoral Research Forum. *Selected for talk, 1st Place Poster Presentation.*
76. N Castro-Lopez, A Campuzano, E Sawyer, and **FL Wormley Jr.** (2018) Role 5-lipoxygenase during Pulmonary Cryptococcosis. The University of Texas at San Antonio College of Sciences Research Conference.
77. D Mazuca, CM Leopold Wager, N Castro-Lopez, KL Wozniak, and Floyd L. Wormley, Jr. (2018) Training of murine macrophages to achieve memory in innate immune response. The University of Texas at San Antonio College of Sciences Research Conference.
78. OH Ajetunmobi, MC Caballero Van Dyke, A Chatuverdi, N Castro-Lopez, Y Chen, J Seshu and FL Wormley, Jr. The Role of Enolase in Protection against Cryptococcosis. The University of Texas at San Antonio College of Sciences Research Conference.
79. KA Huski, and Floyd L. Wormley (2018) Creation of the Human Interferon-gamma producing strain of *Cryptococcus neoformans* using CRISPR-Cas9 system. The University of Texas at San Antonio College of Sciences Research Conference.
80. E Sawyer, N Castro-Lopez, CM Leopold Wager, and Floyd L. Wormley, Jr. (2018) Generation of a Dendritic Cell STAT1 Conditional Knockout Mouse. The University of Texas at San Antonio College of Sciences Research Conference.
81. N Castro-Lopez, A Campuzano, E Sawyer, and **FL Wormley Jr.** (2019) Role of 5-lipoxygenase during Pulmonary Cryptococcosis. South Central Medical Mycology Conference. Houston, TX
82. N Castro-Lopez, A Campuzano, E Sawyer, and **FL Wormley Jr.** (2019) Role of 5-lipoxygenase during Pulmonary Cryptococcosis. Immunology of Fungal Infections, Gordon Research Conference, Galveston, TX

INVITED SPEAKING ENGAGEMENTS (2005 – Present)

1. *Cryptococcus* & Cryptococcosis Tri-annual Meeting, June 2005
2. San Antonio Center for Medical Mycology , November 2005
3. 4th Annual Meeting of the South Central Medical Mycology Group, October 2006
4. Ewing Halsell Seminar Series, South Texas Center for Emerging Infectious Diseases (STCEID), UTSA, November 2006

5. First International Symposium on Development of Biology & Medicine Industry; Qiandong, China, August, 2007
6. Department of Medicine, Div. of Infectious Diseases, The University of Texas Health Sciences Center at San Antonio, August 2008
7. 108th General Meeting of The American Society for Microbiology, June 2008
8. San Antonio Center for Medical Mycology, February 2009
9. South Louisiana Institute for Infectious Disease Research, March 2010
10. Gordon Research Conference: Immunology of Fungal Infections, Jan 2011
11. 8th International Conference on *Cryptococcus* and Cryptococcosis, May 2011
12. UTSA College of Sciences Research Symposium, September 2011
13. San Antonio Infectious Disease Symposium, November 2011
14. 112th General Meeting of The American Society for Microbiology, June 2012 (Convener)
15. UTSA College of Sciences Research Symposium, September 2012 (Convener)
16. Department of Microbiology, The University of Texas Health Sciences Center at San Antonio, December 2012
17. 10th Annual Meeting of the South Central Medical Mycology Group, October 2012
18. Department of Veterinary Medicine, University of Maryland, December 2012
19. Gordon Research Conference: Immunology of Fungal Infections, Jan 2013
20. School of Pharmacy, Texas Southern University, November 2013
21. School of Medicine, University of Massachusetts Medical School, November 2013
22. National Institute of Science Memorial Lecturer, 71st Joint Annual Meeting of the Beta Kappa Chi Honor Scientific Honor Society and National Institute of Science, March 2014
23. Department of Microbial Pathogenesis and Immunology in the College of Medicine, Texas A&M Health Science Center, April 2014
24. 9th International Conference on *Cryptococcus* and Cryptococcosis, Amsterdam, The Netherlands, May 2014
25. Department of Molecular Microbiology and Immunology, Washington University School of Medicine, St. Louis, MO, August 2014
26. The Honor Society of Phi Kappa Phi 2014 Biennial Convention, Panelist – Best Practices Panel, St. Louis, MO, August 2014
27. XII International Meeting on Paracoccidioidomycosis, Brasilia, Brazil, September 2014

28. SALSI Academy Innovation Forum, San Antonio, TX, March 2015
29. Department of Biology, Texas State University, February 2016
30. Department of Microbiology and Immunology, Tulane National Primate Research Centre, September 2016
31. Department of Microbiology and Immunology, University of Buffalo, November 2016
32. Graduate Program in Immunology, University of Michigan, December 2016
33. Department of Biology, Texas A&M, February 2017
34. 10th International Conference on *Cryptococcus* and Cryptococcosis, Foz do Iguacu, BR, March 2017 (Session Chair)
35. Federation of American Societies for Experimental Biology (FASEB), Molecular Pathogenesis: Mechanisms of Infectious Disease, July 2017
36. Molecular Mycology Workshop, Woods Hole, MA, August 2017
37. Department of Pathology, University of Utah, September 2017
38. Department of Microbiology & Immunology, Tulane University Health Sciences Campus, Tulane University, March 2018
39. Department of Veterinary Medicine, University of Maryland, August 2018
40. School of Pharmacy, Texas Southern University, September 2018
41. School of Biological Sciences, University of Missouri, Kansas City, November 2018
42. Department of Microbiology and Immunology, University of North Carolina – Chapel Hill, November 2018 Induction of Innate Memory Against Pulmonary Cryptococcosis
43. Immunology of Fungal Infections, Gordon Research Conference, Galveston, TX January 2019
44. Goldschmidt Lecturer; Spring Texas Branch Meeting of ASM, April 2019
45. Department of Molecular Biology and Microbiology, Tufts University, January 2020
46. Department of Molecular Microbiology, Washington University in St. Louis, January 2020
47. Department of Microbiology, University of Tennessee-Knoxville, October 2020
48. Department of Microbiology and Molecular Genetics. Oklahoma State University, August 2020
49. Cryptococcus Vaccine Symposium, November 2020

RESEARCH SUPPORT:

Ongoing:

1 R21 AI158260-01A1 02/22/21 – 01/31/23 Role: PI Total Costs: \$316,044

Agency: NIH (**Priority Score: 20**)

Project Title: “5-Lipoxygenase Inhibition as a Therapy to Prevent *Cryptococcus*-Related IRIS”

The purpose of this project is to facilitate the development and/or implementation of therapeutic strategies that reduce or prevent the development of IRIS due to *Cryptococcus*.

4R33 AI140823-02: 02/01/2019 – 01/31/2024 Role: MPI (Contact PI: Jose Lopez-Ribot)

Total Costs: \$756,728 (Wormley allocation): \$189,470

Agency: NIH

Project Title: “Screening a Target-Based Repurposing Library for Activity against Fungal Pathogens and Subsequent Preclinical Development of Leading Candidates”

The purpose of this program is to conduct a large-scale screening of chemical libraries to discover agents with broad-spectrum activity against multiple fungal pathogens.

2R01AI074677-06: 07/01/2011 – 06/30/2021 Role: MPI (Contact PI: J. Andrew Alspaugh)

Costs: \$2,155,672

Agency: NIH (**Priority Score: 20; Percentile: 12.0**)

Project Title: “Coordinated Regulation of Virulence Genes in *C. neoformans*”

The identification of microbial factors involved in the pathogenesis of the opportunistic fungus *Cryptococcus neoformans*.

1R21 AI142560-01A1 7/01/2019 - 06/30/2021 Role: Co-PI Wormley (PI: D.

Kadosh) Total Costs (Wormley allocation): \$40,422

Agency: NIH

Project Title: “Regulation of Protein Synthesis During the *C. albicans*-Macrophage Interaction”

The major goal of this project is to determine how translational efficiency mechanisms control the *C. albicans*-macrophage interaction.

Pending:

None

Completed:

2R01 AI071752-06: 03/15/2014 – 02/28/2021 Role: PI

Total Costs: \$1,837,500

Agency: NIH (**Priority Score: 17; Percentile: 3.0**)

Project Title: “Protective Host Immunity Against Pulmonary Cryptococcosis”

The long-term goal of this project is to describe protective immunity against *C. neoformans* infections.

US Army Research Laboratory and US Army Research Office: (06/01/2011 – 12/01/2016)

Role: Co-investigator – Fungal Vaccine/Genomics Component (Contact PI: B. Arulanandam).

Department of Defense

Project Title: “Center of Excellence in Infection Genomics”

San Antonio Life Sciences Institute (SALSI) Clusters in Research Excellence (09-01-14 – 08-31-15) Role: Co-PI;

Direct Costs (\$300,000 - UTSA Component \$150,000)

Project Title: “San Antonio Center for Medical Mycology”

San Antonio Life Sciences Institute (SALSI) Innovation Award (09-01-14 – 08-31-15) Role: Co-PI;

Direct Costs (\$178,000 -UTSA Component \$78,000)

Project Title: “Cancer Impairs Macrophage Function”

R21 AI083718: (07/01/2012 – 06/30/2014) Role: PI

Direct Costs: \$275,000; Indirect Costs: \$129,250; Total costs: \$404,250

Agency: NIH

Project Title: “Induction of protective immunity against *Cryptococcus neoformans* in immune deficient hosts”

The long term goal of this project is to determine a mechanism for inducing protective immunity against pulmonary *C. neoformans* infections in immune suppressed hosts.

SAVE: (09/01/2012 – 08/31/2013) Role: PI

Direct Costs: \$49,895,000; No Indirect Costs; Total costs: \$49,895

Agency: San Antonio Vaccine Institute

Project Title: “Towards a Pan-Fungal Vaccine”

Our goal is to identify individual components present within cell wall and cytosolic fungal protein extracts that may be used to generate a subunit vaccine targeting three major fungal pathogens (*Candida* spp., and *Cryptococcus* spp., and *Aspergillus fumigatus*).

IIMS-UTHSCSA: (09/01/2012 – 08/31/2013) Role: PI

Direct Costs: \$49,112,000; No Indirect Costs; Total costs: \$49,112

Agency: UTHSCSA

Project Title: “Vaccine Potential of recombinant *Cryptococcus neoformans* heat shock protein 90 against experimental pulmonary cryptococcosis.

The objective of this project is to determine the efficacy of using recombinant heat shock protein 90 to mediate protective immunity against pulmonary *C. neoformans* infection.

R21 AI083718: (05/01/2010 – 04/30/2013) Role: PI

Direct Costs: \$275,000; Indirect Costs: \$122,375; Total costs: \$397,375

Agency: NIH (**Impact Score: 100**)

Project Title: "Identification of protective *Cryptococcus neoformans*-specific proteins"

The long-term goal of this project is to identify cryptococcal proteins that may be used to elicit protective immunity against cryptococcosis.

UTSA Faculty Research Award 01/01/2007 – 12/31/2007

Agency: University of Texas at San Antonio

Project Title "Identification of Cryptococcal Immune Dominant Proteins"

This award funds pilot studies to identify putatively protective cryptococcal protein antigens.

T32 AI007392-15 02/28/2002 – 08/01/2005

Agency: NIH

Institutional Training Grant, Duke University Medical Center

Program in microbial pathogenesis of *Cryptococcus neoformans*

Awarded but not Accepted (received RO1 grant):

1SC1GM081088-01

Agency: NIH (MBRS-SCORE)

Project Title: Identification of protective *C. neoformans*-specific antibodies and proteins

The major goal of this project is to identify and evaluate the efficacy of *C. neoformans*-specific antibodies and proteins to induce protection against cryptococcal infections.

Courses Taught:

TCU

Courses

Responsible Conduct of Research

UTSA

Courses (2005 – 2019)

Microbiology – Undergraduate (Fall **and** Spring; 30-200 students/semester)

Medical Mycology (new) – Undergraduate (Spring; 35-55 students; Course Director)

Advanced Medical Mycology (new) – Graduate (Spring; 10-15 students; Course Director)

Microbial Pathogenesis I (new) – Graduate (Fall; 10-30 students)

Immunology Colloquium – Graduate (Fall; ~ 10 students)

Developed UTSA Bachelor's Degree in Microbiology and Immunology Program (2014 Course Catalog)

Doctoral Thesis Committee – Chair

Sarah Hardison, Cell and Molecular Biology Doctoral Program – 2009 – December 2011

Camaron Hole, Cell and Molecular Biology Doctoral Program – 2012 – 2015

Chrissy Leopold-Wager, Cell and Molecular Biology Doctoral Program – 2012 – 2016
Althea Campuzano Gonzalez, Cell and Molecular Biology Doctoral Program – 2014 – 2018
Marley Caballero, Cell and Molecular Biology Doctoral Program – 2014 – 2018
Natalia Castro-Lopez, Cell and Molecular Biology Doctoral Program – 2015 – 2019

Doctoral Thesis Committee - Member

Uma Mahesh Gundra, Cell and Molecular Biology Doctoral Program – 2006 – 2010
Cathi Murphey, Cell and Molecular Biology Doctoral Program – 2008 – 2010
Christopher Pierce, Cell and Molecular Biology Doctoral Program – 2009- 2013
Rajasekhar Karna - 2010 – 2013
Christine Lindsay Miller – 2010 – 2013
Rebecca Sosa – 2011 – 2016
Trevor Miller - 2011 – 2016
Andrew Mendoza - 2014 – 2017
Jesus Romo - 2014 – 2018
Daniel Montelongo Jauregui - 2014 – Present
Yue Rachel Chen – 2015 – Present

MS Biotechnology Thesis - Chair:

Sailatha Ravi, Master's Degree in Biotechnology - Completed Summer 2008

MS Biotechnology Thesis - Member:

Abdul Sathar – Completed 2007
Amrata Rachwani – Completed 2007
Priya Mulabagal - Completed 2007
NavYa Devineni – Completed 2010
Susan Cobb – Completed 2010

MS Biology Thesis - Chair:

Sailatha Ravi, M.S. - Completed 2008
Rumanasma Shaul Hameed – Completed 2012
Christopher Mendoza, Master's Degree in Biology - Completed Summer 2018
Kendra Huski – Current

Derin Muller – Current

Olabayo Harry Ajetunmobi - Current

MS Biology Thesis – Member:

Yyvone Juarez - Completed 2007

Terika Baker - Completed 2007

Donna Alcantara – Completed 2007

Christopher Pierce – Completed 2007

Cody McMahan - Completed 2008

Janani Krishnamurthy - Completed 2008

Vidyasiri Vemulapalli – Completed 2009

Kristi Barker – Completed 2009

Rajasekhar Karna MS - Completed 2009

Manasa Parvathaneni MS – Completed 2011

Honor’s Thesis – Chair:

Mercedes Boatman - Completed 2008

Hoang Bui - Completed 2010

Collin Guerra Lessani - Completed 2011

Eva Toledo- Completed 2012

Madeline Cortez - Completed 2017

Dalton Mazuca – Current

Elysa Sawyer – Current

Mentoring

Senior

Karen Wozniak, Ph.D. – Research Assistant Professor (currently Assistant Professor – Oklahoma State University, Stillwater, OK)

Ashok Chaturvedi, Ph.D. – Post-Doctorate; Research Assistant Professor

Undergraduates

Margarita Hernandez, B.S., Mercedes Boatman, Trevor Miller, Hoang Bui, Shante Johnson, Gina Hererra, B.S., Melissa Nunez, B.S., Eva Toledo, B.S., Azubuike Dike, Gabriela Medrano

UTHSCSA

Courses

SERVICE ACTIVITIES

Departmental/Institutional Committees:

2019-2020 TCU College of Education Dean Search Committee
2020 - 2021 TCU College of Science and Engineering Dean Search Committee
2020 - Present TCU Assessment Committee

National/International Service:

2016-2020 American Association of Immunologists (AAI) Minority Affairs Committee
2012-2015 Editor-in-Chief, The Minority Microbiology Mentor Newsletter –e-newsletter of the American Society for Microbiology (ASM)
2014-2016 President: The Honor Society of Phi Kappa Phi; UTSA Chapter
2012-2014 ASM Branch Lecturer
2012-2014 President-Elect: The Honor Society of Phi Kappa Phi; UTSA Chapter
2011-Present Vice-President: Medical Mycological Society of the Americas
2010 2010 South Central Medical Mycology Meeting; Co-Organizer
2010-Present Member, Committee on Microbiological Issues Impacting Minorities (CMIIM) of the Public and Scientific Affairs Board of the American Society for Microbiology (ASM)
2010-2011 President: Medical Mycological Society of the Americas
2009-2010 President Elect: Medical Mycological Society of the Americas

Membership in Professional Societies:

2013-present Member, Society for Advancement of Chicanos and Native Americans in Science (SACNAS)
2012-present Member, American Association of Immunologists
2012 Life-time Member, The Honor Society of Phi Kappa Phi
2011-present Member, American Association for the Advancement of Sciences (AAAS)
2009-present Member, Texas Faculty Association
2005-present Member, Medical Mycological Society of the Americas
1998-present Member, American Society for Microbiology

Reviewer:

Journals

Cellular Microbiology
 Cellular Immunology
 Clinical and Experimental Immunology
 Frontiers in Fungi and Their Interactions – (Editor)
 Frontiers in Microbiology
 Infection and Immunity (Associate Editor)
 Medical Mycology
 Journal of Proteomic Sciences
 Journal of Immunology
 mBIO
 Mycopathologia
 Mucosal Immunology
 Nature (Immunology, Communications, etc.)
 PLoS One – Academic Editor
 PLoS Pathogens
 PNAS
 Virulence
 Scientific Reports
 Cell Host & Microbe
 Journal of Alzheimer's Disease

Study Sections/Review Panels

| | |
|--------------|---|
| 2018 | The Wellcome Trust |
| 2017 | NIH AIDS-Associated Opportunistic Infections and Cancer Study Section (AOIC) Study Section, Ad hoc reviewer |
| 2016-Present | NIH Vaccines Against Microbial Diseases (VMD) Study Section, Standing Member |
| 2015-2016 | NIH VMD Study Section, Ad hoc reviewer |
| 2011-2015 | NIH AOIC Study Section, Standing Member |
| 2011-2012 | Reviewer for ASM General Meeting Minority Travel Grants |
| 2011 | Food and Health Bureau (FHB) of the Hong Kong SAR Government; Ad hoc reviewer |
| 2010 | NIH AIDS-Associated Opportunistic Infections and Cancer Study Section (AOIC) Study Section, Ad hoc reviewer |
| 2010 | NIH Recovery Act/Challenge Grant (RC4) Reviewer |
| 2009-2010 | NIH Pathogenic Eukaryotes Study Section (PTHE), Ad hoc reviewer |
| 2009 | NIH Topics in Bacterial Pathogenesis Special Emphasis Panel [ZRG1 IDM-A 90] |
| 2009 | The Wellcome Trust, Ad hoc reviewer |
| 2009 | Reviewer for South Texas Center for Emerging Infectious Diseases (STCEID) Graduate Student Fellowship |
| 2008 | American Heart Association Immunology Study Section, Ad hoc reviewer |
| 2008 | American Heart Association Microbiology Study Section, Ad hoc reviewer |
| 2007 | The American Academy of Microbiology (colloquium on "The Fungal Kingdom: Diverse and Essential Roles in Earth's Ecosystem") |