

CURRICULUM VITAE
University of Pittsburgh
School of Medicine

BIOGRAPHICAL

Name: Luis Alberto Ortiz

Citizenship: USA

Business Address: Department of Occupational and Environmental Medicine
Graduate School of Public Health
University of Pittsburgh
130 De Soto Street
4125 PUBHL
Pittsburgh, PA 15261

E- Mail Address: lao1@pitt.edu

Business Phone: (412) 624-3155 or (412) 624-5269 **Business Fax:** (412) 624-9361

EDUCATION and TRAINING

UNDERGRADUATE:

1976 Instituto Jorge Robledo. B.S./1976
Medellin, Colombia

GRADUATE:

June 1977-July 1983 Universidad Pontificia Bolivariana M.D. Medicine
Medellin, Colombia

POSTGRADUATE:

1983-1984 Compulsory Social Services
Dispensario Beato Pampuri
La Esmeralda, Arauca, Colombia

1984-1987 Department of Internal Medicine **Mentor/Position**
Universidad Pontificia Bolivariana. Ivan Molina Velez, MD
Medellin, Colombia Resident/Internal Medicine

1987-1990 Department of Internal Medicine John Salvagio, MD
Tulane Medical Center Resident/Internal Medicine
New Orleans, Louisiana

1990-1993	Pulmonary and Critical Care Medicine University of Texas Health Science Center M.D. Anderson Cancer Center Houston, Texas	Guillermo Gutierrez, MD Fellow/Pulmonary and Critical Care Medicine
1991-1993	Department of Biochemistry Rice University Houston, Texas	John Steven Olson, PhD Research Fellow

APPOINTMENTS and POSITIONS

ACADEMIC:

1993-1999	Assistant Professor of Medicine Section of Pulmonary, Critical Care, and Environmental Medicine Department of Medicine Tulane University Medical Center, New Orleans, Louisiana
1999-2002	Associate Professor (Tenure conferred 1999) Section of Pulmonary, Critical Care, and Environmental Medicine Department of Medicine Tulane University Medical Center, New Orleans, Louisiana
2002-2016	Associate Professor and Director (Tenure conferred 2005) Division of Occupational and Environmental Medicine Department of Environmental and Occupational Health Graduate School of Public Health at University of Pittsburgh Pittsburgh, Pennsylvania
2016-Date	Professor and Director (Tenure conferred 2005) Division of Occupational and Environmental Medicine Department of Environmental and Occupational Health Graduate School of Public Health at University of Pittsburgh Pittsburgh, Pennsylvania
2003-2017	Associate Professor Division of Pulmonary, Allergy, and Critical Care Medicine Department of Medicine at University of Pittsburgh Pittsburgh, Pennsylvania
2017-Date	Professor Division of Pulmonary, Allergy, and Critical Care Medicine Department of Medicine at University of Pittsburgh Pittsburgh, Pennsylvania
2017-Date	Professor Clinical and Translational Science Institute University of Pittsburgh

NON –ACADEMIC:

2002-Date	Simmons Center for Interstitial Lung Diseases Division Pulmonary Medicine Department of Medicine University of Pittsburgh Pittsburgh, Pennsylvania	Professor
1993-2002	Tulane University Medical Center New Orleans, Louisiana	Co-Director Interstitial Lung Disease Clinic
1996-2002	Lakeside Hospital New Orleans, Louisiana	Co-Director Intensive Care Unit And Respiratory Therapy
1999-2002	VA Medical Center New Orleans, Louisiana	Director Intensive Care Unit
2001-2002	Charity Hospital New Orleans, Louisiana	Co-Director Respiratory Therapy

CERTIFICATION and LICENSURE**SPECIALTY CERTIFICATION:**

Certifying Board	Year
Educational Commission for Foreign Medical Graduates	1982
Federation Licensing Examination	1989
Diplomat, American Board of Internal Medicine	1990 Recertified 2001, 2016
Diplomat, American Board of Internal Medicine Subspecialty in Pulmonary Diseases	1994 Recertified 2001, 2015
Diplomat, American Board of Internal Medicine, Subspecialty in Critical Care Medicine	1995 Recertified 2001

MEDICAL or OTHER PROFESSIONAL LICENSURE:

Licensing Board/State	Year
State Board of Medicine/ Pennsylvania	2002
Composite State Board of Medical Examiners/ Georgia	1987
State Board of Medical Examiners/Texas	1990

MEMBERSHIPS in PROFESSIONAL and SCIENTIFIC SOCIETIES

American College of Chest Physicians: Elected Fellow in 1995
Chairman of the Investigation sessions: “Pulmonary Immunology” and “Asthma Pharmacotherapy” 1998

American Heart Association
Member of the council in Pulmonary Circulation

American Thoracic Society
Member of the Respiratory Cell and Molecular Biology Assembly

American Association for the Advancement of Science

European Respiratory Society
Member of the Assembly in Lung Injury

Musser Burch Society

International Society Extracellular Vesicles (Delegate)

International Society Cell Therapies

HONORS and AWARDS

Fellow, American College of Chest Physicians 1995

NHLBI Clinician Scientist Development Award 1996

Finalist for the NHLBI Mentored Clinical Scientist Awardees 1998
Special Symposium celebrated at the American Thoracic Society

Organizing and Scientific Committee 1998
10th International Colloquium on Lung Fibrosis

Reviewer Panel Multidisciplinary International Consensus 1998
Classification of Interstitial lung Diseases (ICC/ILD)

Southern Society for Clinical Investigation 1999

Reviewer (NHLBI) 2002-2003
Lung Biology & Pathology Study Section

Member Lung Injury and Repair NHLBI Study Section 2003-2007

Reviewer (NHLBI) Scleroderma Lung Disease Study Group	2007 & 2008
ATS, Respiratory Cell Molecular Biology Assembly Elected, Nomination Committee	2007-2009
Organizing and Scientific Committee (NHLBI) Stem Cells and Cellular Therapies in Lung Biology and Disease	2007
Reviewer (NHLBI) Lung Cellular Molecular Immunology Study Section	2008
Reviewer NIEHS Outstanding New Environmental Scientist (ONES)	2008
United States Environmental Protection Agency Advisory Board on Asbestos	2008-2011
Reviewer (NIEHS) Beryllium: Exposure, Immune and Genetic Mechanisms	2008
Chair ZRG1 CVRS G (02) M Conflict Application LIRR Study Section	2010-2012
American Thoracic Society Scientific Advisory Committee	2010-2012
American Thoracic Society RCMB Assembly Planning Committee	2012-2012
Best Oral Presentation International Society for Extracellular Vesicles Second ISEV Meeting, Boston, Massachusetts	2013
Member NHLBI Mentored Clinician and Basic Science Review Committee	2014-2018
Chair Drug Safety Monitoring Board Fibrogen FG-3019 in Idiopathic Pulmonary Fibrosis	2014-2018
External Advisor Aspen Lung Conference	2017-
California Tobacco-Related Disease Research Program Pulmonary Biology and Lung Disease Review Committee	2017-

Chair NHLBI Mentored Clinician and Basic Science Review Committee	2018-2019
International Society Cell Therapies Committee on Extracellular vesicles	2018-
Maynooth University Visitor Programme for Distinguished Scholars Award	2019
Associate Editor Cytotherapy	2019-
External Advisor Research Center of Excellence in Arsenicals (NIEHS U54) University of Alabama Birmingham (UAB)	2019-

Research Statement

My interest encompasses all aspects of the academic life including patient care, research, education, and University services. My NIH sponsored research focuses on mechanisms that mediate the development of fibrotic lung disease. In particular, my laboratory has contributed to this field with the development of mouse models of pulmonary fibrosis and the concept that bone marrow derived mesenchymal stem cells (MSCs) are fundamental contributors to the repair of the injured lung. Our research initiatives identified the capacity of MSCs to home to the injured lung and regulate innate immunity by producing the anti-inflammatory cytokine IL1 Receptor antagonist. We are currently exploring the clinical use of MSC derived extracellular vesicles to protect right ventricular function during pulmonary hypertension in lung fibrosis.

My patient care activities are intimately related to my basic science research and concentrate in the management (including lung transplantation) of patients afflicted with acute lung injury (ALI) and Interstitial Lung Disease (ILD). I conduct these activities at the Simmons' Center for ILD at the Division of Pulmonary Medicine at the University of Pittsburgh. The center, which is the result of a generous gift from the Simmons Family, provides me, as a founding member, with a well-staffed infrastructure where I exert my leadership in research on lung inflammation and fibrosis, into promoting the translation of my basic science discoveries to new treatments for patients with these lung disorders. Consequently, my current clinical efforts are oriented at translating the safety and efficacy of MSCs in patients experiencing ALI or subjects afflicted by idiopathic pulmonary fibrosis (IPF) whose course is complicated by arterial hypertension and right ventricular dysfunction and for whom lung transplantation is not an option.

My research focuses on mechanisms of lung injury that lead to the development of lung fibrosis. In particular, my laboratory has contributed to this field with the development of mouse models of pulmonary fibrosis (silica and bleomycin) and most recently with the concept that bone marrow derived Mesenchymal stem cells (MSCs) are fundamental contributors to the repair of the injured lung. Similarly, my laboratory has characterized the epidemiology of environmentally induced lung disease. Since my arrival to Pittsburgh, I established alliances

with grass root organizations to initiate registries and form cohort of subjects exposed to dust (mostly miners) to characterize the impact of pneumoconiosis in the communities of Western Pennsylvania. Subsequently, I contributed to the literature with studies of the prevalence and outcome of silica exposed individuals, and their response to lung transplantation.

Most recent efforts have concentrated in translating these preclinical observations. To that effect I have interacted with Dr. Michael Matthay, an eminent clinical investigator in the field of acute lung injury, to test the efficacy of MSC in subjects afflicted by Adult Respiratory Distress Syndrome (ARDS). These interactions lead Dr. Matthay to designate the University of Pittsburgh as one of the four sites for his START clinical trial, in which we conducted a phase 2a randomized clinical trial to test the safety of well characterized primary human MSCs, manufactured by Dr. David McKenna at the NHLBI-sponsored PACT program at the University of Minnesota, in subjects with ARDS requiring mechanical ventilation in whom a 40 percent mortality was expected. We reported that the administration of these cells in such population of subjects was safe (PMID:30455077).

Taking advantage of the experienced we gained during the development of the START trial and in response to the NHLBI Early Phase Clinical Trials for Therapeutics and Diagnostics we assembled a multidisciplinary team of researchers from five U.S. academic centers with expertise in MSC biology, translational research, lung disease, epidemiology, Current Good Manufacturing Practice (cGMP) regulations and manufacturing, and human clinical trial design to establish a Progenitor Cell Translational Consortium to test the safety, tolerability, and potential benefit of non-HLA-matched allogeneic bone marrow derived mesenchymal stem cells (MSCs) in subjects afflicted by IPF. The Overall hypothesis to be tested by the consortium is that the repeated intravenous administration (two doses separated by a month) of MSC can be accomplished safely in subjects afflicted by IPF. This intervention will modify the gene expression and inflammatory activity of alveolar macrophages (AM) and epithelial cells in the distal lung, and mononuclear cells in peripheral circulation slowing the rate of decline of the forced vital capacity (FVC) and preventing the development of acute exacerbation in IPF.

PUBLICATIONS:

Original Peer-Reviewed Publications

1. Banks, W.A., **Ortiz, L.A.**, Plotkin, A., and Kastin, A.J. Human interleukin 1 alpha (IL-1 α), murine IL-1 α , and murine IL-1 β are transported from blood to brain in the mouse by a shared saturable mechanism. J Pharmacol and Exp Ther. 259: 988-996, 1991. PMID:1762091
2. Yang, K., and **Ortiz, L.A.** Multifocal granular cell myoblastoma. South Med J. 86: 478-479, 1993.
3. Hargrove, M.S., Singleton, E.W., Quillin, M.L., **Ortiz, L.A.**, Phillips, G.N., Olson, J.S., and Mathews, A.J. His64 (E7) to TYR Apomyoglobin is a reagent for measuring rates of heme disassociation. J Biol Chem. 269: 4207-4214, 1994. PMID:8307983

4. Gutierrez, G., Clark, C., Brown, S., Price, K., **Ortiz, L.A.**, and Grover, C. The effect of dobutamine on O₂ consumption and gastric mucosal pH in septic patients. Am J Respir Crit Care Med. 150: 305-310, 1994.
5. Anaya, J. M., Diethelm, L., **Ortiz, L.A.**, Gutierrez, M., Citera, G., Welsh, R., and Espinoza, L. Pulmonary involvement in rheumatoid arthritis. Seminars Arthritis Rheum. 24: 242-254, 1995. PMID:7740304
6. **Ortiz, L.A.**, Moroz, K., Liu, J-Y., Hoyle, G.W., Hammond, T., Banks, W., Hamilton, R.F., Holian, A., Brody, A.R., and Friedman, M. Alveolar macrophage apoptosis and TNF- α , but not p53 expression, correlate with murine strain response to bleomycin. Am J Physiol: Lung Cellular and Molecular physiology. 275 (19): L1208-L1218, 1998. PMID:9843859
7. **Ortiz, L.A.**, Lasky, J.A., Hamilton, R.F., Holian, A., Hoyle, G.W., Banks, W., Peschon, J., Brody, A.R. and Friedman, M. Expression of TNF and the necessity for TNF receptors in bleomycin-induced lung injury in mice. Exp Lung Research 24: 721-743, 1998. PMID:9839161
8. Lasky, J.A., **Ortiz, L.A.**, Tonthat, B., Hoyle, G.W., Corti, M., Athas, G., Lungarella, G., Brody, A.R., and Friedman, M. Connective tissue growth factor (CTGF) mRNA expression is upregulated in bleomycin-induced lung fibrosis. Am J Physiol: Lung Cellular and Molecular Physiology. 275 (19): L365-L371, 1998. PMID:9700098
9. **Ortiz, L.A.**, Lasky, J.A., Lungarella, G., Cavarra, E., Martorana, P., Banks, W., Peschon, J., Brody, A.R., and Friedman, M. Upregulation of the p75 but not the p55 mRNA during silica and bleomycin-induced lung injury in mice. Am J Respir Cell Mol Biol. 20: 825-833, 1999. PMID:10101016
10. **Ortiz, L.A.**, Lasky, J.A., Reyes, M., Lungarella, G., Safah, H., Miller, A., and Friedman, M. Exacerbation of bleomycin-induced lung injury in mice by amifostine. Am J Physiol: Lung Cellular and Molecular Physiology. 277(21):L1239-L1244, 1999. PMID:10600896
11. Champion, H.C., Bivalacqua, T.J., D'Souza, F.M., **Ortiz, L.A.**, Jeter, J.R., Toyoda, K., Heistad, D.D., Hyman, A.L, and Kadowitz, P.J. Gene-transfer of endothelial nitric oxide synthase to the lung of the mouse in vivo: Effect on agonist-induced and flow-mediated responses. Circulation Research. 84(12): 1422-1432, 1999. PMID:10381895
12. **Ortiz, L.A.**, Lasky, J.A., Gozal, E., Ruiz, V., Lungarella, G., Cavarra, E., Brody, A.R., Friedman, M., Pardo, A., and Selman, M. Tumor necrosis factor receptor deficiency alters metalloproteinase 13/tissue inhibitor of metalloproteinase 1 expression in murine silicosis. Am J Respir Crit Care Med. 163: 244-252, 2001. PMID:11208652
13. Cavarra, E., Martorana, P., Bartelesi, B., Fineschi, S., Lucatelli, M., **Ortiz, L.A.**, and Lungarella, G. Genetic deficiency of α 1-PI influences lung responses to bleomycin in

- terms of fibrosis and emphysema. A study in two congenic mouse strains. European Resp J. 17(3): 474-480, 2001.
14. **Ortiz, L.A.**, Friedman, M., and Banks, W. Role of LPS and receptor subtype in the uptake of TNF by the murine lung. Life Sciences. 69(7): 791-802, 2001. PMID: 11487091
 15. Lasky, J.A., and **Ortiz, L.A.** Antifibrotic modalities for the treatment of pulmonary fibrosis. Am J Med Sci. 322(4): 213-221, 2001. PMID:11678519
 16. Cavarra, E., Bartelesi, B., Lucatelli, M., Fineschi, S., Gambelli, F., **Ortiz, L.A.**, Martorana, P., and Lungarella, G. Effects of cigarette smoke in mice with different levels of $\alpha 1$ PI and sensitivity to oxidants. Am J Respir Crit Care Med. 164: 886-890, 2001. PMID:11549550
 17. American Thoracic Society/European Respiratory Society. International multidisciplinary consensus classification of idiopathic interstitial pneumonias. Am J Respir Crit Care Med. 165: 277-304, 2002.
 18. **Ortiz, L.A.** Champion, H., Lasky, J.A., Gozal, E., Hoyle G, Friedman, M., Hyman, A.L, and Kadowitz, P.J. Enalapril protects mice from pulmonary hypertension by inhibiting TNF-mediated activation of NF- κ B and AP-1. Am J Physiol: Lung Cellular and Molecular Physiology. 282: L1209-L1221, 2002. PMID:12003776
 19. Gozal, E., **Ortiz, L.A.**, Zou, X., Burow, M., Lasky, J.A., and Friedman, M. Silica-induced apoptosis in murine macrophage: involvement of TNF- α and NF- κ B activation. Am J Respir Cell Mol Biol. 27(1): 91-98, 2002. PMID:12091251
 20. Li, J., **Ortiz, L.A.**, and Hoyle, G. Lung pathology in platelet-derived growth factor transgenic mice: effects of genetic background and fibrogenic agents. Exp Lung Research. 28: 507-522, 2002. PMID:12217216
 21. Gosh, S., Mendoza, T., **Ortiz, L.A.**, Hoyle, G.W., Fermin, C.D., Brody, A.R., Friedman, M., and Morris, G.F. Enhanced bleomycin sensitivity in mice expressing dominant negative p53 from the surfactant protein C promoter. Am J Respir Crit Care Med. 2002 Sep 15;166(6):890-7. PMID:12231503
 22. **Ortiz, L.A.**, Gambelli, F., McBride, C., Gaupp, D., Baddov, M., Kaminski, N., and Phinney, D. Mesenchymal Stem Cell Engraftment in Lung is Enhanced in Response to Bleomycin Exposure and Ameliorates its Fibrotic Effects. Proc Natl Acad Sci U S A. 2003 Jul 8;100(14):8407-11. Epub 2003 Jun 18. PMID:12815096
 23. Gambelli, F., Friedman, M., Hammond, T., Riches, D., and **Ortiz, L.A.** Phosphorylation of Tumor Necrosis Factor Receptor 1 (p55) protects macrophages from silica-induced apoptosis. J Biol Chem. 2004 Jan 16;279(3):2020-9. Epub 2003 Oct 21. PMID:14570868

24. Pitt, B., and **L.A. Ortiz**. Stem cells in lung biology. Am J Physiol: Lung Cellular and Molecular Physiology. 286(4):L621-3, 2004.
25. Reynolds, S., Giangreco, A., Hong, K., McGrath, K., **Ortiz, L.A.**, and Stripp, B. Airway injury in the pathophysiology of lung disease: Selective depletion of airway stem and progenitor cells potentates inflammation and alveolar dysfunction. Am J Physiol Lung Cell Mol Physiol. 2004 Dec;287(6):L1256-65. Epub 2004 Aug 06. PMID: 15298853 [PubMed - indexed for MEDLINE]
26. Serinkan, B.F., Gambelli, F., Potapovich, A.I., Babu, H., DiGiuseppe, M., **Ortiz, L.A.**, Fabisiak, J.P., and Kagan V.E. Apoptotic cells quench production of reactive oxygen and nitrogen species by activated macrophages: differential role of phosphatidylserine signaling. Cell Death Differ. 2005 Aug;12(8):1141-4. No abstract available. PMID:15861193
27. Hagood, J.S., Salazar, L., Prabhakaran, P., MacEwen, M., Barker, T., **Ortiz, L.A.**, Schoeb, T., Siegel, G.P., Alexander, B.C., Pardo, A., and M. Selman. Loss of fibroblast Thy-1 expression correlates with enhanced lung fibrogenesis. Am J Pathol. 2005 Aug;167(2):365-79. PMID:16049324
28. Reynolds, S., Shen, H., Reynolds, P., Betsuyaku, T., Pilewski, J.M., Gambelli, F, DiGiuseppe, M., **Ortiz, L.A.** and B. Stripp. Molecular and Functional Properties of lung side population cells. Am J Physiol Lung Cell Mol Physiol. 2007 Jan 12; [Epub ahead of print] PMID: 17142352 [PubMed - as supplied by publisher].
29. ***Ortiz, L.A.**, Fattman, C., Dutreil, M., and Phinney, D. Interleukin 1 receptor antagonist mediates the anti inflammatory and anti fibrotic effects of mesenchymal stem cells during lung injury. Proc Natl Acad Sci U S A. 2007 Jun 26;104(26):11002-7. Epub 2007 Jun 14. PMID:17569781 **these manuscripts have been featured in "Faculty of 1000"*.
30. Fattman, C., Gambelli, F., Hoyle, G.W., Pitt, B., and **Ortiz, L.A.** Epithelial expression of TIMP1 does not alter sensitivity to bleomycin-induced lung injury in C57BL/6 mice. Am J Physiol Lung Cell Mol Physiol. 2008 Mar;294(3):L572-81. doi: 10.1152/ajplung.00291.2007. Epub 2008 Jan 4. PMID:18178676
31. Fattman, C., Torres, G., Brockway, B.L., Stripp, B.R., and **Ortiz, L.A.** Remodeling of the respiratory unit in silica-exposed mice. Proceedings of the American Thoracic Society 5(3): 375, 2008.
32. Creel, M., Studer, S.M., Schwerha, J., Harper, J., **Ortiz, L.A.**, Ragin, C., and Taioli, E. Gender differences in survival after lung transplantation: Implications for cancer etiology. Transplantation. 2008 Apr 27;85(8 Suppl):S64-8. doi:10.1097/TP.0b013e31816c2fae.PMID:1842504.
33. Weiss, D. J., Kolls, J.K., **Ortiz, L.A.**, Panoskaltsis-Mortari, A., and Prockop, D.J. Stem cells and cell therapies in lung biology and lung diseases. Proc Am Thorac Soc. 2008 Jul

15;5(5):637-67. doi: 10.1513/pats.200804-037DW. Review. No abstract available.
PMID:18625757

34. Di Giuseppe, M., F. Gambelli, G.W. Hoyle, G. Lungarella, S.E. Studder, T. Richards, S. Yousem, K. McCurry, J. Dauber, Kaminski, N., Leikauf, G., and L.A. **Ortiz**. Systemic inhibition of NFκB activation protects from silicosis. Plos One Journal 2009 May 25;4(5):e5689. PMID: 19479048 [PubMed - in process]).
35. Reed D.S., Smith L., Dunsmore T., Trichel A., **Ortiz L.A.**, Cole K.S., and E. Barry. Pneumonic tularemia in rabbits resembles the human disease as illustrated by radiographic and hematological changes after infection. PLoS One. 2011;6(9):e24654. doi: 10.1371/journal.pone.0024654. Epub 2011 Sep 13. PMID:21931798
36. Martinu T, Palmer SM, **Ortiz LA**. Lung resident mesenchymal stromal cells. A new player in post transplant bronchiolitis obliterans syndrome? Am J Respir Crit Care Med. 2011 Apr 15;183(8):968-70. doi: 10.1164/rccm.201101-0006ED. No abstract available. PMID:21498820.
37. *Boregowda S., Krishnappa V., Chambers J.W, LoGrasso P.V, Lai W-T., **Ortiz L.A.**, and D.G. Phinney. Atmospheric oxygen inhibits growth and differentiation of marrow-derived mouse MSC via a p53 dependent mechanism. Stem Cells. 2012 May;30(5):975-87. doi: 10.1002/stem.1069. PMID:22367737 **these manuscripts have been featured in "Faculty of 1000"*.
38. Bein, K., Di Giuseppe, M., Mischler, S.E., **Ortiz, LA**; and Leikauf, G.D Surfactant Protein B repression in pulmonary epithelial cells by LPS-stimulated macrophages via cytokines. Am J Respir Cell Mol Biol. 2013 Apr 3. [Epub ahead of print] PMID:23590297
39. Michael A. Matthay, Piero Anversa, Jahar Bhattacharya, Bruce K. Burnett, Harold A. Chapman, Joshua M. Hare, Derek J. Hei, Andrew M. Hoffman, Stella Kourembanas, David H. McKenna, Luis A. **Ortiz**, Harald C. Ott, William Tente, Bernard Thébaud, Bruce C. Trapnell, Daniel J. Weiss, Jason X.-J. Yuan, Carol J. Blaisdell. Cell Therapy for Lung Diseases, Report from an NIH-NHLBI Workshop November 13-14, 2012. Am J Respir Crit Care Med. 2013 May 28. [Epub ahead of print] PMID:23713908
40. Weiss D., and **Ortiz LA**. Cell Therapy Trials for Lung Diseases: Progress and Cautions. Am J Respir Crit Care Med. 2013 Jul 15;188(2):123-5. doi: 10.1164/rccm.2013020351ED. No abstract available. PMID:23855686
41. Mischler, S., Cauda, E., DiGiuseppe M., and **Ortiz L.A.** A multi-cyclone sampling array for the collection of size-segregated occupational aerosols. J Occup Environ Hyg. 2013 Dec;10(12):685-93. doi: 10.1080/15459624.2013.818244. PMID: 24195535
42. Timothy S. Blackwell, Andrew M. Tager, Zea Borok, Bethany B. Moore, David A. Schwartz, Kevin J. Anstrom, Ziv Bar-Joseph, Peter Bitterman, Michael R. Blackburn, William Bradford, Kevin K. Brown, Harold A. Chapman, Harold R Collard, Gregory P. Cosgrove, Robin Deterding, Ramona Doyle, Kevin J. Flaherty, Christine Kim Garcia,

- James S. Hagood, Craig A. Henke, Erica Herzog, Cory M. Hogaboam, Jeffrey C. Horowitz, Talmadge E. King, Jr., James E. Loyd, William E. Lawson, Clay B. Marsh, Paul W. Noble, Imre Noth, Dean Sheppard, Julie Olsson, Luis A. **Ortiz**, Thomas G. O’Riordan, Tim D. Oury, Thomas H. Sisson, Ganesh Raghuram, Jesse Roman, Patricia J. Sime, Daniel Tschumperlin, Shelia M. Violette, Timothy E. Weaver, Rebecca G. Wells, Eric S. White, Naftali Kaminski, Fernando J. Martinez, Thomas A. Wynn, Victor J. Thannickal and Jerry P. Eu. NHLBI Workshop Summary: Future Directions in Idiopathic Pulmonary Fibrosis Research An NHLBI Workshop Report. *Am J Respir Crit Care Med*. 2013 Oct 25. [Epub ahead of print] PMID: 24160862
43. Redente E.F., Keith R.C, Janssen W., Henson P.M., **Ortiz L.A.**, Downey G.P., Bratton D.L., and DW. Riches. TNF- α accelerates the resolution of established pulmonary fibrosis in mice by targeting alternatively programmed lung macrophages. *Am J Respir Cell Mol Biol*. 2013 Dec 10. [Epub ahead of print] PMID: 24325577
44. Fazzi F., Winnica D.E., Di Giuseppe M., Njah J., Go K., Sala E., St Croix C.M, Watkins S.C., Tyurin V.A., Phinney D.G., Leikauf G.D., Kagan V.E., and **Ortiz, LA.** TNFR1/Phox Interaction and TNFR1 Mitochondrial Translocation Thwarts Silica- Induced Pulmonary Fibrosis. *The Journal of Immunology*. 2014 Apr 15;192(8):3837-46. doi: 10.4049/jimmunol.1103516. Epub 2014 Mar 12. PMID: 24623132.
45. *Phinney D.G., DiGiuseppe M., Njah J., Sala-Llinas E., DeLuliis, G., Kaminski N., Shiva S., St. Croix C.M. Stolz D.B., Watkins S.C., Di P.Y., Leikauf GD., Kolls J., Riches DWH., McKenna D., and **Ortiz L.A.** Mesenchymal stem cells use extracellular vesicles to outsource mitophagy and shuttle microRNAs. *Nat Commun*. 2015 Oct 7;6:8472. doi: 10.1038/ncomms 9472. PMID: 26442449. **these manuscripts have been featured in “Faculty of 1000”.*
46. Rubin J.M., Horowitz J.C., Sisson T.H., Kim K., **Ortiz L.A.**, and Hamilton J.D. Ultrasound Strain Measurements for Evaluating Local Pulmonary Ventilation. *IEEE Int Ultrason Symp*. 2015 Oct;2015. doi: 10.1109/ULTSYM.2015.0181. PMID: 26635917.
47. Galipeau J, Krampera M, Barrett J, Dazzi F, Deans RJ, DeBruijn J, Dominici M, Fibbe WE, Gee AP, Gimble JM, Hematti P, Koh MB, LeBlanc K, Martin I, McNiece IK, Mendicino M, Oh S, **Ortiz L.A.**, Phinney DG, Planat V, Prockop DJ, Shi Y, Stroncek DF, Viswanathan S, Weiss DJ, Sensebe L. *Cytotherapy*. 2015 Dec 23. pii: S1465-3249(15)01122-6. doi:10.1016/j.jcyt.2015.11.008. [Epub ahead of print]. PMID: 2672422
48. Boregowda SV., Krishnappa V., Haga CL., **Ortiz L.A.**, and D.G. Phinney. A clinical Indications Prediction Scale based on TWIST1 for Human Mesenchymal Stem Cells. *EBioMedicine*. 2015 Dec 24;4:62-73. doi: 10.1016/j.ebiom.2015.12.020. eCollection 2016 Feb. PMID: 26981553
49. Rubin JM, Horowitz JC, Sisson TH, Kim K, **Ortiz LA**, Hamilton JD. Ultrasound Strain Measurements for Evaluating Local Pulmonary Ventilation *Ultrasound Med Biol*. 2016 Nov;42(11):2525-2531. doi: 10.1016/j.ultrasmedbio.2016.05.020. PMID: 27520395

50. Mischler S.E., Cauda E.G., Di Giuseppe, M., McWilliams L.J., St. Croix, C., Su. M., Franks, J., and **Ortiz LA**. Differential activation of RAW 264.7 macrophages by size-segregated crystalline silica. *J Occup Med Toxicol*. 2016 Dec 15;11:57. doi: 10.1186/s12995-016-0145-2. PMID: 28018477
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Manuscripts Submitted and in Revision

Marrocco. A., Fattman C.L., Di Giuseppe M., Sala E., Fazzi F., Torres GM., Njah J., Snyder JC., Latoche J.D., Kaminski, N., Yousem S., Leikauf G.D., Stripp BR, and L.A. **Ortiz.** Club Cell Secretory Protein (CC16) Regulates the Innate Immune Response in Silicosis.

Metabolic adaptation of macrophages as mechanism of defense against crystalline silica. Under Review at journal of Immunology.

Of vesicles and right ventricles: How Bone Marrow derived Mesenchymal Stromal Cells use Extracellular Vesicles to Restore VEGF signal, Couple RV/PA, Reduce TGF beta activation, and Enhance Macrophage Clearance of Collagen.

Tunno, B., Holguin, F., Jane E. Clougherty J.E., Lynda Glagola, L., and **Ortiz L.A.** Coal workers' Pneumoconiosis and Lung Function Impairment Among Southwestern Pennsylvania miners. Submitted

Manuscripts in Preparation

Njah, J., Di Giuseppe, Winnica, D., Fazzi, F., and **Ortiz, L.A.** Differences in telomerase activity and sheltering expression characterize the mouse strain difference in response to bleomycin.

Abstracts

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61. Njah J; Marrocco A; Detwiler A; Milosevic J; Beckman, T.; Simon, M; Rojas, M; Mora, A; Riches D; and **Ortiz, LA.** Mesenchymal Stem Cells (hMSC) exosomes Couple the RV/PA during Pulmonary fibrosis (PF). 2019 Aspen Lung Conference.
62. Marrocco A, K. Frawley, Pearce L, Peterson J, Detwiler A, and **Ortiz, LA.** Macrophages Metabolic Reprogramming after Silica Exposure. In: 2019 (58th) Annual Meeting Abstract Supplement, Society of Toxicology, 2019. Abstract no. 1656. This abstract was awarded the A-E SOT Graduate Student Travel Award 2019
63. Marrocco A, K. Frawley, Pearce L, Peterson J, Detwiler A, and **Ortiz, LA.** Adaptation in Macrophages as Mechanism of Defense Against Crystalline Silica Dust" APHA's 2019 Annual Meeting and Expo, Philadelphia, Nov 2019 Abstract N.450075
64. Marrocco A, K. Frawley, Mullett S, Pearce L, Peterson J, Detwiler A, Wendell S, and **Ortiz, LA.** "Metabolic reprogramming of macrophages after silica exposure" 104th American Occupational Health Conference, Anaheim CA; April 2019
65. Antonella Marrocco, Kristin Frawley, Steven Mullett, Linda Pearce, James Peterson, Stacy Wendell, and **Luis Ortiz** "Metabolic Adaptation in Macrophages as Mechanism of Defense Against Crystalline Silica Dust" Dean's Day Pitt Public Health; April 2019 (not published)
66. Marrocco A, K. Frawley, Mullett S, Pearce L, Peterson J, Detwiler A, Wendell S, and **Ortiz, LA.** "Metabolic Adaptation in Macrophages as Mechanism of Defense Against Crystalline Silica Dust" American Public Health Association; Abstract N.450075, November 2019
67. Mesenchymal Stem Cells (hMSC) exosomes modulate VEGF signal to couple the RV/PA during Pulmonary fibrosis (PF). Abstract 3392987 - Cytotherapy 2020. Selected for presentation at the 26th Annual Meeting of the ISCT, International Society for Cell & Gene Therapy, in Paris, France

68. Metabolic Adaptation in Macrophages as Mechanism of Defense against Crystalline Silica Dust, Society of Toxicology 59th Annual Meeting - 2020 Abstract #2550 (canceled)
 69. Pittsburgh LUNG FORCE Expo on May 27, 2020. Session "Occupational and Environmental Factors that Affect Lung Health." (canceled)
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PROFESSIONAL ACTIVITIES

Invited Lectures and Symposia

1. "Interleukin-1 α is transported into the brain by a saturable system but does not disrupt the blood-brain barrier". Federation for Clinical Research. New Orleans, Louisiana. February 1990.
2. "Acute effects of in vivo and in vitro bleomycin on murine alveolar macrophages". Texas Thoracic Society. Austin, Texas. April 1992.
3. "Bleomycin induction of lung inflammation and TNF- α m-RNA expression in mice". 58th Annual Scientific Assembly. American College of Chest Physician's. Chicago, Illinois. October 1992.
4. "Lupus Pneumonitis: A role for Stress Proteins and Alveolar Macrophages". Research Conference, Division of Pulmonary Medicine at Louisiana State University. New Orleans, Louisiana. June 1994.
5. "Bleomycin-induction of lung injury in mice". Research conference, Department of Internal Medicine. Tulane University. New Orleans, Louisiana. September, 1994.
6. "A differential induction of apoptosis and p53 in Alveolar Macrophages (AM) characterizes the difference in murine strain response to bleomycin". 1995 International Conference. American Thoracic Society. Seattle, Washington. May 1995.
7. "Sjogren's syndrome complicated by usual interstitial pneumonitis". Department of Pathology & Laboratory Medicine Grand Rounds. Tulane University Medical Center. New Orleans, Louisiana. June 1995.
8. "Animal models of pulmonary fibrosis". U.S.-Colombian Medical Association annual Meeting. New Orleans, Louisiana. July 1995.
9. "An update in Interstitial Lung Diseases". VIII National congress of Internal Medicine. Asociacion Hondurena de Medicina Interna. Tegucigalpa, Honduras. December 1995.
10. "New Insights in the Pathophysiology of Asthma". Asociacion Colombiana de Pneumologia. Barranquilla, Bogota, Cali y. Medellin, Colombia. March 1996.

11. "Update in the Pathophysiology of Asthma". Department of Obstetrics and Gynecology Grand Rounds. Tulane University Medical Center. New Orleans, Louisiana. April 1996.
12. "TNF receptor knockout mice in the study of silicosis". 9th. International colloquium on pulmonary fibrosis. Oaxaca, Mexico. November 1996.
13. "TNF receptor knockout mice in the study of pulmonary fibrosis". Tulane-LSU clinical immunology seminar series. New Orleans, Louisiana. December 1996.
14. "ARDS". Department of Medicine Grand Rounds. Tulane Medical Center. New Orleans, Louisiana. March 1997.
15. "Collagen Vascular Diseases and the Lung". Louisiana/Mississippi ACP Regional Meeting. New Orleans, Louisiana. March 1997.
16. "Lupus Pneumonitis". Department of Medicine Grand Rounds. Tulane Medical Center. April 1997.
17. "Asthma and its Pathophysiology". VII Congreso Colombiano de Neumología y Cirugía del Torax. Medellin, Colombia. October 1997.
18. "Enfermedad Pulmonar Intersticial Difusa y Enfermedades del Colageno". VII Congreso Colombiano de Neumología y Cirugía del Torax. Medellin, Colombia. October 1997.
19. "The importance of NF- κ B activation in the pathogenesis of bleomycin-induced lung injury". 1998 International Conference. American Thoracic Society. Chicago, Illinois. April 1998.
20. "Individual tumor necrosis factor (TNFR) knockout mice are resistant to silica-induced lung fibrosis but not to inflammation". 1998 International Conference. American Thoracic Society. Chicago, Illinois. April 1998.
21. "Mechanisms of bleomycin-induced lung injury". Tulane Cancer Center. Tulane University Medical Center. New Orleans, Louisiana. July 1998.
22. "Cytokine role in pulmonary fibrosis". I congress of the Latin American Thoracic Society. Sao Paulo, Brasil. August 1998.
23. "Single tumor necrosis factor receptor-deficient mice are protected from the fibrogenic but not the inflammatory effects of silica". European Respiratory Society. Geneva, Switzerland. September 1998.
24. "Bleomycin-induced pulmonary fibrosis: A story for TNF". Research Conference, Division of Pulmonary Medicine. Department of Pediatrics. Tulane Medical Center. New Orleans, Louisiana. September 1998.

25. "Single tumor necrosis factor receptor-deficient mice are protected from fibrogenesis but not the inflammatory effects of silica". 10th International Colloquium on Lung Fibrosis. Universita di Siena. Siena, Italy. October 1998.
26. "The importance of Tumor Necrosis Factor in the pathogenesis of fibrotic lung diseases". Department of Pharmacology, Tulane University Medical Center. New Orleans, Louisiana. November 1998.
27. "Individual (p55 or p75) TNF receptors activate I κ B α kinase and promote NF- κ B activation in bleomycin (BLM)-induced lung fibrosis". Workshop: "Apoptosis, growth factors and signal transduction pathways: Basic biology and toxicology". National Institute of Environmental Health Sciences. Research Triangle Park, North Carolina. April 1999.
28. "TNF signal transduction pathways in pulmonary silicosis". Research conference, Department of Internal Medicine. Tulane University. New Orleans, Louisiana. June 1999.
29. "Basic aspects of the pathogenesis of pulmonary fibrosis". VIII Congreso Colombiano de Neumologia y Cirugia del Torax. Bucaramanga, Colombia. November 1999.
30. "TNF receptor deficient mice are protected from silica-induced lung fibrosis by inhibiting AP-1 activation and altering MMP-13/TIMP-1 expression". Thomas L. Petty Aspen Conference in Pulmonary Fibrosis. 43rd annual Meeting. Aspen, Colorado. May-June 2000.
31. "The importance of TNF-mediated signal transduction in lung fibrogenesis". Department of Allergy and Immunology Harbor-UCLA Medical Center. Los Angeles, California. June 2000.
32. "The significance of TNF receptors in pulmonary fibrosis". Grand Rounds. Department of Pulmonary and Critical care Medicine. UCLA School of Medicine. Los Angeles, California. August 2000.
33. "The role of cytokines in the pathogenesis of fibrotic lung injury". Annual Actualization Symposium in Allergy and immunology. Organized by the University of Chile at Concepcion. Concepcion, Chile. November 2000.
34. "Role of TNF and TNF receptors in pulmonary fibrosis". RIP conference. National Jewish Medical Center. Denver, Colorado. December 2000.
35. "The importance of TNF signal transduction in pulmonary fibrosis". PACCM Join collaborative research conference. University of Pittsburgh. Pittsburgh, Pennsylvania. September 2001.
36. "TNF receptor deficient mice as a model to study fibrogenesis". Regulation of fibrogenesis by intestinal and hepatic inflammation. University of North Carolina at Chapel Hill. Chapel Hill, North Carolina. April 2002.

37. "Murine mesenchymal stem cells in the treatment of bleomycin (BLM)-induced pulmonary fibrosis". 2002 International Conference. American Thoracic Society. Atlanta, Georgia. May 2002.
38. "TNF and its contribution to the difference in murine strain response during lung fibrogenesis". NIOSH. Morgantown, West Virginia. May 2002.
39. "Mesenchymal stem cells in pulmonary fibrosis". 1st Pittsburgh international lung conference. Nemaquin resort Pittsburgh, Pennsylvania. October 2002
40. "The use of recombinant TNF receptors to treat Rheumatoid-arthritis-induced interstitial lung Diseases". Rheumatology Grand Rounds, University of Pittsburgh, Department of Medicine, School of Medicine. Pittsburgh, Pennsylvania. November 2002.
41. "Mesenchymal stem cells in pulmonary fibrosis: Presentation at the Pittsburgh Development Center 2002-2003 Seminar Series. Magee-Womens Research Institute, University of Pittsburgh. Pittsburgh, Pennsylvania. December 2002.
42. "Stem cells and lung injury". Department of Allergy and Immunology Lecture Series. Children's Hospital of Pittsburgh. Pittsburgh, Pennsylvania. February 2003.
43. "Mesenchymal stem cells in the treatment of lung injury". Research Lab Conference. Department of Radiation Oncology at the University of Pittsburgh, School of Medicine. Pittsburgh, Pennsylvania. March 2003.
44. "Injury enhances engraftment of bone marrow-derived mesenchymal stem cells into the alveolar epithelium". 2003 International Conference. American Thoracic Society. Seattle, Washington. May 2003.
45. "From bone marrow to alveolar epithelium: the role for the mesenchymal stem cell". grand rounds. Department of Pulmonary Medicine. USC. Los Angeles, California. January 2004.
46. "Sequential expression of BMP receptors and suppression of FGF2 characterize the differentiation of embryonic stem cells to alveolar epithelium". 2004 International Conference. American Thoracic Society. Orlando, Florida. May 2004.
47. "From bone marrow mesenchyma to alveolar epithelium". Program of the ASGT 7th Annual Meeting. Minneapolis, Minnesota. June 2004.
48. "From bone marrow to alveolar epithelium: The role for the mesenchymal stem cell in lung injury". University of Louisville Department of Medicine. Louisville, Kentucky. August 2004.
49. "Silicosis: An old disease". Program of the Semana Nacional de neumologia (Contaminacion atmosferica e impacto sobre seres humanos). Instituto Nacional de Enfermedades Respiratorias (INER). Mexico City. Mexico, D.F. September 2004.

50. "Stem cells and the lung: an overview". Workshop II in Regenerative Medicine at Emory University. Emory University Conference Center. Atlanta, Georgia. September 2004.
51. "Bone marrow derived mesenchymal stem cells and the lung". 13th International Colloquium on Lung Fibrosis. Banff, Canada. October 2004.
52. "Silicosis: An unresolved problem". Grand Rounds at the University of Louisville Department of Medicine. Louisville, Kentucky. April 2005.
53. "Mechanisms of pulmonary fibrosis". Invited as facilitator of this thematic poster section. 2005 International Conference. American Thoracic Society. San Diego, California. May 2005.
54. "Stem cell recruitment in lung remodeling: Is there a downside?" 2005 International Conference. American Thoracic Society. San Diego, California. May 2005.
55. "Adult stem cells, lung biology, and lung disease". Workshop sponsored by Cystic fibrosis foundation, the National Heart, Lung, and Blood Institute, and the University of Vermont. Burlington, Vermont. July 2005.
56. "The role of Stem cells in lung injury and repair". Third Siena International Conference on Animal Models of Chronic Obstructive Pulmonary Disease. Siena, Italy, October 2005.
57. "Silicosis: and old disease and unresolved problem". State Chest Conference. Division of Pulmonary Medicine at Yale University. New Haven, Connecticut, December 2005.
58. "A perspective in the stem cells of the lung". Division of Pulmonary and Critical Care Medicine at Yale University. New Haven, Connecticut, December 2005.
59. "Do circulating mesenchymal cells affect the lung in pulmonary fibrosis: Evidence from mice and humans" 2006 International Conference. American Thoracic Society. San Diego, California. May 2006.
60. "Murine mesenchymal stem cells block T-cell proliferation via production of Interleukin1 receptor antagonist". 14th International Colloquium on Lung Fibrosis. Schloss Rheinhartshausen Kempinski, Germany. September 2006.
61. "Silicosis: lessons from an old disease and unresolved problem". National Jewish Research and Medical Center. Denver, Colorado. December 2006.
62. "Silicosis: Academic experience at the University of Pittsburgh". Department of Medicine at the University of Alabama at Birmingham. January 2007.
63. "The contribution of bone marrow mesenchyma during lung injury and repair". Division of Pulmonary Medicine at Vanderbilt University. Nashville, Tennessee. February 2007.

64. "Section Chair: Stem Cells: Are we close to cell therapy?" 2007 International Conference. American Thoracic Society. San Francisco, California. May 2007.
65. "Murine Mesenchymal Stem Cells (MSCs) block T-cell proliferation via production of Interleukin 1 receptor antagonist". 2007 International Conference. American Thoracic Society. San Francisco, California. May 2007.
66. "Interleukin 1 Receptor Antagonist mediates the anti-inflammatory effects of bone marrow derived mesenchymal stem cells during lung injury". Thomas L. Petty Aspen Lung Conference 50th annual meeting. Aspen, Colorado. June 2007.
67. "Use of bone marrow stroma in the treatment of pulmonary fibrosis". Division of Pulmonary Medicine at the University of Miami. Miami, Florida. August 2007.
68. "Silicosis". 2007 National Conference of the National Coalition of Black Lung and Respiratory Disease Clinics. Oglebay State Park, West Virginia. September 2007.
69. "An Update in the stem cells of the lung". Division of Pulmonary, Critical Care and Environmental Medicine at the University of Utah. Salt Lake City, UT. December 2007.
70. "Osteopontin and Hyaluronate regulate mesenchymal stem cells migration". 2008 International Conference. American Thoracic Society. Toronto, Canada. May 2008.
71. "Bone marrow mesenchyma and pulmonary fibrosis". Division of Pulmonary Medicine at the University of Michigan Ann Arbor. Ann Arbor, Michigan. August 2008.
72. "CD44 regulation of mesenchymal stem cell engraftment in fibrotic lung". 15th International Colloquium on Lung and Airway Fibrosis. Sunset Beach, North Carolina. October 2008.
73. "Anti-inflammatory properties of bone marrow derived mesenchymal stem cells in pulmonary fibrosis". Division of Pulmonary and Critical Care Medicine at the University of California San Francisco. San Francisco, California. November 2008
74. "Modulation of bleomycin induced lung injury by bone marrow derived mesenchymal stem cells" American Physiological Society. Annual meeting experimental biology FASEB 2009. New Orleans, Louisiana. February 2009.
75. "Novel treatments for pulmonary fibrosis: Stem cells and all the Jazz". American Thoracic Society. San Diego, California. May 2009.
76. "S1P receptors mediate mesenchymal stem cells (MSCs) migration". American Thoracic Society. San Diego, California. May 2009.
77. "TNF protects macrophages from silica induced apoptosis". Society of Toxicology. Salt Lake City, Utah. February 2010.

78. "The role of stem cells in the pathogenesis and treatment of silicosis". Division Pulmonary Medicine Tulane Health Science Center. New Orleans, Louisiana. May 2010.
79. "Regulation of the Innate Immunity by Bone Marrow Derived Mesenchyma as Potential Treatment for Environmentally Induced Lung Injury". Division Pulmonary Medicine University of Iowa. Iowa City, Iowa. September 2010.
80. "Regulation of macrophage biology by mesenchymal stem cells (MSC) involve mitochondrial transfer". 16th International Colloquium on Lung and Airway Fibrosis. Busselton, Western Australia, Australia, October 2010.
81. "Mesenchymal stem cell secretome in pulmonary fibrosis". Division of Pulmonary, Critical Care, and Environmental Medicine at the University of Rochester. Rochester, New York. December 2010.
82. "Mesenchymal stem cell secretome: mitochondrial transfer and microRNA shuttle". Institute for Regenerative Medicine at Texas A&M Health Science Center at Scott & White, Temple, Texas. March 2011.
83. "Mesenchymal Stem Cells" Postgraduate course (PG27) Functional analysis of stem cells: getting ready to translate. American Thoracic Society. Denver, Colorado. May 2011.
84. "Mesenchymal stem cell transfer of mitochondria via the secretome" Featured speaker of the mini symposium (B18) Mitochondrial function in pulmonary health and disease. American Thoracic Society. Denver, Colorado. May 2011.
85. "The mesenchymal stem cell (MSC) secretome involves mitochondrial transfer. American Thoracic Society. Denver, Colorado. May 2011.
86. "Effects of mesenchymal stem cell (MSC) transfer of micro RNA's and mitochondria as mechanisms of immune regulation in models of lung fibrosis". Hospital Clinic de la Universidad de Barcelona. Barcelona, Spain. September 2011.
87. "Mesenchymal Stem Cells use their exosome to transfer mitochondrial and micro RNAs, and promote homeostasis during fibrotic lung injury" Comprehensive Pneumology Center Ludwig-Maximilians-Universität. Munich, Germany. October 2011.
88. "Use of bone marrow mesenchyme to reprogram lung immunity in response to inhalation injuries". Center for Vaccine Research At the University of Pittsburgh. Aerobiology Mini-Symposium. Pittsburgh, Pennsylvania. November 2011.
89. "The use of Bone Marrow Derived Mesenchyme to reprogram Lung Immunity in response to inhalation injuries". Institute for environmental medicine. Perelman School of Medicine at the University of Pennsylvania. Philadelphia, Pennsylvania. January 2012.

90. "Mesenchymal Stem Cells Utilize the Secretome to Reprogram Innate Immunity and Ameliorate Silica-Induced Lung Injury". Department of Environmental Health, Molecular and Integrative Physiological Sciences. Harvard School of Public Health. Boston, Massachusetts. March, 2012.
91. "The use of Mesenchymal Stem Cells and their secretome in the treatment of Lung Fibrosis". Department of Medicine at the Medical College of Wisconsin. Milwaukee, Wisconsin. May, 2012.
92. "Mesenchymal Stem Cells (MSC) use their secretome to Outsource mitophagy and reprogram innate immunity". Department of Medicine at the University of California San Diego. San Diego, California. June 2012.
93. "The Use of Mesenchymal Stem Cell Secretome (mitochondrial transfer and micro RNA shuttle) to Treat Pulmonary Fibrosis. Division of Pulmonary, Allergy and Critical Care at Duke University. Raleigh-Durham, North Carolina. August 2012.
94. "micro RNA in mesenchymal stem cells derived exosomes ameliorate pulmonary fibrosis" The 17th International Colloquium on Lung and Airway Fibrosis. Modena, Italy. October 2012.
95. "Mesenchymal Stem Cells and Lung Fibrosis". NHLBI-Division of Lung Disease: Cell Therapy of Lung Diseases Workshop. Rockledge, Maryland. November 2012.
96. "Macrophage mediated inflammation in pulmonary fibrosis". NHLBI-Division of Lung Disease: IPF Workshop. Rockledge, Maryland. November 2012.
97. "Mesenchymal stem cells transfer mitochondria and micro RNAs to modulate macrophages in lung fibrosis". 5th LACI satellite Meeting in Immunology. EMBO Workshop program: Dr. Jekyll and Mr Hyde: The Macrophage in inflammation and immunity. Marseille, France. January 2013.
98. "Progress on the utilization of bone marrow derived mesenchymal stem cells to treat fibrotic lung injuries". Basic and translational research conference. Division of Pulmonary, Allergy, and Critical Care Medicine at the University of Pittsburgh. Pittsburgh, Pennsylvania. March 2013.
99. "Mesenchymal Stem Cells Use Extracellular Vesicles To Transfer Mitochondria And Micro RNAs To Modulate Macrophages In Lung Fibrosis". International Society for Extracellular Vesicles. Boston, Massachusetts. April 2013.
100. "Mesenchymal Stem Cells Secretome: A New Paradigm In the Treatment of Environmental Lung Injury". Environmental Pulmonary Health Research Program: Getting Into Fundamentals. Sponsored by the National Institute of Environmental Health Sciences/NIH. American Thoracic Society. Philadelphia, Pennsylvania. May 2013.

101. "Harnessing the Mesenchymal Stem Cell Secretome to couple RV and PA Pressure During Lung Fibrosis". Center for Regenerative Medicine at Harvard University. Brigham and Women's Hospital. Boston, Massachusetts. July 2013.
102. "MSC use ARMMS to Mediate the Transfer Mitochondria in Ectosomes and Shuttle Micro RNAs in Exosomes to Program the Innate Immunity in Lung Fibrosis". NIH-University of Vermont Sponsored Stem Cells and Cell Therapies in Lung Biology and Lung Diseases. Burlington, Vermont. August 2013.
103. "Stromal cell-derived microvesicles as modulators of tissue inflammation and remodeling". 2013 Gordon Research Conference in Lung Development, Injury and Repair. Proctor Academy, Andover, New Hampshire. August 2013.
104. "Mesenchymal stem cell secretome in pulmonary fibrosis". Department of Medicine at the University of Louisville Medical School. Louisville, Kentucky. December 2013.
105. "Harnessing the Mesenchymal stem cell secretome to treat lung diseases". Research in Progress (RIP) conference at National Jewish Health. Denver, Colorado. January 2014.
106. "Stem cell treatment of Lung Disease". Chest World congress 2014. Madrid, Spain. March 2014.
107. "Beyond the Nucleus: Mesenchymal Stem Cells use extracellular vesicles to outsource mitophagy". International Society for Cellular Therapy. Le Pale de Congress de Paris. Paris, France. April 2014.
108. "Bench to Bedside: MSCs for ARDS". Quality and Operations Track, International Society for Cellular Therapy. Le Pale de Congress de Paris. Paris, France. April 2014.
109. "Mesenchymal Stem Cells use extracellular vesicles to outsource mitophagy". International Society for Extracellular Vesicles (ISEV). Rotterdam, Netherlands. May 2014
110. "Mesenchymal Stem Cells use Exosomes and extracellular vesicles to shuttle RNA between cells". American Thoracic Society. San Diego, California. May 2014.
111. "Mesenchymal Stem Cells preserve the RV/PA coupling during pulmonary arterial hypertension in pulmonar fibrosis". Pulmonary Vascular-Right Ventricular Axis Research Program. National Heart Lung and Blood Institute. Bethesda, Maryland. September 2014.
112. "The role of mesenchymal stem cells in the maintenance of the stem cell niche". National Heart Lung and Blood Institute Workshop in Extracellular Matrix in Lung Health and Disease. Bethesda, Maryland. September 2014.
113. "The role of lung transplantation in coal mining pneumoconiosis". Annual Meeting of the National Coalition of Black Lung and respiratory Disease Clinics. Pittsburgh, Pennsylvania. September 2014.

114. "Bone marrow derived Mesenchymal Stem Cells use extracellular vesicles to outsource mitophagy and modulate immune responses during lung inflammation". 2nd SOCRATES Scientific meeting: Clinical and Translation of Stem Cells Extracellular Vesicles. Aspiration Theatre, Matrix. Star Biomedical Research Council (Biopolis) in Singapore. Singapore. November 2014.
115. "Mesenchymal Stem Cells use their ARMMS to outsource mitophagy". Division of Pulmonary Critical Care and Sleep Medicine at Yale University. New Haven, Connecticut. January 2015.
116. "Mesenchymal stem cells exosomes are enriched in complement and coagulation cascade proteins". International Society for Extracellular Vesicles (ISEV) 2015. Baltimore, Maryland, April 2015.
117. "The rationale for the use of bone marrow derived Mesenchymal Stem Cells in Pulmonary Fibrosis". Hospital Son Espases. Palma De Majorca, Spain. November 2015.
118. "A vision for the Development of a Regenerative Center in a Pulmonary Division in the Current Century". Search for the Chief of the Pulmonary Division at the University of Colorado. Denver, Colorado. January 2016.
119. "Cell Based translational initiatives for the development of an Interstitial Lung Disease Center". Baylor College of Medicine. Houston, Texas. May 2016.
120. "Brothers in ARMMs: Mitochondrial transfer, microRNA shuttle, and Toll like receptor silencing mediate the mesenchymal stem cell-macrophage symbiosis". 2016 Annual Meeting of the International Society for Cellular Therapy. Singapore, Singapore. May 2016.
121. "Bone Marrow Derived Stem Cells in Pulmonary Fibrosis: extracellular vesicles to modulate matrix and couple the right ventricle". The Lung Institute at the Brigham and Women Hospital. Harvard Medical School. Boston, Massachusetts, July 2016.
122. "Brothers in ARMMs: Mitochondrial transfer, microRNA shuttle, and Toll like receptor silencing mediate the mesenchymal stem-cell macrophage symbiosis". Department of Medicine Grand Rounds at the Department of Medicine at the University of Florida. Gainesville, Florida. July 2016.
123. "Cellular microparticles and exosomes in stress responses and inhaled toxicant-induced pulmonary diseases". Society of Toxicology (SOT) Workshop Session: Microparticles and Exosomes in Cardiopulmonary System-Stem Cell and Microenvironment Regulation by Toxicants". Baltimore, Maryland, February 2017.
124. "Focusing on Cell Based Therapies for the Treatment of Idiopathic Pulmonary Fibrosis (IPF)". Gran Rounds for the Division of Pulmonary, Allergy, and Critical Care Medicine at the University of Pittsburgh. Pittsburgh, Pennsylvania. April, 2017.

125. “Cell Based Therapeutic Considerations in the Treatment of Idiopathic Pulmonary Fibrosis (IPF)”. Three Lakes Partners IPF Catalyst Symposium. Chicago, Illinois. April, 2017.
126. “From Exosomes and Right Ventricles to Matrix Regulation: The Rational for the Use of Bone Marrow derived Mesenchymal Stem Cells in the Treatment of Pulmonary Fibrosis”. Mesenchymal Stem Cell Conference 2017. National Center for Regenerative Medicine at the Case Western Reserve University. Cleveland, Ohio. August 2017.
127. “Extracellular vesicles: The therapeutic paradigm of MSCs”. Department of Pathobiology at the Lerner Institute at the Cleveland Clinic. Cleveland, Ohio. August 2017.
128. “The potential benefit of cell based intervention to improve right ventricles and macrophage immunity ahead of lung transplantation”. Division of Pulmonary Medicine at the Brigham and Women Hospital. Harvard Medical School. Boston, Massachusetts, February 2018.
129. “To develop a standardized Defining criteria for human MSC small EVs: Pulmonary ECM modulation”. Society for Clinical Research and Translation of Extracellular Vesicles Singapore. Sponsored by the International Society for Extracellular Vesicles and the International Society for Cell Therapies. Singapore, Singapore March 2018.
130. “Células madre en el tratamiento de las enfermedades respiratorias: Realidad o ficción”. Conferencia de clausura de las XII jornadas de neumología de Ibiza. Ibiza, Spain, May 2018.
131. “PACT –Supported Cell Based Intervention to Improve RV/PA Coupling in IPF”. PACT investigators steering committee meeting at the NHLBI. Bethesda, Maryland. May 2018.
132. “Dissecting the molecular mechanisms by which bone marrow mesenchyma helps environmentally induced lung injury: MSCs Use their ARRMS to throw vesicles”. Keynote talk of the 32nd Annual Meeting of the Allegheny-Erie Society of Toxicology. Erikson Alumni Center at the University of West Virginia. Morgantown, West Virginia. May 2018.
133. “Dissecting the molecular mechanisms of bone marrow mesenchymal stem cells: MSCs Use their ARRMS to throw vesicles and improve fibrotic lung injury”. Pulmonary Medicine Grand Rounds at the University of Alabama. Finley Conference Center. Birmingham, Alabama. June 2018.
134. “Cell Based Translational Initiatives for the Development of an Academically Oriented Interstitial Lung Disease Center”. Department of Medicine, Baylor College of Medicine. Houston, Texas. October 2018.
135. “The Irony of Lung Fibrosis: a Fibroblast to Treat IPF”. Inagural Lecture for the Maynooth Research Institute. The Irish Lung Fibrosis Association. Corrigan Hall, Royal College of Physicians. Dublin, Ireland. March 2019.
136. “Cell therapy for pulmonary fibrosis”. Medical Cell Conference at the Mater Misericordiae Hospital. Catherine McAulley Lecture Theater. University College Dublin. Dublin, Ireland. March 2019.

137. "Supporting the lung innate immunity responses with bone marrow derived mesenchymal stromal cells during lung injury". Department of Immunology, Maynooth University. Maynooth, Ireland. March 2019.
138. "The Characterization and Rational of the use of mesenchymal stem cells (MSC) on the Treatment of Fibrotic Lung Diseases: Improving Pulmonary Hypertension and the Removal of Collagen". MSC Clinical Trial update. The 2019 ISCT Pre conference workshop organized by the ISCT MSC Scientific Committee. Melbourne, Australia May 2019.
139. "Mesenchymal Stem Cells (hMSC) Exosomes Couple the RV/PA During Pulmonary Fibrosis (PF)". Challenges in Translating MSC EVs into the Clinic. Plenary 6 of the 2019 meeting of the International Society for Cell Therapies. Melbourne, Australia May 2019.
140. "Human MSC small EVs for pre clinical Pulmonary and Cardiovascular Therapeutics". Society for Clinical Research and Translation of Extracellular Vesicles Singapore. Singapore, Singapore August 2019.
141. "The Therapeutic Use of Extracellular Vesicles by MSC: Improving Right Ventricular Function and Pulmonary Fibrosis with MSC Derived Exosomes". Plenary Section of the Manufacturing Challenges in Implementing Cellular Therapy Services. 2019 AABB. San Antonio, Texas October 2019.
142. "How Mesenchymal Stem Cells use their ARMMs to extrude vesicles and rescue the right ventricle during pulmonary fibrosis". 2019. Aula Meneghello, Fondazione Istituto di Ricerca Pediatrica Citta della Speranza. University Degli Studi Padova. Padova, Italy, November 2019.
143. "Of vesicles and Right Ventricles: How MSCs improve Pulmonary Fibrosis". Grand Rounds and Clinical Pathology Conference, Department of Laboratory Medicine and Pathology. University of Minnesota. Minneapolis, MN, March 2020

Visiting Professorships:

Division of Pulmonary and Critical Care Medicine
 University of Texas Health Science Center at Houston
 Houston, Texas. June, 1995.

Division of Thoracic Surgery
 University of Rome (La sapienza)
 Rome, Italy. November, 1995.

Department of Pathology
 Istituto de Patologia Generale de la Universidad de Siena
 Siena, Italy. November 1995.

Division of Pulmonary and Critical Care Medicine
 Yale University
 New Haven, Connecticut. December 2005.

Division of Pulmonary and Critical Care Medicine

University of California San Francisco
San Francisco, CA. November 2008.

Division of Pulmonary, Allergy and Critical Care Medicine
Duke University: External reviewer of the T32 Training Grant in Pulmonary Medicine
Raleigh-Durham, North Carolina. August 2012.

Division of Pulmonary, Allergy and Critical Care Medicine
Tulane Health Science Center, New Orleans, Louisiana. October 2015.

Department of Biology
Maynooth University, Dublin, Ireland. March-April 2019.

Teaching Activities:

Introduction to Occupational Medicine (**EOH 2510**). I contributed with several lectures (6-10 hours) that constitute the core regarding epidemiology, pathophysiology, and clinical aspect of environmental lung diseases of this 3 credit course.

Molecular Pathobiology (**MSCMP 2740**). I conducted the Lung module (3 hours) for this 2 credit course in the Department of Pathology.

Principles of Toxicology (**EOH 2176**). Dr. Ortiz facilitated the review of papers.

Annual Workshop in Research Methodology. This is a School of Medicine initiative designed to bring residents and fellows from the medical school into the up to date aspects of research in the medical school. My participation is broad discussion of the animal models used to study the mechanisms of injury and repair leading to lung fibrosis.

The Lung Stem Cells. Two-hour lecture to the Multidisciplinary training program in the School of Medicine. This course is offered twice a year.

Sponsorship of Pre, and Postdoctoral Fellows:

1995-1997 Ursula Moroz, M.D. (Medical University of Bialystok, Poland, 1986)
Fellow, Section of Pulmonary, Critical Care, and Environmental Medicine
Funding: Tulane University Health Science Center
Present Position: Staff at the VA Medical Center in New Orleans.

1995-1998 Medel Reyes, M.D. (Fellow, Section of Pulmonary, Critical Care, and
Environmental Medicine)
Funding: US Biosciences.
“Exacerbation of bleomycin-induced lung injury in mice by amifostine”
Present Position: Private Practice in Atlanta.

1996-1997 David Pham, M.D. (Tulane University Medical School, 1996)

Resident, Department of Medicine at Tulane Medical Center
Funding: American Lung Association (Louisiana Chapter)
“Anti-Inflammatory Cytokines in Bleomycin-Induced Pulmonary Fibrosis”
Principal Investigator: David Pham, M.D. (Luis A. Ortiz, M.D. Mentor)
Present Position: Private Practice in San Diego

- 2000-2002 Francesco Simeone, M.D. (University of Perugia, Italy, 1984)
Fellow, Section of Pulmonary, Critical Care, and Environmental Medicine
Funding: Tulane-LSU GCRC
“A Study of the Safety and Efficacy of Subcutaneous P75:FC Fusion Protein
(Etanercept) in Patients with Interstitial Lung Disease secondary to Rheumatoid
Arthritis”
Present Position: Associate Professor of Medicine
Tulane University Health Science Center
- 2000-2004 Federica Gambelli, Ph.D. (University of Siena, Italy, 2001).
Post Doctorate Tulane University Health Science Center and
Graduate School of Public Health at the University of Pittsburgh
Funding: AHA of Pennsylvania Post Doctoral Fellowship Award.
“Mesenchymal Stem Cells in Pulmonary Fibrosis: Engraftment and Epithelial
Differentiation in the Injured Lung”
Principal Investigator: Federica Gambelli, Ph.D. (Luis A. Ortiz, M.D. Mentor)
Present Position: University of Siena and Novartis, Siena, Italy.
- 2005-2009 German Torres, M.D. (Universidad Javeriana, Colombia. 1999)
Post Doctoral Student
Graduate School of Public Health at the University of Pittsburgh
Funding: 1 RO1 HL071953 Luis A. Ortiz (PI) 07/01/05-06/30/09
“Mesenchymal Stem Cells (MSCs) in the Treatment of Lung Fibrosis”
Present Position: Practice in Chile.
- 2007-2009 Kristina Go, MD
Post Doctoral Student Graduate School of Public Health University of Pittsburgh
Funding: 1 R01 ES010859 Luis A. Ortiz (PI) 12/01/01-06/30/2013
“TNF alpha Signaling in Silica-Induced Lung Fibrosis”.
Present Position: Chief Resident, Department Surgery at University of Florida.
- 2007-2011 Cheryl Fattman, PhD
Senior Post Doctoral
Present Position: Assistant Professor
Department of Occupational and Environmental Health
Graduate School of Public Health University of Pittsburgh.
Funding: NIEHS ONES award 2007-2011
Present Position: Genentech; Medical Science Liason.
- 2009-2010 Ernest Salas Linas, M.D. (University of Mallorca, Spain)

Post Doctoral Student
Graduate School of Public Health at the University of Pittsburgh
Funding: Bolsa de ampliacion de studios Instituto de Salud Carlos III
Scholarship from the Spanish Government
Present Position: Chief Division of Pulmonary Medicine Hospital Son Espas
University of Mallorca, Mallorca, Islas Baleares in Spain.

- 2007-2012 Fabrizio Fazzi B.S. (University of Siena, Italy, 2005)
Pre doctoral Student received PhD in Molecular Medicine 2012
Present Position: Post Doctoral Student University of Heidelberg, Germany.
- 2006-2011 Michelangelo Di Giuseppe, B.S. (University of Siena, Italy, 2003)
Pre doctoral Student received PhD in Molecular Medicine 2011
Funding: 1 R01 ES010859 Luis A. Ortiz (PI) 12/01/01-06/30/2013
“TNF alpha Signaling in Silica-Induced Lung Fibrosis”.
Present Position: Research and Design Analyst
National Institute for Occupational Safety and Health
- 2005-2018 Joel Njah, M.D. (Universite de Yaounde I, Faculte des
Sciences Biomedicales, Cameroon)
PhD awarded by the Clinical Translational Multidisciplinary Program at the
University of Pittsburgh in July 2018.
Funding: 3R01ES010859-08S1. Minority Supplement
Present Position: Post Doctoral Student, Global HIV Implementation research at
Columbia University, NY
- 2011-2014 Steven Mischler.
PhD Student Department of Environmental and Occupational Health
Graduate School of Public Health at the University of Pittsburgh.
Thesis awarded the Delta Omega Omicron Chapter as the
Best Doctoral Dissertation at the Department of Environmental and
Occupational Health at the University of Pittsburgh
Graduate School of Public Health
Present Position: Supervisory Research Scientist at National Institute for
Occupational Safety and Health.
- 2016-Date Antonella Marocco.
PhD Student Department of Environmental and Occupational Health
Graduate School of Public Health at the University of Pittsburgh
- 2002-2012 I supervised and mentor all the residents
(Michael Creel, Andrew Greenwood, Huwaida Mansour, John Petrisko,
Zilue Tangin) that received training at our
Occupational and Environmental Medicine Residency Program
Funding: CDC/NIOSH training grant (2 T01 OH008616).

RESEARCH:**Current Grant Support:**

- 07/15/18-04/31/22 1R01HL144089-01. A Clinical Indications Prediction (CLIP) Scale for Human Mesenchymal Stem Cells. Donald Phinney is PI, Luis A. Ortiz Co-Investigator (10% effort).
- 07/01/20-06/30/21 University of Pittsburgh CTSI Covid-19 Pilot Grant Award: MSC derived exosomes for Covid-19 induced ARDS. \$50,000. Luis A. Ortiz PI.

Pending Grant Support:

A Clinical Indications Predictions (CLIP) Scale for Human Mesenchymal Stem Cells. Application written in response to PA-18-935: Urgent Competitive Revision to Existing NIH Grants (NOT-HL-20-757). Luis A. Ortiz Direct Budget \$158,458 with a 3-calendar month effort budgeted.

Pre-Application with logNo PR203385, The Safety and Efficacy of Multiple Doses of Mesenchymal Stromal Cells in Patients with Severe COVID-19 Related Acute Respiratory Distress Syndrome, has been submitted to DOD via eBrap. Full application expected June 22, 2020. This is a multicenter (University of Minnesota, Tulane Medical School, University of Pittsburgh) clinical trial in response to PRMPR funding opportunity W81XWH destined to support COVID 19 related clinical trials. Luis A. Ortiz is PI. Effort is 40% (4 calendar months). Scientific review will take place in July with funding decision expected by October.

1 R61/R33 HL147851-01 Mesenchymal Stromal Cells for Idiopathic Pulmonary Fibrosis -Phase I trial. Luis A. Ortiz is PI. Priority score of 20. Considering resubmission

1 R01 ES030047-01 Improving animal models to implement Stem Cell-Based Regenerative Medicine in environmentally induced lung fibrosis (silicosis). Received a 40% priority. Considering resubmission.

Past Grant Support:

- 09/01/12-06/30/18 NHLBI 1R01HL114795-01: RV/PA recoupling by bone marrow derived mesenchymal stem cells. Luis A. Ortiz, Principal Investigator.
- 07/01/13-06/30/18 NHLBI RO1 HL110344-01A1: Mesenchymal stem cell secretome in lung fibrosis: mitochondrial transfer and micro RNA shuttle. Luis A. Ortiz, Principal Investigator.
- 11/01/11-06/30/16 NHLBI 5UO1 HL108713: Allogeneic human mesenchymal stem cells for the treatment of acute lung injury. Michael Matthay is Principal Investigator. Luis A. Ortiz is Co-Investigator (0.6 cal 5% effort) at the University of Pittsburgh Site.

08/28/14-08/28/15 3R01HL114795-03S1: RV/PA recoupling by bone marrow derived mesenchymal stem cells. Luis A. Ortiz, Principal Investigator.

07/01/01-06/30/13 National Institutes of Environmental Sciences R01ES010859, Silica-induced TNF-alpha signal transduction. Luis A. Ortiz Principal Investigator.

04/21/09-02/28/13 3R01ES010859-08S1. Minority Supplement on support of Dr. Joel Njah. Luis A. Ortiz sponsor.

07/01/05-06/30/09 National Institutes of Health RO1 HL071953. Mesenchymal stem cells in the treatment of lung injury. Luis A. Ortiz, Principal Investigator.

07/01/05-06/30/09 National Institutes of Health 5R01OH008282. Lung Oxidative Stress/Inflammation By Carbon Nanotubes. Valerian E. Kagan Principal Investigator.

07/01/04-06/30/06 American Hearth Association of PA (grant # is 0425536U). Mesenchymal Stem Cells in Pulmonary Fibrosis. Post-Doctoral training grant. \$37,000/year. Federica Gambelli is Principal Investigator. Luis A. Ortiz is Dr. Gambelli's mentor.

07/1/02-06/30/07 National Institutes of Health RO1. TFG- β in interstitial lung disease. Arnold, R. Brody Principal Investigator. Luis A. Ortiz is Co-Investigator (10% effort). Grant participation concluded after moving to University of Pittsburgh (July, 2002).

12/1/01-11/30/06 Louisiana State Board of Reagents. Environmental respiratory research center. \$660,000/year 1 direct cost. Luis A. Ortiz is principal Investigator for project 3 (20% effort). Grant participation concluded after moving to University of Pittsburgh (July, 2002)

12/1/01-06/30/02 General Clinical Research Center Tulane-LSU, New Orleans, Louisiana. The Effects of TNF Inhibitor on Rheumatoid Arthritis-Induced Pulmonary Fibrosis. Luis A. Ortiz Principal Investigator.

7/1/96-6/30/01 National Institutes of Health. 1 KO8, Apoptosis in Pulmonary fibrosis \$427,100 direct costs (Principal Investigator, Luis A. Ortiz)

7/1/97-6/30/98 American Lung Association/ Louisiana chapter. Anti inflammatory cytokines in bleomycin induced pulmonary fibrosis \$4,500 direct costs. Luis A. Ortiz mentor for Principal Investigator, David Pham.

7/1/96-6/30/98 U.S. Bioscience. Effect of Ethyol on Bleomycin Induced Lung Injury in Mice. \$5,000 direct costs, Luis A. Ortiz Principal Investigator.

7/1/96-6/30/98

General Clinical Research Center Tulane-LSU, New Orleans, Louisiana
Lupus Pneumonitis: A Role for Alveolar Macrophages and Stress
Proteins. Luis A. Ortiz Principal Investigator

Current Affiliations with Industry

Chair, Data Monitoring Committee (DMC). Fibrogen, placebo-controlled Phase 2 of FG-3019 (anti-CTGF) in Idiopathic Pulmonary Fibrosis (ClinicalTrials.gov Identifier: NCT01890265)

Editorial Positions:

Editorial Boards

Cytotherapy. Associate Editor 2019-Present
American Journal of Physiology: Lung Cell Molecular Physiology
Editorial Board, Tenure concluded in 2014
ISRN Pulmonology Tenure concluded 2016

Manuscript Reviewer:

American Journal of Pathology
American Journal of Physiology: Lung Cell Molecular Physiology
American Journal of Respiratory and Critical Care Medicine
American Journal of Respiratory Cell and Molecular Biology
Biochemical Pharmacology
Cell Stem Cell
Chest
Experimental Lung Research
European Respiratory Journal
Genetherapy
Journal of Clinical Investigation
Journal of Pharmacology and Experimental Therapeutics
International Archives of Allergy and Immunology
Peptide
Proceedings National Academy of Sciences USA
The Journal of Immunology
Toxicology and Applied Pharmacology

Grant Reviewer for:

Member NHLBI Mentored Clinician and Basic Science Review Committee Member of the
NIH Lung Injury and Repair Study Section (2003-2007)
California Tobacco Related Disease Research Program
Louisiana Thoracic Society
Colciencias (Colombia NIH)
Burroughs Wellcome Trust Fund (England)
American Thoracic Society
Raine Medical Research Foundation, Western Australia

Agence Nationale De La Recherche (France)
Pulmonary Fibrosis Foundation

Service on the Committees:

University of Pittsburgh

Graduate School of Public Health Council 2010-2012

Promotion and Appointment Committee, University of Pittsburgh 2002-2017

Residency Advisory Committee, Occupational and Environmental
Medicine Residency Program, University of Pittsburgh 2002-2010

MPH/MS Committee, Department of Environmental and
Occupational Health, Graduate School of Public Health,
University of Pittsburgh 2003-2010

Tulane University

Department of Biochemistry: Internal review committee 1994-1996

Sub-committee on Molecular Biology course first year students 1995-1996

Radiation Safety committee. Tulane University Medical Center 1996-2002

Transfusion committee. Tulane Medical Center 1997-2000

Continuing Medical Education Committee. Lakeside Hospital 1997-2000

Grievance committee. Tulane University Medical Center 1998-2002

Institutional Review Board (IRB). Tulane University Medical Center 2000-2002

Personnel and Honors Committee. Tulane University Medical Center 2001-2002