

CURRICULUM VITAE

Blanca I. Restrepo, Ph.D. in Microbiology

Associate Professor of Epidemiology (EHGES Division)
University of Texas Health Science Center at Houston, School of Public Health in Brownsville
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I. GENERAL INFORMATION

A. PERSONAL DATA

- Birth place: Medellín, Colombia (South America)
- Telephone 956-279-3841
- E-mails: Blanca.I.Restrepo@uth.tmc.edu or blancares2008@gmail.com or blanca.restrepo@utrgv.edu
- Languages: Spanish and English (100% read, write and speak)

B. EDUCATION

- 1983-1986: **B.S. in Medical Technology** Colegio Mayor de Antioquia , Medellín, Colombia
- 1988-1994: **Ph.D. in Microbiology**, Department of Microbiology, University of Texas Health Science Center at San Antonio (UTHSCSA), San Antonio, TX.

C. EMPLOYMENT AND AFFILIATIONS

1. Employment

- 1986-1987: **Social Service Year on Research:**
 - Corporación para Investigaciones Biológicas, CIB., Division of Medical Mycology, Medellín, Colombia
 - Audie L. Murphy Veterans Administration Hospital, San Antonio, TX.
- 1994-1997: **Post-doctoral fellow**, Department of Microbiology, Dr. Judy M. Teale's laboratory
- 1997-2001: **Head, Molecular Parasitology Lab**, Corporación para Investigaciones Biológicas, CIB, Medellín, Colombia
- 2002-2003: **Post-doctoral fellow**, University of Texas Health Science Center Houston (UTHealth Houston), School of Public Health, Brownsville Campus
- 2003-2007: **Assistant Professor of Epidemiology**, NTR UTHealth Houston –School of Public Health Brownsville Campus,
- 2007-2010: **Assistant Professor of Epidemiology**, Tenure track UTHealth Houston –School of Public Health, Brownsville Campus
- 2010-present: **Associate Professor of Epidemiology**, Tenured UTHealth Houston –School of Public Health, Brownsville Campus

2. Affiliations and cross-appointments

- 2012-2015: **Adjunct Associate Professor of Microbiology**, UT Health Science Center San Antonio, Edinburg RAHC campus
- 2016-present: **Adjoint Associate Professor**, South Texas Diabetes and Obesity Institute, School of Medicine, UT Rio Grande Valley, Edinburg campus, TX

3. NOMINATIONS AND HONORS (last 7 years)

- 2011 Manuscript “Cross-sectional assessment reveals high diabetes prevalence among newly-diagnosed tuberculosis cases. (Bull World Health Organ 2011 May 1)”
 - Selected and evaluated by Anthony Harries, a Member of the Faculty of 1000 (F1000), which places this work in the F1000 library of the top 2% of published articles in biology and medicine (<http://f1000.com/11855966>)
 - Manuscript featured by the WHO for media release (http://www.who.int/bulletin/releases/media_notes/en/index.html).
 - Featured in the United Nations radio (<http://www.unmultimedia.org/radio/spanish/detail/175949.html>)
- 2014 Manuscript “The Impact of Global Immigration on Tuberculosis in Children Younger than 5 Years of Age within the United States. (Pediatrics; February 10, 2014; DOI: 10.1542/peds.2013-2570)”
 - Lead story on <http://pediatrics.aappublications.org/>
 - Featured on <https://www.rxwiki.com/news-article/tuberculosis-cases-children-occurred-more-among-those-born-overseas>
- 2015 Nominated for John P. McGovern Award for outstanding teacher. UTHealth Houston

II. RESEARCH

A. PUBLISHED PEER-REVIEWED MANUSCRIPTS¹

1. **Restrepo** BI, McEwen JG, Salazar ME, Restrepo A. Morphological development of the conidia produced by *Paracoccidioides brasiliensis* mycelial form. J Med.Vet.Mycol. 1986 Aug; 24(4):337-9
2. McEwen JG, **Restrepo** BI, Salazar ME, Restrepo A. Nuclear staining of *Paracoccidioides brasiliensis* conidia. J Med.Vet.Mycol. 1987 Oct; 25(5):343-5
3. **Restrepo** BI, Barbour AG. Cloning of 18S and 25S rDNAs from the pathogenic fungus *Cryptococcus neoformans*. J Bacteriol. 1989 Oct; 171(10):5596-600. PMID or free URL: PMC210402
4. **Restrepo** BI, Ahrens J, Graybill JR. Efficacy of SCH39304 in murine cryptococcosis. Antimicrob.Agents Chemother. 1989 Aug; 33(8):1242-6. PMID or free URL: PMC172633
5. Burman N, Bergstrom S, **Restrepo** BI, Barbour AG. The variable antigens Vmp7 and Vmp21 of the relapsing fever bacterium *Borrelia hermsii* are structurally analogous to the VSG proteins of the African trypanosome. Mol.Microbiol. 1990 Oct; 4(10):1715-26
6. **Restrepo** BI, Kitten T, Carter CJ, Infante D, Barbour AG. Subtelomeric expression regions of *Borrelia hermsii* linear plasmids are highly polymorphic. Mol.Microbiol. 1992 Nov; 6(22):3299-311
7. Wilske B, Barbour AG, Bergstrom S, Burman N, **Restrepo** BI, Rosa PA, Schwan T, Soutschek E, Wallich R. Antigenic variation and strain heterogeneity in *Borrelia* spp. Res.Microbiol. 1992 Jul; 143(6):583-96
8. **Restrepo** BI, Barbour AG. Antigen diversity in the bacterium *B. hermsii* through "somatic" mutations in rearranged vmp genes. Cell 1994 Sep 9; 78(5):867-76
9. **Restrepo** BI, Carter CJ, Barbour AG. Activation of a vmp pseudogene in *Borrelia hermsii*: an alternate mechanism of antigenic variation during relapsing fever. Mol.Microbiol. 1994 Jul; 13(2):287-99
10. Hinnebusch BJ, Barbour AG, **Restrepo** BI, Schwan TG. Population structure of the relapsing fever spirochete *Borrelia hermsii* as indicated by polymorphism of two multigene families that encode immunogenic outer surface lipoproteins. Infect.Immun. 1998 Feb; 66(2):432-40. PMID or free URL: PMC107923
11. **Restrepo** BI, Llaguno P, Sandoval MA, Enciso JA, Teale JM. Analysis of immune lesions in neurocysticercosis patients: central nervous system response to helminth appears Th1-like instead of Th2. J Neuroimmunol. 1998 Aug 14; 89(1-2):64-72
12. Cardona AE, **Restrepo** BI, Jaramillo JM, Teale JM. Development of an animal model for neurocysticercosis: immune response in the central nervous system is characterized by a predominance of gamma delta T cells. J Immunol. 1999 Jan 15; 162(2):995-1002
13. Barbour AG, **Restrepo** BI. Antigenic variation in vector-borne pathogens. Emerg.Infect.Dis. 2000 Sep; 6(5):449-57. PMID or free URL: PMC2627965
14. **Restrepo** BI, Obregon-Henao A, Mesa M, Gil DL, Ortiz BL, Mejia JS, Villota GE, Sanzon F, Teale JM. Characterisation of the carbohydrate components of *Taenia solium* metacestode glycoprotein antigens. Int J Parasitol. 2000 May; 30(6):689-96
15. Melby PC, Tabares A, **Restrepo** BI, Cardona AE, McGuff HS, Teale JM. *Leishmania donovani*: evolution and architecture of the splenic cellular immune response related to control of infection. Exp.Parasitol. 2001 Sep; 99(1):17-25
16. Obregon-Henao A, Gil DL, Gomez DI, Sanzon F, Teale JM, **Restrepo** BI. The role of N-linked carbohydrates in the antigenicity of *Taenia solium* metacestode glycoproteins of 12, 16 and 18 kD. Mol.Biochem.Parasitol. 2001 May; 114(2):209-15
17. **Restrepo** BI, Alvarez JI, Castano JA, Arias LF, **Restrepo** M, Trujillo J, Colegial CH, Teale JM. Brain granulomas in neurocysticercosis patients are associated with a Th1 and Th2 profile. Infect.Immun. 2001 Jul; 69(7):4554-60. PMID or free URL: PMC98532
18. **Restrepo** BI, Aguilar MI, Melby PC, Teale JM. Analysis of the peripheral immune response in patients with neurocysticercosis: evidence for T cell reactivity to parasite glycoprotein and vesicular fluid antigens. Am J Trop.Med.Hyg. 2001 Oct; 65(4):366-70
19. Alvarez JI, Colegial CH, Castano CA, Trujillo J, Teale JM, **Restrepo** BI. The human nervous tissue in proximity to granulomatous lesions induced by *Taenia solium* metacestodes displays an active response. J Neuroimmunol. 2002 Jun; 127(1-2):139-44

¹ * Denotes UT-SPH student co-author; ** Denotes student co-author (non-UT-SPH)

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20. Alvarez JI, Londono DP, Alvarez AL, Trujillo J, Jaramillo MM, **Restrepo** BI. Granuloma formation and parasite disintegration in porcine cysticercosis: comparison with human neurocysticercosis. J Comp Pathol. 2002 Aug; 127(2-3):186-93
21. Londono DP, Alvarez JI, Trujillo J, Jaramillo MM, **Restrepo** BI. The inflammatory cell infiltrates in porcine cysticercosis: immunohistochemical analysis during various stages of infection. Vet.Parasitol. 2002 Nov 11; 109(3-4):249-59
22. Sanzon F, Osorio AM, Morales JP, Isaza R, Cardona E, Moncayo LC, Villota GE, Zapata OT, Palacio CA, Arbelaez MP, et al. Serological screening for cysticercosis in mentally altered individuals. Trop.Med.Int Health 2002 Jun; 7(6):532-8
23. Haslam SM, **Restrepo** BI, Obregon-Henao A, Teale JM, Morris HR, Dell A. Structural characterization of the N-linked glycans from *Taenia solium* metacestodes. Mol.Biochem.Parasitol. 2003 Jan; 126(1):103-7
24. Mirza S, **Restrepo** BI, McCormick JB, Fisher-Hoch SP. Diagnosis of tuberculosis lymphadenitis using a polymerase chain reaction on peripheral blood mononuclear cells. Am J Trop.Med.Hyg. 2003 Nov; 69(5):461-5
25. Obregon-Henao A, Londono DP, Gomez DI, Trujillo J, Teale JM, **Restrepo** BI. In situ detection of antigenic glycoproteins in *Taenia solium* metacestodes. J Parasitol. 2003 Aug; 89(4):726-32
26. Villota GE, Gomez DI, Volcy M, Franco AF, Cardona EA, Isaza R, Sanzon F, Teale JM, **Restrepo** BI. Similar diagnostic performance for neurocysticercosis of three glycoprotein preparations from *Taenia solium* metacestodes. Am J Trop.Med.Hyg. 2003 Mar; 68(3):276-80
27. **Restrepo** BI. [New tools for detection of latent tuberculosis]. Biomedica. 2004 Jun; 24 Supp 1:202-11
28. Barbour AG, Dai Q, **Restrepo** BI, Stoenner HG, Frank SA. Pathogen escape from host immunity by a genome program for antigenic variation. Proc.Natl.Acad.Sci.U.S.A 2006 Nov 28; 103(48):18290-5. PMID or free URL: PMID: PMC1635980
29. Dai Q, **Restrepo** BI, Porcella SF, Raffel SJ, Schwan TG, Barbour AG. Antigenic variation by *Borrelia hermsii* occurs through recombination between extragenic repetitive elements on linear plasmids. Mol.Microbiol. 2006 Jun; 60(6):1329-43 PMID: 16796672
30. Perez A, Brown HS, III, **Restrepo** BI. Association between tuberculosis and diabetes in the Mexican border and non-border regions of Texas. Am J Trop.Med.Hyg. 2006 Apr; 74(4):604-11. PMID or free URL: PMC1464139
31. **Restrepo** BI, Gomez DI, Shipley GL, McCormick JB, Fisher-Hoch SP. Selective enrichment and detection of mycobacterial DNA in paucibacillary specimens. J Microbiol.Methods 2006 Nov; 67(2):220-9 PMID: PMC2909876
32. **Restrepo** BI. Convergence of the tuberculosis and diabetes epidemics: renewal of old acquaintances. Clin.Infect.Dis. 2007 Aug 15; 45(4):436-8 PMID: PMC2900315
33. **Restrepo** BI, Fisher-Hoch SP, Crespo JG, Whitney E**, Perez A, Smith B, McCormick JB, Nuevo Santander TT. Type 2 diabetes and tuberculosis in a dynamic bi-national border population. Epidemiol.Infect. 2007 Apr; 135(3):483-91 PMID: PMC2870584
34. Fisher-Hoch SP, Whitney E**, McCormick JB, Crespo G, Smith B, Rahbar MH, **Restrepo** BI. Type 2 diabetes and multidrug-resistant tuberculosis. Scand.J Infect.Dis. 2008; 40(11-12):888-93; PMID: PMC2887603; <http://www.ajtmh.org/cgi/content/full/79/4/541>
35. **Restrepo** BI, Pino PA, Volcy M, Franco AF, Kanaujia GV, Robledo J. Interpretation of mycobacterial antibodies in the cerebrospinal fluid of adults with tuberculous meningitis. Trop.Med.Int Health 2008 May; 13(5):653-8 PMID: 18419584; <http://www3.interscience.wiley.com/journal/119417441/abstract?CRETRY=1&SRETRY=0>
36. **Restrepo** BI, Fisher-Hoch SP, Smith B, Jeon S, Rahbar MH, McCormick JB, Nuevo Santander TT. Mycobacterial clearance from sputum is delayed during the first phase of treatment in patients with diabetes. Am J Trop.Med.Hyg. 2008 Oct; 79(4):541-4 PMID: 18840741
37. **Restrepo** BI, Fisher-Hoch SP, Pino PA, Salinas A*, Rahbar MH, Mora F, Cortes-Penfield N*, McCormick JB. Tuberculosis in poorly controlled type 2 diabetes: altered cytokine expression in peripheral white blood cells. Clin.Infect.Dis. 2008 Sep 1; 47(5):634-41 PMID: PMC2900313
38. Gomez DI**, Fisher-Hoch SP, Bordt AS**, Quitugua TN, Robledo J, Alvarez N, Correa N, McCormick JB, **Restrepo** BI. Systematic interpretation of molecular beacon polymerase chain reaction for identifying *rpoB* mutations in *Mycobacterium tuberculosis* isolates with mixed resistant and susceptible bacteria. Diagn.Microbiol.Infect.Dis. 2010 Mar 11; PMID: PMC2854294
39. S.P. Fisher-Hoch, A Rentfro, J Salinas, H.S. Brown, B. Reininger, B.I. **Restrepo**, J. Wilson, M. Hossain, M.H. Rahbar, C. Hanis, J.B. McCormick. (2010) Effects of socioeconomic status in Mexican Americans with severe health disparities: the Cameron County Hispanic Cohort. Preventing Chronic Disease Prev Chronic Dis. 7. http://www.cdc.gov/pcd/issues/2010/May/09_0170.htm PMID: PMC2879985
40. Mary C. Walsh**, Aulasa Camerlin**, Reyna Miles**, Francisco Mora, J. Gonzalo Crespo, Joseph B. McCormick, Susan P. Fisher-Hoch, Blanca I. **Restrepo**. (2011) Sensitivity of Interferon- γ release assays is

- not compromised in tuberculosis patients with diabetes. *Int J Tub Lung Dis*. 15(2):179-184 PMID- NIHMSID: 290702
41. Blanca I. **Restrepo**, Aulasa J. Camerlin**, Mohammad H. Rahbar, Weiwei Wang, Mary A. Restrepo, Izelda Zarate, Richard Wing, Francisco Mora-Guzman, J. Gonzalo Crespo-Solis, Jessica Briggs*, Joseph B. McCormick, Susan P. Fisher-Hoch. (2011) Cross-sectional assessment reveals high diabetes prevalence among newly-diagnosed tuberculosis cases. *Bull World Health Organ* 89:352-359 PMID- PMC3089389.
 42. D.I. Gomez**, C.S. Mullin, F. Mora, J. Gonzalo Crespo, S. P. Fisher-Hoch, J.B. McCormick, B.I. **Restrepo**. (2011) Rapid DNA extraction for specific detection and quantitation of Mycobacterium tuberculosis DNA in sputum specimens using taqman assays. *Tuberculosis*. 91: S43-S48 PMID: PMC3248966
 43. Shu-Hua Wang, Samuel Stew, Joshua Cyktor, Bridget Carruthers, Joanne Turner, and Blanca I. **Restrepo**. (2012) Validation of increased blood storage times with the T-SPOT.TB assay with T-Cell Xtend reagent in individuals with different tuberculosis risk factors. *J Clin Microbiol*. 50:2469-2471 PMID: PMC3405595
 44. Diana I. Gomez, Marcel Twahirwa, Larry S. Schlesinger, Blanca I. **Restrepo**. (2013) Reduced *Mycobacterium tuberculosis* association with monocytes from diabetes patients that have poor glucose control. *Tuberculosis*. Mar;93(2):192-7. doi: 10.1016/j.tube.2012.10.003. Epub 2012 Nov 3. PMID: PMC3580120 [Available on 2014/3/1]
 45. Nira R. Pollock, Lilia Macovei, Kelly Kanunfre, Rakesh Dhiman, Blanca I. **Restrepo**, Izelda Zarate, Paula A. Pino, Francisco Mora-Guzman, Gerd Michel, Suely S. Kashino, Antonio Campos-Neto. (2013) Validation of *Mycobacterium tuberculosis* Rv1681 protein as a diagnostic marker of active pulmonary tuberculosis. *J Clin Microbiol*. 51(5); 1367-1373 (2013 Feb 6. [Epub ahead of print]); PMID: PMC3647908
 46. Blanca I. **Restrepo**, Paula A. Pino, Izelda Zarate, Francisco Mora-Guzman. Dipstick urinalysis for diabetes screening in tuberculosis patients. (2013) *International Health*. 5:157-159 PMID:PMC3679672
 47. Samuel S. Stew, Perla J. Martinez*, Francisco Mora-Guzmán, Larry S. Schlesinger, Blanca I. **Restrepo**. Differential expression of of monocyte surface markers among tuberculosis patients with diabetes co-morbidity. (2013) *Tuberculosis*; 93 S1:S78-S82 PMID: PMC4028445
 48. Blanca I. **Restrepo** and Larry S. Schlesinger. Review: Host-pathogen interactions in tuberculosis patients with type 2 diabetes mellitus. (2013) *Tuberculosis*; 93 S1:S10-S14 PMID: PMC4019931
 49. Jenny Pang, Larry D Teeter, Dolly Katz, Amy L Davidow, Wilson Miranda, Kirsten Wall, Smita Ghosh, Trudy Stein-Hart, Blanca I **Restrepo**, Randall Reves, Edward A Graviss, on behalf of the Tuberculosis Epidemiology Studies Consortium. The Impact of Global Immigration on Tuberculosis in Children Younger than 5 Years of Age within the United States. *Pediatrics* (February 10, 2014; DOI: 10.1542/peds.2013-2570) PMID:24515517
 50. Blanca I. **Restrepo**, Marcel Twahirwa, Mohammad H. Rahbar, Larry S. Schlesinger. Phagocytosis via complement or Fc-gamma receptors is compromised in monocytes from type 2 diabetes patients with chronic hyperglycemia. (2014) *PloS ONE* 9(3): e92977. doi:10.1371/journal.pone.0092977 PMID: PMC3966862
 51. Medrano B, Salinas G, Sanchez C, Miramontes R, **Restrepo** BI, Haddad MB, Lambert LA. (2014) A Missed case of tuberculosis resulting in hospital transmission. *Infection Control and Hospital Epidemiology* 35(5); 534-537 PMID: 24709722
 52. Blanca I. **Restrepo** and Larry S. Schlesinger. Invited review: Impact of diabetes on the natural history of tuberculosis. (2014) *Diabetes Research and Clinical Practice*; Nov;106(2):191-9. doi: 10.1016/j.diabres.2014.06.011. Epub 2014 Jul 14. PMID: 25082309
 53. Lenette L. Lu, Amy W. Chung, Tracy Rosebrock, Musie Ghebremichael, Wen Han Yu, Matthew K. Schoen, Fikadu Tafesse, Constance Martin, Vivian Leung, Alison E. Mahan, Magdalena Sips, Jacquelynne Tedesco, Hannah Robinson, Elizabeth Tkachenko, Katherine J. Freedberg, Hendrik Streeck, Todd J. Suscovich, Monia Draghi, Douglas Lauffenburger, Blanca I. **Restrepo**, Cheryl Day, Sarah Fortune, Galit Alter (2016) A functional role for antibodies in tuberculosis. *Cell* (2016 Sep 21. pii: S0092-8674(16)31170-9. doi: 10.1016/j.cell.2016.08.072. [Epub ahead of print])
 54. **Restrepo**, BI. (2016) Metformin: Candidate host-directed therapy for tuberculosis in diabetes and non-diabetes patients. *Tuberculosis* (available online: 28-SEP-2016. DOI information: 10.1016/j.tube.2016.09.008)
 55. Bassent E. Abdelbary**, Moncerrato Garcia-Viveros, Horacio Ramirez-Oropesa, Mohammed H. Rahbar, Blanca I. **Restrepo** (2016) Tuberculosis-diabetes epidemiology in the border and non-border regions of Tamaulipas, Mexico *Tuberculosis* (available online: 28-SEP-2016 DOI information: 10.1016/j.tube.2016.09.024)
 56. Agarwal Saroochi**, Nguyen Duc T., Lew Justin, Teeter Larry D., Yamal Jose-Miguel, **Restrepo** Blanca, Brown Eric, Dorman Susan, Graviss Edward A. (2016) "Comparing TSPOT Assay Results between an Elispot Reader and Manual Counts." *Tuberculosis* (available online: 28-SEP-2016 DOI information: 10.1016/j.tube.2016.09.024).
 57. Agarwal Saroochi**, Nguyen Duc T., Lew Justin, Teeter Larry D., Yamal Jose-Miguel, **Restrepo** Blanca, Brown Eric, Dorman Susan, Graviss Edward A. (2016) "Differential Positive TSPOT Assay Responses to ESAT-6 and CFP-10 in Health Care Workers." *Tuberculosis* (available online: 28-SEP-2016 DOI information: 10.1016/j.tube.2016.09.024)

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58. Lucia Monserrat Perez-Navarro, **Blanca I. Restrepo**, Francisco Javier Fuentes-Dominguez, Ravinandrah Duggirala, Jaime Morales-Romero, Juan Carlos Lopez--Alvarenga, Iñaki Comas Espadas, Roberto Zenteno-Cuevas. (2017) The effect size of type 2 diabetes mellitus on tuberculosis drug resistance and adverse treatment outcomes. Tuberculosis. 2017; 103; 83-91
59. Katharina Ronacher, Reinout van Crevel, Julia Critchley, Andrew Bremer, Larry Schlesinger, Anil Kapur, Randall Basaraba, Hardy Kornfeld, **Blanca I. Restrepo**. (2017) Defining a research agenda to address the converging epidemics of tuberculosis and diabetes. Part 2: Underlying biological mechanisms. Chest 152:174-180. PMID: 28434937 (**Note**: Meeting summary on TB, DM and HIV held at NIH on 5/2016)
60. Julia Critchley, Katharina Ronacher, **Blanca I. Restrepo**, Anil Kapur, Andrew Bremer, Larry Schlesinger, Randall Basaraba, Hardy Kornfeld, Reinout van Crevel. (2017) Defining a research agenda to address the converging epidemics of tuberculosis and diabetes. Part 1: Epidemiology and clinical management. Chest 152(1):165-173. PMID: 28434936 (**Note**: Meeting summary on TB, DM and HIV held at NIH on 5/2016)
61. Bassent E. Abdelbary**, Moncerrato Garcia-Viveros, Horacio Ramirez-Oropesa, Mohammed H. Rahbar, Blanca I. **Restrepo**. (2017) Predicting treatment failure, death and drug resistance using a pre-calculated risk score among newly-diagnosed TB patients in Tamaulipas, Mexico. Epidemiol Infect. doi: 10.1017/S0950268817001911. [Epub ahead of print] PMID: 28903800
62. Alok Choudhary, Deendayal Patel, William Honnen, Zhong Lai, Raj Prattipati, Ruixiang Blake Zheng, Ying-Chao Hsueh, Maria Laura Gennaro, Alfred Lardizabal, **Blanca I Restrepo**, Moncerrato Garcia-Viveros, Maju Joe, Yu Bai, Ke Shen, Kamar Sahloul, John Spencer, Delphi Chatterjee, Tobias Broger, Todd L. Lowary, Abraham Pinter (2018) Characterization of the antigenic heterogeneity of lipoarabinomannan (LAM), the major surface glycolipid of *Mycobacterium tuberculosis*, and complexity of antibody specificities towards this antigen. J Immunol. doi: 10.4049/jimmunol.1701673. [Epub ahead of print]
63. **Restrepo** BI, Kleynhans L, Salinas AB, Abdelbary BA, Aguillon G, Salinas J, Garcia-Viveros M, Garcia-Garcia-Oropesa EM, Schlesinger LS, Walzl G, Ronacher K. Diabetes screen during tuberculosis contact investigations highlights opportunity for new diabetes diagnosis and reveals metabolic differences between ethnic groups. Tuberculosis. DOI: 10.1016/j.tube.2018.08.007
64. Hiba Rashak, Hector J. Sanchez-Perez, Bassent E. Abdelbary, Alíed Bencomo-Alert, Natan Enriquez-Ríos, Anaximandro Gomez-Velasco, Alberto Colorado, Martín Castellanos-Joya, Mohammed H. Rahbar, **Blanca I. Restrepo**. Diabetes, undernutrition, migration and indigenous communities: Tuberculosis in Chiapas, Mexico. Epidemiology and Infection. *In press*
65. Cadena J, Rathinavelu S, Lopez-Alvarenga JC, **Restrepo BI**. The re-emerging association between tuberculosis and diabetes: lessons from past centuries. Tuberculosis. *In press*

To be submitted:

- Lenette L. Lu, Jishnu Das, Patricia S. Grace, Blanca I. Restrepo, Sarah M. Fortune, Galit Alter. Differential Fc IgG N-linked glycosylation discriminates TB disease states. To be submitted
- Arshad Khan, Kangling Zhang, Arunmani Mani, Ramesha Papanna, Lovepreet Mann, Shen-An Hwang, Jeffrey K. Actor, David Canaday, Sunil A. David, Blanca I. Restrepo, Chinnaswamy Jagannath. Human M1 and M2 macrophages show a differential autophagy-dependent anti-tuberculosis activity which is associated with epigenetic modifications of histones. *Submitted*

* Denotes student co-author; ** Denotes UT-SPH student co-author

B. BOOK CHAPTERS

1. Botero O, Soto B, **Restrepo, BI**. Neurocysticercosis in: Neurocirugía para Médicos Generales. Ed. Carlos E. Navarro. Editorial Universidad de Antioquia. Medellín, 2006
2. **Restrepo, BI**. Diabetes and Tuberculosis, in: Tuberculosis and Nontuberculous Mycobacterial Infections. 7th Edition. Ed. D. Schlossberg. ASM press, USA, 2017
 1. **Note**: *Invited; new book chapter for 7th Edition. Comments from the Editor upon its first review* “The chapter is magnificent: authoritative, up-to-date and beautifully written. It promises to be a highlight of the text.”)
3. Garcia-Oropesa EM, Huerta Y, Rodriguez E, **Restrepo BI**. Tuberculosis y diabetes con enfoque en estudios en México. In: Tuberculosis en México. Ed UABC (*in press*)
4. **Restrepo, BI**. Diabetes and Tuberculosis, in: Understanding Host Immune Responses against *Mycobacterium tuberculosis* Infection. Ed. V. Venketaraman. Springer International Publishing AG (*in press*)

C. INVITED SPEAKER (last 4 years)

1. **Restrepo, BI** (2013) “Diabetes and Tuberculosis: from the epidemiology to the biology”. Department of Microbiology & Immunology Seminar Series. San Antonio, TX April 4, 2013

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2. **Restrepo**, BI (2013) "Mechanisms of TB disease in diabetics". World Diabetes Congress Melbourne 2013, Melbourne, Australia, December 3, 2013
3. **Restrepo** BI (2014). Phagocytosis via complement or Fc-gamma receptors is reduced in type 2 diabetes. MoreHEALTH, University of Texas PANAMERICAN, Edinburg, TX, April 2014.
4. **Restrepo**, BI. (2014) "Diabetes and tuberculosis: from Epidemiology to Biology". Department of Microbial Infection and Immunity, The Ohio State University, OH, August 2014
5. **Restrepo**, BI. (2014) "Diabetes and TB: from research to Public Health". Epidemiology and Immunizations Conference, Hidalgo County Health Department, Edinburg, TX, October 2014
6. **Restrepo**, BI. (2014) "Diabetes and tuberculosis encounter at the US-Mexico border". Department of Biomedical Sciences Seminar Series, University of Stellenbosch, Cape Town, South Africa, November 17, 2014
7. **Restrepo**, BI. (2016) "TB co-morbidity: Diabetes". Invited Speaker. 4th Texas Tuberculosis Symposium, Houston, TX Jan 21-22, 2016
8. **Restrepo**, BI. (2016) "TB and Diabetes in a Hispanic and Obese Community Along the US/Mexico Border". Developing a Comprehensive Therapeutic Research Strategy for the Converging Epidemics of TB, T2DM, and HIV. Sponsored by NIH-NIAID, Rockville, MD, May 2016
9. **Restrepo**, BI. (2016) "Diabetes y tuberculosis en la frontera Texas-Tamaulipas". Instituto Politécnico Nacional, Sede Reynosa, Reynosa, Mexico, Abril 28, 2016
10. **Restrepo**, BI. (2016) "Diabetes y tuberculosis". II Congreso de Investigación, Innovación y Transferencia de Tecnología de Reynosa y V Congreso de Investigación, Universidad Mexico-Americana Nacional, Sede Reynosa, Reynosa, Mexico, November 11, 2016
11. **Restrepo**, BI. (2017) "TB-DM: lo que hemos aprendido en la frontera Texas-Tamaulipas. World TB Day celebration. Secretaria de Salud de Tamaulipas, Jurisdicción Sanitaria IV-Reynosa, Auditorio Instituto Politécnico Nacional, Reynosa, Mexico, March 24, 2017
12. **Restrepo**, BI. (2017) "Compromiso inmunológico en pacientes con diabetes". II Simposio Internacional de Microbiología Aplicada, Universidad Autónoma de Tamaulipas, Unidad Académica Reynosa-AZTLAN. Reynosa, Mexico, May 8 2017
13. **Restrepo**, BI. (2017) "Diabetes and Tuberculosis: Converging of chronic and infectious diseases". Inaugural Research Symposium, University of Texas Rio Grande Valley- School of Medicine, August 12, 2017
14. **Restrepo**, BI. (2017) "Many Hosts of Mycobacteria- MHM7". Scientific interactive meeting. Organized by Michelle Larsen, NIH Program Officers and some Colorado State University faculty. Partially sponsored by NIH-NIAID. Fort Collins, Colorado, August 2017
15. **Restrepo**, BI. (2017) "Type 2 diabetes screen during tuberculosis contact investigations". 14th Annual Epidemiology and Immunizations Conference (EIC). Organized by Hidalgo County Health and Human Services. Edinburg, TX, November 17, 2017
16. **Restrepo**, BI. (2018) "Differences in metabolic and epidemiologic risk factors for tuberculosis among contacts from different ethnic groups". 5th Texas Tuberculosis Research Symposium. Texas Tech University Health Sciences Center, El Paso, TX, Feb 9, 2018
17. **Restrepo**, BI. (2018) "Panorama epidemiológico de la tuberculosis pediátrica". Congreso de Pediatría, Secretaria de Salud de Tamaulipas. Nuevo Laredo, Mexico, March 23, 2018
18. **Restrepo**, BI. (2018) "Investigaciones sobre tuberculosis". 7º Simposio de Actualización en Diagnóstico y Control de TB pulmonar. Secretaria de Salud de Tamaulipas, Rio Bravo, Mexico, April 13, 2018
19. Kleynhans L, **Restrepo** BI, Ronacher K. (2018) "Altered Immune-Endocrine Axis in Type 2 Diabetes and Risk for Tuberculosis (ALERT)". U.S.-South Africa Program for Collaborative Biomedical Research Meeting. Durban, South Africa, June 11, 2018
20. **Restrepo** BI, Kleynhans L, Lopez-Alvarenga JC et al. (2018) Diabetes screen during tuberculosis contact investigations highlights opportunity for new diabetes diagnosis and reveals metabolic differences between ethnic groups. UTRGV School of Medicine 2nd Annual Research Symposium. Edinburg, TX. September 15, 2018

D. GRANT SUPPORT

Ongoing Research Support

P01 AG044298

Turner (PI)

03/15/2016- 02/28/21

Exploring the impact of inflammation on immune function during M.tb infection

The goal of this P01 is to define the impact of inflammation on control of M.tb infection across the continuum of age.

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Role: Project 4 MPI (Restrepo and Turner) 01/1/2018-02/28/2021

The goal of project 4 is to define T cell and monocyte function in active and latent TB patients, and to perform a comparative analysis of lung and blood monocyte and T cell function in healthy study subjects.

R01 US-South Africa 1R01AI116039 Restrepo (co-PI) Feb 2015-2020

Altered immune-endocrine axis in type 2 diabetes and tuberculosis risk

The goal is to evaluate the impact of type 2 diabetes on alterations to the hypothalamus-Pituitary-Adrenal axis (HPA axis) that in turn compromise immunity to *Mycobacterium tuberculosis*

Role: Co-PI with Dr. Katharina Ronacher (South African PI)

Contract- Oxford Immunotec Restrepo (PI) June-December 2018

Clinical Concordance evaluation of the T-SPOT®.TB assay performance using positive selection with magnetic beads and density gradient cell isolation methods

Multi-center study for FDA approval. The goal is to establish the concordance of T-spot®.TB test using magnetic beads versus ficol gradient isolation of mononuclear cells. Dr. Restrepo's study site has intermediate level of positives in the community and high proportion of diabetes co-morbidity

Role: PI of Brownsville study site

C. SERVICE (PAST SIX YEARS)

A. Public Health and Community Service

- 2010 **Consultant and Service Provider** for TB outbreak in a local hospital in association with Hidalgo County Health Department. Dr. Restrepo provided advice on choice of immunoassay for assessment of outbreak; her team performed the assay on employees of the institution; Dr. Restrepo provided education on interpretation and risk of TB to the administrators and employees.
- 2007-2011: **International Elective in Community Pediatrics.** Field experience and Seminar presentation of research program on Tuberculosis to rotating students. Dept of Pediatrics at UTHSCSA, UT School of Public Health-Brownsville, Hospital Infantil de Tamaulipas in Ciudad Victoria, Mexico and Brownsville Community Health Center
- 2010-2011 **Advisor** for the local Health Department in Texas (Cameron county and Hidalgo county) and the Secretaría de Salud de Matamoros (Mexico) on the use and interpretation of the new Interferon Gamma Release Assays for detection of latent tuberculosis infection.
- Dec 2011 Community Health Fair Participation. Glucose screening and interpretation provided at no cost to participants. Cameron County Parks and Recreation- Social Service Center. Dec 9, 2011; Office of Border Health Affairs- Texas DSHS. Dec 1, 2011;
- 2006-2012: **4+4 Border Internship Program.** Field experience and Seminar presentation of research program on Tuberculosis to rotating interns. CDC, Hispanic Serving Health Professionals Schools (HSHPS), Regional Academic Health Center, University of Texas Health Science Center at San Antonio
- March 2012 **Invited Expert.** Expert Meeting on Diabetes and Indigenous Peoples. World Diabetes Foundation and United Nations Forum on Indigenous Peoples; Copenhagen, Denmark. March 1-2, 2012. Meeting report available.
- July 2012 **Workgroup member.** Strategic Plan for the Prevention and Control of Tuberculosis in Texas. Meeting for 2.5 days in Austin, Texas to design the goals and objectives for TB control by the Texas Department of State and Health Services. The report from this meeting is published: Litaker JR, McGlothlin M, Stabeno DC. *Strategic Plan for the Prevention and Control of Tuberculosis in Texas.* August 2012.
- Nov 2014 **Invited speaker.** Restrepo, BI. "Diabetes and TB: from research to Public Health". Epidemiology and Immunizations Conference, Hidalgo County Health Department, Edinburg, TX, October 2014

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- Nov 2015 **Invited speaker.** Restrepo, BI. "Diabetes and TB: Linking Public Health and Research". 2nd Annual Epidemiology and Immunizations Conference, Hidalgo County Health and Human Services, Edinburg, TX, November 2015
- Nov 2015 **Invited Delegate.** TB-DM Stakeholders Summit "Stopping the looming co-epidemic: A Global Summit on diabetes and tuberculosis. International Union Against TB and Lung Disease and World Diabetes Foundation. Bali, Indonesia, November 2-3, 2015
- Nov 2017 **Invited contributor.** Inquiry about collaboration between TB and diabetes programs in Texas.

B. UT System Service (last six years)

B1. Committees serving UT:

- 2007-2010: Faculty Council and Regional Faculty council representative, UT-SPH
- 2009-2010 Faculty Recruitment Committee for ten faculty members across UT-SPH campuses, UT-SPH at Houston
- 2011 Brownsville Campus student life committee member, UT-SPH-Brownsville
- 2012 Committee member, Annual Award for Excellence in Teaching and Research, UT-SPH
- 2010-2012 Faculty Admissions Coordinator, Brownsville, UT-SPH
- 2011-2012 Brownsville New student scholarship, Development of Guidelines for this new scholarship
- 2012 Faculty Search Committee member, Center for Infectious Disease. UTHealth-Houston
- 2013-2014 Information Technology Council member- UTHealth-Houston
- 2014-2015 Committee member, LCME (Liaison Committee on Medical Education) Preliminary Accreditation, Student Committees (Admissions, Services and Learning Environment), UT-Rio Grande Valley
- **8/1/2015-present Admissions representative, UTH-SPH-Brownsville campus**
- 10/2015-2016 Bicultural-Binational Program committee member, UTH-SPH, Brownsville campus representative
- 3/2016-08/2016 Curriculum Initiative Committee member, "Writing across the Curriculum", UT-SPH member
- **10-2016/06-2018 Preliminary Exam Committee member, Department of Epidemiology, Human Genetics and Environmental Sciences, UTH –SPH**
- 08/2017-11/2017 Stallones Lecture Planning Committee member, UTH-SPH
- **11-1-2017-present Committee to merge Epidemiology I and Fundamentals of Epidemiology, and transition this course for the new Epidemiology Online program.**

C. Academic Professional Service

- 2004-2015: Scientific Committee of the journal BIOMÉDICA- by invitation
- 2007-present Peer reviewer for epidemiology and pathogenesis journals:
 - Annals of Epidemiology, Antimicrobial Agents and Chemotherapy, Am J Trop Med Hyg, Archives Medical Research, BMJ, BMC Research notes, BMC Immunology, BioMed Central, Chest, Clinical Infectious Diseases, Clinical and Vaccine Immunology, Diabetic Medicine, Disease Models and Mechanisms, Frontiers in Immunology, Human Immunology, Infection and Immunity, Int J Tub Lung Dis, Journal of Immunology, Journal of Infectious Diseases, Journal of Inflammation, Journal of Infection, Lancet Infectious Diseases, Scand J Infect Dis, Tropical Medicine, International Health, Tuberculosis, PLoS Medicine, PLoSOne
- 2008-present Grant reviewer for US and other international agencies
 - US Civilian Research and Development Foundation, Diabetes UK, National Health Laboratory Service Research Trust Grants in South Africa, Wellcome Trust Research Programme, ICDDRDB, Agence Nationale de la Recherche (France), University of Washington's NIH Diabetes Research Center Pilot and Feasibility program
- 2014-1 Reviewer, NIH, Ad-hoc. Tuberculosis Research Unit study section
- 2015-7 Reviewer, NIH, Special Emphasis Panel ZAI1-MFH-M-S2: NIAID Clinical Trials

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- 2016-2 Session Chair, “Metabolism and Co-Morbidity II. Keystone Symposium “Tuberculosis Co-morbidities and Immunopathogenesis. Keystone, CO, Feb 28-Mar 3, 2016
- 2016-4 Reviewer, NIH, Ad-Hoc. Special Emphasis Panel, “Mycobacterial induced immunity and HIV infection”, AARR M 57
- 2016-5 Planning Committee member, Session Chair and Speaker, NIH, “TB, Type 2 diabetes and HIV Therapeutic”. Workshop sponsored by NIAID, NIDDK, Office of AIDS research, Bethesda, MD
- 2017-03 Reviewer, NIH, Ad-Hoc. Special Emphasis Panel, 2017/05 ZRG1 AARR-M (02) M ““AIDS and AIDS-related Research”
- 2017-05 Reviewer, NIH, Ad-hoc. Special Emphasis Panel, 2017/05 ZAI1-JRR-A-M2_U01 “NIAID Clinical Trial Implementation Cooperative Agreement (U01)”
- 2017-08 Reviewer, NIH, Ad-hoc. Special Emphasis Panel, GSH-ZAI1-JKB-M-S4 “NIAID Clinical Trial Implementation Cooperative Agreement (U01)”
- 2018-08 External Reviewer for MPH and Ph.D. students’ thesis. Department of Epidemiology and Disease Control of the School of Public Health, University of Ghana, Africa

D. TEACHING (past 6 years; most recent first)

- Fall 2018:
 - **Epidemiology-I** PHW2610L300. Online Epidemiology Core course. Course coordinator (100%). UTHHealth Houston, School of Public Health (n=55 students)
 - **Epidemiology II** PH 2615. Field Research Methods in Epidemiology. Course coordinator and instructor (45% effort) (n=65 students)
- Fall 2017:
 - **Fundamentals of Epidemiology** PHW2610L300. Online Epidemiology Core course. Course coordinator (100%). UTHHealth Houston, School of Public Health (n=38 students)
 - **Epidemiology II PH 2615**. Field Research Methods in Epidemiology. Course coordinator and instructor (45% effort) (n=45 students)
 - **Epidemiology and Medicine**. Guest lecturer, UT Rio Grande Valley- Doctors Hospital at Renaissance Internal Medicine Residency program
- Fall 2015-2016:
 - **Fundamentals of Epidemiology** PHW2610L300. Online Epidemiology Core course. Course coordinator (100%). UTHHealth Houston, School of Public Health
- Fall 2014:
 - **Fundamentals of Epidemiology** PHW2610L300. Online Epidemiology Core course. Course coordinator (100%). UTHHealth Houston, School of Public Health
 - Guest Lecturer, STEER program. Four-week field experiences at the U.S.-Mexico Border for students enrolled in U.S. MD/MPH, medical, public health, and other health professions degree programs. University of Texas Health Science Center at San Antonio. <http://steer.uthscsa.edu/>
- Fall 2013:
 - **Introduction to Epidemiology** PHW2610L300. Online Epidemiology Core course. Course coordinator (100%). UTHHealth Houston, School of Public Health
 - **Introduction to Epidemiology** PHW2610L500. Hybrid Epidemiology Core course. Course co-instructor (25%). UTHHealth Houston, School of Public Health (co-taught with Melissa Stigler and Steve Kelder)
- Spring 2013:
 - Guest Lecturer, STEER program. Four-week field experiences at the U.S.-Mexico Border for students enrolled in U.S. MD/MPH, medical, public health, and other health professions degree programs. University of Texas Health Science Center at San Antonio. <http://steer.uthscsa.edu/>
 - Guest Lecturer “**Tuberculosis biology and detection**”. Medical Laboratory Technician Program. University of Texas at Brownsville, Brownsville, Texas.
- Fall 2012:
 - **Introduction to Epidemiology** PHW2610L100. Online Epidemiology Core course. Course coordinator (100%). UTHHealth Houston, School of Public Health
- Spring 2012:
 - Guest lecturer. **Immunology** PH2290. “Vaccine development”. UTH-SPH
 - Guest lecturer. **Molecular Mechanisms of Pathogenesis** PH2998. “Tuberculosis pathogenesis”. UTH-SPH

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- Guest Lecturer "**Tuberculosis biology and detection**". Medical Laboratory Technician Program. University of Texas at Brownsville, Brownsville, Texas.