

CURRICULUM VITAE

NAME: ALFREDO G. TORRES

PRESENT POSITION AND ADDRESS:

The Hermann Barnett Distinguished Professorship in Microbiology and Immunology
Assistant Dean of Faculty Affairs and Professional Development
University of Texas Medical Branch
Department of Microbiology and Immunology
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BIOGRAPHICAL:

Date of birth: July 21, 1967
Place of birth: San Diego California
Citizenship: U.S.
Home address: 17011 Sailors Moon Court, Friendswood, Texas 77546
Home phone: 281-996-1076

EDUCATION:

1985-1992, BS in Chemistry, Pharmacology and Biology; B. Universidad Autónoma de Puebla, México
1992-1995, MS in Microbiology, B. Universidad Autónoma de Puebla, México
1995-1999, PhD in Molecular Biology, University of Texas at Austin
1999-2003, Postdoctoral fellow, University of Maryland School of Medicine
2016 Healthcare Executive Diversity and Inclusion Certification, Association of American Medical Colleges.

PROFESSIONAL AND TEACHING EXPERIENCE:

Professional Experience:
1993-1995, Research Technician, U.T. Southwestern Medical Center at Dallas
1995-1998, Graduate Research Assistant, University of Texas at Austin
2003-2009, Assistant Professor, UTMB
2003-2014, Scientist, Sealy Center for Vaccine Development, UTMB
2004-2006, Associate Member, Texas Gulf Coast Digestive Diseases Center
2004-present, Member, Ctr. for Biodefense and Emerging Infect Diseases, UTMB
2007-2008, Associate Director, BSL-3 Bio-containment Laboratories
2008-present, Visiting Professor, B. Universidad Autónoma de Puebla, México
2008-2011, Director, BSL-3 Bio-containment Laboratories
2009-2012, Associate Professor, UTMB

2012, Associate Professor, DILAVAC (Diplomado Latinoamericano de Vacunología), National University of Mexico
2012-present, Professor, UTMB
2013-present, Member, Institute for Translational Sciences, UTMB
2014-present, Senior Scientist, Sealy Center for Vaccine Development, UTMB
2015-2017, Director of Faculty Diversity, OFAPD, SOM, UTMB
2017-2022, the Hermann Barnett Distinguished Professorship in Microbiology and Immunology
2017-2018, Assistant Dean of Professional Development and Diversity, OFAPD, SOM, UTMB
2018-present, Assistant Dean of Faculty Affairs and Professional Development, UTMB

Teaching Experience:

1990-1993, High School Teacher, Oriente Institute, Puebla, México
1998-1999, Teaching Assistant, University of Texas at Austin
2001, '04-'05, '07-'18 Visiting professor (Microbial Pathogenesis), B. Universidad Autónoma de Puebla, México
1999-2002, Lecturer (Bacterial Genetics), U. of Maryland School of Medicine
2003-present, Course Chair, Instructor, Lecturer, Laboratory and PBL facilitator, UTMB

RESEARCH ACTIVITIES:

Area of Research: The current main project of our lab is to develop vaccines for the prevention of bacterial infections and also to understand molecular mechanisms of pathogenesis of Gram-negative bacteria. Our laboratory has become a world leader in the study of pathogenic *Burkholderia*, mainly *Burkholderia mallei* and *B. pseudomallei*, causative agents of glanders and Melioidosis, respectively. We are focusing in the identification and characterization of candidate antigens for vaccine development. Our principal goal is to devise attenuated and subunit vaccines which are able to protect against both *Burkholderia* infections, using three approaches: attenuated vaccines, glycoconjugates and construction of gold-linked nanovaccines. We are also developing novel animal models to test different therapeutics or vaccines. We have established and characterized small animal aerosol infection models suitable for testing antibacterial agents against *B. pseudomallei*. We have also constructed candidate bioluminescent and fluorescent reporter strains of *B. mallei* and *B. pseudomallei* and used them to monitor progression of infection and determine effectiveness of different treatments. Finally, we are studying the effects of nutritional immunity and bacterial persistence on the pathogenesis of *Burkholderia* species.

A second area of interest in our laboratory is the study of pathogenic *E. coli* strains, those responsible for numerous food- and water-borne outbreaks causing a range of illness in humans. We were instrumental to demonstrate that the Long Polar fimbriae in *E. coli* strains contribute to pathogenesis and to use these fimbrial-encoding genes as markers to detect virulent strains. We want to increase knowledge of the pathogenesis of these organisms and also improve treatment options. As such, my laboratory has identified the *E. coli*-specific gene sequences of the highly

pathogenic *E. coli* O157:H7 strains and use them to generate a library of expression constructs optimized for vaccine screening. My lab has demonstrated protective capacity of O157-specific gene sequence using a murine model of *E. coli* O157:H7 infection, and we are further interested in identifying a subset of subunit vaccine candidates that can become a licensed vaccine.

Grant support:

Current:

NIH/NIAID, R01AI126601

“Glycoconjugate Nanoparticle Vaccines against *Burkholderia* Infections”

(Torres) 25% effort \$1,934,500 (07/01/16-06/30/21)

DTRA, HDTRA1-17-C-0015

“Defining Correlates of Protection of a Broad-Spectrum Attenuated *Burkholderia* Vaccine”

(Torres) 30% effort \$1,499,000 (03/23/17-03/22/20)

DTRA, HDTRA1-12-17-FRCWMD

“Bet-hedging in pathogens: Targeting bacterial persistence to combat infectious disease”

(Hong-Geller/Torres subcontract) 10% effort \$175,597 (04/01/15-09/30/18)

DTRA, CBMV-03

“New Approaches for the Development and Testing of Melioidosis and Glanders Subunit Vaccines”

(Brett/Torres subcontract) 10% effort \$3,000,000 (10/01/18-09/31/21)

NIH/NIAID, RO1-Research Supplement for Underrepresented Minorities

“Glycoconjugate Nanoparticle Vaccines against *Burkholderia* Infections”

(Tapia/Torres) 0% effort (RSUM) \$168,711 (03/01/18-02/28/21)

Pending:

NIH/NIAID, RO1

“Immunogenic epitopes as vaccines against *Burkholderia pseudomallei* infections”

(Torres) 10% effort \$2,365,031 (03/01/19-02/28/24)

NIH/NIGM, R25

“BRIDGing Texas Institutions to Doctorate degrees”

(Torres) 10% effort \$1,541,117 (07/01/19-06/30/24)

Past (from the last 5 years):

- 06/1/09-05/31/13, NIH/NIAID, UO-1, 5U01AI082103-02 “Non-invasive optical imaging of select agent bacteria in non-human primates” (Quinn [Torres, co-I]) \$6,665,847
- 09/01/12-08/31/13, BARDA, Contract: HHSO100201100015I Task Order: HHSO10033002T. “Characterization of a small animal model for Development

- of therapeutic MCMs against *Burkholderia pseudomallei* strains” (LeDuc [Torres, Project Leader]) \$713,271
- 10/01/12-08/31/13, Micronics, Inc. “Clinical Study of the PanNAT *Shigella* toxin-producing *E. coli* Assay (PanNAT STEC)” (Torres) \$54,989
 - 09/27/11-08/31/13 (No cost extension 08/31/14), NIH/NIAID, R21AI09956001. “*E. coli* O157: H7 Vaccine Development” (Torres) \$229,500
 - 04/21/09-02/28/14 (No cost extension 11/30/14), NIH/NIAID, U54AI057156 Western Regional Center for Biodefense and Emerging Infections, “Vaccine Development for *Burkholderia mallei* and *pseudomallei*” (Torres) \$1,928,829
 - 04/1/09-03/31/14 (No cost extension 08/30/15) NIH/NIAID, R01AI079154 “Long Polar Fimbriae of Attaching and Effacing *Escherichia coli*” (Torres) \$2,179,268
 - 09/13/10-08/12/15 NIH/NIAID, Task order A07: NIAID parent contract HHSN272201000040I “Development of a diabetic mouse model for proof of concept testing” (Barrett) \$385,953
 - 07/01/15-07/01/16 UTMB, MacLaughlin Fund “Retention fund” (Torres) \$50,000
 - 09/01/15-09/01/16 UTMB, IHII “Retention fund” (Torres) \$50,000
 - 06/10/14-06/09/17 DTRA, HDTRA1-14-00023 “Antigenically defined Vaccines for Immunization against Melioidosis and Glanders” (Brett/Torres subcontract) \$533,075
 - 06/01/16-08/31/17 DoD Contract No: W911QY-15-C-0058 “High Affinity Monoclonal Antibodies to the *Burkholderia* Polysaccharide” (DxDiscovery/Torres subcontract) \$84, 872
 - 09/01/16-08/31/17 UTMB, MacLaughlin Fund “Retention fund” (Torres) \$100,000
 - 09/01/17-08/31/18 UTMB, IHII “Repurposing FDA-approved compounds to combat intracellular pathogen persistence” (Torres) \$30,000
 - 09/01/17-08/31/18 UTMB, MacLaughlin Fund “Retention fund” (Torres) \$100,000
 - 09/1/16-8/31/18 CDC, “Pilot Study to search for Melioidosis in Colombia, 2016” (Duarte/Torres consultant) \$150,000

COMMITTEE RESPONSABILITIES:

UTMB

- 2003, '04 James W. McLaughlin Fellowship Committee (Pre-doctoral fellowships committee)
- 2003, '04, James W. McLaughlin Fellowship Committee (Post-doctoral fellowships committee)
- 2003-2005 Graduate School of Biomedical Sciences. Committee for Diversity in Graduate Education
- 2004-2005 Sealy Center for Vaccine Development. SCVD Vaccine Sciences Working Group.
- 2004-2006 Division of Infectious Diseases, Search Committee for Director of the Division of Infectious Diseases
- 2004-2006 Center for Biodefense and Emerging Infectious Diseases. BSL-4 Subcommittee for research proposal review
- 2005-2007 Graduate School of Biomedical Sciences. Recruitment Committee

2007, 2009 Committee in Support of Science Education
2007 Environmental Health and Safety. Safety Officer Search committee
2007-present Biocontainment Risk and Safety Assessment Committee
2007-2008 Division of Infectious Diseases, Global Infectious Diseases Search
Committee
2007-2009 Institutional General Safety Committee
2009-2011 GNL Executive Committee
2009 Public Affairs, Director of Media Relations Search Committee
2009 Environmental Health and Safety, Consultant Search Committee
2009-2010 Department of Internal Medicine/Division of Infectious Diseases, Global
Health Professorships Search Committees
2009-2011 Faculty Senate (GSBS Senator)
2011-2016 Hispanic Center of Excellence Advisory and Mentorship Board
2012-present Academy of Research Mentors
2013-2014 Select Agent Task Force
2014-2017 Faculty Performance Evaluation Committee
2014-2017 Academic Planning and Policy Committee (Chair)
2014-2016 Faculty Senate (GSBS Senator)
2015-2017 Faculty Compensation Committee
2015 SDS Scholarship Committee
2016-2019 Institutional Diversity Council
2016-present Diversity Leadership Team
2016-2017 GSBS Scholarship Committee
2016-present Scientific Export Review Committee
2016-2018 Freeman Endowment for the Dev. of Minority Faculty Committee
2017-present Fogarty Training Grant. Training Advisory Committee.
2017-2019 International Oversight Committee
2017-2018 Research Support Committee
2017-2019 Training Council
2017-2018 Faculty Gender Pay Equity Committee (Chair)
2017-2018 Provost Office, Search Committee for Dean of the School of Medicine
2018-present Regents Outstanding Teaching Awards Evaluation Committee (Chair)
2018-present SOM Nominating Committee (Chair)
2018-present AAMC Minority Faculty Leadership Development Evaluation
Committee (Chair)
2018-present Office of Faculty Affairs and Professional Development Executive
Committee
2018-present University of Texas System Kenneth I. Shine, MD, Academy of Health
Science Education Selection Committee (Chair)
2018-present The Hedwig van Ameringen Executive Leadership in Academic
Medicine

Departmental

2003-2006 Chairman's Advisory Committee
2004-2006 Website Committee (Chair)
2005-2006 Immunology Faculty Search Committee

2004-2010 M&I Graduate Program Curriculum Committee
2005-2012 Safety & Hurricane Preparedness Committee
2007 M&I Review response committee (Governance [external])
2007 M&I Review response committee (Graduate School)
2009-2011 Appointment, Promotion and Tenure Committee
2010-2013 M&I Graduate Program Curriculum Committee (Chair)
2013-2014 M&I Graduate Program Curriculum Committee (co-Chair)
2010-2017 M&I Graduate Program Executive Committee
2014 M&I Review response committee (Graduate School)
2015-2017 Appointment, Promotion and Tenure Committee
2015-present Chairman's Advisory Committee
2017-present Space and Equipment Committee
2017-2018 Molecular Bacteriology and Immunology Search Committee

Other

2005-2006 The Institute for Genomic Research. Scientific Advisory Committee. *E. coli* and *Shigella* Genome Projects
2002-2007 American Society for Microbiology. Spanish Translators Network
2006-2007 American Society for Microbiology. Underrepresented Members Committee. Minority Mentoring Program
2007-2008 American Society for Microbiology. Committee on Divisions
2007-2011 American Society for Microbiology. International Education Committee
2007-2010 American Society for Microbiology. International Mentoring Program (Project Leader)
2009 NIH Public Consultation. Synthetic Nucleic Acids and the NIH Guidelines for Research Involving Recombinant DNA Molecules (Panelist).
2012-2017 American Society for Microbiology. Education Board Committee on Graduate and Postdoctoral Education
2012-2017 American Society for Microbiology. Steering Committee for the Annual Biomedical Research Conference for Minority Students (ABRCMS).
2013-2015 SARS Consortium of Partners. SARS Advisory Committee. Baylor College of Medicine.
2017 American Academy of Microbiology Graduate Education Colloquium
2018-present American Society for Microbiology. Committee on Minority Education (Chairperson)

Scientific Meeting/Sessions Organized

2006 Texas American Society for Microbiology Branch Meeting. Chair and Organizer of the Meeting. Nov 16-18. Galveston, Texas
2012-2017 ABRCMS. Steering Committee Member (Multiple locations and dates)
2017 ASM Biothreats. Organizing and Program Committee. Feb 6-8. Washington, D.C.

Scientific Sessions Chaired/discussion Leader

2006 Texas ASM Branch Meeting, Galveston, TX (Nov 16-18). Session Chair: Biodefense-related Microbiology

- 2010 XX Latin American Congress of Microbiology, Montevideo, Uruguay (Sept 27-30) Session Chair: Pathogenic *Escherichia coli*
- 2010 Course: “*E. coli*, a versatile pathogen”, Montevideo, Uruguay (Nov 1, 4-5) General coordinator and co-organizer.
- 2011 Seventh National RCE meeting, Denver, CO (April 3-5) Session Chair: *Burkholderia*
- 2012 XXI Latin-American Congress of Microbiology, Santos, Brazil (Oct 28-Nov 1) Session Chair: III Meeting of the Latin American coalition for *Escherichia coli* Research.
- 2013 ASM Biodefense and Emerging Diseases Research meeting, Washington, DC (Feb 25-27) Session co-Chair: Biodefense-Related Intracellular Bacterial Pathogens: Are Suitable Vaccines within Our Reach?
- 2013 38th National Microbiology Congress, Guanajuato, Mexico (June 23-26) Session Chair: LACER group: Pathogenesis of *Escherichia coli*.
- 2014 XXII Latin-American Congress of Microbiology, Cartagena, Colombia (Nov 4-8). Session co-Chair: IV Meeting of the Latin American Coalition for *Escherichia coli* Research - LACER - II "Pathogenicity and virulence of pathogenic *E. coli*."
- 2016 XXIII Latin-American Congress of Microbiology, Rosario, Argentina (Sep 26-30). Session co-Chair and Organizer: V Meeting of the Latin American Coalition for *Escherichia coli* Research – LACER
- 2016 Latin Food 2016, Cancun, Mexico (November 9-11). Organizer of the Latin American Coalition for *Escherichia coli* Research (LACER) session: *Escherichia coli* in food Microbiology
- 2017 29th Brazilian Congress of Microbiology, Foz do Iguaçu, Brazil (Oct 22-25). Chair VI LACER meeting.
- 2017 Vacunology 2017, Puebla, Mexico (November 6-8). Session co-Chair and Organizer: I Curso-Taller Internacional de Vacunología y II Ciclo de Conferencias sobre Vacunología.

Organizations and Scientific groups

2009-present Founder and Coordinator. Latin American Coalition for *Escherichia coli* Research (LACER)

TEACHING RESPONSABILITIES:

A. TEACHING RESPONSABILITIES AT UTMB:

a. Teaching:

School of Medicine:

- 2003-04 Medical School, Microbiology Laboratory. Cardiovascular and Pulmonary Course (CVP, IMC 2310) (Laboratory facilitator)
- 2005 Medical School, Immunology Laboratory. Pathobiology and Host Defenses (PHD, IMC 1210) (Laboratory facilitator)
- 2006-07 Medical School, PBL Gastrointestinal and Nutrition (GIN, IMC) (Alternate Facilitator)
- 2012 Medical School, Microbiology Laboratory. Cardiovascular and Pulmonary Course (CVP, IMC 2310) (Alternate facilitator)

- 2006-17 Medical School, PBL Pathobiology and Host Defenses (PHD, IMC 1210) (Facilitator and Laboratory instructor)

Graduate School:

- 2003-04 GSBS, Pathogenic Bacteriology (MICR 6315) (Lecturer). Lectures: Bacterial Exotoxins; *Escherichia coli* Intestinal Infections; *Escherichia coli* Extra-intestinal Infections; Journal Clubs
- 2004 GSBS, Microorganisms and infectious disease (BBSC 6115) (Lecturer). Lecture: Enteric pathogens
- 2004-05 GSBS, Pathogenesis of Infectious Disease (PATH 6360) (Lecturer). Lecture: *E. coli*
- 2005-07 GSBS, Molecular Biology and Genetics (BBSC 6403) (Lecturer). Lectures: Microbial Genetics
- 2005-08 GSBS, Pathogenic Bacteriology (MICR 6315) (Co-chair and Lecturer) Lectures: Bacterial Exotoxins; Gene expression and regulation of virulence genes; *Escherichia coli* Intestinal Infections; *Escherichia coli* Extra-intestinal Infections; Journal Clubs.
- 2006-08 GSBS, Academic Success and Skills course (BBSC 6101) (Small groups Leader)
- 2008, '10, '13, '15 GSBS, Tropical Diseases (PATH 6318) (Lecturer) Lecture: Diarrheal Diseases.
- 2009, '16-'17 GSBS, Experimental Pathology (PATH 6279) Grant Writing (Mentor and grant reviewer)
- 2009-13 GSBS, Pathogenic Bacteriology (MICR 6315) (Lecturer) Lectures: Bacterial Exotoxins; Gene expression and regulation of virulence genes; *Escherichia coli* Intestinal Infections; *Escherichia coli* Extraintestinal Infections; *Burkholderia*; Journal Clubs
- 2010-18 GSBS, Scientific Writing and Grant Proposal Prep (MICR 6255) (Lecturer) Lectures: Writing Specific Aims; NIH Grant review process
- 2014-2018 GSBS, Pathogenic Bacteriology (MICR 6315) (co-Chair and Lecturer) Lectures: Bacterial Exotoxins; Gene expression and regulation of virulence genes; *Escherichia coli* Intestinal Infections; *Escherichia coli* Extraintestinal Infections; *Burkholderia*; Journal Clubs
- 2017-18 GSBS, Epidemiology of Infectious Diseases (PHS 6233) (Lecturer): Epidemiology of diarrheal diseases.
- 2017 GSBS, Neuro-ID (NEUR 6226) (Lecturer): *E. coli* meningitis
- 2018 GSBS, Experimental Pathology (PATH 6161) Vaccines for the 21st century (Lecturer) Lecture: *Burkholderia* vaccines

Other programs:

- 2008-2010 CLS, Molecular Biology (CLLS 3307) (Lecturer) Lecture: Plasmids, Bacteriophages and Transposons
- 2016-18 Effective Laboratory & Resource Management CTPS 6121 (Lecturer) Lecture: Hiring and personnel issues: how to select the best candidate, how to keep him/her, training, dealing w/conflict, others

b. Students/Mentees/Advisees/Trainees

Post-doctoral fellows and Visiting Scientists:

2003 Ygnacio Martinez Laguna (visiting scientist)
2004 Youngguo Li (postdoctoral fellow)
2008 Margarita Arenas Hernandez (visiting scientist)
2009-2011 Sonja Lloyd (postdoctoral fellow)
2009-2011 Douglas Botkin (postdoctoral fellow)
2010-2014 C. Shane Massey (postdoctoral fellow)
2011 Mauricio Farfan (visiting scientist)
2011 Cristiane Santos de Souza (postdoctoral fellow)
2012-2013 Victor Garcia Angulo (postdoctoral fellow)
2012-2014 Anjana Kalita (postdoctoral fellow)
2012-2013 Brian McWilliams (postdoctoral fellow)
2013-2015 Jia Hu (postdoctoral fellow)
2015-2017 Gonzalo Pradenas (postdoctoral fellow)
2016-2017 Eric Lewis (postdoctoral fellow)
2017-present Nittaya Khakhum (postdoctoral fellow)
2017-present Javier Sanchez-Villamil (postdoctoral fellow)

Ph.D. degree students:

2003 Roberto Carlos Vazquez Juarez (international visiting graduate student)
2004 Nicola Reading (visiting PhD graduate student)
2004 Stacy L. Agar (rotating PhD student)
2004-2007 Christopher A. Allen (PhD Graduate student)
2005 Maricel Vidal (international visiting graduate student)
2005 John M. Thomas (rotating PhD student)
2006 Jeeba A. Kuriakose (rotating PhD student)
2006 Terri Wilkinson (rotating PhD student)
2006-2008 Gregory C. Whitlock (PhD Graduate student)
2007 Sheena D. Banks (rotating PhD student)
2007 Bijay K. Khajanchi (rotating PhD student)
2008-2010 Nina Williams (PhD Graduate student)
2009 Veronica Calderon (rotating PhD student)
2009-2014 Tiffany Mott (PhD Graduate student)
2010-2015 Roberto Cieza (PhD Graduate student)
2010 Felipe del Canto (international visiting graduate student)
2011 Matthew Huante (rotating PhD student)
2011 Lucia Galli (international visiting graduate student)
2011 Matthew Huante (rotating PhD student)
2011-2012 Maricarmen Rojas Lopez (PhD Graduate student)
2013-2016 Christopher Hatcher (PhD Graduate student)
2014 Sarah Schmidt (rotating PhD student)
2014 Feidi Chen (rotating PhD student)
2014 Alak Dutta (rotating PhD student)
2014-2017 Laura Muruato (PhD Graduate student)

2015 Brandon Trent (rotating PhD student)
2015 Madison Rogan (rotating PhD student)
2016-present Brittany Ross (PhD Graduate student)
2016-2018 Paul Kilgore (PhD Graduate student)
2017-present Daniel Tapia (PhD Graduate student)
2018-present Rebecca Supan (PhD Graduate student)
2018 Yazmin Martinez-Martinez (rotating PhD student)

Master's degree students:

2004 Lorena Milflores Flores (SURP student)
2005, '06 Guillermo N. Lopez Sanchez (SURP student)
2009 Maricarmen Rojas López (SURP student)
2010 Maricarmen Rojas López (ARRA student)
2010 Gisella Aparicio Nava (SURP student)
2012 Alejandra Vergara (international visiting student)

Undergraduate degree students:

2003 Jason D. Maricle (SURP student)
2004 Jessenya Martinez (SURP student)
2005 Lisabeth Duval (SURP student)
2008 Binny Patel (Galveston College internship student)
2008 Renan A. Aguilar-Valenzuela (SURP student)
2010-2011 Vinoth Sankarapani (UH Clear Lake internship student)
2012 Timothy Gaw (SURP student)
2015-2016 Daniel Tapia (PREP student)
2018 Emma Zigmond (HS/San Jacinto College internship)

c. Chair/Member of PhD. Supervisory Committee for:

2004-2005 Cristi Galindo, M&I. "Host Cellular Responses to the *Aeromonas hydrophila* Cytotoxic Enterotoxin". (Committee member).
2004-2009 Ted J. Whitworth, Path. "Mechanisms of phagosomal escape by *Rickettsia*". (Committee member).
2004-2007 Christopher A. Allen, M&I. "The Effect of Low-Shear Stress on Bacterial Pathogenesis and Global Gene Expression". (PhD Advisor).
2006-2008 Gregory C. Whitlock, M&I. "Virulence Associated Functions and Vaccine Potential of the *Burkholderia mallei* Type Three Secretion Effector BopA". (PhD Advisor).
2006-2008 Charles F. Capinos Scherer, M&I. "Evaluation of Granulysin and perforin as candidate biomarkers for protection following vaccination with *Mycobacterium bovis* BCG or *M. bovis* Δ RD1". (Committee member)
2006-2009 Mark A. Endsley, M&I. "Characterization of Human IgA-inducing Protein" (Committee member)
2005-2009 Jennilee B. Robinson, M&I. "Using Gene Expression Profiles to Explore Transmission Factors of *Yersinia pestis* and *Rickettsia typhi*". (Committee member)
2007-2010 Scott T. Moen, M&I. "Gastrointestinal anthrax" (Committee member)

2007-2010 William S. Lawrence, M&I. “Pathophysiology of inhalational anthrax” (Committee member)

2009-2010 Nina Williams, M&I. “Long Polar Fimbriae of *Escherichia coli* O157:H7” (PhD Advisor)

2009-2012 Sarah Castro, M&I. “The Response of *Staphylococcus aureus* to Culture in a Low-Fluid-Shear Environment” (Committee member)

2009-2014 Tiffany Mott. “Characterization of the *Burkholderia mallei* Δ tonB Mutant and its Potential as a Backbone Attenuated Strain for Vaccine Development” (PhD Advisor)

2010-2015 Roberto Cieza. “The invasin IbeA and its role in Adherent-Invasive *Escherichia coli* (AIEC) pathogenesis” (PhD Advisor)

2011-2013 Veronica Calderon. “Development of a humanized mouse model to understand M.tb and HIV/M.tb co-infection” (Committee member)

2012-2014 Taslima Lina. “*Helicobacter pylori* type IV secretion system modulates host T cell response” (Committee member)

2013-2016 Christopher Hatcher. “Construction, characterization, and evaluation of CLH001 as a vaccine candidate against respiratory glanders” (PhD Advisor)

2014-2017 Laura Muruato. “Optimization of *Burkholderia* Glycoconjugate Vaccines: A Reverse Vaccinology Approach” (PhD Advisor)

2015-present Brittany Ross. Title dissertation proposal: TBA (PhD Advisor)

2016-present Brandon Trent. Title dissertation proposal: TBA (Committee member)

2017-present Daniel Tapia. Title dissertation proposal: TBA (PhD Advisor)

2017-present Miguel Saldana. Title dissertation proposal: TBA (Committee member)

2018-present Madison Rogan. Title dissertation proposal: TBA (Committee member)

2018-present Rebecca Supan. Title dissertation proposal: TBA (PhD Advisor)

d. Graduate Student Preliminary Examination committees:

2004 Mitchell W. Woodberry (Committee member, Microbiol & Immunol)

2005 Jennilee B. Robinson (Chair, Microbiol & Immunol)

2006 Jeffrey M. Jordan (Committee member, Pathology)

2006 Alison J. Johnson (Chair, Microbiol & Immunol)

2006 Mark A. Endsley (Chair, Microbiol & Immunol)

2007 Jeeba A. Kuriakose (Committee member, Pathology)

2007 Doug G. Widman (Chair, Microbiol & Immunol)

2007 Giovanni Suarez (Chair, Microbiol & Immunol)

2007 Rohit K. Jangra (Chair, Microbiol & Immunol)

2008 Sarah L. Castro (Chair, Microbiol & Immunol)

2009 Mary Miller (Chair, Microbiol & Immunol)

2010 Zuliang Jie (Chair, Microbiol & Immunol)

2011 Evgeniy Bovshik (Chair, Microbiol & Immunol)

2012 Cristina van Lier (Chair, Microbiol & Immunol)

2012 Poonam Desai (Chair, Microbiol & Immunol)

2013 Mathew Huante (Chair, Microbiol & Immunol)

2014 Sergio Rodriguez (Chair, Microbiol & Immunol)

2015 Tania Garron (Committee member, Microbiol & Immunol)

2016 Miguel Saldana (Committee member, Microbiol & Immunol)

2017 Madison Rogan (Committee member, Pathology)
2017 Edrous Alamer (Committee member, Microbiol & Immunol)
2018 Nabeel Alzahrani (Committee member, Microbiol & Immunol)

B. TEACHING RESPONSABILITIES AT OTHER UNIVERSITIES (AT THE B. UNIVERSIDAD AUTONOMA DE PUEBLA [BUAP], MEXICO):

a. Teaching

2004-05, '09-'10, '12, '14, '16-'18 PhD and Master's Programs, Center for Microbiological Research (CMR), BUAP. Microbial Pathogenesis (Lecturer)
Lectures: Colonization: Cellular adhesion molecules in the interaction with bacterial pathogens, Integrins, Cadherins; Invasion and multiplication: Binding and entry to M cells, manipulation of the host cell cytoskeleton; Invasion and Multiplication: Intracellular survival, escape from the phagosome; Invasion and Multiplication: Siderophores, transferrin, ferritin or hemin receptors. Bacterial Toxins: Agents of disease and probes to test eukaryotic cellular behavior.
2007-08, '11-'13, '15-'16 Biomedicine and Biotechnology Undergraduate Programs. BUAP. Lecture: Cellular adhesion molecules in the interaction with bacterial pathogens; Bacterial Toxins: Agents of disease and probes to test eukaryotic cellular behavior. Enterohemorrhagic *E. coli* and Shiga toxin-producing *E. coli*.
Use of Scientific method in research.

b. Students/Mentees/Advisees/Trainees

PhD students

2006-2011 Lorena Luna Guevara (PhD student)
2009-2014 Margarita Arenas Hernandez (PhD student)

Master's degree students:

2004-2006 Lorena Milflores Flores (Master student)
2005-2006 Guillermo N. Lopez Sanchez (Master student)
2008-2010 Maricarmen Rojas Lopez (Master student)
2008-2010 Rocio G. Cerda Torres (Master student)
2010-2011 Elizabeth Olvera Tapia (Master student)

Undergraduate degree students:

2003-2004 Susana Oaxaca (Undergraduate student)
2006-2008 Maricarmen Rojas Lopez (Undergraduate student)
2007-2010 Jaime E. Bello Diaz (Undergraduate student)
2007-2010 Concepcion Gamboa Sanchez (Undergraduate student)

c. Chair/Member of PhD Dissertation/Masters Thesis Supervisory Committee for:

2004-2006 Lorena Milflores-Flores, BUAP. "Studies on the transcriptional expression of the *lpf* operon encoding the long polar fimbriae of enterohemorrhagic *E. coli* (EHEC)" (Master's degree co-Advisor).
2005-2006 Guillermo N. Lopez-Sanchez. BUAP. "Studies of the role of Global Regulators on transcription of the *lpf* locus encoding the long polar fimbriae of enterohemorrhagic *Escherichia coli*, EHEC" (Master's degree co-Advisor).

- 2007-2010 Rocio G. Cerda Torres. BUAP. “Studies on the regulation of the expression of the Long Polar Fimbriae 2 (Lpf2) of enterohemorrhagic *Escherichia coli* O157:H7” (Master’s degree co-Advisor).
- 2009-2010 MariCarmen Rojas Lopez. BUAP. “Functionality of the promoters of the *lpf1* operon during the regulation dependent of Ler and H-NS in enterohemorrhagic *Escherichia coli*” (Master’s degree Advisor).
- 2006-2011 Lorena Luna Guevara. Colegio de Postgraduados. Puebla, México. “Production of autoinducers and microbial biofilms and their relationship with the quality and chemical composition of tomato (*Lycopersicon esculentum* Mill) cultured in the region of Aquixtla Puebla” (PhD co-Advisor).
- 2009-2011 Gisela Aparicio Nava. BUAP. “Mechanism of modulation of the expression of the *lpf1* operon in enterohemorrhagic *Escherichia coli* by environmental parameters” (Master’s degree co-Advisor).
- 2010-2011 Elizabeth Olvera Tapia. BUAP. “Expression and functionality of the long polar fimbriae 2 (Lpf2) of enterohemorrhagic *Escherichia coli*” (Master’s degree co-Advisor).
- 2009-2014 Margarita Arenas Hernandez. BUAP. “Studies of the molecular mechanisms of regulation of the expression and functionality for the Long Polar Fimbriae 2 (Lpf2) of enterohemorrhagic *Escherichia coli*” (PhD co-Advisor)

d. Chair/Member of Undergraduate Thesis Supervisory Committee for:

- 2003-2004 Susana Oaxaca, BUAP. “Microbiological quality control of a food supplement”. (BS Thesis Advisor)
- 2006-2008 MariCarmen Rojas Lopez. BUAP. “Study of the interaction between the proteins H-NS and Ler on the regulatory region of the *lpfA* gene from the *lpf* operon of *Escherichia coli* O157:H7”. (BS Thesis co-Advisor)
- 2007-2010 J. Enrique Bello Diaz. BUAP. “Study of the mechanisms of interaction of the global regulator Ler on the regulatory region of the *lpfA* gene of enterohemorrhagic *E. coli* (EHEC) O157:H7”. (BS Thesis co-Advisor)
- 2008-2010 Concepcion Gamboa Sanchez. BUAP. “Study on the mechanisms of interaction of the global regulator H-NS on the regulatory region of the *lpfA* gene in *Escherichia coli* O157:H7”. (BS Thesis co-Advisor)

(AT THE UNIVERSIDAD DE CHILE, SANTIAGO, CHILE):

a. Students/Mentees/Advisees/Trainees

PhD students

2007-2011 Felipe del Canto Fuentes (PhD student)

Master’s degree students:

2011-2013 Alejandra Vergara (Master student)

b. Chair/Member of PhD Dissertation/ Masters Thesis Supervisory Committee for:

2007-2011 Felipe del Canto Fuentes. Programa de Doctorado en Microbiología. U. Chile. “Identification of new adhesin genes in Chilean strains of enterotoxigenic *Escherichia coli*” (PhD co-Advisor)

2011-2013 Alejandra Vergara. Programa de Magister. U. Chile. “Characterization of the inflammatory process induced by the Lpf1 and Lpf2 fimbriae of enterohemorrhagic *Escherichia coli* in cultured intestinal epithelial cells” (Master’s degree co-Advisor)

(AT MONASH UNIVERSITY, MELBOURNE, AUSTRALIA):

b. Chair/Member of PhD Dissertation Supervisory Committee for:

2008 Luminita Badea. Graduate program in Microbiology. “Novel virulence associated factors of attaching and effacing *Escherichia coli*” (PhD Dissertation external reviewer)

2012 Tanya D’Cruz. Graduate program in Microbiology. “Characterizing Putative Effector Proteins of *Burkholderia pseudomallei*” (PhD Dissertation external reviewer)

(AT NATIONAL INSTITUTE OF INFECTIOUS DISEASES/UNIVERSITY OF LA PLATA, BUENOS AIRES, ARGENTINA):

b. Chair/Member of PhD Dissertation Supervisory Committee for:

2009-2012 Lucia Galli. Graduate program in Bacterial Pathogenesis. “Prevalence of adherence and other virulence factors in LEE-negative STEC strains isolated from cattle” (PhD external advisor)

(AT THE UNIVERSITY OF BRITISH COLUMBIA, CANADA):

b. Chair/Member of PhD Dissertation Supervisory Committee for:

2015 Robyn J. Law. Graduate program in Microbiology and Immunology. “Host target and function of the type III secreted effectors NleB and EspL of attaching and effacing bacterial pathogens” (PhD Dissertation external reviewer)

AT THE UNIVERSITY OF THE SABANA, COLOMBIA):

b. Chair/Member of PhD Dissertation Supervisory Committee for:

2018 Vivian M. Garzon. Graduate program in BioSciences. “Standardization of a methodology of quantification of antimicrobials used to treat multi-resistant bacteria through the use of two types of biosensors and production of antibodies anti-antimicrobials” (PhD Dissertation external reviewer)

C. BIOCONTAINMENT ACTIVITIES

a. Activities

2007-2008, Associate Director, BSL-3 Bio-containment Keiller Laboratory

2008-2011, Director, BSL-3 Bio-containment Laboratories

b. Biocontainment Students/Mentees/Advisees/Trainees

Gregory Whitlock	Arpaporn Deeraksa
Omar Qazi	Barbara Judy
Terry Slater	Juliana De Aguiar
Scott Moen	Qing Chang
Janice Endsley	Tiffany Mott
Carla Blumentritt	Christopher Massey

Rebecca Johnston
Anjana Kalita
Brittany Ross
Kim Tutt
Eric Lewis
Walter Spear
Nittaya Khakhum
Rebecca Supan

Victor Garcia-Angulo
Christopher Hatcher
Laura Muruato
Gonzalo Pradenas
Paul Kilgore
Julia Myers
Javier Sanchez-Villamil
Shane Wilson

D. FACULTY MENTORSHIP

a. Activities

2008-2010 Christopher Allen, College of the Mainland, Department of Science and Mathematics.

2008-2010 Gregory Whitlock, UTMB, School of Health Professions, Department of Clinical Laboratory Sciences.

2009-2015 Janice Endsley, UTMB, Department of Microbiology and Immunology.

2010-2012 Anthony Maresso, Baylor College of Medicine, Department of Molecular Virology and Microbiology.

2010-2013 Mauricio Farfan, University of Chile. School of Medicine, Hospital Dr. Luis Calvo Mackenna.

2012-2016 Patricia Aguilar, UTMB, Department of Pathology.

2012-2016 Robin Stephens, UTMB, Department of Internal Medicine.

2013-2014 Yogesh Wairkar, UTMB, Department of Neurology.

2013-present Yan Chen, UTMB, Department of Ophthalmology

2014-2016 Xiaoyong Bao, UTMB, Department of Pediatrics

2014-2017 Netanya Utay, UTMB, Department of Internal Medicine

2014-2016 Dennis Bente, UTMB, Department of Microbiology and Immunology

2016-present Elizabeth Salisbury, UTMB, Department of Orthopedic Surgery

2016-present Tais Saito, UTMB, Department of Pathology

2016-present Ruksana Huda, UTMB, Department of Microbiology and Immunology

2017-present Brian Downer, UTMB, Rehabilitation Sciences

2017-present Mark Endsley, UTMB, Department of Microbiology and Immunology

2017-present Kaori Terasaki, UTMB, Department of Microbiology and Immunology

MEMBERSHIP IN SCIENTIFIC SOCIETIES/PROFESIONAL ORGANIZATIONS (* denotes elected membership):

American Society for Microbiology

Sigma Xi (*Elected)

Society for Advancement of Chicanos and Native Americans in Science

HONORS:

1996-1998 Summer Tuition Fellowship, UT Austin.

1996-1997 Graduate Opportunity Continuing Fellowship, UT Austin.

1998 Ford Foundation Dissertation Fellowship for Minorities, Honorary mention.

- 1998 David and Lucile Packard Foundation/National Hispanic Scholarship Fund Scholarship
- 1998 L. Joe Berry Memorial Scholarship, UT Austin
- 1998-1999 David Bruton, Jr. Fellowship, UT Austin.
- 2003 Nominated by UTMB School of Medicine for the Herbert Nickens, M.D. Minority Faculty Award.
- 1996-present Member, American Society for Microbiology
- 2005 Nominated by UTMB for W.M. Keck Foundation Distinguished Young Scholars Award
- 2006 Excellence in Teaching Award. Microbiology & Immunology Graduate Program
- 2008 Nominated by UTMB for the Burroughs Wellcome Fund 2009 Investigators in the Pathogenesis of Infectious Disease
- 2010 Nominated for the UT Austin Outstanding Alumnus Award
- 2012-present Inducted and member of the UTMB Academy of Research Mentors
- 2013-2017 NIH Bacterial Pathogenesis Study Section. Permanent Member
- 2015 Nominated for the UTMB Professorships for Excellence in Teaching
- 2015 Honorary Title in Bromatology (Food Science) and Food Technology. Veterinary College of the Buenos Aires Province, Argentina.
- 2016-2019 Mexican National System of Investigators Level III Distinction; Mexico.
- 2016 Program Teaching Award. Microbiology & Immunology Graduate Program
- 2017-2022 The Hermann Barnett Distinguished Professorship in Microbiology and Immunology

ADDITIONAL INFORMATION

Editorial board

- 2004 Book editor. B. Universidad Autónoma de Puebla. Book: *Mecanismos de patogenicidad e interacción parásito hospedero*.
- 2010 Book Editor. Bentham Science eBook: "Pathogenic *Escherichia coli* in Latin America".
- 2011 Guest Editor. The Open Microbiology Journal. Hot Topic Issue: "Recent advances in the study of pathogenic *Escherichia coli* in Brazil".
- 2011-2012 Guest Associate Editor. Frontiers in Cellular and Infection Microbiology. Special Topic Issue: "Recent progress in Melioidosis and Glanders".
- 2011 Guest Editor. Journal of Bioterrorism & Biodefense. Special Issue: "Toxins".
- 2012-2013 Associate Editor. Frontiers in Cellular and Infection Microbiology
- 2013 eBook Associate Editor. Frontiers in Microbiology. "Recent Progress in Melioidosis and Glanders"
- 2014 Guest Editor. BioMed Research International. Special Issue: "Advances on host cells-bacteria interaction by *Enterobacteriaceae* pathogens".
- 2016 Book editor. Springer: "*Escherichia coli* in the Americas".
- 2016-2017 Guest Editor. Current Tropical Medicine Reports Section: "Melioidosis and Tropical Bacteriology".
- 2017-2018 Guest Editor. PLOS Neglected Tropical Diseases

2017-2018 Guest Editor. Vaccines “Vaccines against Chronic and Persistent Bacterial Infections”
2018 Guest editor. mBio

2007-2018 Editorial Board member. Infection and Immunity
2008-2012 Editorial Board member. The Open Microbiology Journal
2010-2018 Editorial Board member. Frontiers in Cellular and Infection Microbiology
2010-2012 Editorial Board member. Journal of Bioterrorism & Biodefense
2013-present Editorial Board member. Current Tropical Medicine Reports
2015-2017 Scientific Advisor. Revista Argentina de Microbiologia
2015-present Editorial Board member. Scientific Reports
2016-2018 Editorial Board member. Clinical and Vaccine Immunology
2016-present Editorial Board member. Vaccines (Basel)
2018-present Associate Editor. PLOS Neglected Tropical Diseases

Journal Reviewer for:

Applied Environmental Microbiology, Archives of Microbiology, BMC Microbiology, BMC Veterinary Research, Cellular Microbiology, Clinical Chemistry, Clinical and Vaccine Immunology, Emerging Infectious Diseases, Environmental Microbiology, FEMS Immunology and Medical Microbiology, FEMS Microbiology Letters, Foodborne Pathogens and Disease, Frontiers in Cellular and Infection Microbiology, Frontiers in Microbiology, Gut, Gut Microbes, Human Vaccines & Immunotherapeutics, Infection and Immunity, Inflammatory Bowel Diseases, International Journal of Food Microbiology, International Journal of Medical Microbiology, Journal for Applied Microbiology, Journal of Bacteriology, Journal of Biomedicine and Biotechnology, Journal of Food Science, Journal of Infection in Developing Countries, Journal of Infectious Diseases, Journal of Medical Microbiology, mBio, Microbes and Infection, Microbiology, Molecular Microbiology, Molecular Plant-Microbe Interactions, Nature Reviews Microbiology, The Open Microbiology Journal, Orphanet Journal of Rare Diseases, Pathogens and Disease, PLoS Neglected Tropical Diseases, PLoS One, PLoS Pathogens, Proceedings of the National Academy of Sciences USA, Revista Latino Americana de Microbiología, Research in Microbiology, Scientific Reports, Transactions of the Royal Society of Tropical Medicine and Hygiene, Trends in Microbiology, Vaccine, Veterinary Microbiology, Virulence.

Grant reviewer for:

2003, '04 James W. McLaughlin Foundation (UTMB)
2005 Raine Medical Research Foundation (Australia)
2005, '06, '10 Research Grants Council (Hong Kong)
2006 Agricultural Research Organization, the Volcani Center (Israel),
2006 Netherlands Organisation for Scientific Research (The Netherlands)
2006, '09, Wellcome Trust (U.K.)
2006 Army Research Office (2007 Chemical and Biological Defense Basic Research Program)
2008, '10, '12 U.S.-Israel Binational Science Foundation.

2008 Public Health Agency of Canada
 2008, '10, Network for Research and Training in Tropical Diseases in Central America (NeTropica)
 2009 Human Frontier Science Program Organization
 2009 Ohio University College of Osteopathic Medicine
 2010 CSIC, Universidad de la Republica, Uruguay
 2011 DTRA Chemical and Biological Technologies Directorate Phase II program
 2011 Wellcome Trust Training Fellowship (United Kingdom)
 2011 National Fund for Scientific & Technological Development (Fondecyt, Chile)
 2011 Rocky Mountain Regional Center of Excellence.
 2011 Carso Institute of Health, Mexico
 2012 Pacific Southwest Regional Center of Excellence
 2012 French National Research Agency, France
 2012 NIH IDM-A (80) S (Study section member)
 2012 NIH ZAI-SM-M-J1 (Study section member)
 2012 John Sealy Memorial Endowment Fund
 2013 NIH ZRG1 IDM-B (80) S (Study section member)
 2013 NIH ZRG1 IDM-L (02) S (Study section member)
 2013 NIH BACP 2014/01 (Permanent study section member)
 2013 The National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs)
 2014 NIH BACP 2014/05 (Permanent study section member)
 2014 NIH BACP 2014/10 (Permanent study section member)
 2014 NIH ZRG1 BACP-W (08) (Study section member)
 2014 UTMB IHII pilot grants
 2014 NIH BACP 2015/01 (Permanent study section member)
 2015 NIH ZAI1 LG-M (M2)-1 (Study section member)
 2015 UTMB Technology Commercialization program
 2015 Kentucky Science & Engineering Foundation
 2015 Swiss National Science Foundation (Switzerland)
 2015 NIH BACP 2015/10 (Permanent study section member)
 2015 FINOVI foundation, France
 2015 NIH BACP 2016/01 (Permanent study section member)
 2016 NIH BACP 2016/10 (Permanent study section member)
 2016 NIH BACP 2017/01 (Permanent study section member)
 2016 McLaughlin Fellowships
 2017 NIH BACP 2017/05 (Permanent study section member)
 2017 John Sealy Memorial Endowment Fund
 2017 McLaughlin Fellowships
 2017 Texas A&M CST*R Institute's Pilot Grants Program
 2018 Medical Research Council (UK)
 2018 Fondo para la Investigación Científica y Tecnológica (FONCyT), Argentina
 2018 NIH/CSR ZCA1 SRO-C(01)1 (ad hoc reviewer)

2018 NIH/CSR ZCA1 SRA-C(01)1 (ad hoc reviewer)
2018 Conacyt-FOSEC-SEP (Mexico) (grant reviewer)

Patents:

US Patent App. 13/138,845, 2010. Uses for Long Polar Fimbriae Genes of Pathogenic *Escherichia coli* Strains. Torres, Alfredo G.

US Patent 9,267,947, 2016. Compositions and Methods for Preventing or Treating *Burkholderia* Infection. Torres, Alfredo G. and Estes, D. Mark.

US Patent 20,150,273,038, 2015. Compositions and methods for enterohemorrhagic *Escherichia coli* (EHEC) vaccination. Torres, Alfredo G.

PUBLISHED:

A. ARTICLES IN PEER-REVIEWED JOURNALS:

1. Micheva-Viteva, S.N., Ross, B.N., Gao, J., Adikari, S., Zhang, P., Mourant, J.R., Wu, T., Werner, J.H., **Torres, A.G.**, Hong-Geller, E. Increased mortality in mice following immunoprophylaxis therapy with high dosage of nicotinamide in *Burkholderia* persistent infections. *Infection and Immunity*. Epub 2018 October 15; 2018
2. Ross, B.N., Myers, J.N., Muruato, L.A., Tapia, D., **Torres, A.G.** Evaluating new compounds to treat *Burkholderia pseudomallei* infections. *Frontiers in Cellular and Infection Microbiology*. Epub 2018 June 25; 2018
3. Burtnick, M.N., Shaffer, T.L., Ross, B.N., Muruato, L.A., Sbrana, E., DeShazer, D., **Torres, A.G.**, Brett, P.J. Development of Subunit Vaccines that Provide High Level Protection and Sterilizing Immunity Against Acute Inhalational Melioidosis. *Infection and Immunity*. Epub 2017 Nov 6; 2017.

Manuscript highlighted in the Editors spotlight

Times Cited: 1

4. Pradenas, G.A., Myers, J.N., **Torres, A.G.** Characterization of the *Burkholderia cenocepacia tonB* mutant as a potential live attenuated vaccine. *Vaccines (Basel)*. 5(4), 2017

Times Cited: 1

5. Muruato, L.A., Tapia, D., Hatcher, C.L., Kalita, M., Brett, P.J., Gregory, A.E., Samuel, J.E., Titball, R.W., **Torres, A.G.** The Use of Reverse Vaccinology in the Design and Construction of Nano-glycoconjugate Vaccines against *Burkholderia*. *Clinical and Vaccine Immunology*. Epub 2017 Sep 13; 2017

Manuscript selected by Editors for the Cover (November 2017 issue) and highlighted in the Editors spotlight.

Times Cited: 2

6. Lewis, E.R.G., Kilgore, P.B., Mott, T.M., Pradenas, G.A., **Torres, A.G.** Comparing *in vitro* and *in vivo* virulence phenotypes of *Burkholderia pseudomallei* type G strains. *PLoS One*. 12:e0175983. Epub 2017 Apr 17; 2017
Times Cited: 1
7. **Torres, A.G.** The importance of international collaborations to advance research endeavors. *PLoS Pathogens*. 13:e1006047; 2017

- Times Cited: 1
8. Sloup, R.E., Cieza, R.J., Needle, D.B., Abramovitch, R.B., **Torres, A.G.**, Waters, C.M. Polysorbates prevent biofilm formation and pathogenesis of *Escherichia coli* O104:H4. *Biofouling*. 32:1131-1140; 2016
Times Cited: 2
 9. Tapia, D., Ross, B.N., Kalita, A., Kalita, M., Hatcher, C.L., Muruato, L.A., **Torres, A.G.** From *in silico* protein epitope density prediction to testing *Escherichia coli* O157:H7 Vaccine Candidates in a Murine Model of Colonization. *Frontiers in Cellular and Infection Microbiology*. 6: 94; 2016
Times Cited: 2
 10. de Souza, C.S., **Torres, A.G.**, Caravelli, A., Silva, A., Polatto, J.M., Piazza, R.M. Characterization of the universal stress protein F from atypical enteropathogenic *Escherichia coli* and its prevalence in *Enterobacteriaceae*. *Protein Science*. 25: 2142-2151. Epub 2016 Sep 12; 2016
Times Cited: 3
 11. Hatcher, C.L., Mott, T.M., Muruato, L.A., Sbrana, E. **Torres, A.G.** *Burkholderia mallei* CLH001 attenuated vaccine strain is immunogenic and protects against acute respiratory glanders. *Infection and Immunity*. 84:2345-2354. Epub 2016 Jun 6; 2016.
Times Cited: 6
 12. Ross, B.N., Cieza, R.J., McWilliams, B.D., Rojas-Lopez, M., **Torres, A.G.** The role of long polar fimbriae in *Escherichia coli* O104:H4 adhesion and colonization. *PLoS One*. 10:e0141845; 2015
Times Cited: 7
 13. Hu, J., Ross, B.N., Cieza, R.J., **Torres, A.G.** Finding regulators associated with the expression of the long polar fimbriae in Enteropathogenic *Escherichia coli*. *Journal of Bacteriology*. 197:3658-65. Epub 2015 Sep 8; 2015
Times Cited: 1
 14. Mott T.M., Vijayakumar, S., Sbrana, E., Endsley, J.J., **Torres, A.G.** Characterization of the *Burkholderia mallei* *AtonB* mutant and its potential as a backbone strain for vaccine development. *PLoS Neglected and Tropical Diseases*. 9:e0003863; 2015
Times Cited: 13
 15. Gutierrez-Preciado, A., **Torres, A.G.**, Merino, E., Bonomi, H.R., Goldbaum, F.A., Garcia-Angulo, V.A. Extensive identification of bacterial riboflavin transporters and their distribution across bacterial species. *PLoS One*. 10:e0126124. Epub 2015 May 4; 2015
Times Cited: 22
 16. Limmathurotsakul, D., Funnell, S.G.P., **Torres, A.G.**, Morici, L.A., Brett, P.J., Dunachie, S., Atkins, T., Altmann, D.M., Bancroft, G., Peacock, S.J., for the Steering Group on Melioidosis Vaccine Development. Consensus on the development of vaccines against naturally acquired melioidosis. *Emerging Infectious Diseases*. 21. Epub 2015 Apr 30; 2015
 17. Cieza, R.J., Hu, J., Ross, B.N., Sbrana, E., **Torres, A.G.** The IbeA Invasin of Adherent-Invasive *Escherichia coli* Mediates Interaction with Intestinal Epithelia and Macrophages. *Infection and Immunity*. 83:1904-18. Epub 2015 Feb 23; 2015

Manuscript selected by Editors for the Cover (July 2015 issue).

Times Cited: 14

18. Kudva, I.T., Krastins, B., **Torres, A.G.**, Griffin, R.W., Shenge, H., Sarracino, D.A., Hovde, C.J., Calderwood, S.B., John, M. The *Escherichia coli* O157:H7 cattle immunoproteome includes outer membrane protein A (OmpA), a modulator of adherence to bovine rectoanal junction squamous epithelial (RSE) cells. *Proteomics*. 15:1829-42. Epub 2015 Jan 23; 2015.

Times Cited: 6

19. Vergara, A., Vidal, R., **Torres, A.G.**, Farfan, M.J. Long Polar Fimbriae participates in the induction of neutrophils transepithelial migration across intestinal cells infected with enterohemorrhagic *E. coli* O157:H7. *Frontiers in Cellular and Infection Microbiology*. 4:185; 2015

Times Cited: 1

20. **Torres, A.G.**, Gregory, A.E., Hatcher, C.L., Vinet-Oliphant, H., Morici, L.A., Titball, R.W., Roy, C.J. Protection of non-human primates against glanders with a gold nanoparticle glycoconjugate vaccine. *Vaccine*. 33:686-692. Epub 2014 Dec 19; 2015

Times Cited: 20

21. Kalita, A., Kalita, M., **Torres, A.G.** Exploiting the power of OMICS approaches to produce *E. coli* O157 vaccines. *Gut Microbes*. 5:770-774; 2014.

22. Gregory, A.E., Judy, B.M., Qazi, O., Blumentritt, C.A., Brown, K.A., Shaw, A.M., **Torres, A.G.**, Titball, R.W. A gold nanoparticle-linked glycoconjugate vaccine against *Burkholderia mallei*. *Nanomedicine*. 11:447-456. Epub 2014 Sep 3; 2015.

Times Cited: 22

23. Arenas-Hernandez, M.P., Rojas-Lopez, M., Medrano-Lopez, A., Nuñez-Reza K.J., Puente, J.L., Martinez-Laguna, Y., **Torres, A.G.** Environmental regulation of the long polar fimbriae 2 of enterohemorrhagic *Escherichia coli* O157:H7. *FEMS Microbiology Letters*. 357:105-114. Epub 2014 Jun 25; 2014.

Times Cited: 3

24. Nieves, W., Petersen, H., Judy, B.M., Blumentritt, C.B., Russell-Lodrigue, K., Roy, C.J., **Torres, A.G.**, Morici, L.A. A *Burkholderia pseudomallei* outer membrane vesicle vaccine provides significant protection against lethal sepsis. *Clinical and Vaccine Immunology*. 21:747-754. Epub 2014 Mar 26; 2014.

Times Cited: 27

25. García-Angulo, V.A., Kalita, A., Kalita, M., Lozano, L., **Torres, A.G.** Comparative genomics and immunoinformatics approach for the identification of vaccine candidates for enterohemorrhagic *Escherichia coli* O157:H7. *Infection and Immunity*. 82:2016-2026. Epub 2014 Mar 4; 2014.

Times Cited: 8

26. Massey, S., Yeager, L.A., Blumentritt, C.A., Vijayakumar, S., Sbrana, E., Peterson, J.W., Brasel, T., LeDuc, J.W., Endsley, J.J., **Torres, A.G.** Comparative *Burkholderia pseudomallei* natural history virulence studies using an aerosol murine model of infection. *Scientific Reports*. 4:4305; 2014.

Times Cited: 18

27. Garcia Angulo, V.A., Bonomi, H.R., Posadas, D.M., Serer, M.I., **Torres, A.G.**, Zorreguieta, A., F.A. Goldbaum. Identification and characterization of RibN, a novel family of riboflavin transporters from *Rhizobium leguminosarum* and other Proteobacteria. *J Bacteriol.* 195:4611-4619. Epub 2013 Aug 9; 2013.
Manuscript selected by Editors for the cover of the issue (October 2013 issue).
Times Cited: 14
28. Chen, C., Blumentritt, C.A., Curtis, M.M., Sperandio, V., **Torres, A.G.**, E.G. Dudley. Restrictive streptomycin-resistant mutations decrease the formation of attaching and effacing lesions in *Escherichia coli* O157:H7 strains. *Antimicrob Agents Chemother.* Epub 2013 Jun 24; 2013.
Times Cited: 2
29. Mott, T.M., Johnston, R.K., Vijakumar, S., Estes, D.M., Motamedi, M., Sbrana, E., Endsley, J.J., **Torres, A.G.** Monitoring therapeutic treatments against *Burkholderia* infections using imaging techniques. *Pathogens.* 2:383-401; 2013.
30. Sváb, D., Galli, L., Horváth, B., Maróti, G., Dobrindt, U., **Torres, A.G.**, Rivas, M., Tóth, I. The long polar fimbriae operon and its flanking regions in bovine *Escherichia coli* O157:H43 and STEC O136:H12 strains. *Pathog Dis.* 68:1-7. Epub 2013 Mar 27; 2013
Times Cited: 1
31. Farfan, M.J., Cantero, L., Vergara, A., Vidal, R., **Torres, A.G.** The Long Polar Fimbriae of STEC O157:H7 induce expression of pro-inflammatory markers by intestinal epithelial cells. *Vet Immunol Immunopathol.* 152:126-131 Epub 2012 Sep 26; 2013.
Times Cited: 9
32. Luna-Guevara, M.L., Delgado-Alvarado, A., Herrera-Cabrera, B.E., **Torres, A.G.**, Avelino-Flores, F., Navarro-Ocaña, A., Parada-Guerra, F. Diversity of enterobacteria associated with tomato (*Lycopersicon sculentum* Mill) fruits and greenhouse soils. *Scientia Agropecuaria* 2:161-169; 2012.
33. Del Canto, F., Botkin, D.J., Valenzuela, P., Popov, V., Ruiz-Perez, F., Nataro, J.P., Levine, M.M., Stine, O.C., Pop, M., **Torres, A.G.**, R. Vidal. Identification of the Coli Surface Antigen 23 (CS23), a Novel Adhesin of Enterotoxigenic *Escherichia coli*. *Infect Immun.* 80:2791-801 Epub 2012 May; 2012.
Times Cited: 19
34. **Torres, A.G.**, Cieza, R.J., Rojas-Lopez, M., Blumentritt, C.A., Souza, C.S., Johnston, R.K., Strockbine, N., Kaper, J.B., Sbrana, E., Popov, V.L. *In vivo* bioluminescence imaging of *E. coli* O104:H4 and role of aerobactin during colonization of a mouse model of infection. *BMC Microbiol.* 12:112; 2012.
Times Cited: 12
Editor's pick in BMC Microbiology and ranked as a **highly accessed paper**
35. Lloyd, S.J., Ritchie, J.M., **A.G. Torres.** Fimbriation and curliation in *Escherichia coli* O157:H7: a paradigm of intestinal and environmental colonization. *Gut Microbe.* 3:272-276 Epub 2012 May 1; 2012.
36. AuCoin, D.P., Reed, D.E., Marlenee, N.L., Bowen, R.A., Thorkildson, P., Judy, B.M., **Torres, A.G.**, Kozel, T.R., Polysaccharide Specific Monoclonal Antibodies

- Provide Passive Protection against Intranasal Challenge with *Burkholderia pseudomallei*. *PLoS One*. 7:e35386; 2012
Times Cited: 20
37. Judy, B.M. Taylor, K., Deeraksa, A., Johnston, R.K., Endsley, J.J., Vijayakumar, S., Aronson, J.F., Estes, D.M., **A.G. Torres**. Prophylactic application of CpG oligonucleotides augments the early host response and confers protection in acute melioidosis. *PLoS One*. 7:e34176; 2012
Times Cited: 15
 38. Lloyd, S.J., Ritchie, J.M., Rojas-Lopez, M., Blumentritt, C.A., M.K. Popov, V.L., Greenwich, J.L., Waldor, M.K., **A.G. Torres**. A double long polar fimbriae mutant of *Escherichia coli* O157:H7 expresses curli and exhibits reduced *in vivo* colonization. *Infect Immun*. 80:914-920. Epub 2012 Jan 9; 2012
Times Cited: 25
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20. **Torres, A.G.** Current aspects of *Shigella* Pathogenesis [minireview; article in Spanish]. *Revista Latinoamericana de Microbiología*. 46:88-96; 2004.
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In preparation:

1. Morici, L., **Torres, A.G.**, Titball R.W. Novel multicomponent vaccine approaches for *Burkholderia pseudomallei*. In preparation.

Books

1. *Escherichia coli in the Americas*. Springer. **Torres, A.G.** Editor. 2016. ISBN: 978-3-319-45091-9.
2. *Recent Progress in Melioidosis and Glanders*. Frontiers in Microbiology E-Book. **Torres, A.G.** and I. Steinmetz. Editors. 2013. doi: 10.3389/fmicb.2012.00149. Times Cited: 1
3. *Pathogenic Escherichia coli in Latin America*. Bentham Science E-book. **Torres, A.G.** Editor. 2010. ISBN: 978-1-60805-192-2.

Book chapters

1. McWilliams, B.D., **Torres, A.G.** EHEC adhesins. *Enterohemorrhagic Escherichia coli*. V. Sperandio and C.J. Hovde (eds). ASM Press. pp. 131-155; 2015.
2. **Torres, A.G.**, Rudra, J.S., G.N. Milligan. Microbial-based and Material-based Vaccine Delivery Systems. *Vaccinology: An Essential Guide*. G.N. Milligan and A. Barrett (eds). Wiley-Blackwell. pp. 127-151; 2014.
3. Del Canto, F., **Torres, A.G.** Colonization Factor Antigens of ETEC. *Pathogenic Escherichia coli: Molecular and Cellular Microbiology*. S. Morabito (ed). Caister Academic Press. pp. 201-215; 2014.
4. Garcia-Angulo, V.A., Farfan, M.J., **Torres A.G.** Hybrid and Potentially Pathogenic *E. coli* strains. In: M. Donnenberg (ed), *Escherichia coli: Pathogenesis and Pathotypes*. Elsevier, Inc. pp. 331-360; 2013.
5. Mott, T.M. Estes, D.M. and **Torres, A.G.** Recent progress in the development of vaccines for glanders and melioidosis. In: Vaccines against Bacterial Biothreat Pathogens. Research Signpost. pp. 93-110; 2011
6. **Torres, A.G.**, Arenas-Hernández, M, Martínez-Laguna, Y. Overview of *Escherichia coli*. In ebook: *Pathogenic Escherichia coli in Latin America*. Bentham Science Publishers Ltd. pp. 1-7; 2010
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9. Motin, V.L., and **Torres, A.G.** Molecular Approaches to Bacterial Vaccines. In: A. Barrett, and L. Stanberry (eds), *Vaccines for Biodefense and Emerging and Neglected Diseases*. Academic Press, St. Louis, MO. pp. 63-76; 2008.
10. **Torres, A.G.** Intestinal pathogenic *E. coli*. In: A. Barrett, and L. Stanberry (eds), *Vaccines for Biodefense and Emerging and Neglected Diseases*. Academic Press, St. Louis, MO. pp. 1013-1029; 2008.
11. **Torres, A. G.** 28 February 2006, posting date. Chapter 8.3.2.4, Adhesins of Enteropathogenic *Escherichia coli*. In A. Böck, R. Curtiss III, J. B. Kaper, F. C. Neidhardt, T. Nyström, K. E. Rudd, and C. L. Squires (ed.), *EcoSal—Escherichia coli and Salmonella: cellular and molecular biology*. [Online.] <http://www.ecosal.org>. ASM Press, Washington, D.C.; 2006.

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14. **Torres, A.G.** *Shigella*. *Encyclopedia of Environmental Microbiology*. G. Bitton (ed). John Wiley & Sons, Inc. pp. 2865-2871; 2002.

In press:

1. Khakhum, N., Tapia, D., **Torres A.G.** *Burkholderia mallei* and Glanders. *In press: Defense against Biological Attacks. Vol II*. Singh, S.K. & Kuhn, J.H (Eds.) Springer; 2019

Articles/Opinions/Editorials in magazines

1. **Torres, A.G.**, Montufar, F.E., Gee, J.E., Hoffmaster, A.R., Elrod, M.G., Duarte-Valderrama, C., Huertas, M.G., Blaney, D.E. Melioidosis is in the Americas: a call to action for diagnosing and treating the disease. *American Journal of Tropical Medicine & Hygiene*. Epub 2018 Jul 16; 2018
2. **Torres, A.G.** Maternal Immunity, a way to confer protection against enteropathogenic *Escherichia coli*. *Jornal de Pediatria (Rio J)*. 93:548-550. Epub 2017 Jun 8; 2017
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3. **Torres, A.G.** and I. Steinmetz. Recent progress in melioidosis and glanders. *Frontiers in Microbiology*. 3:1-2; 2012
4. **Torres, A.** *Escherichia coli*-Related Diseases in Latin America Remain in the Spotlight: the Brazilian Efforts to Understand *E. coli* Pathogenesis. *Open Microbiology Journal*. 5:54. Epub 2011 Jul 20; 2011
5. **Torres, A.G.** *E. coli* outbreak in Germany a global wake-up call. *Houston Chronicle* (June 11); 2011
6. **Torres, A.G.** *E. coli* outbreak in the United States? *Galveston Daily News* (June 11); 2011
7. da Silveira, W.D., **Torres, A.G.** A resposta regional a um problema global: A Criação da Coalizão Latino-Americana para a Pesquisa de *Escherichia coli* [article in Portuguese]. *Ciencia in Foco. Brazilian Journal of Microbiology*; 2010.

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1. Limmathurotsakul, D., Daily, F., Bory, S., Khim, G., Wiersinga, W.J., Torres, A.G., Dance, D.A.B., Currie, B.J. Melioidosis: the hazards of incomplete peer-review. Submitted to PLoS Negl Trop Dis.

Thesis/Dissertation

1. **Torres, A.G.** Characterization of the Heme transport system in *Escherichia coli* O157:H7, and importance of iron uptake systems in virulence. University of Texas at Austin. PhD Dissertation; 1999.
2. **Torres, A.G.** Purification and immunogenic use of the B subunit of SLTIIv (Shiga-like toxin II variant). B. Universidad Autonoma de Puebla, México and University of Texas Southwestern Medical Center at Dallas. Master degree Dissertation; 1995.
3. **Torres, A.G.** Isolation and identification of *Clostridium perfringens* from meat products in Puebla City. B. Universidad Autonoma de Puebla, México. Bachelor's degree thesis; 1992.

C. ABSTRACTS AND POSTERS (40 [from 2014-2018] of a total of 161):

1. Khakhum, N., Kilgore, P.B., Myers, J.N., Bharaj, P., Endsley, J.J., **Torres, A.G.** *Burkholderia* *ΔtonB Δhcp1* Live Attenuated Vaccines Against Acute Respiratory Melioidosis and Glanders. 12th Vaccine Congress; 2018
2. Ross, B.N., **Torres, A.G.** Identifying Toxins-Antitoxin Systems Associated with *Burkholderia pseudomallei* Survival in the Host. Bacterial Persistence and Antimicrobial Therapy Conference; 2018
3. Kilgore, P.B., **Torres, A.G.** Paying the iron price: how pathogenic *Burkholderia* subvert nutritional immunity during infection. 2018 IHII/McLaughlin Colloquium; 2018
4. Khakhum, N., Kilgore, P.B., Myers, J.N., Bharaj, P., Endsley, J.J., **Torres, A.G.** *Burkholderia* *ΔtonB Δhcp1* live attenuated vaccines against glanders and melioidosis. 2018 IHII/McLaughlin Colloquium; 2018
5. Tapia, D., Sanchez-Villamil, J.I., Muruato, L.A., **Torres, A.G.** Gold nano-glycoconjugate vaccine against *Burkholderia pseudomallei* provides protection in an *in vivo* model of melioidosis. 2018 IHII/McLaughlin Colloquium; 2018
6. Ross, B.N., Zigmond, E., **Torres, A.G.** Predicting Toxins-Antitoxin Systems Associated with *Burkholderia pseudomallei* Survival in the Host. 2018 IHII/McLaughlin Colloquium; 2018
7. **Torres, A.G.**, Hatcher, C.L., Lewis, E.R., Khakhum, N., Bharaj, P., Myers, J.N., Endsley, J.J. Protective capacity of a Broad-Spectrum Attenuated *Burkholderia* Vaccine. CBD S&T, 2017
8. Burtnick, M., Shaffer, T., Ross, B., Muruato, L., Sbrana, E., DeShazer, D., **Torres, A.G.**, Brett, P. Identifying Correlates of Vaccine-Induced Immunity Using Murine Models of Acute Melioidosis. CBD S&T, 2017
9. Hong-Geller, E., Micheva-Viteva, S., Werner, J., **Torres, A.G.**, Ross, B., Adikari, S., Mourant, J., Chain, P., Munsky, B. Bet-hedging in Pathogens: Targeting Bacterial Persistence to Combat Infectious Disease. CBD S&T, 2017
10. Ross, B.N., Myers, J., Pradenas, G.A., Muruato, L.A., Tapia, D., **Torres, A.G.** The search for new treatment options against *Burkholderia pseudomallei*. FEMS meeting, 2017.
11. Muruato, L.A., Tapia, D., Hatcher, C.L., Brett, P.J., Kalita, M., Gregory, A.E., Samuel, J.E., Titball, R.W., **Torres, A.G.** Development of Gold Nanoparticle-Glycoconjugate Vaccines against Melioidosis and Glanders. ASM Microbe, 2017.

12. Kilgore, P.B., Lewis, E.R., **Torres, A.G.** Characterization of *Burkholderia pseudomallei* isolates from the Western hemisphere. 2017 IHII/McLaughlin Colloquium; 2017
13. Muruato, L.A., **Torres, A.G.** Development of gold nanoparticle-glycoconjugate Vaccines against *Burkholderia*. 2017 IHII/McLaughlin Colloquium; 2017
14. Ross, B.N., Myers, J., **Torres, A.G.** The search for new treatment options against *Burkholderia pseudomallei*. 2017 IHII/McLaughlin Colloquium; 2017
15. Tapia, D., **Torres, A.G.** LomW phage protein of *Escherichia coli* O157:H7 provides protection against gastrointestinal colonization. 2017 IHII/McLaughlin Colloquium; 2017
16. Pradenas, G.A., **Torres, A.G.** Generation and characterization of *Burkholderia cenocepacia* Δ tonB as potential attenuated vaccine strain. 2017 IHII/McLaughlin Colloquium; 2017
17. Ross, B.N., Myers, J., Pradenas, G.A., Murato, L.A., Lewis, E.R.G., Tapia, D., **Torres, A.G.** The search for new treatment options against *Burkholderia pseudomallei*. ASM Biothreats Research Meeting; 2017
18. Muruato, L.A., Kalita, M., **Torres, A.G.** *Burkholderia* Vaccine Design: Identification of novel candidates via Bio- and Immunoinformatic Approaches. 8th World Melioidosis Congress; 2016
19. Hatcher, C. L., **Torres, A.G.** Evaluating *Burkholderia mallei* tonB/hcp1 Mutant's Vaccine Potential Against Respiratory Glanders. Keystone Symposia. New Approaches to Vaccines for Human and Veterinary Tropical Diseases; 2016
20. Muruato, L.A., Kalita, M., **Torres, A.G.** *Burkholderia* Vaccine Design: Identification of novel candidates via Bio- and Immunoinformatic Approaches. 2016 IHII/McLaughlin Colloquium; 2016
21. Tapia, D., Kalita, M., Ross, B.N., Muruato, L.A., **Torres, A.G.** Bioinformatic approach identifies candidates that confer protection against *Escherichia coli* O157:H7 *in vivo*. 2016 IHII/McLaughlin Colloquium; 2016
22. Hatcher, C. L., Mott, T.M, Muruato, L.A., **Torres, A.G.** *Burkholderia mallei* CLH001 Attenuated Vaccine Strain Is Immunogenic and Protects Against Acute Respiratory Glanders. 2016 IHII/McLaughlin Colloquium; 2016
23. Ross, B.N., **Torres, A.G.** To persist or not to persist: A *Burkholderia pseudomallei* antibiotic-treatment model. 2016 IHII/McLaughlin Colloquium; 2016
24. Hatcher, C. L., Mott, T.M, Muruato, L.A., **Torres, A.G.** *Burkholderia mallei* CLH001 Attenuated Vaccine Strain Is Immunogenic and Protects Against Acute Respiratory Glanders. UTMB 4th Annual clinical and Translational Forum; 2016
25. Muruato, L.A., Kalita, M., **Torres, A.G.** Identification of Novel *Burkholderia* Vaccine Candidates using Bio- and Immuno-informatic Approaches. UTMB 4th Annual clinical and Translational Forum; 2016
26. Hatcher, C. L., Mott, T.M, Muruato, L.A., **Torres, A.G.** *Burkholderia mallei* CLH001 Attenuated Vaccine Strain Is Immunogenic and Demonstrates Full Protection Against Acute Respiratory Glanders. ASM Biodefense and Emerging Diseases Research Meeting; 2016

27. Muruato, L.A., Kalita, M., **Torres, A.G.** Identification of Novel *Burkholderia* Vaccine Candidates using Bio- and Immunoinformatic Approaches. ASM Biodefense and Emerging Diseases Research Meeting; 2016
28. Tapia, D., **Torres, A.G.**, Kalita, A., Kalita, M., Ross, B.N. Vaccine Candidates Identified by *in silico* Analysis Confer Protection against *Escherichia coli* O157:H7 Colonization. ABRCMS; 2015.
29. **Torres, A.G.**, Kalita, A., Kalita, M. Integrated *in silico* Prediction to Identify Vaccine Candidates against *Escherichia coli* O157:H7. 115th ASM General Meeting; 2015.
30. Ross, B.N., McWilliams, B.D., Cieza, R.J., Rojas-Lopez, M., **Torres, A.G.** *E. coli* O104:H4 Long Polar Fimbriae role in colonization and biofilm formation. 2015 IHII/McLaughlin Colloquium; 2015
31. Hatcher, C.L., **Torres, A.G.** Evaluating *Burkholderia mallei tonB hcp1* mutants vaccine potential against respiratory glanders. 2015 IHII/McLaughlin Colloquium; 2015
32. Hu, J., Ross, B.N., Cieza, R.J., **Torres, A.G.** Identification of the regulator controlling Lpf expression in enteropathogenic *Escherichia coli*. 2015 IHII/McLaughlin Colloquium; 2015
33. Muruato, L.A., Kalita, M., **Torres, A.G.** Identification of novel *Burkholderia* vaccine candidates using bio- and Immunoinformatic approaches. 2015 IHII/McLaughlin Colloquium; 2015
34. Mott, T.M., Vijayakumar, S., Sbrana, E., Endsley, J.J., **Torres, A.G.** Characterization of the *Burkholderia mallei* $\Delta tonB$ mutant and its potential as a live attenuated vaccine. 8th Vaccine & ISV Congress; 2014.
35. Kalita, A., Kalita, M., Garcia-Angulo, V.A., **Torres, A.G.** Integrated *in silico* prediction to identify vaccine candidates against enterohemorrhagic *Escherichia coli* O157:H7. 8th Vaccine & ISV Congress; 2014.
36. Cieza, R.J., **A.G. Torres.** IbeA protein linked to invasion of the Crohn's disease-associated adherent invasive *Escherichia coli*. 114th ASM General Meeting; 2014.
37. Kalita, A., Garcia-Angulo V.A., Kalita M., Lozano, L., **A.G. Torres.** Genome-wide comparative and immunoinformatics approach for the identification of vaccine candidates against enterohemorrhagic *Escherichia coli* O157:H7. 2014 IHII/McLaughlin Colloquium; 2014.
38. Mott T.M., Vijayakumar, S., Johnston, R.K., Endsley, J.J., Sbrana, E., **A.G. Torres.** The *Burkholderia mallei tonB* deletion mutant exhibits an attenuated phenotype and provides protective immunity against acute inhalational murine glanders. 2014 IHII/McLaughlin Colloquium; 2014.
39. Hu, J., **A.G. Torres.** Identifying the regulator controlling Long Polar Fimbriae expression in enteropathogenic *Escherichia coli*. 2014 IHII/McLaughlin Colloquium; 2014.
40. Cieza, R.J., **A.G. Torres.** Understanding the host response associated with Adherent Invasive *Escherichia coli*. 2014 IHII/McLaughlin Colloquium; 2014.

D. INVITED LECTURES (58 [from 2014-2018] of a total of 143 lectures):

1. Career Development Workshop Series. October 2018. Updating your UTMB CV for the Scholarship Application (Workshop Guest Speaker).
2. I Congreso Internacional de Salud Pública, Desigualdades e Investigación V Encuentro Internacional de Investigación en Enfermedades Infecciosas y Medicina Tropical. October 2018. The importance to study pathogenic *E. coli* in the Americas (Symposium Speaker).
3. I Congreso Internacional de Salud Pública, Desigualdades e Investigación V Encuentro Internacional de Investigación en Enfermedades Infecciosas y Medicina Tropical. October 2018. *E. coli* and acute diarrheal disease (EPEC, ETEC, EHEC and EAEC) (Symposium Speaker).
4. West Virginia University September 2018. Combating *Burkholderia* infections with novel Vaccines (Seminar Speaker).
5. 2nd annual meeting of the Global Infectious Diseases Research Network. August 2018. Emergence of Melioidosis in Latin America. (Speaker).
6. 25th American Society for Microbiology Conference for Undergraduate Educators (ASMCUE). July 2018. The Art of Making Vaccines (Guest Speaker)
7. 62nd Annual Wind River Conference in Prokaryotic Biology. June 2018. The Art of Making Vaccines (Keynote speaker)
8. Glaxo Smith Kline, Italy. May 2018. The journey towards an effective *Burkholderia* vaccine (Guest speaker)
9. 10th International Symposium VTEC 2018. May 2018. Current status of STEC infections and research in Latin America (Guest Speaker)
10. National Institute of Public Health, Mexico. April 2018. The Enterobacteria, extraordinary pathogens (Guest Speaker)
11. Melioidosis in the Americas, Colombia meeting. April 2018. Melioidosis – History Past, Present and Future in Americas. (Guest Speaker)
12. European Melioidosis Congress. March 2018. Development of gold-nanoparticle glycoconjugate vaccines against *Burkholderia*. (Guest Speaker)
13. 2018 DTRA/MCS *Burkholderia* Science Workshop. February 2018. Defining Correlates of Protection of a Broad-Spectrum Attenuated *Burkholderia* Vaccine (Guest speaker)
14. ASM Biothreats. February 2018. Old becoming new again: live-attenuated vaccine against *Burkholderia* infections (Guest speaker)
15. PREP Career Quest. December 2017. Experiences in the search of an Academic Scientific career (Guest Speaker).
16. M&I Research in Progress. December 2017. From Frida to Khalo: the journey towards an effective *Burkholderia* vaccine (Speaker).
17. Vacunology course (BUAP, Mexico). November 2017. De Frida a Khalo: el camino para obtener una vacuna efectiva contra *Burkholderia*. (Guest Speaker).
18. 29th Brazilian Congress of Microbiology. October 2017. Using iron transport to develop an effective *Burkholderia* vaccine. (Guest speaker).
19. Butantan Institute. October 2017. *E. coli* patogênica usa a força para anexos e defesa, mas pode ser derrotada pelo ataque de uma vacina. (Guest Speaker).
20. Immunology Journal Club. September 2017. Tips for creating an effective presentation that do not suck. (Guest Speaker).

21. Global Infectious Diseases Research Network Meeting. July 2017. Emerging Challenges in Diarrheal Disease (Speaker).
22. National Institute of Public Health, Mexico. April 2017. Epidemiology of diarrheal diseases (Guest Speaker).
23. XL Mexican National Congress of Microbiology. April 2017. Exploiting iron transport to develop an effective *Burkholderia* vaccine. (Guest Speaker).
24. National Institute of Public Health, Mexico. February 2017. Emerging challenges in pathogenic *Escherichia coli* infections. (Guest Speaker).
25. PREP Career Quest. December 2016. Experiences in the search of an Academic Scientific career (Guest Speaker).
26. University of Toledo. November 2016. Happy *Burkholderia* Games! And may the odds to get a vaccine be in your favor. (Guest Speaker).
27. Vacunology course (BUAP, Mexico). October 2016. Comparative genomics and applications of immunoinformatic for the identification of vaccines in development. (Guest Speaker).
28. Vacunology course (BUAP). October 2016. Genomic applications for the identification of candidate antigens for the development of Vaccines against enteropathogenic bacteria. (Guest Speaker).
29. Meritorious University Autonomous of Puebla. October 2016. *Escherichia coli* 2, the dark knight. (Guest Speaker).
30. Penn State University. October 2016. Pathogenic *E. coli* Uses the Force for Attachment and Defense, but can be defeated by the Attack of a Vaccine. (Guest Speaker).
31. 10th Vaccine Congress. September 2016. Evaluating *Burkholderia mallei tonB/hcp1* Mutant's Vaccine Potential against Respiratory Glanders; (Breakout session speaker).
32. Wake Forest Medical School. April 2016. The Vaccine Games: Defeating Pathogenic *Burkholderia*, Part 2 (Guest Speaker).
33. Gordon Research Conference- Biology of Acute Respiratory Infection. February 2016. Mucosal Vaccination Using Attenuated Bacterial Strains of *Burkholderia*. (Session Speaker).
34. University of Maryland Medical School. December 2015. Straight talk about *Escherichia coli* and *Burkholderia* Vaccines (Guest Speaker).
35. PREP Career Quest. November 2015. Experiences in the search of an Academic Scientific career (Guest Speaker).
36. Annual Biomedical Conference for Minority Students. November 2015. Navigating Your Way into a Postdoctoral Position and Having a Successful Postdoctoral Experience (Session Speaker)
37. IV Congreso de Bioquímica y Biología Molecular de Bacterias. October 2015. Exploring the colonization properties of the highly virulent *Escherichia coli* O104:H4 (Guest Speaker).
38. VTEC 2015. September 2015. Exploring the expression and functions of Long Polar Fimbriae in enteropathogenic *Escherichia coli* and *E. coli* O104:H4 (Guest Speaker).
39. 9th International Workshop in Practical Veterinary. Argentina. August 2015. Experiences from other countries in the control of STEC (Guest Speaker)

40. 9th International Workshop in Practical Veterinary. Argentina. August 2015. Pathogenic *Escherichia coli* in Latin America STEC/VTEC (Guest Speaker)
41. National Central University of the Buenos Aires Province. Argentina. August 2015. Fifty Shades of Bacterial Vaccines (Guest Speaker)
42. National Polytechnic Institute. National School of Biological Sciences. Mexico. June 2015. We the noble vaccines: In absence of a cure...options to combat *Burkholderia* and *Escherichia coli*. (Guest Speaker)
43. National University of Mexico. Cellular Physiology Institute. June 2015. We the noble vaccines: In absence of a cure...options to combat *Burkholderia* and *Escherichia coli*. (Guest Speaker)
44. National Science Research Forum. UTMB. April 2015. "Hit me with your best shot! Challenges in Infectious Disease" Bench to Bedside panel discussion (Panelist)
45. Microbiome mini-symposium. UTMB. April 2015. "Commensals going wild" – evaluating changes in intestinal bacteria during inflammation (Short talk speaker)
46. European Melioidosis Congress. March 2015. Progress in animal models and vaccines (Guest Speaker).
47. University of Florida. March 2015. Fifty Shades of Bacterial Vaccines (Guest Speaker).
48. Drug Resistance: Efflux Pumps and Beyond Workshop. Santa Fe, NM. February 2015. Shining the light: Novel imaging methods to monitor therapeutic treatments for *Burkholderia* infections (Guest Speaker).
49. UTMB. BMB students Professional Development Session. January 2015. Tips for creating an effective presentation that do not suck (Guest Speaker).
50. Annual Biomedical Conference for Minority Students. November 2014. Navigating Your Way into a Postdoctoral Position and Having a Successful Postdoctoral Experience (Session Speaker).
51. Puerto Rico Society of Microbiologists. Third Student Research Symposium in Microbiology. October 2014. Fifty Shades of Bacterial Vaccines. (Keynote Speaker).
52. Los Alamos National Laboratory. October 2014. Fifty Shades of Bacterial Vaccines. (Guest Speaker).
53. Meritorious University Autonomous of Puebla. 40th Anniversary of the Science Institute. September 2014. Fifty Shades of Bacterial Vaccines. (Guest Speaker).
54. Meritorious University Autonomous of Puebla. 40th Anniversary of the Science Institute. September 2014. Negotiation Strategies to obtain a postdoctoral position (Guest Speaker).
55. UTMB. The Department of Neuroscience & Cell Biology and Cell Biology Graduate Program. July 2014. Fifty Shades of Bacterial Vaccines. (Guest Speaker).
56. UTMB. STEM program. June 2014. Experiences of a Scientist in Academia: We all follow a different path. (Guest Speaker).
57. UTMB. Pathology Ground Rounds. March 2014. Epidemiology and control of Shiga toxin-producing *Escherichia coli* infections. (Guest Speaker).
58. University of Virginia School of Medicine. February 2014. Fifty Shades of *Burkholderia* and *Escherichia coli* Vaccines. (Guest Speaker).

