

## **CURRICULUM VITAE**

**Eileen M. Barry, Ph.D.**  
**Professor of Medicine**  
**University of Maryland School of Medicine**

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### **Contact Information**

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### **Education**

1985 B.A., Biology University of Delaware  
1991 Ph.D., Microbiology and Immunology, Medical College of Virginia  
Virginia Commonwealth University.  
Thesis Advisor: Alison A. Weiss, Ph.D.

### **Post Graduate Education and Training**

1992 - 1994 Postdoctoral Fellowship, Center for Vaccine Development,  
University of Maryland School of Medicine  
Advisor: J. Glenn Morris, Jr., M.D.  
1994 - 1996 Postdoctoral Fellowship, Center for Vaccine Development, University of  
Maryland School of Medicine  
Advisor: Myron M. Levine, M.D., D.T.P.H

### **Employment History**

#### **Academic Appointments**

1996 - 2004 Assistant Professor of Medicine, University of Maryland School of  
Medicine  
1998 - present Chief, *Shigella*/ETEC Vaccine Section, Center for Vaccine Development,  
University of Maryland School of Medicine  
2004 – 2012 Associate Professor of Medicine (Primary Appointment)  
Division of Geographic Medicine

University of Maryland School of Medicine

- 2004 - 2012 Associate Professor of Microbiology and Immunology  
(Secondary Appointment)  
University of Maryland School of Medicine
- 2004 - 2012 Associate Professor of Medical and Research Technology  
(Secondary Appointment)  
University of Maryland School of Medicine
- 2012-Present Professor, Dept. Medicine, Center for Vaccine Development (primary  
appointment), Molecular Microbiology and Immunology and Medical  
and Research technology, University of Maryland School of Medicine.

### **Professional Society Memberships**

- 1987 - present American Society for Microbiology  
1997 - present American Association for the Advancement of Science  
2001 American Chemical Society  
2009 - 2011 Society for Industrial Microbiology

### **Honors And Awards**

- 2005 Certificate of Appreciation for Excellence in Teaching. Department of Medical and  
Research Technology, UMSOM.
- 2009 Teaching Commendation in Host Defenses and Infectious Diseases  
&2012 Bacteriology/Mycology Section. Medical Student Classes of 2009 and 2012.
- 2011 Faculty Teacher of the Year Award, Department of Medicine, Division of Geographic  
Medicine, UMSOM
- 2015 University System of Maryland PROMISE Alliance for Graduate Education and the  
Professoriate Outstanding Faculty Mentor (facilitating development of  
underrepresented minority graduate students in STEM fields)

### **Administrative Service**

#### **Institutional Service**

- 2003 BSL4/NBL Facility Proposal Committee
- 2003 Center for Vaccine Development Plasmid Vaccine Manufacture RFP  
Evaluation Committee
- 2004 - 2005 School of Medicine Intramural Grant Review Committee
- 2006 - present Interviewer, UMSOM Medical Student Admissions Committee
- 2006 - 2009 Member, UMB Faculty Senate

- 2006 - 2011      UMB ORD Scientific Review Committee
- 2007 - present    Member, Graduate Student Admissions Committee, GPILS Molecular Microbiology and Immunology Program
- 2007 - 2008      Member, School of Dentistry Department of Biomedical Sciences Faculty Search Committee
- 2012              Member, GPILS Awards Selection Committee
- 2013 - present    Member, Department of Medicine Appointment, Promotion and Tenure Committee

**International and National Service**

- 1999 - present    Member, Military Infectious Diseases Study Section
- 2000              Member, NIH Special Emphasis Panel: Innovative Research in Human Mucosal Immunity Study Section
- 2003              Temporary Advisor, World health Organization: Future Directions of Research on ETEC Vaccines for Children in Developing Counties
- 2003              Panel Member, Joint Medical Technology Workshop, Military Infectious Disease: Diarrhea and other Bacterial Diseases
- 2004              Member, NIH Special Emphasis Panel: Biodefense and Emerging Infectious Disease Research Opportunities Study Section (1/2004 and 12/2004)
- 2004              Temporary Advisor, World Health Organization, Future Needs and Directions for *Shigella* Vaccines
- 2004              Member, NIH Special Emphasis Panel: In Vitro and Animal Models for Emerging Infectious Diseases and Biodefense Study Section
- 2005              Member, NIH Special Emphasis Panel: Disabling Innate Immune Evasion: New Attenuated Vaccines Study Section
- 2005 - 2010      Member, NIH Special Emphasis Panel: Small Business Grant Applications: Microbial Vaccine Development Study Section (7/2005, 11/2005, 7/2006, 10/2006, 7/2007, 2/2008, 6/2008, 10/2008, 2/2009, 7/2009, 2/2010)
- 2005              Member, Cooperative Grants Program of the US Civil Research and Development Foundation Study Section
- 2005 - 2010      Advisor, Scientific Working Group of the PathoSystems Resource Integration Center of the Virginia Bioinformatics Institute at Virginia Polytechnic Institute

- 2005 - present *Ad Hoc* Reviewer, *Microbial Pathogenesis*, *Journal of Immunology*, *Journal of Bacteriology*, *Clinical and Experimental Immunology*, *FEMS Immunology and Medical Microbiology*, *Vaccinology*, *Vaccine*, *Microbes and Infection*, *FEMS Microbiology Letters*, *Infection and Immunity*, *Journal of Medical Microbiology*, *J. Biol. Chem.*, *PNAS*, *Pathogens and Disease*
- 2006 Member, NIH Special Emphasis Panel: Cooperative Research Partnerships for Biodefense Study Section (1/2006, 2/2006)
- 2008 Panel Member, Program for Appropriate Technology in Health, Enterics Vaccine Initiative Reactive Arthritis Workshop
- 2010 Member, NIH Partnerships for Biodefense (Vaccines/Immunotherapeutics) Study Section
- 2012-2016 Permanent member, NIH NIAID Host Interactions with Bacterial Pathogens (HIBP) Study Section
- 2014 – 2018 Member, editorial board, *Clinical and Vaccine Immunology*

### **Community Service**

- 1997 Judge, Baltimore County Science Fair, Baltimore Chapter ASM
- 1997 Teacher, SMART Program (Science Math and Related Technologies) Howard County, MD
- 1998 Judge, Graduate Student Day, University of Maryland Baltimore and Baltimore County campuses
- 2002 - present Preceptor, Girl Scouts of Maryland Science Day

### **Teaching Service University of Maryland School of Medicine**

#### **Undergraduate Student Teaching**

- 2002 - 2012 Lecturer, Dept. Medical and Research Technology, Pathogenic Microbiology (MEDT 490)  
 “Enterics I” (15-40 DMRT students/yr; 1.5 hrs/yr)  
 “Enterics II” (15 – 40 DMRT student/yr; 1.5 hrs/yr)  
 “*Haemophilus* and Fastidious Bacteria” (15 – 40 DMRT students/yr; 1.5 hrs/yr)
- 2002 - 2012 Lecturer, Dept. Medical and Research Technology, Applied Cellular and Molecular Biology (MEDT 454)  
 Special Topics: “STM, RIVET, IVET” (2 - 8 DMRT students/yr; 1.5 hrs/yr)

#### **Medical Student Teaching**

- 2001 - present Preceptor, Host Defenses and Infectious Diseases Bacteriology Laboratory (MSPR 520)  
(20 second year medical students/yr; 12 hrs/yr)
- 2002 - present Small Group Discussion Leader, Host Defenses and Infectious Diseases, “Molecular Koch’s Postulates” (MSPR 520)  
(20 second year medical students/yr, 1.5 hrs/yr)
- 2004 Small Group Discussion Leader, Host Defenses and Infectious Diseases, “Bioterrorism and Biological Warfare” (MSPR 520)  
(20 second year medical students/yr, 1.5 hrs/yr)
- 2008 - present Lecturer, Host Defenses and Infectious Diseases (MSPR 520)  
“*Salmonella* and *Shigella*”  
(150 second year medical students/yr, 1 hr/yr)
- 2008 - present Lecturer, Host Defenses and Infectious Diseases (MSPR 520)  
“*Campylobacter* and *Helicobacter*”  
(150 second year medical students/yr, 1 hr/yr)

### **Graduate Teaching**

- 1998 Lecturer, Vaccinology (PREV 789) “Non Target Effects”  
(5-10 graduate student and fellows/yr; 1 hr/yr)
- 2001 - 2011 Lecturer, Vaccinology (PREV 789) “DNA Vaccines”  
(5-10 graduate student and fellows/yr; 1 hr/yr)
- 2001 - present Lecturer, Principles of Bacterial Pathogenesis (MMIC 701)  
“Evasion of Host Immune responses”  
(7-15 graduate students/yr; 1.5 hrs/yr)
- 2003 Lecturer, Principles of Bacterial Pathogenesis (MMIC 701)  
“*Bordetella*”  
(7-15 graduate students/yr; 1.5 hrs/yr)
- 2003 Co-Course Director, Vaccinology (PREV 789)
- 2005 - present Course Director, Vaccinology (PREV 789)
- 2005 - 2006 Lecturer, Bioterrorism and Biodefense (PATH 789) “Tularemia”  
(1 – 5 graduate students/yr; 2hrs/yr)
- 2013 - present Co-course Director, Advanced Microbial Pathogenesis (GPILS 710)
- 2013 - present Lecturer, Advanced Microbial Pathogenesis (GPILS710), “*Salmonella* Pathogenesis and Host Cell Interactions” (5-10 graduate students/yr; 3hrs/yr)

2013 Discussion Group Leader, Research Ethics (CIPP907)

**Teaching Outside of the University of Maryland School of Medicine**

2003 Lecturer, University of Maryland College Park, Dept. of Microbiology, Pathogenic Microbiology (BSCI-424)  
“*Streptococcus*” (140 undergraduate students/yr; 1.0 hrs/yr)

2009 Lecturer, Yale Centro Internacional de Entrenamiento e Investigaciones Medicas Fogarty Infectious Disease Training, “Concepts in Vaccine design: Types of Vaccines: Killed, Live Attenuated, Subunit, DNA”, Internet – based course to 5 institutions in Columbia, S. America  
(51 MD, PhD, MSC, and BSC students/yr; 2hrs/yr)

**Mentoring**

**Undergraduate Students**

1999 Daniela Jodorkovsky, Undergraduate Summer Research Training Program

2006 Stephanie Garrett, Undergraduate Summer Research Training program  
Currently 3<sup>rd</sup> year medical student, UMSOM

2007 Ryan Merson, Undergraduate Summer Research Training Program

2007 Beyan Sana, Undergraduate Summer Research Training Program

2012 Samantha Slydell, Baltimore City Community College Molecular Biology program internship

**Visiting Students**

2006 Norio Hanata, Visiting Medical student from Niigata University School of Medicine, Japan

1999 - 2000 Tom Nijenhuis, Visiting Medical Student from the Netherlands

**Graduate Students**

2005 - 2006 Anthony Hererra, MS, Department of Medical and Research Technology

2005 - 2009 Kelly Baker, Ph.D., Molecular Microbiology and Immunology  
Currently Assistant Professor of Occupational and Environmental Health, University of Iowa

2007 - 2012 Mark Marohn, Ph.D., Molecular Microbiology and Immunology Program  
Currently Manager Bacteriology, Bacterial Vaccines Platform Sanofi Pasteur Biologics

2010 - 2014 Carolyn Morris, Molecular Microbiology and Immunology Program

- 2010 - 2011 Andrew Davis, MS Boston University  
Completed MD, Tufts University School of Medicine
- 2012 – present Bre-Onna Delaine, Molecular Medicine Program
- 2013 – present Phillip Balzano, Molecular Microbiology and Immunology

### **Post Graduate Students**

- 1998 - 1999 Richard Anderson, Ph.D.  
Currently Associate Research Fellow Pfizer
- 1998 - 2000 Zeev Altboum, Ph.D.,  
Currently Principal Investigator, Israel Institute for Biological Research
- 2001 - 2010 Araceli Santiago, Ph.D.  
Currently Assistant Professor of Medicine, University of Virginia School of Medicine
- 2002 - 2006 Chris Vinderampulle, Ph.D.  
Currently Patent and Trademark Attorney, Watermark, Melbourne, Australia
- 2002 - 2004 Man Ki Song, Ph.D.  
Currently Research Scientist, Principal Investigator, International Vaccine Institute, Korea
- 2010 - 2013 Christina Faherty, Ph.D.  
Currently Assistant Professor, Assistant Molecular Biologist, Mucosal Immunology and Biology Research Center, Massachusetts General Hospital
- 2014 – present Aimee Cunningham, Ph.D., Post-doctoral Fellow
- 2015 -2016 Kurt Hanevik, MD, PhD., Post doctoral Fellow

### **Graduate Student Dissertation Committees**

- 1998 - 2001 Cara Fiore (Dept. Pathology)
- 1998 - 2002 Thames Pickett (Dept. Micro&Immuno)
- 2001 - 2004 Laurel Courtemarch Burall (Dept. Micro&Immuno)
- 2001 - 2004 Laura Quinn (Dept. Micro&Immuno)
- 2003 - 2006 Jennifer Smart (Dept. Micro&Immuno)
- 2004 - 2008 Charlotte Andreasen (Dept. Micro&Immuno)
- 2004 - 2008 Naomi Montalvo (Dept. Biomed. Sci)
- 2005 - 2008 Natalia Chalmers (Dept. Biomed. Sci)
- 2005 - 2009 Sheila Dreher-Lesnick (Molecular Micro&Immuno)
- 2005 - 2009 Cara Lang (Dept. Pathology)
- 2008 - 2009 Chun Tan (Dept. Biomed. Sci)

2008 - 2009	Ranjani Prabhakara (Molecular Micro&Immuno)
2008 - 2010	Susan Steyert (Molecular Micro&Immuno)
2008 - 2012	Leon DeMasi (Molecular Micro&Immuno)
2009 - 2013	Anna Seekatz (Molecular Micro&Immuno)
2010 - 2012	Daniel Powell (Molecular Micro&Immuno)
2010 - 2014	Vidhya Vijayakumar (Molecular Micro&Immuno)
2011 - 2013	Nate Archer (Molecular Micro&Immuno)
2011 - 2013	Valerie Huse (Molecular Micro&Immuno)
2011 - 2015	Sergio Mojica (Molecular Micro&Immuno)
2012 - 2015	Elizabeth Neuendorf (Molecular Medicine)
2013 - present	Jeticia Sistrunck (Molecular Micro&Immuno)
2014 - 2015	Grace Maldarelli (Molecular Micro&Immuno)
2015 - present	Lalena Wallace (Molecular Micro&Immuno)
2015 – present	Mark Guillotte (Molecular Micro&Immuno)
2015 – present	Devon Allison (Molecular Micro&Immuno)
2016 – present	Kim Flicek (Molecular Micro&Immuno)
2016 – present	Mark Rudolf (Molecular Micro&Immuno)

## **Grant Support**

### **Active Grants**

7/1/16 – 6/30/2021	E. Barry (PI, Project 2; overall PI: J. Kaper) NIH NIAID P01AI125181 Pathogenesis of <i>E. coli</i> and <i>Shigella</i> infections in human enteroid models
4/1/16 – 3/31/2021	E. Barry (Co-I; PI M. Pasetti) NIH/NIAID R01AI125841 “Serological assays to predict <i>Shigella</i> vaccine efficacy”
2/15/2016 – 1/31/2021	E. Barry (PI; MPI K. Hazlett, D. Reed) NIH NIAID R01AI123129 “Correlates of Vaccine Induced, Tunable Protection in an Outbred Tularemia Model”
9/1/2015 – 8/31/2017	E. Barry (PI) PATH-EVI “ <i>Shigella</i> Micro-Array Development”
4/1/2015 – 3/31/2020	E. Barry (Co-I; M. Pasetti overall PI) NIH NIAID 1R01AI117734-01 “Vaccines and maternally acquired immunity to prevent shigellosis in children”
3/01/2014 – 2/28/2019	E. Barry (PI, Project 3; M. Levine overall PI) NIH U19AI109776 “Immunoprophylactic Strategies to Control Emerging Enteric

Infections"

Role: PI Project 3: "*Shigella* Live Vector-Based Multivalent Vaccine"

3/15/2013 – 3/14/2017

E. Barry (PI, 40%)

"Advancement of a Defined, Protective, Live Attenuated Tularemia Vaccine"

NIH NIAID 1R01AI102966

2/1/2010 - 6/30/2016

E. Barry (PI, 10%)

"A Toxoid Vaccine Against Heat-Stable Enterotoxin of *E. coli*"

Sponsor: Program for Appropriate technology in Health – Enterics Vaccine Initiative

### **Pending Grants**

Submitted 3/2016

E. Barry (PI)

PATH-EVI

"A toxoid Vaccine against Heat Stable Enterotoxin of *E. coli*"

10/1/2016 – 7/1/2018

Submitted 3/2016

E. Barry (PI)

PATH-EVI

"Inactivated *Shigella*-ETEC Vaccine"

10/1/2016 – 8/1/2018

### **Completed Grants**

7/01/1997 - 6/30/1998

E. Barry (PI, 0%)

"Enhancement of Immune Responses to Heterologous Antigens Delivered in *Salmonella* Typhi Vaccine Strains by Co-Expression of Heat-Labile Toxin"

Sponsor: Designated Research initiative Fund, University of Maryland Baltimore

8/1/2000 – 2/28/2009

E. Barry (Investigator 30%; PI – M. Levine)

"Development of a Stealth Mucosal Measles Vaccine that can Immunize Young Infants in Developing Countries, Despite the Presence of Maternal Antibodies"

Sponsor: Bill and Melinda Gates Foundation

Role: Investigator. Dr. Barry's role was to engineer DNA vaccine plasmids for the expression of protective measles antigens with characterization and immunologic evaluation in animal models. She was the project manager on the GMP formulation of the DNA vaccine candidate and preclinical

toxicology and biodistribution testing. She participated in writing the IND submitted to the FDA for clinical trials that have been completed.

12/15/2000 – 12/15/2004

E. Barry (PI, 0%)  
“Generation of a Double Mutant Toxin LTK63K97 for Inclusion in a Live Oral Multivalent ETEC-*Shigella* Vaccine”  
Sponsor: World Health Organization Department of Vaccines and Biologicals

6/1/2002 – 3/30/2009

E. Barry (Investigator 15%; PI – M. Levine)  
“Evaluation of Control measures Against Infectious Diseases Other than AIDS”  
Sponsor: NIH N01-AI25461  
Role: Investigator. Dr. Barry’s role was to perform preclinical testing of *Shigella* vaccine candidates and preparation of IND documents.

9/4/2003 – 2/29/2009

E. Barry (PI Subproject 5.2 15%, and Investigator Subproject 4.3 25%; overall PI - M. Levine)  
Mid Atlantic Regional Center for Excellence in Biodefense and emerging Infectious Diseases  
NIH U54 AI57168  
Subproject 5.2: “*Shigella dysenteriae* type 1 and enterohemorrhagic *E. coli*: New Vaccines and Therapeutics”  
Subproject 4.3: “Attenuated *F. tularensis* Live Mucosally-Administered Vaccine”  
Role: Dr. Barry was the lead investigator in developing a genetic system for *F. tularensis* for the development of live attenuated vaccine strains.

02/02/04 – 02/01/05

E. Barry (PI, 10%)  
“Development of a Mucosal *S. pneumoniae* Vaccine to Protect Smokers and Individuals Exposed to Secondhand Smoke”  
Sponsor: University of Maryland, Other Tobacco-Related Diseases Research Grant through the Maryland Cigarette restitution Fund Program

6/1/04 – 5/31/10

E. Barry (PI, 40%)  
“Conserved Pneumococcal Protein Live-Vector Vaccine”  
NIH R01 AI055943

3/1/08 – 2/28/09	E. Barry (PI New Opportunities Project, 5%; overall PI – M. Levine) NIH U54 AI57168 New Opportunities “Formulation of <i>Francisella</i> Live Attenuated Vaccine Strains”
03/01/2009 – 02/28/2010	E. Barry (PI Soft Landing Project, 15%; overall PI – M. Levine) NIAID U54 AI57168 “Defenses Against Biowarfare and Emerging Infectious Agents” Soft Landing: “Advancement of <i>F. tularensis</i> Live Attenuated Type A Vaccine Strains”
8/1/09 – 8/1/-10	E. Barry (PI, 10%) “GlycoVaxyn Guinea Pig Studies” Sponsor: GlycoVaxyn
10/15/09 – 7/30/10	E. Barry (PI 5%) “Biothreat Reduction Program: Ecology, Genetic Clustering and Virulence of Major Bacterial and Viral Pathogens in the republic of Georgia” Sponsor: Bechtel Subcontract to DTRA
02/2011 - 02/2012	E. Barry (PI 15%) Biothreat Reduction Program: “Ecology, Genetic Clustering and Virulence of Major Bacterial and Viral Pathogens in the Republic of Georgia” Sponsor: US Civilian Research and Development Foundation
6/1/2006 - 5/31/2012	E. Barry (PI, 20%) “ <i>Shigella dysenteriae</i> Vaccine Development” NIAID R01-AI059223
09/22/09 - 8/31/12	E. Barry (PI, 20%) “Advancement of New Live Attenuated <i>F. tularensis</i> Type A Vaccine Strains” NIAID U01 AI077909

- 10/2008 - 10/2012 E. Barry (Investigator 5%; PI - M. Levine)  
 “Safety, Immunogenicity, and Efficacy Following Experimental Challenge of CVD 1208S, a  $\Delta$ *guaBA*,  $\Delta$ *sen*,  $\Delta$ *set* *Shigella flexneri* 2a live oral vaccine”  
 Sponsor: Program for Appropriate Technology in Health-Enterics Vaccine Initiative  
 Role: Scientific Oversight Leader for CRO process development, GMP production, preclinical studies, and contributes to IND submission.
- 1/1/2009 - 12/31/2012 E. Barry (PI Work Package 3, 5%; overall PIs - J. Nataro and H. Sommerfelt)  
 “EntVac: Developing Vaccines Against Diarrhea Caused by Enterotoxigenic *E. coli* and *Shigella*”  
 WP3: Advancing Live Attenuated *Shigella* Vaccines  
 Sponsor: Research Council of Norway
- 10/2011 – 7/2013 E. Barry (Subcontract PI, 10%; PI – W. Picking)  
 “Use of Type III Secretion System Antigens as a Novel Vaccine Against *Shigella* spp” (PI: W. Picking, Oklahoma State Univ)  
 Subcontract: “Protective Efficacy Using Homologous and Heterologous *Shigella* spp. Challenge in Guinea Pig Model”  
 Sponsor: PATH-EVI
- 3/1/2009 - 2/28/2014 E. Barry (PI Project V, 10%; overall PI - M. Levine)  
 NIAID U54 AI57168  
 “Defenses Against Biowarfare and Emerging Infectious Agents”  
 Project V: Broad Spectrum Enteropathogen Vaccine Development
- 7/20/2010 - 6/30/2015 E. Barry (Investigator Project 1, 10%; PI - J. Kaper)  
 NIH NIAID U19 AI090873  
 “Severe Enteric Disease: Pathogenesis and Response”  
 Role: Investigator Project 1, Aim 3: To determine the role of ShET2 in the pathogenesis of tEPEC and *Shigella* infections

### **Patents Issued**

1. “Isolation and characterization of the *csa* operon (ETEC-CS4 Pili) and methods for using same”. Altboum, Z., **E. M. Barry**, and M. M. Levine.  
 US Patent Number 7,399,474, July 15, 2008  
 South African Letters Patent Number 2002/9042, May 26, 2004  
 New Zealand Letters Patent Number 522272, January 13, 2005  
 Australian Letters Patent Number 2001255543, October 6, 2005  
 European Regional Patent Number 1280912, November 30, 2006

Mexican Letters Patent Number 246230, June 6, 2007  
India Patent Certificate Number 222054, July 16, 2008

2. “Attenuated *Salmonella* Enterica Serovar Paratyphi and Uses Thereof”. Vindurampulle, C., **Barry, E.M.**, and Levine, M.M. US Patent Number 8,475,810, July 02, 2013.

## **Publications**

### **Peer-reviewed journal articles**

1. **Barry, E.M.**, A.A. Weiss, I.E. Ehrmann, M.C. Gray, E.L. Hewlett, and T.S. Goodwin. *Bordetella pertussis* adenylate cyclase toxin and hemolytic activities require a second gene, *cyaC*, for activation. J. Bacteriol. 1991, 173:720-726.
2. Ehrmann, I.E., A.A. Weiss, T.S. Goodwin, M.C. Gray, **E.M. Barry**, and E.L. Hewlett. Enzymatic activity of adenylate cyclase toxin from *Bordetella pertussis* is not required for hemolysis. FEBS Lett. 1992, 304:51-56.
3. Hewlett, E.L., M.C. Gray, I.E. Ehrmann, N.J. Maloney, A.S. Otero, L. Gray, M. Allietta, G. Szabo, A.A. Weiss, and **E.M. Barry**. 1993. Characterization of adenylate cyclase toxin from a mutant of *Bordetella pertussis* deficient in the activator gene *cyaC*. J. Biological Chem. 268:7842-7848.
4. Levine, M.M., C. Tacket, J. Galen, **E. Barry**, F. Noriega, S. Chatfield, M. Sztein, and G. Dougan. Progress in vaccines against typhoid fever. Southeast Asian Journal of Tropical Medicine and Public Health. 1995, 26:264-271.
5. Levine, M.M., J. Galen, **E.M. Barry**, F. Noriega, S. Chatfield, M. Sztein, G. Dougan, and C. Tacket. Attenuated *Salmonella* as live oral vaccines against typhoid fever and as live vectors. Journal of Biotechnology, 1996, 44:193-196.
6. Sulkvelidze, A., K. Dalakishvili, **E.M. Barry**, R. Robins-Browne, and J.G. Morris. Analysis of clinical and environmental *Yersinia* isolates in the Republic of Georgia. Journal of Clinical Microbiology, 1996, 34:2325-2327.
7. **Barry, E.M.**, O. Gomez-Duarte, S. Chatfield, R. Rappuoli, J. Galen, G. Losonsky and M.M. Levine. Expression and antigenicity of pertussis toxin S1 subunit-tetanus toxin fragment C fusions in the *S. typhi* vaccine strain CVD 908. Infect. Immun., 1996, 64:4172-4181. PMC174353
8. Franco, A.A., J.A. Johnson, **E.M. Barry**, P. Yeh, R. Maurer, and J.G. Morris. Cloning and characterization of *dnaE*, encoding the catalytic subunit of replicative DNA polymerase III, from *Vibrio cholerae* strain C6706. Gene, 1996, 175:281-281.
9. Levine, M.M., J. Galen, **E. Barry**, F. Noriega, C. Tacket, M. Sztein, S. Chatfield, G. Dougan, G. Losonsky, and K. Kotloff. Attenuated *Salmonella typhi* and *Shigella* as live oral vaccines and as live vectors. Behring Inst. Mitt. 1997; 98: 120-123.
10. Kotloff, K. L., F. Noriega, T. Samandari, M. Sztein, G. Losonsky, J. Nataro, W. Picking, **E. M. Barry**, and M. M. Levine. *Shigella flexneri* 2a strain CVD 1207 with specific deletions in *virG*, *sen*, *set*, and *guaBA* is highly attenuated in humans. Infect. Immun., 2000, 68:1034-1039. PMC97245
11. Koprowski II, H., M. M. Levine, R. Anderson, G. Losonsky, M. Pizza, and **E. M. Barry**. Attenuated *Shigella flexneri* 2a vaccine strain CVD 1204 expressing colonization factor antigen I (CFA/I) and mutant human heat labile toxin of enterotoxigenic *Escherichia coli*. Infect. Immun., 2000, 68:4884-4892. PMC101689

12. Wang, J. Y., F. Noriega, J. Galen, **E. M. Barry**, and M. M. Levine. Constitutive expression of the Vi polysaccharide capsular antigen in attenuated *Salmonella enterica* serovar Typhi oral vaccine strain CVD 909. *Infect. Immun.*, 2000, 68:4647-4652. PMC98559
13. Altboum, Z., **E.M. Barry**, G. Losonsky, and M.M. Levine. Attenuated *Shigella flexneri* 2a  $\Delta$ *guaBA* strain CVD 1204-expressing ETEC CS2 and CS3 fimbriae as a live mucosal vaccine against *Shigella* and enterotoxigenic *Escherichia coli* infection. *Infect. Immun.*, 2001, 69:3150-3158. PMC98271
14. Ruiz-Perez, F., R. Leon-Kempis, A. Santiago-Machuca, G. Ortega-Pierres, **E. M. Barry**, M.M. Levine, and G. Gonzalez-Bonilla. Expression of the *Plasmodium falciparum* Immunodominant Epitope (NANP)<sub>4</sub> on the Surface of *Salmonella enterica* using the Autotransporter MisL. *Infect. Immun.*, 2002, 70:3611-3620. PMC128084
15. **Barry, E.M.**, Z. Altboum, G. Losonsky, and M.M. Levine. Immune Responses Elicited Against Multiple Enterotoxigenic *Escherichia coli* Fimbriae and Mutant LT expressed in Attenuated *Shigella* Vaccine Strains. *Vaccine*, 2003, 21:333-340
16. Altboum, Z, Myron M. Levine, James E. Galen, and **Eileen M. Barry**. Characterization and Immunogenicity of Coli Surface Antigen 4 (CS4) from Enterotoxigenic *E. coli* when it is Expressed in *Shigella flexneri* Live Vector Strain. *Infect. Immun.*, 2003, 71:1352-1360. PMC148885
17. Pasetti, M. F., **E. M. Barry**, G. Losonsky, M. Singh, S. M. Medina-Moreno, J. M. Polo, J. Ulmer, H. Robinson, M. B. Sztein, and M.M. Levine. Attenuated *Salmonella enterica* serovar Typhi and *Shigella flexneri* 2a Strains Mucosally Deliver DNA Vaccines Encoding Measles Virus Hemagglutinin, Inducing Specific immune responses and Protection in Cotton Rats. *J. Virol.*, 2003, 77: 5209-5217. PMC153971
18. Vindurampulle, C.J., L. Cuberos, **E.M. Barry**, M.F. Pasetti, and M.M. Levine. Recombinant *Salmonella enterica* serovar Typhi in a prime-boost strategy. *Vaccine*, 2004, 22:3744-3750.
19. Kotloff, KL., M.F. Pasetti, **E.M. Barry**, J.P. Nataro, S.S. Wasserman, M.B. Sztein, W.D. Picking, and M.M. Levine. Deletion of the *Shigella* Enterotoxin Genes Further Attenuates *Shigella flexneri* 2a bearing Guanine Auxotrophy in a Phase I Trial of CVD 1204 and CVD 1208. *J Infect. Dis.*, 2004, 190:1745-1754.
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25. Santiago, A., A. Franco, M.M. Levine, and **E.M. Barry**. 2008. Characterization of *F. tularensis* SchuS4 Strain Derivatives Harboring Deletions in Essential Intracellular Genes. Abstracts of the 2008 Tularemia Workshop, Bolton Landing, NY, No. 52, p.108.
26. Cole, L.E., A. Saniago, **E.M. Barry**, T.J. Kang, K.A. Shirey, Z. Roberts, K. Elkins, A. Cross, and S.N. Vogel. 2008. The Macrophage Proinflammatory Response to *Francisella tularesnsis* involves TLR2-, IFN- $\beta$ -, and Caspase-I-Dependent Signaling pathways. Abstracts of the 2008 Tularemia Workshop, Bolton Landing, NY, p.34.
27. Santiago, A., B.J. Mann, M.M. Levine, and **E.M. Barry**. 2008. Development of Live Attenuated *Francisella tularensis* Type A Vaccine Candidates. Abstracts of the NIAID 5th Annual RCE Research Meeting, April 7, 2008, Chicago, IL, p.192.
28. **Barry, E.M.**, T. Wu and M.M. Levine. 2008. Development of Live Attenuated *Shigella dysenteriae* Vaccine Strains. Abstracts of the NIAID 5th Annual Regional Centers for Excellence Research Meeting, Chicago, IL, 2008, p. 140.
29. Santiago, A.E., A.A. Franco, M.M. Levine, and **E.M. Barry**. 2008. Construction and Characterization of a *F. tularensis* Type A Strain Containing Multiple Gene Deletions. Abstracts of the 108th ASM General Meeting, Philadelphia, PA, No E-016
30. Seekatz, A.M., W.W. Hsiao, A.Q. Khan, A. Panda, S. Shipley, L. DeTolla, M.M. Levine, **E.M. Barry**, M.B. Sztein, and C.M. Fraser-Liggett. 2009. The Effect of Immunization with an Oral *Shigella* Vaccine on the Gut Microbiota in Cynomolgus Monkeys. Abstracts of the 109th ASM General Meeting. Philadelphia, PA, No. R-072.
31. Santiago, A., B.J. Mann, L. Cole, S. Vogel, M. M. Levine, and **E. M. Barry**. 2010. Construction and Characterization of *F. tularensis aro* Mutant Strains. Abstracts of the 8th ASM Biodefense and Emerging Infectious Disease Research Meeting. Baltimore, MD., No. 239 (H), p. 93.
32. Reed, D.S., T. Dunsmore, L. Smith, A. Trichel, K.S. Cole and **E. M. Barry**. 2011. Pneumonic Tularemia in Rabbits: Utility of X-rays and Laboratory Diagnostics in Predicting Outcome. Abstracts of the 2011 ASM Biodefense and Emerging Infectious Disease Research Meeting. Washington DC, No. 170 (B), p. 65.
33. **Barry, E. M.**, D.S. Reed, B.J. Mann, K. Cole, and A.E. Santigao. 2011. Evaluation of *F. tualrensis* Type A Derived Live Attenuated Vaccine Strains in the Rabbit Model. Abstracts of the 2011 ASM Biodefense and Emerging Infectious Disease Research Meeting. Washington DC, No. 212 (H), p. 77.
34. M.E. Marohn, A. E. Santiago, and **E.M. Barry**. 2011. The Role of the *Francisella tularensis* Pht Subfamily of Major Facilitator Superfamily Transporters in Intracellular Survival and Host Response. Abstracts of the 2011 Mid-Atlantic Microbial Pathogenesis Meeting. Wintergreen, Va., p.96.
35. C.S. Faherty, J. Redman, D.A. Rasko, **E. M. Barry**, and J.P. Nataro. 2011. Identification of Adherence Factors in *Shigella* that are Critical for Pathogenesis. Abstracts of the 2011 Mid-Atlantic Microbial Pathogenesis Meeting. Wintergreen, Va. p. 66.
36. Reed, DS, A.E. Santigao, L.P. Smith, T. Dunsmore, A. Trichel, B.J. Mann, K.S. Cole and **E. M. Barry**. 2011. Type A-derived Live Attenuated *Francisella tularensis* Vaccines Protect Rabbits Against a Lethal Aerosol Challenge with a Type A strain. Abstracts of the Aerobiology in Biodefense IV Meeting, Richmond, Va.. No. 35.
37. Marohn, M.M., A.E. Santiago, and **E. M. Barry**. 2011. Members of the Pht Subfamily of MFS Transporters are Important to Pathogenesis of *Francisella tularensis*. Abstracts of the 111th ASM General Meeting. New Orleans, LA, No. 1539.

38. C.R. Morris, J.C. Redman, C.L. Grassel, J.W. Stahl, **E.M. Barry**, and D.A. Rasko. Bioinformatic and in vitro Methods to Identify Vaccine Targets in *Shigella flexneri*. Abstracts of the 111th ASM General Meeting. New Orleans, LA.
39. **Barry, E.M.**, F. Ruiz, and J.P. Nataro. 2011. Characterization of *S. flexneri* 2a Vaccine Strain CVD 1401 Containing a Functional *pic* Locus. Abstracts of the 6<sup>th</sup> International Conference on Vaccines for Enteric Diseases, Cannes, France, No. 103.
40. Reed, D.S., A.E. Santiago, L.P. Smith, T. Dunsmore, A. Trichel, B.J. Mann, K.S. Cole, **E.M. Barry**. Type A-Derived Genetically Modified Live Attenuated *Francisella tularensis* Vaccines Protect Rabbits Against a Lethal Aerosol Challenge with a Type A Strain. Abstracts of the 2011 Chemical & Biological Defense Science & Technology Conference, Las Vegas, NV.
41. M.M. Marohn, A. Santiago, K. Shirey, S.N. Vogel, and **E.M. Barry**. Members of the FPT Subfamily of MFS Transporters are Important for Pathogenesis and *Francisella tularensis* and Contribute to Modulation of the Host Cytokine Response. Abstracts of the 10<sup>th</sup> ASM Biodefense and Emerging Infectious Diseases Research Meeting, Washington D.C., No. 049(B), p. 39.
42. K.S. Cole, D.S. Reed, A.E. Santiago, L.P. Smith, T. Dunsmore, A. Trichel, B.J. Mann, and **E.M. Barry**. Type A-derived attenuated *Francisella tularensis* vaccines protect rabbits against a lethal aerosol challenge with a type A strain. Abstracts of the 8<sup>th</sup> Annual Meeting of the NIAID Regional Centers of Excellence, 2012, Amelia Island, FL, No.V-05, p. 69.
43. **E. M. Barry**, T. Wu, S. Singh, and M.M. Levine. Broad Spectrum Enteropathogen Vaccine Development. Abstracts of the 8<sup>th</sup> Annual Meeting of the NIAID Regional Centers of Excellence, 2012, Amelia Island, FL, No.V-10, p. 74.
44. C.S. Faherty, D.A. Rasko, J.P. Nataro, and **E. M. Barry**. Bile salts induce clumping and biofilm formation in *Shigella flexneri*. Abstracts of the 112th ASM General Meeting, 2012. San Francisco, CA, No. 2161.
45. C.R. Morris, J.C. Redman, C. Grassel, **E.M. Barry** and D.A. Rasko. Bioinformatic, in vitro, and in vivo Methods to Identify Mediators of Pathogenesis in *Shigella flexneri*. Abstracts of the 112th ASM General Meeting, 2012. San Francisco, CA, No. 2161.
46. K. Richard, B. Mann, L. Stocker, **E.M. Barry**, D. Stein, P. DeShong, and S.N. Vogel. A novel multivalent *Francisella* vesicle vaccine protects mice and induces isotype switching in B cells. Abstracts of the 7<sup>th</sup> International Tularemia Meeting, 2012, Breckenridge, CO, 2012.
47. **E. M. Barry**, T. Wu, S. Singh, and M.M. Levine. Broad Spectrum Enteropathogen Vaccine Development. Abstracts of the 9<sup>th</sup> Annual Meeting of the NIAID Regional Centers of Excellence, 2013, Seattle, WA, No.V-10, p. 74.
48. C.R. Morris, C. Grassel. J.C. redman, J.W. Sahl, **E.M. Barry** and D. A. Rasko. Utilizing transcriptomics to identify and characterize mediators of pathogenesis in *Shigella flexneri*. Abstracts of the 2013 Mid-Atlantic Microbial Pathogenesis Meeting. Wintergreen, Va. p. 3.
49. C. S. Faherty, T. Wu, C.R. Morris, C. Grassel. D.A. Rasko, J. Harper, T. Shea-Donohue, A. Fasano, and **E.M. Barry**. Two transcriptional and translational start sites may regulate the distinct functions of *Shigella* ecterotoxin-2. Abstracts of the 2013 Mid-Atlantic Microbial Pathogenesis Meeting. Wintergreen, Va. No. 27.
50. M. E. Marohn, A. E. Santiago, K. A. Shirey, S. N. Vogel and **E.M. Barry**. Characterizing the mechanism of attenuation of mutants of the Fpt subfamily of major facilitator superfamily transporters of *Francisella tuarensis*. Abstracts of the 2013 Mid-Atlantic Microbial Pathogenesis Meeting. Wintergreen, Va. No. 61.

51. **E. M. Barry**, T. Wu, C. Grassel, F. Ruiz, J.P. Nataro, and M.M. Levine. Abstracts of the 2013 Vaccines for Enteric Diseases Meeting. Bangkok Thailand. No. 114.
52. B. Delaine, C. Grassel, D. Rasko and **E.M. Barry**. Profiling in vitro Host Response to Shigella Vaccine Candidates. Abstracts of the 114th ASM General Meeting, 2014. Boston, MA.
53. B. Delaine, C. Grassel, T. Wu and **E.M. Barry**. Profiling in vitro Host Response to Shigella Vaccine Candidates. MAPM 2015
54. T. Wu, C. Grassel, B. Quinn, M. Guillotte, F. Ruiz, J. Nataro, and **E. M. Barry**. ETEC antigen expression and surface presentation in *Shigella* live vectors. MAMP 2015
55. M. Sedic, N. Boatright, **E.M. Barry**, W.D. Thomas and Y. Wang. Isolation and characterization of human monoclonal antibodies against the tip adhesion domain of CFA/I. Abstracts of the 115th ASM General Meeting, 2015. New Orleans, LO.
56. B. Delaine, C. Grassel, T. Wu, and **E. M. Barry**. Assessing *Shigella flexneri* Vaccine Candidates using in vitro methods. Abstracts of the 115th ASM General Meeting, 2015. New Orleans, LO.
57. **E. M. Barry**, T. Wu, C. Grassel and M.M. Levine. Advances in the development of a combined *Shigella*-ETEC vaccine. Abstracts of the 2015 Vaccines for Enteric Diseases Meeting. Edinburgh, Scotland.
58. A.L. Cunningham, A. Santiago, B.J. Mann, A. Qin, S. Vogel and **E.M. Barry**. Characterization of the live attenuated Schu S4aroD vaccine candidate against pulmonary tularemia. 8<sup>th</sup> International conference on tularemia, Opatija, Croatia, 2015.
59. **E.M. Barry**, B.J. Mann, D.S. Reed and A. L. Cunningham. Development of efficacious Schu S4-based live attenuated *Francisella* vaccine strains. 8<sup>th</sup> International conference on tularemia, Opatija, Croatia, 2015
60. P. Balzano, and **E. M. Barry**. Deletion of MFS family transporters alters the intracellular lifecycle of *Francisella tularensis*. Abstracts of the 2016 ASM Biodefense Meeting, Alexandria, Va.
61. D.S. Reed, E. Stinson, K. Willett, N. Grant, K. Hazlett, and **E.M. Barry**. Antibody as a correlate of protection for vaccination against pneumonic tularemia. Abstracts of the 2016 ASM Biodefense Meeting, Alexandria, Va.
62. A. L. Cunningham, K. Hanevik, and **E. M. Barry**. Creation and characterization of live attenuated diarrheal disease vaccines against ETEC and *Shigella*. Abstracts of the 2016 US-Japan Cooperative Medical Sciences Program and International Conference on Emerging Infectious Diseases, Bethesda, MD.
63. B. Delaine, C.L. Grassel, T. Wu, and **E. M. Barry**. Characterization of new live attenuated *Shigella flexneri* vaccine candidates. Abstracts of the 19<sup>th</sup> Annual Vaccine Research Conference, 2016, Baltimore, MD
64. A.L. Cunningham, B.J. Mann, A. Qin, C. Grassel, and **E. M. Barry**. Characterization of the highly protective live attenuated tularemia vaccine candidate Schu S4  $\Delta$ aroD. Abstracts of the 19<sup>th</sup> Annual Vaccine Research Conference, 2016, Baltimore, MD
65. B. Delaine, C.L. Grassel, T. Wu, and **E. M. Barry**. Evaluation of new live attenuated *Shigella flexneri* vaccine candidates for broad spectrum vaccine. Abstracts of the 2016 US-Japan Cooperative Medical Sciences Program and International Conference on Emerging Infectious Diseases, Bethesda, MD.
66. B. Delaine, C.L. Grassel, T. Wu, and **E. M. Barry**. Characterization of new live attenuated *Shigella flexneri* vaccine candidates. Abstracts of the 116<sup>th</sup> ASM General Meeting, 2016, Boston, MA.

67. P. Balzano, and **E. M. Barry**. Loss of MFS transporters *fptG* and *fptB* delays host exit of *Francisella tularensis*. Abstracts of the 116<sup>th</sup> ASM General Meeting, 2016, Boston, MA.

## **Major Invited Speeches**

### **Local Speeches**

1. **Barry, E.M.**, Multivalent ETEC Antigen Expression in Attenuated Shigella Vaccine Strains Center for Vaccine Development, University of Maryland, Baltimore, Faculty Seminar, Baltimore, Maryland, 2001.
2. **Barry, E.M.**, Attenuated *Shigella* Strains as Vaccine Candidates and Live Vectors, Department of Microbiology and Immunology, University of Maryland, Baltimore, Departmental Seminar Speaker, Baltimore, MD, 2004.
3. **Barry, E.M.**, Development of Mucosal *S. pneumoniae* Vaccine to Protect Smokers and Individuals Exposed to Second-Hand Smoke, 4th Annual Scientific Forum on Cancer and Other Tobacco-Related Diseases. University of Maryland Baltimore, Baltimore, MD, 2006.
4. **Barry, E.M.**, Attenuated *Shigella* Strains as Vaccine Candidates and Live Vectors, University of Maryland Dental School, Department of Biomedical Sciences Seminar, Baltimore, MD, 2006

### **National Speeches**

1. **Barry, E.M.**, “The Use of Attenuated Salmonella and *Shigella* Vaccine Strains to Deliver Heterologous Antigens”, Society for Industrial Microbiology Annual Meeting: Recombinant Vaccine Delivery Session, San Diego, CA, 2000.
2. **Barry, E.M.**, “Live Attenuated Salmonella and *Shigella* as Delivery Vehicles for Heterologous Antigens”, Merck Research Laboratories Guest lecturer, Rahway, N.J., 2001.
3. **Barry, E.M.**, “The Use of Attenuated *Shigella* Vaccine Strains to Deliver Heterologous Antigens and DNA Vaccines”, American Chemical Society National Meeting, San Diego, CA, 2001.
4. **Barry, E.M.**, Live attenuated *Shigella* and *Salmonella* as Vaccine Vectors, American Chemical Society National Meeting, Advances in Vaccine Development Session, Anaheim, CA, 2004
5. **Barry, E.M.**, Food and Waterborne Transmission of *Shigella dysenteriae* and Potential Preventative Strategies, ASM Biodefense Research Meeting, Washington, DC, 2006.
6. **Barry, E.M.**, Design of a Rationally-Attenuated, Mucosally-Administered *F. tularensis* Vaccine Strain, NIAID Regional Centers for Biodefense and Emerging Infectious Disease Research 3rd National Meeting, New York, NY, 2006.
7. **Barry, E.M.**, Live Attenuated *F. tularensis* Vaccine Development, WRAIR Departmental Speaker, Silver Spring, MD, 2006.
8. **Barry, E.M.**, Characterization of a Rationally Attenuated *F. tularensis* Type A Vaccine Candidate, NIAID 4th Annual NIAID Regional Centers for Excellence Research Meeting, St. Louis, MO, 2007.
9. **Barry, E.M.**, Live Attenuated *Shigella* Vaccine Construction and Characterization, NIAID Food and Waterborne Diseases Integrated Research Network: Progress and Opportunities in the Prevention of Enteric Disease Workshop, Baltimore, MD, 2007.

10. **Barry, E.M.**, Development of Live Attenuated *Shigella dysenteriae* Vaccine Strains, NIAID 5th Annual Regional Centers for Excellence Research Meeting, Chicago, IL, 2008.
11. **Barry, E.M.**, Protection of Rabbits against Aerosol *F. tularensis* Challenge by Live Attenuated Type A Vaccine Strains, NIAID 7th National Meeting of the Regional Centers for Excellence for Biodefense and Emerging Infectious Diseases, Denver, CO, 2011.
12. **Barry, E.M.**, “*Shigella*-ETEC Vaccine Development”. Pfizer Vaccines guest lecturer, Pearl River, N.Y., 2012.
13. **Barry, E.M.**, “*Shigella*-ETEC Vaccine Development”. Tulane School of Medicine, invited seminar speaker, New Orleans, LO, 2015

### **International Speeches**

1. **Barry, E.M.**, New Frontiers in the Development of Vaccines Against Enterotoxigenic and Enterohemorrhagic *E. coli* Infections: Live Oral Strategies, World Health Organization, Research Institute, International Medical Center of Japan Tokyo, Japan, 1998.
2. **Barry, E.M.**, Co-Expression of ETEC Fimbriae and Mutant LT in Attenuated *Shigella*, Second International Conference on Vaccines for Enteric Diseases, Invited Speaker, Tampere, Finland, 2001.
3. **Barry, E.M.**, Multivalent *Shigella*/ETEC Vaccine, Future Directions of research on ETEC for Children in Developing Countries, World health Organization, Montreux, Switzerland, 2003.
4. **Barry, E.M.**, Multivalent *Shigella*/ETEC Vaccine, Third International Conference on Vaccines for Enteric Diseases, Invited Speaker, Jamaica, W.I., 2004.
5. **Barry, E.M.**, Multivalent *Shigella* Vaccine, Future Needs and Directions for *Shigella* Vaccines, World health Organization, Geneva, Switzerland, 2004.
6. **Barry, E.M.**, Multivalent *Shigella*-ETEC Vaccine Development, Cholera and Other Bacterial Enteric Infections Symposium on Vaccine Development, NIAID, Boston, MA, 2005.
7. **Barry, E.M.**, Phase I dose-escalating study to evaluate the safety and immunogenicity of CVD 1208S(pCFA/I-LThA2B), a prototype attenuated oral live vector *Shigella*/ETEC vaccine, Fourth International Conference on Vaccines for Enteric Diseases, Invited Speaker, Lisbon, Portugal, 2007.
8. **Barry, E.M.**, *Shigella dysenteriae* 1 Vaccine Development, .Fifth International Conference on Vaccines for Enteric Diseases, Malaga, Spain, 2009.
9. **Barry, E.M.**, A.E. Santiago, and B.J. Mann. A highly protective type A-based live attenuated *F. tularensis* vaccine. Seventh International Conference on Tularemia, Breckenridge, CO, 2012
10. **Barry, E. M.** Advances in the development of a combined *Shigella*-ETEC vaccine. Vaccines for Enteric Diseases Meeting. Edinburgh, Scotland, July, 2015
11. **Barry, E.M.** Development of efficacious Schu S4-based live attenuated *Francisella* vaccine strains. 8<sup>th</sup> International conference on tularemia, Opatija, Croatia, 2015

### **Poster Presentations**

1. **Barry, E.M.**, A.A. Weiss, M.S. Goodwin, E.L. Hewlett, M.C. Gray, and I.E. Ehrmann. 1990. Mutational Analysis of the Adenylate Cyclase Toxin/Hemolysin of *Bordetella pertussis*. Gordon Research Conference, Microbial Toxins and Pathogenesis.
2. **Barry, E.M.**, A. Quek, R.M. Robins-Browne, and J.G. Morris, Jr. 1993. Analysis of

- Yersinia enterocolitica ypkA* Expression Using a Luciferase Reporter System. 17th Annual Mid-Atlantic Extrachromosomal Elements and Molecular Genetics Meeting. Virginia Beach, VA.
3. **Barry, E.M.**, J. Galen, S. Chatfield, R. Rappuoli, and M.M. Levine. 1995. Stable Expression of *B. pertussis* Antigens in the *S. typhi* Live Oral Vaccine Strain CVD 908. Keystone Symposia on Mucosal Immunity: New Strategies for Protection Against Viral and Bacterial Pathogens, Keystone, CO.
  4. Franco, A., **E.M. Barry**, and J.G. Morris, Jr. 1995. Cloning and Sequence Analysis of *Vibrio cholerae dnaE*. American Society for Microbiology, Annual Meeting, Washington, D.C.
  5. **Barry, E.M.**, O. Gomez, S. Chatfield, R. Rappuoli, J. Galen, and M.M. Levine. 1995. Stable Expression of Pertussis Toxin S1 Subunit - Fragment C Fusions in the *S. typhi* Vaccine Strain CVD 908. American Society for Microbiology, Annual Meeting, Washington, DC
  6. **Barry, E.M.**, and M.M. Levine. 1998. Immune Responses to the *Bordetella pertussis* Antigens Pertactin and Pertussis Toxin Expressed in *S. typhi* Vaccine Strains. American Society for Microbiology, Annual Meeting, Atlanta, GA.
  7. Santiago, A.E., M.M. Levine, and **E.M. Barry**. 2002. Expression of the *S. pneumoniae* antigens PsaA, Ply, and PspA in *Salmonella enterica* Serovar Typhi Vaccine Strain CVD 908htrA. American Society for Microbiology, Annual Meeting, Salt Lake City, UT.
  8. Santiago, A.E., M.M. Levine, and **E.M. Barry**. 2003. Expression of the *S. pneumoniae* PspA Antigen in *Salmonella enterica* serovar Typhi Vaccine Strain CVD 908htrA and Evaluation in a Mouse Model. American Society for Microbiology, Annual Meeting, Washington, DC.
  9. Vindurampulle, C.J., **E. M. Barry** and M.M. Levine. 2005. Endonuclease I Significantly Impairs Bacteria-Mediated Transfection of Eukaryotic Cells. Abstracts of the 2005 Mid-Atlantic Microbial Pathogenesis Meeting. Wintergreen, VA.
  10. Cole, L.E., **E. M. Barry**, A. Santiago, P. Rallabhandi, K. Elkins, S. Michalek, and S. N. Vogel. 2006. Role of TLR2 in the Recognition of *Francisella tularensis* LVS. ASM Abstracts of the ASM Biodefense Research Meeting, Washington, DC.
  11. Baker, K., M.M. Levine, and **E.M. Barry**. 2006. Role of an R181A Mutation to the Minor Subunit CfaE of CFA/I Fimbriae in ETEC Pathogenesis. Abstracts of the 105th American Society for Microbiology, General Meeting, Orlando, FL.
  12. Santiago, A., M.M. Levine, and **E.M. Barry**. 2006. Characterization of Rationally Attenuated Vaccine Strains Based on SCHU S4 Harboring Deletions in the *guaA* or *guaB* Genes. Fifth International Conference on Tularemia, Woods Hole, Mass.
  13. Santiago, A., M.M. Levine, and **E. M. Barry**. 2008. Characterization of Attenuated *F. tularensis* Type A Vaccine Candidates in a Mouse Model. Abstracts of the 2008 ASM Biodefense and Emerging Infectious Disease Research Meeting. February, 2008, Baltimore, MD.
  14. Reed, D.S., A.E. Santiago, L.P. Smith, T. Dunsmore, A. Trichel, B.J. Mann, K.S. Cole, **E.M. Barry**. Type A-Derived Genetically Modified Live Attenuated *Francisella tularensis* Vaccines Protect Rabbits Against a Lethal Aerosol Challenge with a Type A Strain. Abstracts of the 2011 Chemical & Biological Defense Science & Technology Conference, Las Vegas, NV.