CURRICULUM VITAE
Judith Marchand Ball

Present Position and Address:

Associate Professor with Tenure, Head, Department of Biological and Environmental Sciences, Texas A&M University-Commerce, August 15, 2016 to present

Education and Training:

Degree	Conferring Institution	Field (major/minor)	Year
B.S.	Southeastern Louisiana University	Medical Technology/Chemistry	1974
Ph.D.	Louisiana State University	Biochemistry /Immunology	1990

Thesis Title: "Synthetic Peptide Analyses of the Surface Glycoproteins of Equine Infectious Anemia Virus".

Post Doctoral Training:

University of Pittsburgh School of Medicine, Department of Mol. Genetics and Biochemistry,
Dr. Ronald C. Montelaro, 1990-1992.

University of Alabama at Birmingham, Department of Microbiology,
Dr. Richard Compans, 1992-1994.

Baylor College of Medicine, Division of Molecular Virology,
Dr. Mary K. Estes, 1994-1997.

Academic Appointments:

Associate Professor with Tenure and Head, Department of Biological and Environmental Sciences, Texas A&M University-Commerce, 2016 - present

Associate Professor with Tenure, Texas A&M University, Department of Pathobiology, College of Veterinary Medicine and Biomedical Sciences, 2002-2016.

Associate Professor with Tenure, Health Science Center, Molecular and Cellular Medicine, College Station, TX 2002-2016

Assistant Professor, Texas A&M University, Department of Veterinary Pathobiology, 1997 -2001.

Assistant Professor, Joint appointment, Texas A&M University, Department of Medical Biochemistry and Genetics, College of Medicine, 1998 - 2001.

Member, Graduate Faculty, Texas A&M University, 1997 – 2016

Head, Peptide Core Facility, Texas A&M University, 1997 -2010.

Full member, Faculty of Genetics, Texas A&M University, 2000 - 2007.

Full member, Interdisciplinary Faculty of Virology, Texas A&M University, 2000-2016.

Full member, Interdisciplinary Faculty of Toxicology, Texas A&M University, 2001 – 2016.

Associate Professor with tenure, Texas A&M University, 2002 –2016.

Graduate Advisor, Department of Pathobiology, Texas A&M University, 2003 – 2007

Member, Center for Microencapsulation & Drug Delivery, 2003-2016

Member, Center for Environmental Health, 2004 – 2007

Member of the Graduate Faculty of the Health Science Center Graduate School of Biomedical Sciences, 2009- 2016

Certification:

American Society of Clinical Pathologists (ASCP) Medical Technologist, 1974.

U.S. Department of Agriculture Certification, National Veterinary Services Laboratories, Ames, Iowa, 1981.

Work Experience:

Medical Technologist (ASCP); Baton Rouge General Hospital, Department of Pathology, Baton Rouge, LA:

Serology/Blood Bank, 1975-1977
Clinical Hematology/Chemistry, 1978-1979
Radioimmunoassay (RIA), 1979-1981

Research Associate III, State Diagnostic Virology Laboratory, School of Veterinary Medicine, Louisiana State University, Baton Rouge, LA, 1981-1984:

Awards and Honors:

Outstanding Female Ph.D. Student, American Association of University Women (AAUW), 1988.

Scott and Louise Pierce Allen Outstanding Biochemistry Graduate Student, Louisiana State University, Department of Biochemistry, 1989.

Outstanding Dissertation, Louisiana State University, 1990.

Postdoctoral fellowship, Training Grant No. AI 07150-13; "Basic Mechanisms in Virology", University of Alabama at Birmingham, 1991-1993.

Recipient of travel grant to the Xth International Congress of Virology, Jerusalem, American Society of Virology and National Institute of Health, 1996.

Best Oral Presentation by a Postdoctoral Fellow, Molecular Virology Department Retreat, Baylor College of Medicine, Texas Medical Center, 1996.

Recipient of travel stipend to the Career Development Workshop at NIH in conjunction with the Advances in AIDS Pathogenesis and Preclinical Vaccine Development: Ninth

Annual Meeting of the National Cooperative Vaccine Development Groups (NCDVG), 1997.

Dr. Chris Noonan Award, Molecular Virology Department, Baylor College of Medicine, Texas Medical Center, 1997.

Best Poster Presentation by a Postdoctoral Fellow, Molecular Virology Department Retreat, Baylor College of Medicine, Texas Medical Center, 1997.

Texas A&M University Nominee for the David and Lucile Packard Fellowship, 1998.

Texas A&M University Nominee for the Searle Scholar Program, 1998.

Elected Graduate Student Association Faculty Advisor, College of Veterinary Medicine, Texas A&M University (1999-2003).

College of Veterinary Medicine Nominee, Montague Scholars Teaching Award, Texas A&M University, 1999.

Elected as College representative on the Council of Principle Investigators, Texas A&M University, 1999.

Inducted into The Honor Society Gamma Sigma Delta, 2003.

Full membership, Sigma Xi, 2004.

Invited speaker, Texas-United Kingdom Collaborative Research Initiative “EMERGING AND REEMERGING INFECTIOUS DISEASES: THE INTERFACE OF ANIMAL AND HUMAN HEALTH", Galveston, Texas, 2005.

Invited speaker, Therapeutics for Enteric Diseases, NIH, Bethesda, MD, 2005.

2006-2007 Who’s Who Registry in Science.

2006-2007 11th Edition of Who’s Who Among America’s Teachers

Invited speaker, American Society for Cell Biology, Washington DC, 2007.

Invited speaker, Distinguished Lecture Series, Woodlands College Park, Woodlands, TX, Dec., 2008.

2008-2009 Madison’s Who’s Who

Elected to the Biotechnology Executive Committee, May, 2012 – May 2015 (3 year appointment) elected from the membership at large.

Selected to participate in the Writing Assessment Project, 2012

Selected for AgriLife Leadership Program, awarded $7000 scholarship, Sept 25, 2011 for participation Feb, 2012 –Jan, 2014

Named as Undergraduate Research Scholar Mentor, 2014, 2015, 2016.

Editorial Boards:

Editorial Board, (Associate Editor) Virology: Research and Treatment, 2007-present

Editorial Board (Associate Editor), Virology Journal, 2006 – present.

Editorial Board, Chinese Medicine, 2010-present

Editorial Board (Associate Editor), World Journal Vaccine, 2010-present

Editorial Board (Associate Editor), Bioinfo Publications, which includes 150 journals covering biosafety, virology, genetics, veterinary medicine, biotechniques, etc. Invited 2010 for 2011 – 2016

Editorial Board, World Journal of Virology, 2011 - 2015

Contributed to Writing Assessment Project, TAMU, 2012

Editorial Board Austin J of Virology, 2014

Grant Review Committees:

Panel Member, National Initiative Competitive Grants Program, USDA, Animal Health & Well-Being, Panel A, Virology & Viral Immunity, 1998, 2003.

Panel Member, Office of Scientific Quality Control Panel, USDA, ARS, NP103 Animal Health – Virology and Prion Disease, 2001.

Panel Member, National Initiative Competitive Grants Program, CREES, USDA, Animal Protection, Panel B, 2004.

Panel Manager, National Initiative Competitive Grants Program, CREES, USDA, Animal Protection, 2005. 2006.

University of Kentucky faculty promotion review, 2010

Panel member, Office of Scientific Quality Review, USDA, National Program 103, Animal Health, Panel H, 2011.

Reviewer, German Research Foundation, 2012.

Panel member. NRS NRC Research Associateship Programs (RAP) review panel, 2014-2016.

Panel member, HHS/NIH/NIDA review panel, Feb, 2015

***Ad hoc* reviewer:**

National Initiative Competitive Grants Program, USDA, Animal Health & Well-Being Program, Virology & Viral Immunity, 1999.

National Initiative Competitive Grants Program, USDA, Animal Health & Well-Being Program, Virology & Viral Immunity, 2000.

National Initiative Competitive Grants Program, USDA, Animal Health & Well-Being Program, Virology & Viral Immunity, 2001.

National Institutes of Health, NIH/NIAAA, National Institute on Alcohol Abuse and Alcoholism, 2004.

Specialized Review:

The Career Development Award, Academia Sinica, Taipei, Taiwan, 2009.

Review of Dr. Frank Cook, University of Kentucky, for promotion, 2010.

Teaching Experience:

Courses Taught (or contributed to):

Undergraduate Courses:

BIMS 101	Introduction to Biomedical Sciences
VTPB 485 & 491	Directed Studies (include Undergraduate Research Scholars and Honors Fellows; direct undergraduate thesis)
VTPB 407	Adv. Micro.Lab: Virology. (developed and implemented new virology laboratory course)
VTPB 285	Directed Studies for sophomore students
VTPB 438	Virology
VTPB 489	Cellular Processes in Health and Disease (developed and implemented a more medical-based biochemistry course)
VTPB 489	Cellular Processes in Health and Disease; Biological Chemistry for biomedical science majors; second half
VTPB 491	Undergraduate research, with undergraduate thesis

Graduate Courses:

VTMI 689	Physiological Chemistry I
VTMI 691	Graduate Research
VTMI 663	Molecular Biology of Animal Viruses (team taught)
MMIM 923	Med. Microbiology (guest lectures)
VTMI 647	Virology (revamped this course to make it literature-based, 4 credit hours)
MSCI 689	Micro. Path. Dis. (guest lectures)
VTMI 685	Directed Studies
BIOT 689	Master of Biotechnology (guest lectures)
BIOT 603	Applied Principles of Biotechnology (guest lectures)
VTMI 601	Fundamentals of Pathobiology; lead instructor (5 credit course; team taught)
VTMI 689	Protein transport in Mammalian Cells

Professional:

Clin. Med. Immunology - guest lectures

Immunology for Physician Assistants, Baylor College of Medicine, 1997 – 1999

Study Abroad and Distance Teaching:

Spring, 2012, VTPB 489 II, 485,489, 689, study abroad in Bonn, Germany

Spring, 2013, VTPB 489 II, 438, 485, 489, study abroad in Bonn, Germany

Spring, 2014, 2015. VTPB 489 II, Cellular processes in eukaryotic cells II, Distance Learning

Training of Graduate Students:

Texas A&M University, College Station, TX:

Chair:

Christina Swaggerty – Ph.D. student, 1997 - 2001, graduated May, 2001.

Virginia Cox – MS student (part time), 1998 – 2002, graduated August, 2002

Wah-Seng Lim – Ph.D. student, 1998 – 2003, graduated August, 2003.

Natalie Boyd – MS student, 2001 – 2002, graduated August, 2002

Stephen Story – Ph.D. student, 2001 – 2006, graduated December, 2006.

Kiran Mir – MS student, 2003-2006; graduated May, 2006

Thomas Gibbons – Ph.D. student, 2004-2007, graduated Dec., 2007.

Cecelia Williams – Ph.D. student, 2004-2008, graduated December2008

Megan Schroeder – Ph.D. student, 2004 – 2009, graduated December, 2009

Muckesh Maheshwari – M.S. student, Biotechnology, 2008-2010, graduated 2010

Krystle Yakshe – Ph.D. student, 2008 – 2015; scheduled to graduate Aug, 2015

Zachary Franklin – M.S. student, 2012-present; graduated May, 2015

Bharath Kumar – MS student, Biotechnology, 2014

Co-Chair:

Heather Vargo – MS student, 2003 – 2004 decided to attend Vet. School.

Kathrin Fetz – Ph.D. student, VMAS, 2004-2007, changed research focus and chair.

Heriberto Rodriguez – Ph.D. student, VMAS, 2004-2008, graduated December, 2008.

Meghana V.Krishna, M.S. student Biotechnology, graduated August, 2010

Graduate Student Committee member, Texas A&M University:

In-Soo Choi - Ph.D. student, graduated 1998
Mark McArthur - Ph.D. student; left Texas A&M University 2000
Eric Weaver – Ph.D. student, graduated 2002
Soonjean Youn - Ph.D. student, graduated 2003
Anagha Phadke – Ph.D. student, graduated 2003
Darrell Styles, D.V.M. - Ph.D. student, graduated 2005
Margaret Rast, MS student; graduated 2006
Issa Barrette, Ph.D. student, VTPB, graduated August, 2008
Kundeti, Sri Rajarajesw, M.S. student, Biotechnology, 2007, graduated 2008
Bhairavi Subhashchandra, M.S. student, Biotechnology, 2008-graduated 2010
Lina Covaleda, PhD student, VTPB, graduated, 2010
Ashwin Mohan, M.S. student, Biotechnology, 2008-graduated 2010
Krunal Desai, M.S. student, Biotechnology, 2009-2011
Souvik Ghosh, M.S. student, Biotechnology, 2009-2011
Tenelle Lamon, DVM, M.S. student, VTPB, 2007-2014
Dana Pollard, PhD student, VTPB, 2012-2016
Jessica Bailey, non-thesis BIMS MS, 2014-2016

Committee member, Baylor College of Medicine, Houston, TX:

Eric Mossel – Ph.D. student, Department of Mol. Virology and Microbiology, graduated 2001

Postdoctoral Fellows:

Ming Long Zhou, D.V.M., Ph.D., 1999 – 2001.

DeAnne Mitchell, 2002-2006

Rebecca Parr, Ph.D., 2001 – 2010

Other Student/Teaching Activities:

Mentor, Howard Hughes Undergraduate Intern Program:

G.J. Barrera, 1997 – 1998.
Kanika Bowen, 1997 – 1998.
Valencia Terrell, 1997 – 1999.

Mentor, Anaklectic Laboratory Program in the Sciences (ALPS):

This program is designed to give newly graduated high school seniors research experience prior to their entering college. Each ALPS student completes a laboratory project over the summer.

Jeffrey Smaistrla, 1999, Title of project: "Western blot analyses of simian immunodeficiency virus surface unit glycoprotein".

Thai Nguyen, 2000, Title of project: "Separation of IgG to keyhole limpet hemocyanin (KLH) from IgG to simian immunodeficiency surface unit peptide by immunoaffinity chromatogrophy".

Laboratory tour and lecture, Blinn Junior College Science Club, 1998.

Graduate Student Association Faculty Advisor, College of Veterinary Medicine, 2000-2003.

Invited Panel Member, American Chemical Society Student Affiliate Chapter, Alternate Career in Chemistry (2000).

Training of 2 veterinary students in laboratory research:

Brandi Yelverson, 1997 – 1998

Amy Carrington, 1998 – 1999

Undergraduate Research Students /

Daniel Resnick, Fall, 2008

Brett Walker, 2007--2009

Julia Saylor**,** 2008-2010

Lucia Perez, 2009-2010

Mirian Bauman, 2009-2010

Jarod Frieman, 2011 – 2012

Chelsea Chadwick, 2011 – 2012

Katherine Biancardi 2013 - 2013 (285)

Sarah Coyle, 2013 – 2014 (285)

Andrew Morena, 2013-2013, Internship

Elliot Green, 2013 – 2014

Undergraduate thesis

Erin Barth, 2001 – 2005 / undergraduate thesis; won best thesis

Christopher Wilson, 2010-2012/ undergraduate thesis

Zachary Franklin, 2010- 2011 / undergraduate thesis

Soon Moon 2010 – 2012 / undergraduate thesis

Abdul Abdulhamid, 2010- 2011 / undergraduate thesis

Renee Aguirre, 2010 – 2011 / undergraduate thesis
Chinma Onyewuenyi 2012 – 2014 / undergraduate thesis

BESC 484 Internship, Andrew Morena 2012-2013

Graduate Advisor, Department of Pathobiology, Texas A&M University, 2003-2006

High school student research, P. Bheeler, 2004-2005

Faculty Advisor, TAMU Freshman Leaders in Christ (FLIC) 2007-2014

Reviewer for textbook, "Biochemistry" for Oxford University Press, 2012

Joined and participant in Faculty Learning Groups (FLG) for improved teaching, 2013-2014

Faculty advisor, TAMU CURE International, student organization that promotes international health initiatives, 2014-2016

Research Funding:

#98-040, Faculty Mini-Grant Award, Texas A&M Office of the Vice President for Research and Associate Provost for Graduate Studies, PI, "Localization of the Enterotoxic Active Domain of Rotavirus NSP4", PI, 1997 - 1998, $1,495.

#9999902-180, ARP, Texas Higher Education Coordinating Board, PI, "A novel viral enterotoxin: Transport pathway(s) and membrane interactions", 1997 - 1999, $172,706.

Texas Agricultural Experiment Station New Faculty Development, PI, 1998, $10,000.

#98-48, Interdisciplinary Research Initiative, PI, "Identification and Characterization of a Retrovirus Enterotoxin", 1998 - 1999, $24,338.

#TEX0565, Hatch Program, Texas Agricultural Experiment Station, PI, "Gastroenteritis induced by viral enterotoxins", 1998 – 2003.

#RI-8670, USDA, Formula Animal Health Fund, PI, "Induction of disease by the equine infectious anemia virus surface unit glycoprotein", 1999 – 2001, $47,513.

#AI361122-05, Center for AIDS Research, Baylor College of Medicine, Developmental Award, PI, "Characterization of a lentivirus enterotoxin", 1999, $15,000.

#0329-99, ATP, Texas Higher Education Coordinating Board, Co-PI, "Molecular diagnostic assays for the detection of *Babesia equi* in horses", 1999 - 2001, $92,000.

Equine Research Fund, Texas Racing Commission, PI, "Sequences and cytokine induction of equine infectious anemia virus strains in Texas", 2000-2001, $26,000.

#AH-8820, USDA, Formula Animal Health and Disease, PI, “Bovine rotavirus NSP4: Cell signaling, ion transport and vaccine potential”, 2000-2002, $42,000.

#R3-005, Faculty Mini-Grant Award, Texas A&M Office of the Vice President for Research and Associate Provost for Graduate Studies, PI, “Specificity of the SIV Enterotoxin”, 2001, $1,500.

NIH Center for Environmental and Rural Health Pilot Projects, **PI**. “Phosphoinositide signaling of Rotavirus NSP4”, 2001-2002, $19,975.

NIH/NIGMS, RO1, **PI**. “Transport and Lipid Interaction of a Novel Enterotoxin" **2001-2007** (last year, no cost extension), $900,000 direct.

Formula Animal Health, USDA, **PI**, “EIAV modulation of cytokine responses and generation of critical equine reagents”, **2002-2004**, $42,540.

Formula Animal Health, USDA, **Co-I**, “Genetic Diversity of Equine Infectious Anemia Virus”, **2002-2004**, $36,728.

NIH/NIAID Training Grant, **Co-I**, “Mechanistic Studies at the Host-Pathogen Interface”, 2002-2007, $797,684.

Life Science Task Force POE—03-05, Texas A&M University, **Co-I**, “Development of Materials for Controlled Release Strategies in Medicine and Agriculture”, **2003-2005**, $6,100.

Advanced Technology Program/TDT, **PI** at TAMU, “Enterotoxin Vaccine for Calves to Prevent Rotavirus Diarrhea”, **2003-2005**, $48,951 (my portion).

Formula Animal Health, USDA, **PI**, “Role of plasma membrane microdomains on EIAV signaling events: A new target of intervention”, **2005-2006**, $40,249

NIH/NCI, RO1, **Co-I,** “Lentiviral Diseases: EIAV Pathogenesis”, **2007-2011**.

USDA-AFH, **PI**, “Determination of the Target Cell(s) and Infection Sequence of Cache Valley Virus in the Ovine Fetus” **2007-2009**, $32,000.

USDA-AFH, **Co-I**, “Differentially Regulated Tissue-Specific Genes between Virulent and Avirulent Bovine Rotavirus Infections”, **2007-2009**, $25,000 (faculty mentor to Parr).

Pittsburgh Center for HIV Interactions (PCHPI) Collaboration Development Pilot Program, **PI**, “Discernment of HIV core protein interactions with select host-cell proteins by yeast three hybrid analyses”, **2009-2010**, $124,944 (awarded but funds were not given due to budget cuts).

CONTAcYT USA-Mexico Collaborative Research Grant Program**, PI,** “Dissecting the interactions of Rotavirus NSP4 with host cell molecules using silencing RNA”, **2010-2012**, $24,000.

CONTAYT supplemental grant to send graduate students to the CoI laboratory for reseach experience and learning. Krystal Yakshe traveled to
Instituto de Biotecnologia/UNAM,
Department of Genetica del Desarrollo y Fisiologia Molecular
Cuernavaca, Morelos 62210, Mexico.
to work under Susana Lopez, Ph.D., Professor for the summer of 2012. **2011,** $10,000.

Swab-Plus, Inc. Contract, **PI**, "Efficacy testing against parvovirus of a pharmaceutical product in mice", **2010-2011**, $8078.

Hatch proposal, Texas A&M AgriLIFE, PI, "Study of a Novel Viral Enterotoxin Secretory Transport to Identify new Targets of Intervention", Project H-9203, 2010 – 2015.

USDA-AFH, **PI**, "Characterization of Bovine and Porcine Rotavirus Reassortants", 2011-2012, $18,000.

USDA-AFH, **PI**, "Characterization of Bovine and Porcine Rotavirus Reassortants", Renewal, 2012-2013, $18,000.

USDA-AFH, **CoI**, "Detailed analyses of the intestinal microbiome and metabolome following rotavirus infection", 2013-2015, $20,000, PI: Jan S Suchodolski (VSCS).

Publications:

Invited Book Chapters and Proceedings:

1. Payne, S.L., **Ball, J.M**., Issel, C.J., Rushlow, K., and Montelaro, R.C. (1987). Envelope Gene Variation in Equine Infectious Anemia Virus: Implications for Vaccine Development. In: Modern Approaches to New Vaccines Including the Prevention of AIDS, Cold Spring Harbor Laboratory Publishing, pp. 297-302.

2. Montelaro, R.C., **Ball, J.M.**, Rwambo, P.M., and Issel, C.J. (1989). Antigenic Variation During Persistent Lentivirus Infections and its Implications for Vaccine Development. In: Immunobiology of Proteins and Peptides, V. M. Atassi, editor, Plenum Publishing Co., N.Y., pp. 251-272.

3. Montelaro, R.C., **Ball, J.M.**, and Issel, C.J. (1990). Characterization of EIAV Immunogenicity During Persistent Infections: Humoral Responses and Antigen Targets. In: Developments in Biological Standardization Vol. 72, Progress in Animal Retroviruses, D. Gaudy and W. Hennessen, eds, S. Karger AG, Switzerland, pp. 19-30.

4. Montelaro, R.C., Rushlow, K.E., **Ball, J.M.**, Chon, Y.H., and Issel, C.J. (1991). Immunological management of equine infectious anemia virus. In: Annual Review of AIDS Research Vol. 1, W.Koff, R. Kennedy, and F. Wong-Staal, eds, Academic Press, N.Y., pp. 219-234.

5. Gallaher, W.R., Henderson, L.A., Fermin, C.D., Montelaro, R.C., Martin, A., Qureshi, M.N., **Ball, J.M.**, Sattentau, Q., Zhang, H.L., and Garry, R.F. (1991). Membrane Interactions of HIV: Attachment, Fusion, and Cytopathology. In: Advances in Membrane Fluidity, R.C. Aloia, editor, Alan R. Liss, Inc., NY.

6. Rushlow, K. E., Chong, Y.-H., **Ball, J.M.**, Issel, C.J., and Montelaro, R.C. (1991). Evaluation of protective host immune responses during persistent infection with equine infectious anemia virus. In: Proceedings of the 5thCent. Gordes Colloquium on Retrovs of Human AIDS and Related Animal Diseases, 133-138.

7. Montelaro, R.C., **Ball, J.M.**, and Rushlow, K.E. (1994). Retroviruses in horses. In: The Viruses: Retroviridae, J. Levy, editor, Plenum Press, N.Y., pp. 257-360.

8. Estes, M.K., **Ball, J.M.**, Crawford, S.E., O'Neal, C., Opekun, A.R., Graham, D.Y., and Conner, M.E. (1997). Virus-like Particle Vaccines for Mucosal Immunization. Mechanisms in the pathogenesis of Enteric Diseases, Paul et al, editors, Plenum Press, NY.

9. Estes, M.K., **Ball, J.M.**, Zeng, C.Q.-Y., Zhang, M., and Morris, A.P. (1998) Mechanisms of rotavirus-induced pathogenesis. Nobel Symposium , Intracellular and Persistent Infections, manuscript 106.

10. Estes, M.K., **Ball, J.M.**, Guerrero, R.A., Opekun, A.R., Gilger, M.A., Pacheco, S.S., and Graham, D.Y. (1999). Norwalk virus vaccines: Challenges and Vaccines. Caliciviruses, Center for Disease Control.

11. Schroeder, F., Atshaves, B.P., Gallegos, A.M., McIntosh, A.L., Liu, J.C.S., Kier, A.B., Huang, H., and **Ball, J.M.** (2005) Lipid Rafts and Caveolae Organization. In: Advances in Molecular and Cell Biology, Vol. 36, Chapter 1, pp 1-34, Bittar, E.E., series ed.

12. Payne, S.L., Lim, W.-S., Fuller, F.J., and **Ball, J.M.** (2006) Equine Infectious Anemia Virus as a Model for Lentiviral Pathogenesis. In: In Vivo Models of HIV Disease and Control, Bendinelli, M., Friedman, H., eds. Kluwer Academic/Plenum Publishers, pp 365-386.

13. **Ball, J.M.**, Parr, R.D., and Schutt, E.E. (2008) Genetic, Structural and Functional Analyses of Rotavirus NSP4. In: Structure and Molecular Biology of Segmented Double-Stranded RNA Viruses, J. Patton, ed. pp. 307-332, Caister Academic Press, Norfolk.

Publications in Refereed Journals:

14. Hidalgo, J.U., Shepard, E.S., **Ball, J.M.,** and Colomb, K.D. (1982). Procedures for RIA I-125 waste disposal. *Journal of Nuclear Medicine* **23**:354.

15. **Ball, J.M.,** Rao, V.S.V., Robey, W.G., Issel, C.J., and Montelaro, R.C. (1988). Lentivirus antigen purification and characterization: Isolation of equine infectious anemia virus *gag* and *env* proteins in one step by reverse phase HPLC and application to Human Immunodeficiency virus glycoproteins. *Journal of Virological Methods* **19**:265-277.

16. **Ball, J.M.,** Payne, S.L., Issel, C.J., and Montelaro, R.C. (1988). EIAV genomic organization: Further characterization by sequencing of cDNA and purified glycoproteins. *Virology* **165**:601-605.

17. Hussain, K.A., Issel, C.J., Rwambo, R.M., Arzinaut, A.B., **Ball, J.M.,** Schnorr, K.L., and Montelaro, R.C. (1988). Identification of *gag* precursor of equine infectious anemia virus with monoclonal antibodies to the major viral core protein. *Journal of General Virology* **69**:1719-1724.

18. Gallaher, W.R., **Ball, J.M.,** Garry, R.F., Griffin, M.C., and Montelaro, R.C. (1989). A general model for the transmembrane proteins of HIV and other retroviruses. *AIDS and Other Human Retroviruses* **5**:431-440.

19. Fontenot, J.D., **Ball, J.M.,** Miller, M.A., and Montelaro, R.C. (1991). A survey of potential problems and quality control in peptide synthesis by the fluorenylmethoxycarbonyl procedure. *Peptide Research* **4**:1-7.

20. Chon, Y.H., **Ball, J.M.,** Dhruva, B., Issel, C.J., Montelaro, R.C., and Rushlow, K.E. (1991). Analysis of host immune responses to the transmembrane envelope glycoprotein (gp45) of equine infectious anemia virus: Localization of an immunodominant B-cell determinant. *Journal of Virology* **65**:1013-1018.

21. **Ball, J.M.,** Rushlow, K.E., Issel, C.J., and Montelaro, R.C. (1992). Detailed mapping of the antigenicity of the surface unit glycoprotein of equine infectious anemia virus by using synthetic peptide strategies. *Journal of Virology* **66**:732-742.

22. **Ball, J.M.,** Henry, N.L., Montelaro, R.C., and Newman, M.J. (1994) A versatile peptide-based ELISA for identifying antibody epitopes, *Journal of Immunological Methods* **171**:37-44.

23. Gray, J.J., Cunliffe, C., **Ball, J.M.,** Graham, D.Y., Desselberger, U., and Estes, M.K. (1994) Serological responses in adult volunteers challenged with Norwalk virus: Detection of IgM, IgA and IgG Norwalk virus-specific antibodies by indirect ELISA with baculovirus-expressed Norwalk virus capsid antigen. *Journal of Clinical Microbiology* **32**:3059-3063.

24. Gallaher, W.R., **Ball, J.M.,** Garry, R.F., and Montelaro, R.C. (1995). A structural model for the surface unit glycoprotein of HIV gp120, and other retroviruses. *AIDS and Other Human Retroviruses* **11**:191-202**.**

25. Hardy, M.E., White, L.J., **Ball, J.M.,** and Estes, M.K. (1995). Specific proteolytic cleavage of recombinant Norwalk virus capsid protein. *Journal of Virology* **69**:1693-1698.

26. **Ball, J.M.,** Moldeveanu, Z., Melsen, L.R., Kowalski, P., Jackson, S., Mulligan, M., Mestecky, J., and Compans, R.W. (1995). Characterization of a polarized human endometrial cell line which binds and transports pIgA. *In Vitro Cellular Development & Biology* **31**:196-206.

27. Tian, P., Estes, M.K., Hu, Y., **Ball, J.M.,** Zeng, C., and Schilling, W.P. (1995). The nonstructural glycoprotein NSP4 releases calcium from the endoplasmic reticulum. *Journal of Virology* **69**:5763-5772.

28. Hinkula, J., **Ball, J.M.,** Lofgren, S., Estes, M.K., and Svensson, L. (1995). Antibody prevalence and immunoglobulin IgG subclass pattern to Norwalk virus in Sweden. *Journal of Medical Virology* **47**:52-57.

29. Hermann, J.E., Blacklow N.R., Matsui, S.M., Lewis, T.L., Estes, M.K., **Ball, J.M.,** and Brinker J.L. (1996). Monoclonal antibodies for the detection of Norwalk virus antigen in stool. *Journal of Clinical Microbiol*ogy **33**:2511-2513.

30. **Ball, J.M.,** Tian, P., Zeng, C., Morris, A.P., and Estes, M.K. (1996). Age-dependent diarrhea is induced by a rotavirus nonstructural glycoprotein. *Science* **272**:101-104.

31. Hardy, M.E., Tanaka, T., Kitamoto, N., White, L.J., **Ball, J.M.,** and Estes, M.K. (1996). Antigenic mapping of the recombinant Norwalk virus capsid protein using monoclonal antibodies. *Virology* **217**:252-261.

32. Mason, H.S., **Ball, J.M.,** Shi, J.J., Estes, M.K., and Arntzen, C.J. (1996). Expression of Norwalk virus capsid protein in transgenic tobacco and potato and its oral immunogenicity in mice. *Proceedings of The National Academy of Science, USA* **93**:5335-5340.

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Invited speaker (2005) Therapeutics for Enteric Diseases, NIH, Bethesda, MD.

Storey, S.M. and **Ball, J.M.** (2006). Defining the ER to PM caveolae trafficking pathway of rotavirus NSP4. American Society for Virology 25th Annual Meeting, University of Wisconsin-Madison, Madison, WI.

Parr, R.D. and **Ball, J.M**. (2006). Invited speaker. Evaluation of the hydrophobic and hydrophilic faces of rotavirus NSP4 C-terminal residues for protein:protein interactions(s) with caveolin-1. American Society for Virology 25th Annual Meeting, University of Wisconsin-Madison, Madison, WI.

Parr, R.D., Mir, K. and **Ball, J.M.** (2007) 26th Annual Meeting of American Society for Virology, Oregon State University. Rotavirus NSP4 interacts with the cytoplasmic domains of caveolin-1.

Invited Speaker. 47th Annual Meeting, American Society for Cell Biology, Washington Convention Center, Washington D.C., **Ball, J.M.** (2007) Rotavirus NSP4 interacts with caveolin-1 and traffics to caveolae, in category 'Dynamics of rafts, stabilized rafts, and non-raft domains of cell membrane'.

Parr, R.D., Ellis, E., **Ball, JM** (2008). The American Society for Cell Biology, 48th Annual Meeting, San Francisco, CA. NSP4 is present at the plasma membrane and on the cell surface of MDCK cells early in rotavirus infection.

Yakshe, K., Ayala-Silva, D., Lopez, S. and **Ball, JM.** (2012) 31st Annual Meeting of American Society for Virology, Monona Terrace Convention Center, University of Wisconsin-Madison, Madison, WI. Dissection of the unconventional secretory transport of the rotavirus enterotoxin, NSP4 using silencing RNA.

Yakshe, K. Ayala-Silva, D., Lopez, S. and **Ball, JM.** (2012) dsRNA International Conference, Puerto Rico, Puerto Rico Hilton, Dissection of the unconventional secretory transport of the rotavirus enterotoxin, NSP4.

Patents:

311.040PCT/955888, Filed: 1996, Granted: 2001, "Rotavirus enterotoxin NSP4 and methods of using same", 25%.

Docket No. D-5179US6, Filed 06/07/95, "Methods and reagents to detect and characterize Norwalk and related viruses".

Service:

Departmental Committees

Search Committee for the Endowed Chair of the Schubot Center, 1997-1999.

Ad hoc Graduate Studies Advisory Committee, Department of Pathobiology, 1997-1998.

Chair, 2003-2006.

Search Committee for four faculty placements in the Department of Pathobiology, 2000-2002.

Infectious Disease Task Force (with Med. Microbiology), 1997 – 2008.

Search Committee for Signature Program faculty, 2003 – 2005

Search Committee for Cell Biologist, 2007

Committee to evaluate tenure packages, 2007, 2008

Strategic Planning Committee, 2006-2007.

Chair, Graduate Review Committee, 2009-2011

Search Committee for Clinical Associate Professor, 2009-2010

Graduate Studies Advisory Committee 1998-2016

Member, Mentor Committee of Dr. Sara Lawhon, 2009-2015

Chair, Mentoring Committee of Dr. Gloria Conover, 2009-2013

Member, Mentoring Committee of Dr. Mwangi, 2009-2013

Other Departmental Service:

Served as a CSA, campus security authorities, for 2013.

Manager of the dark room and film developer, 2004 – 2016

NEB freezer manager, 2011 - present

College Committees

College of Veterinary Medicine-Graduate Student Association Travel Award Committee, 1998-2000.

Graduate Student Association Advisor, 1999 – 2002.

Ad hoc member, Graduate Instruction Committee, 2000 – 2002.

Graduate Instruction Committee, 2002-2006

Faculty Advisory Committee, 2006-2011.

Research Advisory Committee, Texas A&M University, 2001-2016.

MSL Council – 2010- present; chair 2011- 2014

Laboratory Safety Committee – 2011 – present (represent CVM)

University Committees

Council of Principle Investigators, Texas A&M University, 1999-2001.

Interdisciplinary Program Subcommittee through the Council of Principle Investigators, Texas A&M University, 2001.

Undergraduate Research Subcommittee through the Council of Principle Investigators, Texas A&M University, 2001.

Life Sciences Building Committee, Texas A&M University, 2001 – 2003.

Faculty Developmental Leave Committee, 2007- 2013

Faculty Senate – 2010 – 2016

Faculty Senate Bylaws Committee, 2010 – 2013

Faculty Senate Personnel and Welfare Committee, 2010 – 2013

Faculty Senate Budget Information Committee, 2010 – 2013

Medical Science Library Advisory Committee 2010, chair 2011 – 2014

Executive Board, Biotechnology Program, 2012 – 2013

Committee on Recognition and Awards, 2014-2015

Recognition and Awards Committee, Aggie Spirit Award, 2015

Other Service

Judge for Texas Junior Science Symposium, 2014, 2015

Judge for CVM Grad Student and Postdoc Research Symposium, 2014, 2015

Society Committees

Sigma Xi Distinguished Scientist Awards Committee for the 2009-2010

Interdisciplinary Faculty Committees

Steering Committee, TAMU Intercollegiate Faculty of Virology, 1999-present.

Graduate Curriculum Committee, Faculty of Genetics, Texas A&M University, 2000 – 2001.

Chair, Graduate Student Advisement and Curriculum Committee, Intercollegiate Faculty of Virology, 2000 – 2005

Advising Committee for First Year Graduate Students, Faculty of Genetics, Texas A&M University, 2001-2004.

Executive Committee, Interdisciplinary Faculty of Virology, 2002-2016.

NIH/LSTF Training Grant Executive Committee, 2003-2009

Curriculum Committee, Biotechnology Interdisciplinary Program, 2009 – 2011

Executive committee, Biotechnology Interdisciplinary Program, 2012-2015

Manuscript Reviewer for Journals

Archives of Virology
Biochemistry
Biology of the Cell
Journal of General Virology
Journal of Gastroenterology and Hepatology
Journal of the American Veterinary Medical Association
Journal of Virology
Journal of Virus Research
FASEB
Federation of European Biochemical Societies (FEBS) Letters
Journal of Clinical Microbiology
Virology
Virology Journal

Vaccine
American Journal of Veterinary Research
Virus Research
American Journal of Physiology
BioInfo Publications:
Journal of Biochemistry Letters
Journal of Medicinal Chemistry
Journal of Science and Technology Letters
International Journal of Molecular Biology
International Journal of Immunology Research
Veterinary Science Research
Journal of Infectious Diseases Letters
Virology of the Cell
Virology: Research and Treatment
World Journal of Virology

Editorial Boards:

Virology Journal
Virology: Research and Treatment
BioInfo Publications:
Journal of Biochemistry Letters
Journal of Medicinal Chemistry
Journal of Science and Technology Letters
International Journal of Molecular Biology
International Journal of Immunology Research
Veterinary Science Research
Journal of Infectious Diseases Letters
World Journal of Virology
Chinese Journal of Medicine
Austin Journal of Virology

Professional Organizations:

Phi Kappa Phi
American Society for Virology
American Society for Microbiology
Texas Branch of the American Society for Microbiology
Texas Digestive Disease Center
Women Faculty Network, Texas A&M University
Christian Faculty Network, Texas A&M University
Center for AIDS Research, Texas Medical Center, Houston, TX
Sigma Xi
American Society for Cell Biology

Other Scholarly Activities:

Organizer, Virology journal club, Spring, 1998 and Summer, 1998.

Organizer and Chair, Membranes, Microbes and Ions session, Texas Branch American Society for Microbiology, November, 1998.

Organizer and Chair, HIV and other Retroviruses session, Texas Branch American Society for Microbiology, November, 1998.

Chair, AIDS section, American Society of Virology annual meeting, Amherst, MA, 1999.

Wakonse Fellow in Teaching, 2001.

Convener, American Society for Virology 21st Annual Meeting, Lexington, KY, 2002.

Completed course, The 4 Roles of Leadership, 2002.

Host, 1 day workshop, "Successful Preparative Liquid Chromatography", 2002.

Convener, American Society for Virology 22nd Annual Meeting, Davis, CA, 2003.

Completed training in 'WebCT', TAMU, 2005.

Completed training in Advanced Vista WebCT, TAMU, 2007 and 2008.

Judge, Research Week, TAMU, 2006-2010, 2014-2015.

Assessment evaluation workshop, 2010

Completed **CTE courses**:

Using Rubrics to Assess Authentic Student Learning, 2010
Teaching Large Classes, 2011
Blended Learning, 2012

Faculty Teaching Communities (FLC); I year program,2013-2014

Completed a 2-day **Professional Grant Development Workshop**, through Grant Training Center, UT – Dallas, 2014

Attended NIH Grant Writers' Seminars and Workshops, TAMU, 2014

Selected for AgriLife Advanced Leadership Program, 2012-2014

Extensive course in Leadership by AgriLife; Required several trips to other regions of TX and one trip to Washington DC.

Participant, 15th Assessment Conference, College Station, 2015.

Invited Presentations/Talks:

Invited speaker, Louisiana State University, Department of Biochemistry, LA, "Age-dependent diarrhea is induced by a rotavirus nonstructural glycoprotein", 1996.

Invited seminar speaker, Department of Veterinary Pathobiology, Texas A&M University, College Station, TX, "Characterization of a new mechanism of rotavirus-induced diarrhea: Identification of NSP4 as a viral enterotoxin", 1996.

Invited keynote lecture, 6th International Meeting of dsRNA Viruses, Pathogenesis Session, Mexico, "The rotavirus enterotoxin, NSP4: Characterization and mechanism of action", 1997.

Invited platform talk, Lost Pines Molecular Biology Conference, UT MD Anderson, Smithville, Texas, "The rotavirus enterotoxin, NSP4: Structural studies and interaction with lipids", 1997.

Invited talk, Department of Medical Biochemistry and Genetics, College of Medicine,

Texas Health Science Center, College Station, TX, "Rotavirus NSP4: Characterization of the first viral enterotoxin", 1998.

Invited seminar speaker, Department of Microbiology and Immunology, University of Oklahoma Health Sciences Center, Oklahoma City, OK, "Viral enterotoxins: A new mechanism of diarrheal disease", 1999.

Invited Opening Keynote Talk, American Society of Microbiology Branch Meeting, Ft. Worth, Texas, "Viral enterotoxins", 1999.

Invited guest speaker, new graduate student orientation, College of Veterinary Medicine, Texas A&M University, "Major milestones: degree plan, committee, preliminary exams, publication, and graduation", 1999.

Invited speaker, Graduate Student Career Development Seminar, College of Veterinary Medicine, Texas A&M University, “Skills you need to become a successful graduate student”, 1999.

Invited speaker, American Society of Microbiology Branch Meeting, Corpus Christi, TX, “Is the rotavirus enterotoxin transported to the cell surface in association with caveolin/caveolae?”, 2000.

Speaker, Regional Virology Meeting, Atlanta, GA, “Is the rotavirus enterotoxin transported to the cell surface in association with caveolin/caveolae?” 2000.

Invited speaker, Center for AIDS Research, Baylor College of Medicine, Houston, Texas, “Lentivirus enterotoxin”, 2001.

Invited speaker, Genomic Applications to Equine Immunity, A Havemeyer Foundation Workshop, The Baker Institute, Cornell University, Ithica, NY, 2003.

Invited speaker, Texas-UK Symposium, Emerging and Re-emerging Infectious Diseases: The Interface of Animal and Human Health, Galveston, TX, 2005.

Invited speaker and attendee, Novel Therapeutics for Enteric Diseases, NIH, Bethesda, MD, 2005.

Invited speaker and attendee, American Society for Cell Biology, Washington DC, 2007.

Invited speaker, Distinguished Lecture Series, Woodlands College Park, Woodlands, TX, Dec., 2008.

Invited talk, Molecular Biosciences and Arkansas Institute of Research, ‘New Insights into the Transport of the First Described Viral Enterotoxin’, 2011.

Invited talk, Academy for International Education (AIB) Bonn Germany, ‘NSP4 and Rotavirus Pathogenesis’, 2012

AgrilIfe Advanced Leadership Program, Leadership Practices, Corpus Christi, TX, 2013

Agrilife Advanced Leadership Program, Advocacy of CVM & BIMS, 2013.

References:

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Endowed Chair of the Schubot Center
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Agriculture Education
Texas A&M University
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Veterinary Pathobiology
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