

CURRICULUM VITAE

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EDUCATION

- 1988 **Bachelor of Science**, Life Sciences, Massachusetts Institute of Technology, Cambridge, MA
- 1993 **Doctor of Philosophy**, Immunology, University of Chicago, Chicago, IL

PROFESSIONAL EXPERIENCE

- 1993 – 1996 **Postdoctoral Fellow**, Department of Neuropharmacology, The Scripps Research Institute, La Jolla, CA.
- 1996 – 1998 **Senior Staff Fellow**, Respiratory Viruses Section, Laboratory of Infectious Diseases, NIAID, NIH, Bethesda, MD
- 1998 – 2002 **Research Fellow**, Respiratory Viruses Section, Laboratory of Infectious Diseases, NIAID, NIH, Bethesda, MD
- 2002 - 2010 **Assistant Professor**, Department of Biochemistry and Molecular Biology, The Pennsylvania State University, University Park, PA.
Member, Huck Institute for Life Sciences, The Pennsylvania State University, University Park, PA.
- 2004 – 2010 **Member**, Center for Molecular Immunology and Infectious Diseases, The Pennsylvania State University, University Park, PA.
- 2010 – 2012 **Assistant Professor**, Department of Internal Medicine, University of South Florida Morsani College of Medicine, Tampa, FL.
- 2010 – present **Adjunct Faculty**, Department of Molecular Medicine, University of South Florida Morsani College of Medicine, Tampa, FL.
Adjunct Faculty, Department of Pharmaceutical Sciences, University of South Florida College of Pharmacy, Tampa, FL.
Member, Nanomedicine Research Center, University of South Florida, Tampa, FL.

2012 – present **Associate Professor**, Department of Internal Medicine, University of South Florida Morsani College of Medicine, Tampa, FL.
Director of Basic Research, Division of Allergy and Immunology, Department of Internal Medicine, University of South Florida Morsani College of Medicine, Tampa, FL.
Adjunct Faculty, Department of Pediatrics, University of South Florida Morsani College of Medicine, Tampa, FL.

MEMBERSHIPS

American Society for Microbiology, 2000 - present

American Society for Virology, 2004 - present

American Association for the Advancement of Science, 1994 – present

TEACHING EXPERIENCE

Pennsylvania State University				
Semester	Course	Name (Grad/Undergrad)	Credits	Enrollment
Spring 2002	BMMB 600	Thesis Research (G)	1	1
Fall 2002	BMMB 600	Thesis Research (G)	1	1
	MICRB 496H	Independent Research (Honor's thesis) (U)	2	1
Spring 2003	MICRB 415	General Virology (U)	3	59
	MICRB 496H	Independent Research (Honor's thesis)	2	1
	BMB/MICRB 496	Independent Research (U)	2	2
Fall 2003	BMMB 600	Thesis Research (G)	1	2
	BMMB/V Sc 515	Macrophage Biology (G)	1	7
	MICRB 496H	Independent Research (Honor's thesis) (U)	2	1
	BMB/MICRB 496	Independent Research (U)	2	2
Spring 2004	BMMB 600	Thesis Research (G)	1	2
	MICRB 415	General Virology (U)	3	59
	MICRB 496H	Independent Research (Honor's thesis)	2	1
	BMB/MICRB 496	Independent Research (U)	2	2
Fall 2004	BMMB 600	Thesis Research (G)	1	3
	MICRB 496H	Independent Research (Honor's thesis) (U)	2	1
Spring 2005	BMMB 600	Thesis Research (G)	1	3
	MICRB 415	General Virology (U)	3	76
	BMB/MICRB 496H	Independent Research (Honor's thesis) (U)	2	2
	BMB 496	Independent Research (U)	2	1
	BMMB/V Sci 516	Viral Evasion of Immune Responses (G)	1	13
Fall 2005	BMMB/IBIOS 600	Thesis Research (G)	1	4
	BMMB/V Sc 515	Macrophage Biology (G)	1.5	9
	BMB 496H	Independent Research (Honor's thesis) (U)	2	1
	BMMB/IBIOS 600	Thesis Research (G)	1	4

TEACHING EXPERIENCE (cont.)

Spring 2006	MICRB 415	General Virology (U)	3	81
	BMB 496H	Independent Research (Honor's thesis) (U)	2	1
Fall 2006	BMMB/IBIOS 600	Thesis Research (G)	1	4
	BMB 496H	Independent Research (Honor's thesis) (U)	2	1
Spring 2007	BMMB 600/601	Thesis Research (G)	1	2
	MICRB 415	General Virology (U)	3	54
	BMB 496H	Independent Research (Honor's thesis) (U)	2	1
	BMB 496	Independent Research (U)	2	1
Fall 2007	BMMB/V Sc 516	Viral Evasion of Immune Responses (G)	1	11
	BMMB 601	Thesis Research (G)	1	2
	IBIOS 600	Thesis Research (G)	1	1
Spring 2008	BMMB 601	Thesis Research (G)	1	1
Fall 2008	MICRB 415	General Virology (U)	3	48
	BMB 411	Bioethics (U)	1	17
Spring 2009	BMMB 601	Thesis Research (G)	1	1
	BMMB 601	Thesis Research (G)	1	1
Fall 2009	MICRB 415	General Virology (U)	3	61
	BMMB/V Sc 516	Viral Evasion of Immune Responses (G)	1	5
Fall 2009	MICRB 411	Survey of Microbiology Literature (U)	1	14
	IBIOS 590	Colloquium (G)	2	27

- Guest lectures in Viral Pathogenesis (MICRB 435), Introductory Immunology (MICRB 411), Molecular Medicine (BMB 464).
- Served on 15 graduate degree committees
- Supervised 12 rotation students

University of South Florida

Semester	Course	Name
Fall 2010	GMS 7930	Signature Interdisciplinary Program in Allergy, Immunology, and Infectious Diseases (SIPAID) Seminar Series
Spring 2011	BMS 6920	Colloquium – Years I and II: Nanomedicine
	GMS 7930	SIPAID Seminar Series
	GMS 6103	Foundations in Medical Microbiology and Immunology (section director)
Spring 2012	GMS 6110	Host-parasite Interactions (lecture)
	GMS 6103	Foundations in Medical Microbiology and Immunology (section director)
Fall 2012	Course 5	Medical student teaching (small group facilitator)
	GMS 6001	Foundations in Biomedical Science (lecture)
	GMS 6110	Host-Parasite Interactions (lecture)
	GMS 6141	Basic Immunology and Microbiology (2 lectures) Allergy & Immunology fellows teaching conference (1 lecture)
Spring 2013	Course 7	Medical student teaching (small group facilitator)
	GMS 6103	Foundations in Medical Microbiology and Immunology (section director)
Fall 2013	Course 5	Medical student teaching (small group facilitator)
	GMS 6001	Foundations in Biomedical Science (lecture) Allergy & Immunology fellows teaching conference (1 lecture)
Spring 2014	Course 7	Medical student teaching (small group facilitator)
	GMS 6103	Foundations in Medical Microbiology and Immunology (section director)
Fall 2014	Course 5	Medical student teaching (two lectures)
	Course 5	Medical student teaching (small group facilitator)
	Course 6	Medical student teaching (small group facilitator)
	GMS 6001	Foundations in Biomedical Science (lecture)
	GMS 6110	Microbial Pathogenesis (lecture) Allergy & Immunology fellows teaching conference (2 lectures)
Spring 2014	Course 7	Medical student teaching (small group facilitator)
	GMS 6103	Foundations in Medical Microbiology and Immunology (section director)

- Rotation students supervised (GMS):
 - Ruan Cox, Jr.
 - Frantz Jean Louis
 - Eric Lewandowski
 - Shannon Kesl
 - Jillian Whelan
- Undergraduate volunteers supervised:
 - Tucker Maute
 - Mateo Hernandez
 - Grant Wallenfelsz
- Research rotations supervised:

- David Fitzhugh, M.D., Allergy & Immunology fellow
- Michael Balduzzi, M.D., Internal Medicine resident
- Farnaz Tabatabaian, M.D., Allergy & Immunology fellow (Peds)
- Adam Updegraff, D.O., Allergy & Immunology fellow
- Michael Balduzzi, M.D., Allergy & Immunology fellow
- Ph.D. committee service:
 - Terianne Wong
 - Jason Ambrose (COPH)
 - Jillian Whelan
 - Christopher Laird
 - Frantz Jean Louis (COPH)
 - Shannon Pham (UGA), external reviewer
- Visiting scientists:
 - Ruihong Zeng (Hebei University)

COURSES DEVELOPED

Pennsylvania State University

Redesigned the “General Virology” course and constructed a complete set of PowerPoint slides for each lecture (> 45 different lectures).

Redesigned BMB 411 “Survey of Biochemistry and Molecular Biology Literature” into a “Bioethics” course.

University of South Florida

Started a Selected Topics course (GMS 7930) for SIPAIIID students (Fall 2010).

Helped design the virology module for Foundation of Medical Microbiology and Immunology (GMS 6103) (Spring 2011).

GRADUATE STUDENTS SUPERVISED

Pennsylvania State University

Name	Degree/Date	Present position
Hyung-Suk Oh	Ph.D. student	Postdoctoral fellow, Harvard Medical School
Catherine Hofstetter	Ph.D. student	Postdoctoral fellow, Penn State
Catherine Svabek	Ph.D. student	Research assistant, NIAID
Andrew Gunderson	Ph.D. student	Postdoctoral fellow, OHSU
Paul Minnich	M.S., 12/2004	Pharm.D., Pharmacist, MD

Thesis title: "Determining regions of the ectodomain of RSV G protein essential for enhancing assembly and budding of RSV"

Gregory Keil	M.S., 5/2007	Senior Scientist, Merck Research Institute
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Thesis title: "Determining the contribution of respiratory syncytial virus G protein in the processes of viral assembly and virion morphogenesis"

Zhenhua Ling	Ph.D., 1/2009	Postdoctoral fellow, Shanghai
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Thesis title: "Functional study of the nonstructural proteins of human respiratory syncytial virus (RSV)"

University of South Florida

Name	Degree/Date	Present position
Jillian Whelan	Ph.D. student, 2011 – present	
Tran Tran	M.S., 12/2012	Research assistant, University of Washington Medical School

HONOR THESIS STUDENTS SUPERVISED

2002-2005	Matthew Cohen	B.S. with honors in Microbiology (5/2005) Ph.D., Univ. of Pennsylvania
2004-2007	Chad Kuny	B.S. with honors in Biochemistry (5/2007) Currently Ph.D. student, Univ. of Wisconsin

RESEARCH SUPPORT

Active

5R01 AI081977	8/1/2009 – 7/31/2014	6.0 calendar
NIAID	\$200,000 (direct)	

Akt as an antiviral drug target for respiratory syncytial virus (R01)

This is an R01. The goal of this project is to validate the kinase Akt as a target for antiviral drug therapy against RSV and determine the mechanism of action of Akt inhibitor blocking of RSV infection.

Contract	8/1/2011 – 7/31/2013	1.0 calendar
Ablynx, NV	\$11,000 (direct)	

Generation and *in vitro* characterization of F-protein mutant RSV-A strain

This is a contract to produce and test drug-resistant mutants of RSV.

PATENT

Patent number US5,993,824 Production of attenuated respiratory syncytial virus vaccines from cloned nucleotide sequences

Inventors: Brian R. Murphy, Peter L. Collins, Stephen S. Whitehead, Alexander A. Bukreyev, Katalin Juhasz, Michael N. Teng

RESEARCH INTERESTS

- Viral pathogenesis
- Viral inhibition of innate immunity
- Assembly and budding of enveloped viruses

PUBLICATIONS (peer-reviewed)

1. Haase VH, Snijders AJ, Cooke SM, **Teng MN**, Kaul D, LeBeau MM, Bruns GAP, Bernards A. Alternatively spliced Itk mRNA in neurons predicts a receptor with a large putative extracellular domain. *Oncogene* 1991; **6**:2319-2325. PMID:1662793
2. **Teng MN**, Park BH, Koeppen HKW, Tracey KJ, Fendly BF, Schreiber H. Long-term inhibition of tumor growth by tumor necrosis factor in the absence of cachexia or T cell immunity. *Proc. Natl. Acad. Sci. USA* 1991; **88**:3535-3539. PMID: PMC51486
3. Cheng J, Turksen K, Yu Q-C, Schreiber H, **Teng M**, Fuchs E. Cachexia and graft versus host disease-type skin changes in keratin promoter-driven TNF- α transgenic mice. *Genes Dev.* 1992; **6**(8):1444-1456. PMID:1379563
4. **Teng M**, Turksen K, Jacobs CA, Fuchs E, Schreiber H. Prevention of runting and cachexia by a chimeric TNF receptor-Fc protein. *Clin. Immunol. Immunopath.* 1993; **69**:215-223. PMID:8403559
5. Breder CD, Hazuka C, Ghayur T, Klug C, Huginin M, Yasuda K, **Teng M**, Saper CB. Regional induction of tumor necrosis factor alpha expression in the mouse brain following systemic lipopolysaccharide administration. *Proc. Natl. Acad. Sci. USA* 1994; **91**:11393-11397. PMID: PMC45237
6. Davis JF, Castro AE, de la Torre JC, Scanes CG, Radecki SV, Vasillatos-Younken JT, Doman JT, **Teng M**. Hypoglycemia enteritis, and spiking mortality in Georgia broiler chickens: experimental reproduction in broiler breeder chicks. *Avian Dis.* 1995; **39**:162-174. PMID:7794178
7. Davis JF, Castro AE, de la Torre JC, Barnes HJ, Doman JT, Metz M, Lu H, Yuen S, Dunn PA, **Teng MN**. Experimental reproduction of severe hypoglycemia and spiking mortality syndrome using field-derived and embryo-passaged preparations. *Avian Dis.* 1996; **40**:158-172. PMID:8713030
8. Buesa-Gomez J*, **Teng MN***, Oldstone CE, Oldstone MBA, de la Torre JC. Variants able to cause growth hormone deficiency syndrome are present within the disease-free WE strain of lymphocytic choriomeningitis virus. *J. Virol.* 1996; **70**:8988-8892. (*co-first authors) PMID: PMC190997
9. **Teng MN**, Borrow P, Oldstone MBA, de la Torre JC. A single amino acid change in the glycoprotein of lymphocytic choriomeningitis virus is associated with the ability to cause growth hormone deficiency syndrome. *J. Virol.* 1996; **70**:8438-8443. PMID: PMC190933
10. **Teng MN**, Oldstone MBA, de la Torre JC. Suppression of lymphocytic choriomeningitis virus - induced growth hormone deficiency syndrome by disease - negative virus variants. *Virology* 1996; **223**:113-119. PMID:8806545
11. **Teng MN**, Collins PL. Identification of the respiratory syncytial virus proteins required for formation and passage of helper-dependent infectious particles. *J. Virol.* 1998; **72**:5707-5716. PMID: PMC110242.
12. **Teng MN**, Collins PL. Altered growth characteristics of recombinant respiratory syncytial viruses which do not produce the NS2 protein. *J. Virol.* 1999; **73**:466-473. PMID:PMC103853
13. Whitehead SS, Bukreyev A, **Teng MN**, Firestone C-Y, St. Claire M, Elkins WR, Collins PL, Murphy BR. Recombinant respiratory syncytial virus bearing a deletion of either the NS2 or SH gene is attenuated in chimpanzees. *J. Virol.* 1999; **73**:3438-3442. PMID:PMC104109

14. Collins PL, Whitehead SS, Bukreyev A, Fearn R, **Teng MN**, Juhasz K, Chanock RM, Murphy BR. Rational design of live-attenuated recombinant vaccine virus for human respiratory syncytial virus by reverse genetics. *Adv. Virus Res.* 1999; **54**:423-451. PMID:10547682
15. Lee KJ, Novella IS, **Teng MN**, Oldstone MB, de la Torre JC. NP and L proteins of lymphocytic choriomeningitis virus (LCMV) are sufficient for efficient transcription and replication of LCMV genomic RNA analogs. *J. Virol.* 2000; **74**:3470-3477.
16. **Teng MN**, Whitehead SS, Bermingham A, St Claire M, Elkins WR, Murphy BR, Collins PL. Recombinant respiratory syncytial virus that does not express the NS1 or M2-2 protein is highly attenuated and immunogenic in chimpanzees. *J. Virol.* 2000; **74**:9317-9321. PMCID:PMC102132
17. **Teng MN**, Whitehead SS, Collins PL. Contribution of the respiratory syncytial virus G glycoprotein and its secreted and membrane-bound forms to virus replication in vitro and in vivo. *Virology* 2001; **289**:283-296. PMID:11689051
18. **Teng MN**, Collins PL. The central conserved cystine noose of the attachment G protein of human respiratory syncytial virus is not required for efficient viral infection in vitro or in vivo. *J. Virol.* 2002; **76**:6164-6171. PMCID: PMC136236.
19. Polack FP, **Teng MN**, Collins PL, Prince GA, Exner M, Regele H, Lirman DD, Rabold R, Hoffman SJ, Karp CL, Kleeberger SR, Wills-Karp M, Karron RA. A role for immune complexes in enhanced respiratory syncytial virus disease. *J. Exp. Med.* 2002; **196**:859-865. PMCID:PMC2194058
20. Spann KM, Collins PL, **Teng MN**. Genetic recombination during coinfection of two mutants of human respiratory syncytial virus. *J. Virol.* 2003; **77**:11201-11211. PMCID: PMC224979.
21. Tran K-C, Collins PL, **Teng MN**. Effects of altering the transcription termination signals of respiratory syncytial virus (RSV) on viral gene expression and growth *in vitro* and *in vivo*. *J. Virol.* 2004; **78**:692-699. PMCID:PMC368825
22. Johnson TR, **Teng MN**, Collins PL, Graham BS. Immune responses to respiratory syncytial virus (RSV) G glycoprotein are not necessary for formalin-inactivated RSV vaccine-enhanced disease. *J. Virol.* 2004; **78**:6024-6032. PMCID:PMC415805
23. Ghildyal R, Li D, Peroulis I, Shields B, Bardin PG, **Teng MN**, Collins PL, Meanger J, and Mills J. Matrix protein of respiratory syncytial virus interacts with the G glycoprotein cytoplasmic domain in the cytoplasm. *J. Gen. Virol.* 2005; **86**:1879-1884.
24. Fuentes S., Tran KC, **Teng MN**, and He B. Function of the respiratory syncytial virus small hydrophobic protein. *J. Virol.* 2007; **81**:8361-8366. PMCID: PMC1951288.
25. Tran, KC, He B, and **Teng MN**. Replacement of the respiratory syncytial virus nonstructural proteins NS1 and NS2 by the V protein of parainfluenza virus 5. *Virology* 2007; **368**:73-82. PMCID:PMC2078599
26. Ling Z, Tran KC, Arnold JJ, **Teng MN**. Purification and biochemical characterization of human respiratory syncytial virus nonstructural NS1 protein produced in *E. coli*. *Prot. Expr. Purif.* 2008; **57**:261-270. PMID:17997327
27. Sun M, Fuentes SM, Timani K, Sun D, Murphy C, Lin Y, August A, **Teng MN**, He, B. Akt plays a critical role in replication of non-segmented negative stranded RNA viruses. *J. Virol.* 2008; **82**:105-114. PMCID: PMC2224408.
28. Ling Z, Tran KC, **Teng MN**. The human respiratory syncytial virus nonstructural NS2 protein antagonizes interferon-beta activation by binding RIG-I. *J. Virol.* 2009; **83**:3734-42. PMCID: PMC2663251.

29. Ghildyal R, Ho A, Dias M, Soegiyono L, Bardin PG, Tran KC, **Teng MN**, Jans DA. The respiratory syncytial virus matrix protein possesses a Crm1-mediated nuclear export mechanism. *J. Virol.* 2009; **83**:5353-5362. PMID: PMC2681974.
30. Hanley LL, McGivern DR, **Teng MN**, Djang R, Collins PL, Fearn R. Roles of the respiratory syncytial virus trailer region: effects of mutations on genome production and stress granule formation. *Virology* 2010; **406**:241-252. PMID: PMC2971657.
31. Boyapalle S, Wong T, Garay J, **Teng M**, San Juan-Vergara H, Mohapatra S, Mohapatra S. Respiratory syncytial virus NS1 protein colocalizes with Mitochondrial Antiviral Signaling Protein MAVS following infection. *PLoS One* 2012; **7**:e29386. PMID: PMC3288005.
32. Bakre A, Mitchell P, Coleman JK, Jones LP, Saavedra G, **Teng M**, Tompkins SM, Tripp RA. Respiratory Syncytial Virus (RSV) Modifies MicroRNAs Regulating Host Genes Which Affect Virus Replication. *J. Gen. Virol.* 2012; **93**:2346-56. PMID:22894925
33. Wu W, Tran KC, **Teng MN**, Heesom KJ, Matthews DA, Barr JN, Hiscox JA. Solution of the human respiratory syncytial virus NS1 protein interactome highlights multiple effects on host cell biology. *J. Virol.* 2012; **86**:7777-7789. PMID: PMC3421645.
34. Hotard AL, Shaikh FY, Lee S, Yan D, **Teng MN**, Plemper RK, Crowe Jr. JE, Moore ML. A stabilized RNA virus reverse genetics system amenable to recombination mediated mutagenesis. *Virology* 2012; **434**:129-36. PMID: PMC3492879.
35. Tian B, Zhao Y, Kalita M, Edeh CB, Paessler S, Casola A, **Teng MN**, Garofalo RP, Brasier AR. CDK9-dependent transcriptional elongation in the innate ISG response to RSV infection in airway epithelial cells. *J. Virol.* 2013; **87**:7075-92. PMID:23596302
36. Fuentes S, Crim RL, Beeler J, **Teng MN**, Golding H, Khurana S. Development of a simple, rapid, sensitive, high-throughput luciferase reporter based microneutralization assay for respiratory syncytial virus. *Vaccine* 2013; **31**:3987-94. PMID:23742994
37. Webster Marketon JI, Corry J, **Teng MN**. The respiratory syncytial virus (RSV) nonstructural proteins mediate RSV suppression of glucocorticoid receptor transactivation. *Virology* 2014; **449**:62-9.
38. Bajorek M, Caly L, Tran K, Maertens G, Tripp RA, Bacharach E, **Teng MN**, Ghildyal R, and Jans D. The Thr205 phosphorylation site within respiratory syncytial virus matrix (M) protein modulates M oligomerization and virus production. *J. Virol.* 2014; **88**:6380-93, PMID:24672034
39. Phan, SI, Chen Z, Xu, P, Li Z, Gao X, Adam CM, Foster SL, **Teng MN**, Tripp RA, Sakamoto K, He B. A novel respiratory syncytial virus (RSV) vaccine based on parainfluenza virus 5 (PIV5). *Vaccine* 2014; **32**:3050-7. PMID:24717150
40. Villenave R, Broadbent L, Douglas I, Lyons JD, Coyle PV, **Teng MN**, Tripp RA, Heaney LG, Shields MD, Power UF. Induction and antagonism of antiviral responses in respiratory syncytial virus-infected pediatric bronchial epithelial cells. *Submitted*.
41. Harcourt JL, Caidi H, Tripp RA, **Teng MN**, Anderson LJ, Haynes LM. Cysteine 186 of respiratory syncytial virus G protein modulates the host epithelial cell response to infection. *Submitted*.
42. Johnson SM, Cappella-Gonzalez C, Walsh EG, **Teng MN**, Peeples ME. Primary cell-specific antibody neutralization of respiratory syncytial virus. *Submitted*.

REVIEWS

1. **Teng MN.** The non-structural proteins of RSV: targeting interferon antagonists for vaccine development. *Infectious Disorders-Drug Targets* 2012; **12**:129-37. PMID:22335499

BOOK CHAPTERS

1. Schreiber H, Gressler VH, **Teng MN**, Rothstein JL, Rowley DA. Cytokines as effectors in tumor immunity. *In Immunology and Allergy Clinics of North America* (H. Oettgen, ed.) 1990; **10**:747-764.
2. **Teng MN.** Live attenuated respiratory syncytial virus vaccines. *In Replicating vaccines* (PR Dormitzer, CW Mandl, R. Rappuoli, eds.) 2011, ISBN 978-3-0346-0276-1.
3. **Teng MN**, Lockey RF. Innate immunity in asthma. *In Global Atlas of Allergy* (C Akdis, I Agache, eds.) 2014, (<http://www.eaaci.org/globalatlas/GlobalAtlasofAllergy.pdf>).

INVITED SEMINAR PRESENTATIONS

Mount Sinai Medical School, Dept. of Microbiology, New York, NY, "Role of the attachment and nonstructural proteins in respiratory syncytial virus infection," January 24, 2000.

Johns Hopkins University, Dept. of Molecular Microbiology and Immunology, Baltimore, MD, "Role of the attachment and nonstructural proteins in respiratory syncytial virus infection," July 13, 2000.

Indiana University, Dept. of Biology, Bloomington, IN, "Role of the attachment and nonstructural proteins in respiratory syncytial virus infection," January 17, 2001.

The Pennsylvania State University, Dept. of Biochemistry and Molecular Biology, University Park, PA, "Role of the attachment and nonstructural proteins in respiratory syncytial virus infection," February 5, 2001.

Harvard Medical School, Dept. of Microbiology and Immunology, Cambridge, MA, "Role of the attachment and nonstructural proteins in respiratory syncytial virus infection," February, 2001

The Pennsylvania State University, College of Medicine, Dept. of Microbiology and Immunology, Hershey, PA, "Pathogenesis of respiratory syncytial virus infection," April 10, 2003.

The Pennsylvania State University, Penn State Cancer Institute, University Park, PA, "Pathogenesis of respiratory syncytial virus infection," July 27, 2005.

Columbus Children's Research Institute, Dept. of Immunology, Columbus, OH. "Characterization of the nonstructural proteins of human respiratory syncytial virus," October 6, 2005.

The Pennsylvania State University, College of Medicine, Dept. of Microbiology and Immunology, Hershey, PA, "Characterization of the nonstructural proteins of human respiratory syncytial virus," March 8, 2006.

Queen's University, Centre for Cancer Research and Cell Biology, Belfast, N. Ireland, "Characterization of the nonstructural proteins of human respiratory syncytial virus," May 4, 2006.

University of Dundee, Department of Molecular and Cellular Pathology, Dundee, UK, "Characterization of the nonstructural proteins of human respiratory syncytial virus," May 8, 2006.

The Pennsylvania State University, Huck Institute for Life Sciences, University Park, PA, CrossOver 2006, "Viral inhibition of interferon responses," October 12, 2006.

MedImmune, Inc., Gaithersburg, MD, "Characterization of the nonstructural proteins of human respiratory syncytial virus," October 26, 2006.

The Pennsylvania State University, Penn State Cancer Institute, VOHD Retreat, University Park, PA, "Multiple effects of the respiratory syncytial virus nonstructural proteins on interferon activation," April 23, 2008.

University of British Columbia, Department of Microbiology, Vancouver, BC, "Multiple effects of the respiratory syncytial virus nonstructural proteins on viral pathogenesis," October 14, 2008.

Novartis Institute for Biomedical Research, Virology Group, Cambridge, MA, "Multiple effects of the respiratory syncytial virus nonstructural proteins on viral pathogenesis," December 5, 2008.

University of South Florida, Signature Interdisciplinary Program in Allergy, Immunology, and Infectious Disease Seminar Series, Tampa, FL, "Multiple effects of the respiratory syncytial virus nonstructural proteins on viral pathogenesis," June 22, 2009.

University of South Florida School of Medicine, Department of Internal Medicine, Tampa, FL, "Multiple effects of the respiratory syncytial virus nonstructural proteins on viral pathogenesis," August 18, 2009.

University of Georgia School of Veterinary Medicine, Department of Infectious Diseases, Athens, GA, "Multiple effects of the respiratory syncytial virus nonstructural proteins on viral pathogenesis," September 21, 2009.

Millersville University, Department of Biology, Lancaster, PA, "Vaccine research: human respiratory syncytial virus as a case study," December 2, 2009.

Second Greater Boston Symposium on Vaccine Science, Norton's Woods Conference Center at The American Academy of Arts and Sciences, Cambridge, MA, "Engineered live attenuated respiratory syncytial virus vaccines," April 27, 2010.

University of South Florida, Division of Allergy and Immunology Retreat, CRI, St. Petersburg, FL, "Akt signaling in RSV infection," May 8, 2010.

University of South Florida, Signature Interdisciplinary Program in Allergy, Immunology, and Infectious Diseases Seminar Series, USF Health, Tampa, FL, "Multifunctional viral proteins in the pathogenesis of infection," May 27, 2010.

University of South Florida College of Medicine, Grand Rounds, Tampa, FL, "Viral vaccines," July 29, 2010.

University of South Florida, Department of Molecular Medicine Seminar Series, USF Health, Tampa, FL, "Multifunctional viral proteins in the pathogenesis of RSV infection," September 1, 2010.

University of Southern California, Department of Molecular and Computational Biology, Los Angeles, CA, "Multifunctional proteins: how viruses can expand their coding capacities," October 28, 2011.

University of Georgia, Department of Infectious Diseases, School of Veterinary Medicine, Athens, GA, "Dissecting the multiple functions of the respiratory syncytial virus nonstructural proteins," October 31, 2011.

University of South Florida, Department of Global Health, College of Public Health, Tampa, FL, "Multifunctional proteins: how viruses can expand their coding capacities," May 1, 2012.

University of South Florida, Signature Interdisciplinary Program in Allergy, Immunology, and Infectious Diseases Seminar Series, USF Health, Tampa, FL, "Rational design of live attenuated vaccines for respiratory syncytial virus," September 6, 2012.

Update in Allergy and Immunology 2012 Symposium, "RSV and airway inflammation: what is the connection?" Center for Advanced Medical Learning and Simulation, University of South Florida Morsani College of Medicine, Tampa, FL, October 6, 2012.

Update in Allergy and Immunology 2013 Symposium, "Challenges for Vaccine Development," Center for Advanced Medical Learning and Simulation, University of South Florida Morsani College of Medicine, Tampa, FL, September 28, 2013.

University of South Florida, Signature Interdisciplinary Program in Allergy, Immunology, and Infectious Diseases Seminar Series, USF Health, Tampa, FL, "Engineering live attenuated vaccines for respiratory syncytial virus," October 3, 2013.

University of South Florida, Signature Interdisciplinary Program in Allergy, Immunology, and Infectious Diseases Seminar Series, USF Health, Tampa, FL, "Host-virus interactions in respiratory syncytial virus infection," September 4, 2014.

SERVICE (PROFESSIONAL)

Editorial Board

Frontiers in Non-coding RNA

Reviewer for professional journals (ad hoc)

PLoS Pathogens, Journal of Virology, Virology, Virus Research, FEMS Reviews, Journal of Biological Chemistry, The Protein Journal, Experimental Cell Research, Journal of General Virology, Viruses, Evolutionary Bioinformatics, Advances in Virology

Reviewer for textbooks

Wise, J. 2003. "The Viruses: Prototypes and Principles". Pearson Prentice Hall.

Acheson, N. 2003. "Fundamentals of Molecular Virology". John Wiley & Sons.

Shors, T. 2005. "Understanding Viruses". Jones & Bartlett.

Wagner, E., et al. 2005. "Basic Virology". Blackwell.

Reviewer for research proposals

NIH/USDA ZRG1 IDM S (55), 2014

American Heart Association, Mid-Atlantic Affiliate, 2006-7

American Heart Association, Great Rivers Affiliate, 2008-9

American Heart Association, Immunology BSc study section, 2013-14

US-Israel Binational Science Foundation, 2004

Mitacs Accelerate (Canada), 2012 - 2014

Shota Rustaveli National Science Foundation (Republic of Georgia), 2013

Conference organizing

Member, Organizing Committee, American Society for Virology National Meeting held at Penn State, June 18 – 22, 2005.

SERVICE (Pennsylvania State University)

Departmental

Member Candidacy Committee, 2003-2005

Member Post Tenure Review Committee, 2005-2007

Member Graduate Advisory Committee, 2009-2010

University

Member Candidacy Committee (Integrated Biosciences Graduate Degree Program, Immunobiology option), 2003-2005

Member Candidacy Committee (Integrated Biosciences Graduate Degree Program, Molecular Medicine option), 2004-2006

Member Nominating committee, Paul Berg Prize in Molecular Biology, 2005-2006, 2008 (Chair)

Member Nominating committee, Chemerda Lecture, 2008

Chair Student Guidance Committee (Integrated Biosciences Graduate Degree Program, Molecular Medicine option), 2003-2004

Judge Schreyer Honors College poster exhibition, 2003

Outreach

Faculty participant Action Potential Science Program, 2005-2006
Mentor McNair Scholars program, 2002

SERVICE (University of South Florida)

Departmental

Member Signature Interdisciplinary Programs in Allergy, Immunology, and
 Infectious Diseases Executive Committee, 2010 – 2012
Member Immunology and Infectious Diseases Graduate Concentration Committee,
 2012 – present
Member Microbiology faculty search committee (Dept. of Molecular Medicine),
 2014 - 2015
Coordinator Joy McCann Culverhouse Airway Disease Research Conference, 2012 –
 present
Director Basic Research Program, Division of Allergy and Immunology,
 Department of Internal Medicine, 2012 – present

College

Judge USF Health Research Day, 2011
Interviewer Graduate school applicants, 2011 – present
Member LCME Medical Students subcommittee, 2014
Reviewer Internal grant applications (BOOST, Interdisciplinary seed), 2014

University

Member Institutional Biosafety Committee, 2011 – 2017
Member Honors and Awards Council, Faculty Senate, 2012 – 2015
 (chair, 2014-2015)
Member Faculty Senate, 2013 – 2016
Member Faculty Peer Evaluation of Teaching, 2012 – present
Member Biosciences Seminar Selection Committee, 2012 – present
Reviewer College of Pharmacy Seed Grants, 2012, 2014