

MARK EDWARD PEEPLES, Ph.D.
CURRICULUM VITAE
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BUSINESS ADDRESS: Department of Pediatrics
The Ohio State University College of Medicine
Center for Vaccines and Immunity
The Research Institute at Nationwide Children's Hospital
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HOME ADDRESS: 208 N. Roosevelt Avenue
Bexley, Ohio 43209

PROFESSIONAL POSITIONS:

Postdoctoral Fellow	1978-80
Instructor Department of Molecular Genetics and Microbiology University of Massachusetts Medical School Worcester, Massachusetts	1980-83
Assistant Professor	1983-88
Associate Professor	1988-92
Professor Department of Immunology/Microbiology, Rush Medical College and Division of Immunology, Graduate College Rush University, Chicago, Illinois	1993-2004
Head Section of Virology Department of Immunology/Microbiology Rush Medical College, Rush University Chicago, Illinois	1989-2004
Associate Chairman Department of Immunology/Microbiology Rush Medical College, Rush University Chicago, Illinois	1990-98
Sabbatical/NIH IPA Fellow (11/95-2/97) Respiratory Virus Section, Laboratory of Infectious Diseases National Institute of Allergy and Infectious Diseases National Institutes of Health, Bethesda, Maryland Working with Peter Collins	1995-97
Professor Department of Pediatrics The Ohio State University College of Medicine Columbus, Ohio	2004-
Member Center for Vaccines and Immunity The Research Institute at Nationwide Children's Hospital	2004-

	Center for Microbial Interface Biology, OSU	2007-
	Public Health Preparedness for Infectious Diseases, OSU	2008-
	Graduate Faculty, OSU	
	Integrated Biomedical Science Graduate Program	2004-
	Department of Veterinary Biosciences	2004-
	Center for Clinical and Translational Science	2010-
EDUCATION:	Bachelor of Science	1970-74
	Biology and German Studies	
	Heidelberg College, Tiffin, Ohio	
	Doctor of Philosophy	1974-78
	Department of Immunology and Microbiology	
	Wayne State University School of Medicine, Detroit, Michigan	
	Seymour Levine, Ph.D. laboratory	
	Postdoctoral Studies	1978-83
	Department of Molecular Genetics and Microbiology	
	University of Massachusetts Medical School, Worcester, Massachusetts	
	Michael A. Bratt, Ph.D. laboratory	
HONORS:	DeVlieg Graduate Fellowship, Wayne State University	1975-76
	NIH Postdoctoral Fellowship	1978-81
	NIH Research Career Development Award	1988-93
	Certificate of Recognition, Rush Sigma Xi Club	1991, 2004
	Chicago Area Virology Association, Award for Service	2004
	Nomination with Louay Hallak for the "Outstanding Technology Team" TopCAT Award, TechColumbus, Columbus, Ohio	2007
	Nomination for the "Inventor of the Year" Innovation Award, TechColumbus, Columbus, Ohio	2008
	Nomination with Louay Hallak for the "Outstanding Technology Team" Innovation Award, TechColumbus, Columbus, Ohio	2008
	Finalist for the "Inventor of the Year" Innovation Award, TechColumbus, Columbus, Ohio	2009
	Excellence in Teaching Award, Med II Host Defense 3 The Ohio State University College of Medicine	2010
	Elected to the 'Hall of Distinction,' Shelby Senior High School, Shelby, Ohio	2012
TEACHING:	Course Director	
	Microbiology Concepts, Rush Medical College	1985-90
	Associate Course Director	1998-03
	Virology, Graduate College, Rush	1984,86,91,95,98-02
	Basic Microbiology, Graduate College, Rush	1987
	Loyola Medical School: Virology Unit	1990
	Virus Mimicry, Graduate College, Rush	1993
	Emerging and Re-Emerging Pathogens, Rush	2003
	Lecturer	
	Microbiology Concepts, Rush Medical College (including lab section and facilitating small group problem solving)	1984-04
	Virology, Graduate College, Rush	1984-02
	Basic Microbiology, Graduate College, Rush	1987
	Host Defense, Graduate College, Rush	1987, 90
	Molecular Cell Biology, Graduate College, Rush	1988-03
	Microbiology, Medical College Alternative Curriculum, Rush	1988-94
	Medical Technology Virology, College of Health Sciences, Rush	1986-94
	Virology Course, Department of Microbiology and	

Immunology, Northwestern Medical School 1991
 Medical Virology Course, Second Year Medical Students,
 Department of Microbiology and Immunology, Loyola Medical School 1992
 Virus Mimicry, Graduate College, Rush 1993
 Molecular Biology, Graduate College, Rush 1994-96
 Medical Microbiology, Univ. of Illinois at Chicago Medical School 1998-01
 Medical Technology Masters Course, College of Health Sciences, Rush 2002-03
 Emerging and Re-Emerging Pathogens, Graduate College, Rush 2003

The Ohio State University

Viral Pathogenesis (MMI 841) 2004, 06
 Viral Cell Surface Receptors (IBGP 851) 2005
 Molecular Virology (MVIMG 754) 2006, 08, 10
 Microbial Pathogenesis (MICRO 724) 2007, 08, 09
 Host Defense 3 (Med 1, College of Medicine) 2009, 10, 11
 Molecular Virology (MG770) 2009, 11
 Food Virology and Immunology (College of Food Science) 2011, 12
 Molecular Virology and Pathogenesis of Viruses (MVIMG/VBS/MG 7741) 2012, 13

The Research Institute at Nationwide Children's Hospital

Grant Writing Workshop for Beginning Faculty 2006, 07
 Mechanisms of Human Health and Disease, for high school students 2007, 09
 Advocated purchase and organized training for Defibulators
 in the TRI-NCH buildings 2008

ORGANIZING:

Virology Research/Journal Club 1983-95
 Immunology/Microbiology-Infectious Disease Joint Conferences 1989-95
 Immunology/Microbiology Seminar Series 1990-92
 Molecular Biology Working Group 1991-95
 American Cancer Society, Institutional Research
 Grant: Application and Administration 1991-95

**COMMITTEE
 MEMBERSHIP:**

Rush University

University Committee on Research 1987-90
 University Research Week Committee 1989-93
 Search Committee for Chairperson of the Dept. Religion and Health 1989-90
 Liaison Committee on Medical Education, Research Subcommittee 1990
 Student Affairs Committee 1994-95
 Research Integrity Committee 1993-04
 Institutional Biosafety Committee 1994-04
 Chairman 1999-04
 Hazmat Committee 2002-04
 Committee on Conflict of Interest for Research 2003-04
 Select Agents Committee 2003-04

Rush Medical College

Medical College Faculty Council 1989-93
 Research Task Force 1991
 Search Committee for Chairperson, Depart of Preventive Medicine 1990-91
 Search Committee for Chairperson, Depart of Internal Medicine 1992-93
 Search Committee, Dean of the Medical College 1994
 Head, Pharmacology/Immunology Faculty Search Committee 1994
 Student Affairs Committee 1994-95
 Faculty Advisory Committee 1996
 Committee on Educational Appraisal 2001-04
 Search Committee, Chairman of Pediatrics 2001-03

Rush Graduate College

Graduate College Council 1989-94
 Chairman, Curriculum Committee 1991-94
 Search Committee for Head, Division of Cell Biology 1989

Department of Immunology/Microbiology, Rush Medical College

Faculty Search Committee, Chairman 1984, 88, 91-92
 Graduate Advisory Committee 1984-87
 Department Advisory Committee 1985-04
 Faculty Search Committee 1994
 Student Dissertation Advisory Committees, Rush (31) 1983-04
 as Chairman (5)
 as Advisor (10)
 as Co-Advisor (1)
 as M.S. Advisor (2)
 as Member (8)
 in another department at Rush (6)

The Research Institute at Nationwide Children's Hospital

Member, Institutional Biological and Chemical Safety Committee 2004-
 Established procedures for the CCRI R2 Biosafety Level 3 Facility
 and provide training 2004-08
 Member, Patent and Copyright Committee 2005-
 Chairman, Search Committee for Director of the Section of Cell
 and Developmental Biology 2006
 Chairman, Committee to Assess the Research Institute's Core Facilities 2006
 Member, Seminar Committee 2007-
 Member, Green Taskforce 2009
 Finance and Sponsored Projects Committee 2011-

The Ohio State University

Candidacy Exam Doctoral Degree, Graduate Faculty Representative 2005
 Dissertation Defense, Graduate Faculty Representative 2006, 07, 10, 11
 Student Dissertation Advisory Committees OSU
 as Advisor/Chairman (4)
 as Member (9)

Graduate Committees in Other Institutions

Loyola University, Maywood, Illinois 1989
 The University of Alberta, Edmonton, Alberta, Canada 1990
 The University of Massachusetts Medical School, Worcester, Mass (3) 1994, 97, 06
 The University of Melbourne, Melbourne, Australia 2003
 La Trobe University, Victoria, Australia 2003
 The University of Texas Medical Branch, Galveston, Texas 2006

State, Local

Research Committee, American Cancer Society, Illinois Division 1988-93
 Judge, Chicago Area Science Fair 1988-03
 Chicago Area Virology Association 1992-04
 Founding Member 1992
 Steering Committee 1992-04
 Host 1992-04
 President 1998-01
 Treasurer 1998-04
 Judge, The Ohio State University College of Medicine Graduate
 and Postdoctoral Poster Session 2005, 06, 07, 09, 13
 Judge for Sigma Xi prizes, Ohio State Science Fair 2006, 09, 10, 11, 12, 13
 Judge for the Ohio Academy of Science, Ohio State Science Fair 2007, 08

Abstract Reviewer for the Ohio Academy of Sciences **2007, 09, 11**
 Judge, Student Posters, Center for Microbial Interface Biology Retreat **2007,08,09,10,11,12,13**
 Judge, Student Posters, Public Health Preparedness for Infectious Diseases **2011, 12**
 Judge, Student Posters, Denman Undergraduate Research Forum, OSU **2009, 11, 12**
 Judge, Abstracts, Hayes Graduate Research Forum, OSU **2011**
 Advisor, Ohio Virology Association (Student run) **2013-**

National/International

Associate Editor for *Virology* **1987-99**
 Special NIH Study Section: Programs of Excellence in Basic Research in AIDS **1988**
 Member of a National Cancer Institute Review Committee: Program Project Site Visits **1991, 92, 97**
 Member, National Board of Medical Examiners Microbiology Test Committee and United States Medical Licensing Examination Step 1 Material Development Committee for Microbiology **1994-97**
 Blue Ribbon Panel on Minnesota Avian Pneumovirus **2000**
 Workshop Convener, American Society for Virology Annual Meeting
 Hepatitis Virus Workshop **1990-92**
 Paramyxovirus Workshop **1999, 01, 05, 07**
 Vaccines and Viral Vectors Workshop **2008, 12**
 Ad hoc Member, Virology Study Section, NIH, NIAID **1993,99,99,02**
 Ad hoc Member, Experimental Virology Study Section, NIH, NIAID **1993,95,96,97,98,02,03**
 Ad hoc Member, Virology A Study Section, NIH, NIAID **2005, 08, 12, 13**
 Ad hoc Member, Virology B Study Section, NIH, NIAID **2007**
 Ad hoc Member, Special Emphasis Panel: Vaccines Against Microbial Diseases, NIH, NIAID **2004**
 Member, Special Emphasis Panel, Program Project Review, NIH, NIDDK **2004, 06**
 Ad hoc member, ZRG1 IDM-G (90), NIH, NIAID
 Topics in Virology Study Section **2006**
 Partnership of Biodefense Study Section, NIH, NIAID **2011**
 Chair, Program Project Grant Review, NIH, NIAID **2011**
 FDA Site Visit, Center for Biologics Evaluation and Research **2006**
 CDC Special Emphasis Panel: Avian Influenza Cooperative Research Centers - Studies at the Human-Animal Interface **2006**
 American Heart Association, Immunology and Microbiology Peer Review Committee **2007-2011**
 PATH Scientific Advisory Board (funded by the Bill and Melinda Gates Foundation): RSV Vaccine Project for the Developing World **2011-**
 Ad hoc grant reviews for the National Institutes of Health, National Science Foundation, Veteran's Administration, U.S. Department of Agriculture, Loyola University School of Medicine, the Illinois Cancer Council, and the Thrasher Research Fund
 Editorial Board, *Journal of Virology* **2005-2013**
 Ad hoc manuscript reviews for the *Journal of Virology*, *Virology*, *Virus Research*, *Journal of General Virology*, *Journal of Medical Virology*, *Archives of Virology*, *Journal of Virological Methods*, *Virology Journal*, *Antiviral Research*, *Journal of Clinical Microbiology*, *Vaccine*, *Viral Immunology*, *Biophysical Journal*, *Proceedings of the National Academy of Sciences*, *Journal of Biological Chemistry*, *Pediatric Nephrology*, *BioMed Central*, *Journal of Molecular Biology*, *Microbial Cell Factories*, *Molecular Therapy*, *PLoS One*, *PLoS Pathogens*, *Nature Structural & Molecular Biology*, and *Nature Medicine*

PROFESSIONAL SOCIETIES:

American Society for Microbiology **1979-**
 American Society for Virology **1983-**
 American Association for the Advancement of Science **1983-**

Sigma Xi	1978-
Secretary, Rush University Club; Chapter	1986-88;
President, Rush University Club; Chapter	1988-90;
Secretary, Rush University Club; Chapter	1999-01
President, Rush University Club; Chapter	2001-03
Board Member, Ohio State Chapter	2008-
President-Elect, Ohio State Chapter	2010-11
President, Ohio State Chapter	2011-13
Secretary, Ohio State Chapter	2013-14
The Ohio Academy of Science	2007-

CONSULTING:	Igen, Inc., Rockville, MD	1984
	Cytel, Inc., La Jolla, CA	1990-1991
	Wellstat, Inc. (formerly Pro-Virus, Inc.) Gaithersburg, MD	1995-2000
	Apath, LLC, St. Louis, MO	1999-2003
	Trimeris, Inc., Durham, NC	2000-2003
	Gilead, Inc.	2008
	MedImmune, LLC	2010

EXTERNAL RESEARCH SUPPORT:

ACTIVE SUPPORT

National Institutes of Health (R01 AI 095684)
04/01/12 - 03/31/17 **\$1,250,000 Direct Costs**
 Principal Investigator: Mark E. Peeples, Ph.D.
 "Mechanism of Respiratory Syncytial Virus Fusion"

National Institutes of Health (R01 AI 093848)
11/01/11 - 10/31/16 **\$1,250,000 Direct Costs**
 Principal Investigator: Mark E. Peeples, Ph.D.
 "Respiratory Syncytial Virus Targeting of the Human Airway Epithelium"

Tibotec BVBA (Johnson & Johnson)
02/01/2011 - 12/31/2013 **\$238,034 Direct costs**
 Principal Investigator: Mark E. Peeples, Ph.D.
 "Collaborative Research Agreement: the Respiratory Syncytial Virus Fusion Protein as an Antiviral Target"

Cystic Fibrosis Foundation Therapeutics, Inc.
04/01/2010 - 03/31/2014 **\$139,236 Direct costs**
 Principal Investigators: Mark E. Peeples, Ph.D.
 "Center Initiative for Harvesting Respiratory Epithelium from Cystic Fibrosis Patients"

PENDING SUPPORT

National Institutes of Health (R43/SBIR)
11/01/2013-04/30/2014 **\$100,000 Direct costs**
 Principal Investigators: Mark Glazman, Ph.D. and Mark E. Peeples, Ph.D.
 "Development of a UVC System for Preventing Transmission of RNA Viruses in Microdroplets and on Dust Particles"

PAST SUPPORT

National Institutes of Health (R56 AI 095684)
09/01/11-08/31/12 **\$83,333 Direct Costs**
 Principal Investigator: Mark E. Peeples, Ph.D.
 "Mechanism of Respiratory Syncytial Virus Fusion"

MedImmune, LLC

07/13/2011 – 01/12/2012

\$64,988 Direct costs

Principal Investigator: Mark E. Peeples, Ph.D.

Co-P.I.: William Ray, Ph.D.

“Collaborative Research Agreement: Production of Stabilized, Soluble RSV F Protein and Monoclonal Antibodies to the Pre-Triggered F Protein I”

National Institutes of Health (R21 AI 073597)

05/01/2009-04/30/2011

\$275,000 Direct costs

Principal Investigator: Joan Durbin, M.D., Ph.D./Mark E. Peeples, Ph.D.

“Visualizing Interferon-beta Induction In Vivo”

Cystic Fibrosis Foundation Therapeutics, Inc.

04/01/2008-03/31/2010

\$87,278 Direct costs

Principal Investigators: Joan Durbin, M.D. and Todd Astor, M.D.

Co-I: Mark Peeples

“Center Initiative for Harvesting Respiratory Epithelium from Cystic Fibrosis Patients”

TechColumbus, TechGenesis Grant

10/01/2007-09/30/2009

\$50,000

Louay Hallak, Ph.D. and Mark E. Peeples, Ph.D.

Evaluation of URMAC Commercialization Potential

National Institutes of Health (T32 NIAID)

09/11/2007– 07/31/2012

\$630,330 Direct Costs

Principal Investigator: Larry Schlesinger, M.D.

“Interdisciplinary Study of the Microbe-Host Interface”

Program Member

National Institutes of Health (R21 AI069014)

04/01/2006-03/31/2008

\$275,000 Direct Costs

Principal Investigator: Mark E. Peeples, Ph.D.

“Generation of a Single-Cycle Virus to Study Pathogenesis of Nipah Virus”

National Institutes of Health (T32 GM068412)

7/1/2005-6/30/2010

Principal Investigator: Allan J. Yates, M.D., Ph.D., Virginia Sanders, Ph.D.

“Integrative Training in Biomedical Systems”

Program Member

National Institutes of Health (P01 HL051818)

Gene Therapy for Cystic Fibrosis, University of North Carolina

7/1/2004-6/30/2009

\$1,021,475 Direct Costs

Principal Investigator, Project 3: Mark E. Peeples, Ph.D.

Co-Investigators: Raymond J. Pickles, Ph.D. and Richard C. Boucher, M.D.

“Respiratory Syncytial Virus-Based Vectors for CFTR”

Program Project “Gene Therapy for Cystic Fibrosis”

Principal Investigators of the PPG: R.J. Samulski and R.C Boucher

National Institutes of Health (P30 DK065988)

4/01/04-3/31/05

\$25,000 Direct Costs

Principal Investigator of a pilot project: Mark E. Peeples, Ph.D.

“Generation of a RSV Replicon/Virion Expressing CFTR”

Subcontract in the “Molecular Therapy Core Center”

University of North Carolina Cystic Fibrosis Center

Principal Investigator: Richard C. Boucher, M.D.

National Institutes of Health (R01 AI 47430)
8/01/02-5/31/07 **\$1,125,000 Direct Costs**
Principal Investigator: Mark E. Peeples, Ph.D.; Co-P.I.: William Walden, Ph.D.
"Translation Regulation in Sendai Virus"

National Institutes of Health (R01 AI 47213)
6/01/01-4/30/06 **\$1,025,000 Direct Costs**
Principal Investigator: Mark E. Peeples, Ph.D.
"The Fusion Protein in Respiratory Syncytial Virus Entry"

Apath, LLC
01/01/01-6/30/02; 6/01/03-12/31/04 **\$146,655 Direct Costs**
Principal Investigator: Mark E. Peeples, Ph.D.
"Respiratory syncytial virus replicon for antiviral drug screening"

Trimeris, Inc.
01/01/01-12/31/02 **\$137,550 Direct Costs**
Principal Investigator: Mark E. Peeples, Ph.D.
"Drug resistance gene mapping and development of more rapid systems for respiratory syncytial virus (RSV) antiviral screening, using RSV reverse genetics"

National Institutes of Health (Continuation of R01 AI 25586)
9/01/95 - 8/31/98 **\$425,055 Direct Costs**
Principal Investigator: Mark E. Peeples, Ph.D.
"Identification of a Cell Receptor for Hepatitis B Virus"

National Science Foundation, U.S. Australia Cooperative Research
02/01/93-07/1/96 **\$10,950**
Principal Investigator: Mark E. Peeples, Ph.D.
Co-Principal Investigator: Jeffrey J. Gorman, Ph.D.
"Interactions between the Two Polypeptides of the Paramyxovirus Fusion Proteins"

Cytel Corporation
09/01/90 - 08/31/91 **\$50,000**
Principal Investigator: Mark E. Peeples, Ph.D.
"The Hepatitis B Virus Receptor as an Antiviral Agent"

National Institutes of Health (R01 AI 29606)
04/01/90 - 03/31/95 **\$450,033 Direct Costs**
Principal Investigator: Mark E. Peeples, Ph.D.
Co-Principal Investigator: Kailash C. Gupta, Ph.D.
"NDV M Protein: Virion Assembly and Nuclear Location"

Analytab Products Incorporated, Diamedix
07/01/89 - 06/30/90 **\$12,500**
Principal Investigators: Mark Peeples, Ph.D., Jeffrey Nelson, M.D.,
and Matthew Bankowski, Ph.D.
"Western Blot in the Diagnosis of Lyme Disease"

National Institutes of Health (R01 AI 25586)
07/01/88 - 06/30/93 **\$332,007 Direct Costs**
Principal Investigator: Mark E. Peeples, Ph.D.
"Identification of a Cell Receptor for Hepatitis B Virus"

National Institutes of Health (K04 AI 00908)
07/01/88 - 06/30/93 **\$234,000 Direct Costs**
Research Career Development Award
Principal Investigator: Mark E. Peeples, Ph.D.

"Identification of a Cell Receptor for Hepatitis B Virus"

American Cancer Society, Illinois Division (#87-10)

01/15/87 - 03/14/88

\$35,000

Principal Investigator: Mark E. Peeples, Ph.D.

"Identification of the Hepatitis B Virus Receptor on Cultured Cells"

American Cancer Society, Illinois Division (#85-47)

10/15/85 - 01/14/86

\$35,000

Principal Investigator: Mark E. Peeples, Ph.D.

"A Receptor for Hepatitis B Virus on Cultured Cells"

National Institutes of Health (R01 AI 21924)

07/01/85 - 06/30/88

\$235,405 Direct Costs

Principal Investigator: Mark E. Peeples, Ph.D.

"Structural/Functional Mapping of the NDV Matrix Protein"

Igen, Inc.

07/01/84 - 12/30/84

\$22,650

Principal Investigator: Mark E. Peeples, Ph.D.

"Pseudotype Virus Containing the Hepatitis B Glycoprotein: Development and Use"

INVITED PRESENTATIONS AT OTHER INSTITUTIONS:

1. "Evidence for a Hepatitis B Virus Receptor" Merck Sharpe & Dohme Research Laboratories, West Point, PA, October, 1986.
2. "Is There More Than One Receptor for Hepatitis B Virus?" Abbott Laboratories, Abbott Park, IL, July, 1987.
3. "Does Hepatitis B Virus Have Two Receptors?" Department of Immunology and Microbiology, Wayne State University School of Medicine, Detroit, MI, April, 1988.
4. "The Paramyxovirus Matrix Protein: Assembly Band Leader and Nucleolar Groupie" Department of Biological Chemistry and Structure, The Chicago Medical School, North Chicago, IL, May, 1989.
5. "The Paramyxovirus Matrix Protein: Band Leader of Assembly and Nucleolar Groupie" Department of Microbiology and Immunology, Indiana University School of Medicine, Indianapolis, IN, May, 1989.
6. "Hepatitis B Virus: Is One Receptor Enough?" Department of Microbiology and Immunology, University of Illinois at Chicago College of Medicine, March, 1990.
7. "Hepatitis B Virus: Evidence for Two Receptors" Cytel Corporation, La Jolla, CA, March, 1990.
8. "A Novel Receptor for Hepatitis B Virus" Department of Microbiology-Immunology, Northwestern Medical School, Chicago, IL, March, 1990.
9. "Hepatitis B Virus: Would You Pick Up This Hitchhiker?" Biology Department, Purdue University, Calumet, IN, March, 1990.
10. "Hepatitis B Virus May Be a Hitchhiker" Department of Medical Microbiology, University of Alberta, Edmonton, Alberta, Canada, June, 1990.
11. "The Hepatitis B Virus Receptor for Hepatocytes May Be a Lipoprotein" Heidelberg University, Heidelberg, Germany, September, 1990.
12. "Hepatitis B Virus Receptor: An Apolipoprotein Hitchhiker?" Department of Microbiology and Immunology, Loyola University, Strich School of Medicine, Maywood, IL, October, 1990.
13. "A Hepatitis B Virus Binding Protein: Is It the Receptor?" Biology Department, Purdue University, Calumet, IN, April, 1991.
14. "The Paramyxovirus Fusion Glycoprotein, menage a deux au trois?" Chicago Medical School, North Chicago, IL, March, 1992.
15. "The Paramyxovirus Fusion Protein: Menage a deux au trois?" University of Massachusetts Medical Center, Worcester, Mass., May, 1992.
16. "Molecular Biology of Newcastle Disease Virus" Kalamazoo College, Kalamazoo, Michigan, October, 1992.
17. "Signals Controlling Nuclear Localization of the Newcastle Disease Virus Matrix Protein" Biomolecular Research Institute, Parkville, Victoria, Australia, February, 1993.
18. "Virus Attachment and Entry: Paramyxoviruses and Hepadnaviruses" Northern Illinois University, DeKalb, Illinois, February, 1994.
19. "How to Identify a Virus Receptor" Pro-Virus Incorporated, Rockville, Maryland, March, 1995.

20. "Hepatitis Viruses" Associated Colleges of the Chicago Area, Argonne National Laboratory, Illinois, April, 1995.
21. "In Search of the Hepatitis B Virus Receptor" Biology Department, Purdue University, Calumet, IN, April, 1995.
22. "Apolipoprotein H: Potential Hepatitis B Virus Receptor" Biomolecular Research Institute, Melbourne, Australia. October, 1995.
23. "Reverse Genetics in Paramyxoviruses" Pro-Virus Incorporated, Rockville, Maryland, October, 1996.
24. "Limiting Respiratory Syncytial Virus Replication to a Single Step" Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health. February, 1997.
25. "The Hong Kong Chicken Influenza Scare" Chicago Society for Clinical Laboratory Science, February, 1998.
26. "Looking at Respiratory Syncytial Virus through Reverse Genetics" Department of Molecular Microbiology, Washington University, St. Louis, August, 1998.
27. Invited Panelist, *Chicago Tonight*, WTTW PBS TV, "West Nile Virus" May, 1999.
28. "Respiratory Syncytial Virus Shifts into Reverse Genetics" Department of Microbiology and Immunology, University of Illinois at Chicago College of Medicine, Chicago, IL, February, 1999.
29. "Looking at Respiratory Syncytial Virus through Reverse Genetics" Department of Microbiology and Immunology, Loyola University Chicago, Strich School of Medicine, Maywood, IL, March, 1999.
30. "Orthomyxoviruses and Influenza" Associated Colleges of the Chicago Area, Benedictine University, Lisle, IL, March, 2000.
31. "Respiratory Syncytial Virus Entry" Associated Colleges of the Chicago Area, Benedictine University, Lisle, IL, March, 2000.
32. "Respiratory Syncytial Virus Entry Begins with a GAG" Department of Microbiology, University of Minnesota School of Veterinary Medicine, Minneapolis, MN, March 2000.
33. "Respiratory Syncytial Virus Loves a Practical GAG (Glycosaminoglycan)" Department of Microbiology, Veterinary School, North Carolina State University, Raleigh, NC, September, 2000.
34. "Respiratory Syncytial Virus Glycoproteins, Cellular Glycosaminoglycans and a Healthy Green Glow" Trimeris, Inc., Durham, NC, September, 2000.
35. "Respiratory Syncytial Virus Loves a Practical GAG (Glycosaminoglycan)" Department of Virology & Molecular Biology, St. Jude Children's Research Hospital, Memphis, TN, September, 2000.
36. "RSV Loves a Good GAG." Apath, LLC, St. Louis, MO, October 2000.
37. "Respiratory Syncytial Virus: Are All These Glycoprotein Genes Necessary?" Department of Microbiology & Immunology, Stritch School of Medicine, Loyola University, Maywood, IL, May, 2001.
35. "Respiratory Syncytial Virus and Glycosaminoglycans: Just the Beginning?" Department of Neurology, Northwestern University, Evanston Hospital, Evanston, IL, June, 2001.
36. "How many glycoproteins does respiratory syncytial virus need?" Lilly Research Laboratories, Eli Lilly and Co, Indianapolis, IN, August, 2001.
37. "Respiratory syncytial virus: Why three glycoproteins when only one is required?" University of Zurich, Switzerland, September, 2001.
38. "Respiratory syncytial virus: A paramyxovirus that does not need two of its three glycoproteins?" Centre d'Immunologie Pierre Fabre, Inc, France, September, 2001.
39. "Heparan sulfate and beyond: Respiratory syncytial virus entry." University of Geneva, Switzerland, September, 2001.
40. "Respiratory syncytial virus: Is there something beyond heparan sulfate?" University of Marburg, Germany, October, 2001.
41. "Respiratory syncytial virus: from RNA to DNA and back to the respiratory tract." Mayo Clinic, Rochester, MN, July, 2002.
42. "Respiratory syncytial virus carefully chooses the cells it infects in the respiratory tract, but does not kill them." Rocky Mountains Laboratory of the National Institutes of Health, Hamilton, MT, August, 2002.
43. "Respiratory syncytial virus: a glowing example of a paramyxovirus." Heidelberg College, Tiffin, Ohio, October, 2002.
44. "Respiratory syncytial virus infection of the respiratory epithelium traced by GFP." The University of Texas Medical Branch at Galveston, November, 2002.
45. "Respiratory syncytial virus with a GFP headlight: infection of the respiratory epithelium." Ohio State University, Children's Research Institute, Columbus, Ohio, December, 2002.
46. "Shining a Green Light on Respiratory Syncytial Virus Infection." North Carolina State University, Department of Biochemistry, Raleigh, North Carolina, January, 2003.
47. "Respiratory Syncytial Virus Gets the Green Light for Ciliated Epithelial Cells of the Human Respiratory Tract." University of Maryland, Department of Veterinary Medicine, College Park, Maryland, February, 2003.
48. "Respiratory Syncytial Virus Infection of the Respiratory Tract Gets the Green Light." Purdue-Calumet, Biology Department, Calumet, Indiana, February, 2003.

49. "Following fluorescent respiratory syncytial virus through the human respiratory tract." University of Massachusetts School of Medicine, Department of Molecular Genetics and Microbiology, Worcester, Massachusetts, May 2003.
50. "Respiratory Viruses: The Ins and Outs." Stroger Hospital of Cook County and Rush University Medical Center, Sections of Pulmonology, January, 2004.
51. "Spelunking in the Respiratory Tract with GFP-Outfitted Respiratory Syncytial Virus," Department of Microbiology and Immunology, College of Medicine, University of Illinois at Chicago, February, 2004.
52. "Virus under House Arrest: the Respiratory Syncytial Virus Replicon," Chicago Area Virology Association, February, 2004.
53. "Imprisoned Respiratory Syncytial Virus as a Possible Vector for Gene Therapy," Wake Forest University School of Medicine, Department of Microbiology and Immunology, May, 2004.
54. "Mutations in a non-cytotoxic respiratory syncytial virus "replicon," Workshop on Replication and Cell Biology of Negative Strand Viruses, Northwestern University, Evanston, IL, June, 2004.
55. "Shining a green light on respiratory syncytial virus entry" Case-Western Reserve University, Department of Pathology, Cleveland, Ohio, January, 2005.
56. "Respiratory syncytial virus entry: Not as simple as it looks" University of Texas Health Science Center San Antonio, Department of Microbiology and Immunology, San Antonio, Texas, December, 2005.
57. "Respiratory syncytial virus entry enlightened," Department of Microbiology and Immunology, University of Texas Medical Branch, Galveston, Texas, June, 2006.
58. "A complete change in receptor usage caused by a single passage of respiratory syncytial virus in a new cell line," Department of Molecular Genetics and Microbiology, University of Massachusetts Medical School, Worcester, Massachusetts, October, 2006.
59. "Respiratory syncytial virus: What goes in is not always what comes out," Section of Infectious Diseases, St. Jude Children's Research Hospital, Memphis, Tennessee, March, 2007.
60. "Identification of a new receptor for measles virus, integrin $\alpha 5 \beta 1$," Workshop on Replication and Cell Biology of Negative Strand RNA Viruses, Northwestern University, Evanston, Illinois, September, 2007.
61. "A New Receptor for Measles Virus and New Insights into Viral Fusion," Department of Immunology/Microbiology, Rush University Medical College, Chicago, Illinois, November, 2007.
62. Invited panelist in "*From Concept to Commercialization: Maximizing the Potential of Translational Research*," November, 2008, sponsored by the OSU Medical Center's Office of Translational and Applied Research and TechColumbus.
63. "An Antibiotic-Selectable Respiratory Syncytial Virus Replicon Lacking Viral Glycoprotein Genes Is Non-Cytopathic" Gilead, Inc., September, 2008.
64. "Respiratory Syncytial Virus: The One, Two punch of Virus Entry," Viral Oncology Lecture Series, The James Cancer Center, The Ohio State University Medical Center, November, 2008.
65. "The Respiratory Syncytial Virus Fusion Protein Machine" Novartis Research, Inc., Cambridge, Massachusetts, April, 2009.
66. "Contact with Lipids Triggers the Respiratory Syncytial Virus Fusion Protein" MedImmune, Inc., Mountain View, California, August, 2010.
67. "The Respiratory Syncytial Virus Attachment Protein, Different Forms from Different Cells" Emory University, Atlanta, Georgia, November, 2010.
68. "Generation of a Soluble, Fully Cleaved, Pre-Triggered Respiratory Syncytial Virus Fusion Protein without Adding a Foreign Trimerization Domain" Centers for Disease Control and Prevention, Atlanta, Georgia, November, 2010.
69. "The Infectivity of Respiratory Syncytial Virus Depends on the Neighborhood in Which It Grew Up" Virginia Tech University, Blacksburg, Virginia, January, 2011.
70. "Respiratory Syncytial Virus: Where's the Vaccine?" Immunology Round Table, The Ohio State University, February, 2011.
71. "Respiratory Syncytial Virus: Where's the Vaccine? What Are We Missing?" The Child Health Research Center Speaker Series, Nationwide Children's Hospital, March 2011.
72. "My Life as a Scientist" Scioto High School Advanced Placement Chemistry class, May, 2011.
73. "How My Junior Year Abroad Put Me On the Path of a Killer Virus" Keynote Address for the Heidelberg (Germany) University Alumni, US (HAUS); Heidelberg University, Tiffin, OH, September, 2011.
74. "Novel Insights into Respiratory Syncytial Virus Entry of Target Cells" Center for Microbial Interface Biology Seminar Series, The Ohio State University, October, 2011.
75. "Stalking a Killer Virus" Sigma Xi and The Ohio State University Libraries Present: Science Café, The Ohio State University, November, 2011.
76. "Science as a Career" Scioto High School Advanced Placement Chemistry class, May, 2012.

77. "RSV Re-Entry" A keynote presentation at the 8th International Respiratory Syncytial Virus Symposium, September, 2012.
78. "Check-In Time for Respiratory Syncytial Virus at the Hotel Epithelium", NIAID Respiratory Pathogens Research Center, University of Rochester Medical Center, Rochester, N.Y., February, 2013.
79. "Respiratory Syncytial Virus at Check-In Time" Cellular and Molecular Seminar, Cleveland State University, Cleveland, Ohio, April 2013.

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MANUSCRIPTS IN PREPARATION:

1. Chaiwatpongsakorn*, S., Ray*, W, Heather Costello, P. L. Collins, and Mark E. Peeples. A potential trigger site in the respiratory syncytial virus fusion protein. *co first authors
2. Hallak, L.K., Berger, K., Kaspar, R., Kwilas, A., Montanaro, F., and Peeples, M.E. Efficient method for site-directed mutagenesis in large plasmids without subcloning.
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BOOK CHAPTERS:

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INVITED REVIEWS:

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104. Peeples, M.E., Johnson, S.M., Corry, J.D., Chaiwatpongsakorn, S., Risch, Z., Capella-Gonzalez, C., Ray, W., Roymans, D. and Costello, H. RSV Re-Entry, 8th International Respiratory Syncytial Virus Symposium, September, 2012.

105. Costello, H.M., Chaiwatpongsakorn, S., Ray, W.C., Roymans, D., and Peeples, M.E. Antiviral drugs R170591 and TMC353121 prevent respiratory syncytial virus infection by stabilizing the fusion protein in its pretriggered conformation. 8th International Respiratory Syncytial Virus Symposium, September, 2012. Poster #117.
106. Johnson, S.M., McNally, B.A., Ioannidis, L., Flano, E., Partida-Sanchez, S., and Peeples, M.E. CX3CR1 is a critical receptor for RSV on primary well differentiated human airway epithelial cultures. 8th International Respiratory Syncytial Virus Symposium, September, 2012. Poster #12.
107. Chaiwatpongsakorn, S., Costello, H.M., Risch, Z.A. and Peeples, M.E. The respiratory syncytial virus fusion protein is stable at physiological ionic strength but triggers when the ionic strength is reduced. 8th International Respiratory Syncytial Virus Symposium, September, 2012. Poster #27.
108. Lo MK, Peeples ME, Bellini WJ, Nichol ST, Spiropoulou CF, and Rota PA. "Overlapping Roles in Limiting Antiviral Responses by Nipah P Gene Proteins". 2012 Emerging Viruses Conference, Galveston, Texas.

GRADUATE STUDENT ADVISEES:

- Kay S. Faaberg. Antigenic Mapping and Model Membrane Association of the Newcastle Disease Virus Matrix Protein. 1982-1987, Ph.D.
- Matthew J. Bankowski. The Envelope Proteins of Hepatitis B Virus: Evidence for a New Protein and Identification of a Viral Attachment Protein. 1982-1988, Ph.D.
- Michael J. Kaplan. A Candidate Receptor for Hepatitis B Virus. 1985-1991, Ph.D.
- Natalie Coleman. Nuclear Localization of the Newcastle Disease Virus Matrix Protein. 1988-1992, Ph.D.
- Can Wang. Genetic Analysis of the Newcastle Disease Virus Fusion Protein. 1987-1993, Ph.D.
- Karen Sutherland. Function of the Gene End Sequence of Respiratory Syncytial Virus. 1988-2001, Ph.D.
- Edgardo Ariztia. Hepatocyte Growth Factor-Induced Gene Expression in Liver Epithelial Cells. (Co-Advisor with Anand Iyer, Northwestern University Medical School) 1990-2003, Ph.D.
- Louay Hallak. Role of Glycosaminoglycans in Respiratory Syncytial Virus Entry. 1994-2000, Ph.D.
- Sunee Techaarpornkul. Attachment Function of the Respiratory Syncytial Virus Fusion Glycoprotein. 1996-2001, Ph.D.
- Naina Barretto. Role of the Respiratory Syncytial Virus Fusion Glycoprotein in Virus Entry. 1996-2003, Ph.D.
- Troy Devlin. Prevalence of Human Metapneumovirus in an Elderly Adult Population. 2002-2004. M.S. Medical Technology.
- Diep Nyguen. Prevalence of Parainfluenzaviruses in an Elderly Adult Population. 2002-2003. M.S. Medical Technology.
- Steven Kwilas. Cell Tropism of Respiratory Syncytial Virus Depends on the Cells in Which It Is Grown. 2002-2009
- Anna Kwilas. Development of Respiratory Syncytial Virus as a Vector for Cystic Fibrosis. 2003-2010
- Supraanee Chaiwatpongsakorn. Triggering a Soluble Version of the Respiratory Syncytial Virus Fusion Protein. 2004-2011
- Olga Malykhina. Respiratory Syncytial Virus Replicons. 2004-2011
- Heather Costello. Triggering the Respiratory Syncytial Virus Fusion Protein. 2007-
- Sara Johnson. The *in vivo* Receptor for Respiratory Syncytial Virus. 2009-
- Jacqueline Corry. Identifying and Repairing the G protein Cleavage Site in RSV. 2012-

POSTDOCTORAL TRAINEES/VISITING SCIENTISTS/RESIDENTS/MEDICAL FELLOWS:

- Kazuo Komai, M.D. The Vero Cell Receptor for Hepatitis B Virus Small Surface Protein. 1986.
- Patrizia Pontisso, M.D. Human Liver Plasma Membranes Contain a Binding Activity for the Hepatitis B Virus Large Surface Protein. 1986-1987.
- Ganapathirama Raghu, Ph.D. Sequence Analysis of the Newcastle Disease Virus Group D Temperature-Sensitive Mutants. 1986-1988.
- Matthew J. Bankowski, Ph.D. Polymerase Chain Reaction Analysis of Human Immunodeficiency Virus Load in Patients Undergoing Drug Therapy. 1988-1990.
- Fehim Yasar Anlar, M.D. Lipoprotein Association and Hepatitis B Virus Binding Activities of Apolipoprotein H. 1989-1991.
- Yang Xu, M.D. Association of Serum-Derived Hepatitis B Virus Dane Particles with Apolipoprotein H. 1990-1992.
- Haider Mehdi, Ph.D. Cloning, Sequencing and Expression of the Human Apolipoprotein H Gene. 1990-1994.
- Robert Lorence, M.D., Ph.D. Newcastle Disease Virus Is Cytolytic to Tumor but not Normal Human Cells. 1990-1995.
- Mukul Rawat, Ph.D. Hepatitis B Virus Interactions with Serum Lipoproteins during Infection. 1991-1993.
- Surasak Pratuangtham, M.D. Hepatitis B Virus Infection of Cultured Primary Human Hepatocytes. 1992-1996. Development of a SARS Vaccine. 2002-2003.
- Ekkerhart Lausch, M.D. Hepatitis B Virus Receptor Identification. 1994-1997.
- Juan-Miguel Mosquera, M.D. Respiratory Syncytial Virus Glycoprotein Gene Sequences Directly from the Patient by RT-PCR. 2000-2002.
- Mark Yednak, Ph.D. Development and Use of a Respiratory Syncytial Virus Replicon. 2001-2006.
- Hatice Hasman, M.D. Prevalence of Parainfluenza Viruses in the Elderly, Detected by Nested Multiplex RT-PCR. 2002-2004.
- Maria Leonora Yambao, Ph.D. Structure-Function Relationships in the Respiratory Syncytial Virus F Protein. 2004-08

Louay K. Hallak, Ph.D. A Novel Receptor for Measles Virus. 2004-2010

John Manaloor, M.D. Triggering the Human Immunodeficiency Virus gp41 Fusion Protein. 2006-2009

Supranee Chaiwatpongsakorn. The Fusion Protein of Respiratory Syncytial Virus as an Attachment Protein. 2011-

Elizabeth McNally. Antibodies to the Pretriggered RSV Fusion Protein. 2012.

Cristina Capella-Gonzalez, Ph.D. Second Receptor for Respiratory Syncytial Virus in Well Differentiated Human Airway Epithelial Cultures. 2012-

Princy Ghera, M.D., CFTR Expression in Primary Well Differentiated Human Airway Epithelial Cultures by a Respiratory Syncytial Virus Replicon Vector. 2013-

UNDERGRADUATE SUMMER STUDENTS OR INTERNSHIPS: 24