

## Curriculum Vitae

Name: **Harry Bernard Greenberg, M.D.**  
Date and Place of Birth: May 30, 1944, New York, New York  
Citizenship: United States  
Marital Status: Married 1968, two children  
Social Security: Available Upon Request

### **EDUCATION**

Dartmouth College	6/1966	Bachelor of Arts
Columbia College of Physicians and Surgeons	6/1970	Doctor of Medicine

### **MEDICAL RESIDENCY and FELLOWSHIP**

Bellevue Hospital, New York, NY	6/1970-1972	Intern and Resident (Medicine)
Stanford University, Stanford, CA	6/1974-1976	Gastroenterology Fellow

### **EMPLOYMENT and POSITION**

07/72–06/74 Research Associate, USPHS, NIAID, Laboratory of Infectious Diseases, National Institutes of Health, Bethesda, MD

09/76–06/83 Medical Officer, USPHS, NIAID, Laboratory of Infectious Diseases, National Institutes of Health, Bethesda, MD

07/83–11/85 Associate Professor of Medicine and Microbiology and Immunology, Stanford University School of Medicine and the VA Palo Alto Health Care System

12/85–09/89 Associate Professor of Medicine and Microbiology and Immunology with tenure, Stanford University School of Medicine

04/88–12/98 Chief, Division of Gastroenterology, Stanford University School of Medicine and the VA Palo Alto Health Care System

10/89– Professor of Medicine and Microbiology and Immunology, Stanford University School of Medicine and the VA Palo Alto Health Care System

05/95–12/98 Associate Chairman for Academic Affairs, Department of Medicine, Stanford University School of Medicine

07/96–12/96 Acting Chairman, Department of Medicine, Stanford University School of Medicine

04/97–10/00 Associate Chief of Staff (ACOS) for Research, VA Palo Alto Health Care System

1997–10/00 President of the Board, Palo Alto Institute for Research and Education, Inc. (PAIRE), VA Palo Alto Health Care System

01/99–10/00 Senior Associate Dean for Research, Stanford University School of Medicine

01/99– Joseph D. Grant Endowed Professorship, Stanford University School of Medicine

Updated 3/23/18

11/00–11/02 Leave of Absence, Stanford University Medical School and VA Palo Alto Health Care System

11/00–11/02 Senior Vice President for Research and Chief Scientific Officer, Aviron, then Medimmune Vaccines, Mt. View, CA

11/01–11/02 Staff Physician (Intermittent Status), VA Palo Alto Health Care System

11/02–6/17 Senior Associate Dean for Research, Stanford University School of Medicine

11/02– Professor of Medicine (Gastroenterology & Hepatology), Microbiology and Immunology, and Staff Physician VA Palo Alto Health Care System

01/05–12/06 Acting Co-Chairman, Department of Medicine, Stanford University, School of Medicine

6/17- Associate Dean for Research, Stanford University School of Medicine

### **MILITARY SERVICE**

07/72 - 06/74 USPHS, National Institutes of Health  
09/76 - 06/83 USPHS, National Institutes of Health

### **LICENSURE**

California G026684  
Maryland D21576 (Inactive)

### **CURRENT RESEARCH FUNDING**

National Institutes of Health/NIAID -- R56\_(R01AI021362) – PI. Viral Gastroenteritis; Basis of Protection and Virulence. (R01: 2010-2015). R56: 2016 and 2017.

National Institutes of Health/NIAID – 1R01 AI25249 – PI. Regulation of Rotavirus Replication, Virulence and Host Range Restriction by the Innate Immune System. 2017-2022.

National Institutes of Health/NIAID – U19 AI057229 – Co-PI and Project 1 Director (PI, M. Davis). Influenza Immunity: Protective Mechanisms against Pandemic Respiratory Virus. 2009-2019.

VA Merit Review – 1 I0 1BX000158-01A1 – PI. Rotavirus: Studies of Intestinal Tropism and Innate and Heterotypic Immunity. 2010-2018.

National Institutes of Health/NCATS – TL1 RR025742, KL2 RR025743, UL1 RR025744 – PI, Stanford Center for Clinical and Translational Education and Research (Spectrum), CTSA award. 2008-2018.

National Institutes of Health/NIAID – U01 AI115715 – PI. Mucosal and Systemic Immune Responses to Influenza Virus. 2015-2017.

National Institutes of Health/NIAID -- U19 AI116484 – Project 2 Director (PI, K. Kuo). Stanford Cooperative Research Center for Novel, Alternative Model Systems for Enteric Diseases. 2015-2020.

### **SOCIETIES**

Diplomate, American Board of Internal Medicine	1973
Fellow, Infectious Diseases Society of America	1976
Member, American Society of Microbiology	1976
Diplomate, American Board of Gastroenterology	1977
Member, American Gastroenterological Association	1977
Member, American Federation for Clinical Research	1978
Member, American Society for Clinical Investigation	1980
Member, American Society for Virology	1983
Member, The California Academy of Medicine	1986

Updated 3/23/18

Member, Western Association of Physicians	1988
Fellow, American College of Physicians	1991
Member, Association of American Physicians	1992
Member, Society for Mucosal Immunology	1994
Fellow, American Association for the Advancement of Science	2003
Fellow, American Academy of Microbiology, Washington, DC	2010

## RESEARCH INTERESTS

Infectious diseases and immunology, with specific reference to viral infections of the GI tract, liver, and respiratory tract.

## PATENTS

1. R Wyatt, W James, E Bohl, K Thiel, L Saif, H Greenberg, T Kalica, A Kapikian, and R Chanock. Cultivable human rotavirus. United States Patent Serial Number 4,341,870, 1982.
2. HB Greenberg, RG Wyatt, AZ Kapikian, AR Kalica, K Midthun, and RM Chanock. Genetic reassortment of rotaviruses for production of vaccine and vaccine precursors. United States Patent Serial Number 4,571,385, 1986.
3. RG Wyatt, AZ Kapikian, RM Chanock, K Midthun, J Flores, Y Hoshino, and H Greenberg. Vaccine against rotavirus. United States Patent Serial Number 4704, 275, 11/3/87.
4. RG Wyatt, AZ Kapikian, RM Chanock, K Midthun, J Flores, Y Hoshino, and H Greenberg. Vaccine against rotavirus. United States Patent Serial Number 4751,080, 6/14/88.
5. PR Dormitzer, SC Harrison, HB Greenberg, J Yoder. Rotavirus antigens. United States Patent Serial Number 0276130, 11/29/2007.

## HONORS, TALKS, NATIONAL COMMITTEES AND OTHER EDITORIAL OR ADMINISTRATIVE ACTIVITIES

- 1966 Rufus Choate Scholar - Dartmouth College.
- 1977 Member, National Commission on Digestive Disease, Workshop on Basic Sciences Research Related to Digestive Disease.
- 1978 Invited participant in workshop on "Infectious Agents in Inflammatory Bowel Disease" at Tarrytown Conference.
- 03/78 Invited Speaker, "Colloquium on Selected Diarrheal Diseases of the Young", National Institutes of Health, Bethesda, Maryland.
- 06/78 Recipient, Public Health Service Commendation Medal.
- 08/78 Invited speaker, "Aspects of Gastroenteritis Viruses Workshop W35", 4<sup>th</sup> International Congress for Virology, The Hague, Netherlands.
- 1979 Invited speaker, ASM Symposium on Enteric Viral Infections, Honolulu, Hawaii.
- 1979 Member, NIAID Research Contracts Advisory Group.
- 1980 Invited speaker, United States/Japan Cooperative Medical Science Program, Viral Disease Panel.
- 02/80 Invited speaker, XI Meeting of Perspectives in Virology, "New Insights in Viral Gastroenteritis".
- 1981 Invited speaker, United States/Japan Coop Med Science Program, Viral Disease Panel, Oiso, Japan.
- 08/81 Invited speaker, V International Congress of Virology, Strasbourg, France.
- 1982 Invited participant in NIFC Workshop on Infectious Agents in Inflammatory Bowel Disease, Princeton, NJ.
- 03/82 Chairman, ASM Panel on Rotavirus, Atlanta, GA.
- 07/81-06/83 Chairman and Vice Chairman, NIAID Clinical Research Sub-panel. The sub-panel had the responsibility to review clinical research protocols of the Institute as a part of the assessment of risks and benefits, as well as, ethical issues involved in the protection of human subjects.
- 1983-1985 Editorial Board, *Infection and Immunity*.

Updated 3/23/18

- 09/83 Invited speaker, Cold Spring Harbor Symposium, "Modern Approaches to Vaccines".
- 09/83 Invited speaker, United States/Japan Cooperative Medical Science Program, Viral Disease Panel, San Diego, CA.
- 11/83 Invited speaker, SCASM Meeting, San Diego, CA.
- 06/84 Medical Grand Rounds, Traveler's Diarrhea, Stanford University Medical Center, Stanford, CA.
- 10/84 Pediatric Grand Rounds, Update on Rotavirus Infections, Stanford Medical School, Stanford, CA.
- 01/85 Med Grand Rounds, Traveler's Diarrhea, Santa Clara Valley Medical Center, Santa Clara, CA.
- 02/85 Invited speaker, "Infectious Diarrhea in the Young; Strategies for Control in Humans and Animals", Geelong, Victoria, Australia.
- 06/85 Invited speaker, Nobel Conference II, "Recent Advances in Vaccines and Drugs Against Diarrheal Diseases", Stockholm, Sweden.
- 08/85 Invited speaker, Conference on Mucosal Immunity & Infection, NIH sponsored, Missoula, MA.
- 09/85 Invited speaker, Cold Spring Harbor Symposium, "Modern Approaches to Vaccines #3".
- 09/85 Invited speaker, American Society for Microbiology, Inter-science Conference on Anti-Microbials (ICAC), Minneapolis, Minnesota.
- 10/85 Invited speaker, Society for Intestinal Microbial Ecology and Disease, 10th International Symposium on Intestinal Microecology, Minneapolis, Minnesota.
- 10/85 Invited speaker, National Foundation for Ileitis and Colitis present: An Update in Inflammatory Bowel Disease, Stanford University, Stanford, California.
- 12/85 Invited consultant, PATH Diarrheal Program, Washington, D.C.
- 07/86 Invited discussant Ciba Symposium #128 on Novel Diarrhea Viruses, London, England.
- 08/86-1991 Editorial Board, *Molecular and Cellular Probes*, Academic Press Publication.
- 09/86 Invited participant, Double Stranded RNA Virus meeting, Oxford, England.
- 02/87 Invited speaker, Plenary Session of the Western Association of Physicians. Carmel, CA.
- 03/87 Invited lecturer, University of Mexico City, Microbiology Department.
- 04/87 Invited lecturer, UCSD Medical Microbiology, San Diego, CA.
- 04/87 Invited lecturer, University of Washington, GI Division, Seattle, WA.
- 10/87 Invited Chairman, Viral Disease Section of the National Foundation for Ileitis and Colitis Research Conference, Ft. Lauderdale, FL.
- 11/87 Invited speaker, Palo Alto Medical Foundation Research Institute, Palo Alto, CA.
- 12/87 Invited lecturer, United States/Japan Joint Meeting of Viral Disease Panel, Monterey, CA.
- 12/87 Invited lecturer, American Society of Tropical Med, Symposium on Cell Adhesions, Los Angeles, CA.
- 1988-1999 Editorial Board, *Journal of Clinical Microbiology*.
- 02/88 Invited participant, UCLA Symposium on Viral Entry, Taos, NM.
- 03/88 Invited speaker, Center for Gastroenterology Research on Absorptive and Secretory Processes, New England Medical Center, Boston, MA.
- 04/88 Advisory Board, Inflammatory Bowel Disease Center, UCLA, Los Angeles, CA.
- 05/88 Invited lecturer, UCSD, San Diego, CA.
- 05/88 Invited discussant, Grand Rounds, Sequoia Hospital, Redwood City, CA.
- 09/88 Invited discussant, Third NIH Rotavirus Vaccine Workshop, Bethesda, MD.
- 10/88 Invited discussant, Textile Museum Annual Carpet Convention, Washington, D.C.
- 12/88 Organizer, Syntex Seminar on Inflammatory Bowel Disease.
- 12/88 Ad Hoc reviewer, NIAID-AID Research Grant Committee, Bethesda, MD.
- 03/89-06/91 Chairman, AGA Research Council, Section of Immunology & Microbiology
- 04/89 Invited participant, International Meeting on Molecular Genetics of the Rotaviruses, Jouy en Josas, France.
- 05/89 Invited lecturer, Department of Microbiology, UCSD, San Diego, CA.
- 09/89 Member, Editorial Board, *J. Virology*.
- 09/89 Invited speaker, Gene Labs, Palo Alto, CA.
- 10/89 Invited speaker, UCLA Microbiology and Immunology Department, CA.
- 10/89 Invited speaker and member - External review panel of the UCLA IBD Center, CA.
- 01/90 Invited speaker, Cetus Corp., Emeryville, CA.
- 02/90 Ad Hoc reviewer, Virology Study Section - NIH, Bethesda, MD.

- 03/90 Editorial Committee, Annual Review of Medicine.
- 04/90 Invited lecturer, Department of Medicine/Microbiology, UCSD, San Diego, CA.
- 05/90 Invited speaker, UCSF GI Division and UCSF Liver Center, San Francisco, CA.
- 05/90-04/95 Editorial Committee, *Journal of Clinical Investigation*.
- 09/90 Invited speaker, Reovirus Workshop-International Virology Congress, Berlin, Germany.
- 10/90 Ad Hoc reviewer, Virology Study Section - NIH, Bethesda, MD.
- 12/90 Invited speaker, 3<sup>rd</sup> International Symposium: Double Stranded RNA Viruses, Kona, HI
- 03/91 Ad Hoc reviewer, Virology Study Section - NIH, Lake Tahoe, CA.
- 04/91 Recipient, VA Medical Investigator Award
- 05/91 Invited speaker, Ohio State University & OARDC.
- 07/91 Invited moderator, American Society of Virology, Ft. Collins, CO.
- 07/91 Invited speaker, UCSF Conference on Antiviral Chemotherapy, Napa, CA.
- 07/91-06/93 Member, Virology Study Section, NIH.
- 09/91 Invited speaker, United States/Japan joint meeting on Viral Disease, Charlottesville, VA.
- 10/91 Visiting Professor, Duke University, Raleigh Durham, NC.
- 10/91-06/96 Member, WHO Steering and Review Committee on Diarrheal Disease - Viral Sub-Committee, Geneva, Switzerland.
- 11/91 Organizer, Symposium on 27nm Gastroenteritis Agents, Stanford, CA.
- 02/92 Recipient of the 1992 Western Gut Club Research Prize.
- 04/92 Invited speaker, Rush Presbyterian Medical School, Department of Microbiology.
- 07/92 Invited speaker, Smith Kline & Beecham Pharm., King of Prussia, PA.
- 09/92 Invited speaker, International Centre for Genetic Engineering and Biotechnology Conference on Biotechnology R & D Trends, Trieste, Italy.
- 10/92 Invited speaker, Rockefeller Foundation Conference Linking Molecular Epidemiology, Field Investigation and Health Service Research, Stanford, CA.
- 12/92 Invited speaker, 4<sup>th</sup> International Symposium: Double Stranded RNA Viruses, Scottsdale, AZ.
- 01/93 Member, Task Force on Intestinal Microecology and Environment for CCFA, "Challenges in IBD research: Agenda for the 1990's".
- 01/93 Invited speaker, 3<sup>rd</sup> Swiss Welcome Workshop-Challenge in Virology, Saanen, Switzerland.
- 02/93 Organizer, Viral Pathogenesis Session-4<sup>th</sup> Annual Beckman Symposium on Molecular and Genetic Medicine, Stanford, CA.
- 04/93 Invited lecturer, Baylor College of Medicine, Houston, TX.
- 05/93 Invited speaker, State-of-the-Art lecture: "Rotaviruses" AGA Annual Meeting, Boston, MA.
- 07/93 Invited speaker, Medical Virology satellite meeting of ASV, Davis, CA.
- 10/93 Invited Speaker, 27<sup>th</sup> United States/Japan joint meeting on Viral Disease, San Diego, CA.
- 01/94-12/99 Associate Editor, *Virology*.
- 01/94-12/96 Advisory Council, Textile Museum, Washington, D.C.
- 02/94 Member, NIH sponsored consensus conference on H. Pylori, Bethesda, MD.
- 03/94 Invited speaker, Scripps Research Institute, San Diego, CA.
- 03/94 Invited speaker, Medical Grand Rounds, Stanford University, Stanford, CA.
- 05/94 Member, CCFA Research Initiative Panel.
- 07/94 Invited speaker, 28<sup>th</sup> United States/Japan Joint Meeting on Viral Disease, Tokyo, Japan.
- 07/94 Recipient, NIH Merit Award (R37).
- 10/94 Ad Hoc reviewer, Virology Study Section, NIH, Bethesda, MD.
- 12/94 Invited speaker, GI Grand Rounds, UCSF, San Francisco, CA.
- 03/95-02/00 Member, ASV Membership Nominating Committee.
- 03/95 Invited speaker, V International Symposium of Double Stranded RNA Viruses, Jerba, Tunisia.
- 04/95 Member, Committee to Review NIAID Programs in International and Tropical Infectious Disease, Bethesda, MD.
- 04/95 Invited speaker, Colloque International, The Year of L. Pasteur International Symposium, University of Dakar, the Institute Pasteur of Dakar and UNESCO, Dakar, Senegal.
- 04/95 Invited speaker, UCSF ID Division, San Francisco, CA.
- 06/95 Invited speaker, Sapporo International Symposium on Viral Gastroenteritis, Sapporo, Japan.

Updated 3/23/18

- 09/95 Invited Keynote Speaker, First International Rushmore Conference on Mechanisms in Pathogenesis of Enteric Diseases, Rapid City, South Dakota.
- 10/95 Ad Hoc reviewer, Virology Study Section, NIH, Bethesda, MD.
- 10/95 Invited speaker, 5<sup>th</sup> Rotavirus Vaccine Workshop, CDC, Atlanta, GA.
- 11/95 Visiting Professor, Gastroenterology Division, Massachusetts General Hospital, Boston, MA.
- 11/95 International Scientific Organizing Committee 9<sup>th</sup> International Congress of Mucosal Immunology.
- 07/96 Invited Speaker, Medical Virology Club Satellite Symposium of ASV annual meeting, London, Ontario, Canada.
- 08/96 Member, Ad hoc review committee UCSF Liver Center, San Francisco, CA.
- 11/96 Invited participant, 3<sup>rd</sup> Annual Sabin Foundation Colloquium on Vaccine Policy, Cold Spring Harbor, NY.
- 11/96 Reviewer, Microbiologic and Immunologic Sciences Special Emphasis Study Section, NIH, Bethesda, MD.
- 01/97-12/99 Trustee, Textile Museum, Washington, D.C.
- 01/97 Invited speaker, Pediatric Grand Rounds, Stanford University School of Medicine.
- 01/97 Invited speaker, WHO Consensus Workshop on Rotavirus Vaccines, Geneva, Switzerland.
- 01/97 Invited participant, NIH, NIAID sponsored Mucosal Immunity “Thinktank”, Bethesda, MD.
- 03/97 Invited speaker, Keystone Symposium on Mucosal Immunity, Santa Fe, NM.
- 04/97–01/01 Editorial Board, *Current Opinion in Microbiology*.
- 04/97 Invited speaker - Second National Symposium on Basic Aspects of Vaccines, Bethesda, MD.
- 04/97–11/00 Member, Vaccines and Related Biological Products Advisory Committee, FDA, Washington, D.C.
- 05/97 Participant, Expert Panel to Review NIAID Strategic Plan for Hepatitis C Research (Conference Call).
- 05/97 Invited speaker, Palo Alto Research Institute, Palo Alto, CA.
- 06/97 Invited speaker, Viral Gastroenteritis in the Frontiers in Gastroenterology series, Case Western University Medical School, Cleveland, Ohio.
- 06/97-07/97 Member, Viral Disease Panel of the United States/Japan Cooperative Medical Sciences Program.
- 07/97 Special Reviewer, Viral Gastroenteritis Program, Center for Disease Control, Atlanta, GA.
- 07/97 Invited speaker, Gastroenterology Grand Rounds, University of California, San Francisco, CA.
- 06/97-06/99 Member, University of California, San Francisco Liver Center Advisory Board.
- 07/97-07/99 Co-Chairman, Medical Virology Club, ASV.
- 08/97 Invited participant, VA Planning Committee for the Cooperative Study (#449) on Interferon Therapy in the Prevention of Liver Failure Associated with Hepatitis C Related Cirrhosis, Washington, D.C.
- 09/97 Invited speaker, Symposium on HIV-1 Infection, Mucosal Immunity and Pathogenesis, NIH, Bethesda, MD.
- 10/97 Wade Volwiler Visiting Professor, University of Washington, Seattle, Washington.
- 12/97-12/01 Editorial Board, *American Journal of Medicine*.
- 12/97 Invited speaker, Indo-US Vaccine Action Programme Commercial Colloquium on Rotaviral Diarrhea, Bangalore, India.
- 04/98 Invited speaker, HIV Vaccines for Developing Countries, Harvard AIDS Institute, Boston, MA.
- 04/98 Invited lecturer, Rotavirus Vaccines, UC Berkeley School of Public Health course in vaccines.
- 04/98 Keynote Presentation, Mini Symposia on Pathogens and Gastrointestinal Epithelia, Experimental Biology meeting, San Francisco, CA.
- 05/98 Invited lecturer, Rotavirus Immunity - Karolinska Institute, Stockholm, Sweden.
- 06/98 Reviewer, NIDDK Special Emphasis Panel, RFP NIDDK-98-6 “Hepatitis C Clinical Trial - Virology Laboratory”.
- 07/98 Co-Organizer, Medical Virology Satellite Symposium “What’s new in Viral Vaccines”, University of British Columbia, Vancouver, Canada.
- 09/98 Member, Ad hoc VA Committee on HCV Research.
- 09/98 Invited Participant, 32<sup>nd</sup> US Japan Joint Working Conference on Viral Diseases, Kyoto, Japan.
- 10/98-12/04 Member, Advisory Committee for the Virus Research Center, Kon-Kuk University, Seoul, Korea.
- 1999-2004 Member, Scientific Advisory Board, Kirsch Foundation.

Updated 3/23/18

- 01/99 Invited participant, Symposia on Immunology and Inflammation in the Liver, University of Texas, Galveston, TX.
- 02/99 Invited speaker, Rotavirus Immunology, University of Pennsylvania, Philadelphia, PA.
- 02/99-11/00 Chairman, Vaccines and related Biological Products Advisory Committee, FDA, Washington, D.C.
- 04/99 Co-organizer, Keystone Symposium, Molecular Approaches to Human Viral Vaccine, Snowbird, Utah.
- 06/99 Invited speaker, Symposium on Mucosal Immunity, Institut National de la Recherche Agronomique, Toulouse, France.
- 06/99 Invited speaker and panel member, United States/Japan Joint meeting on Viral Disease, Bethesda, MD.
- 07/99 Invited participant, NIAID Strategic Plan Task Force Meeting, NIH, Bethesda, MD.
- 08/99 Invited moderator, Workshop on Thimerosal in Vaccines, National Vaccine Advisory Committee, Bethesda, MD.
- 12/99 Invited speaker, “Rotavirus Immunity – Effector Mechanisms and Cell Homing”, Department of Microbiology/Immunology, University of North Carolina, Chapel Hill, NC.
- 12/99– Member, Editorial Board, *Viral Immunology*.
- 01/00 Invited Speaker, National Congress of Molecular Virology, Guanajuato, Mexico.
- 01/00 Invited Participant, NIH/NVPO Workshop on Intussusception, Infection, and Immunization, Bethesda, MD.
- 2000-2001 Vice-Chair, GRAND Steering Committee of Research Dean’s, AAMC.
- 02/00 Invited participant, WHO Conference on Rotavirus Vaccine Research, Geneva, Switzerland.
- 02/00 Invited discussant, NIAID Council Meeting on *H. pylori* Human Challenge Model, Bethesda, MD.
- 02/00 Chairperson, NIAID Vaccine and Treatment Evaluation Units (VTEU) Review, Bethesda, MD.
- 02/00 Member, Mucosal Immunity Working Group, HIV Vaccine Trials Network (HVTN).
- 05/00 Invited discussant, Novartis Foundation Symposium, Gastroenteritis viruses. London, England.
- 06/00 Invited participant, VA Merit Review Council Meeting, Washington, D.C.
- 07/00 Convenor, HIV Research Symposia, American Society Virology Meeting, Ft. Collins, CO.
- 07/00 Invited Participant, 34<sup>th</sup> United States/Japan Viral Diseases Panel, Inuyama, Japan.
- 12/00 Ad Hoc Consultant, Board of Scientific Counselors, NIAID, Division of Intramural Research, Laboratory of Infectious Diseases Evaluation.
- 12/00 Consultant, FDA Workshop and Site Visit for Laboratory of Rotaviruses.
- 01/01 Planning Committee for VA Research in Hepatitis C.
- 04/01-03/04 Councilor for Medical Virology, Council of the American Society for Virology.
- 07/01 Invited speaker, 35<sup>th</sup> Annual United States/Japan Conference on Viral Diseases, Honolulu, HI.
- 09/01 Invited participant, NVAC Rotavirus Meeting, Arlington, VA.
- 09/01 Invited participant, American Society for Virology Fall Meeting, Evanston, IL.
- 10/01 Invited participant, VA Hepatitis C Research Symposium, Leesburg, VA.
- 02/02 Member, NIAID Blue Ribbon Panel on Bioterrorism and its Implications for Biomedical Research.
- 03/02 Invited Speaker, HIV/AIDS Symposium, Immune Evasion and HIV Vaccines, Palm Springs, CA.
- 04/02- 03/04 Contributing Member, FACULTY of 1000, Virology Section.
- 04/02 Invited speaker on Conflict of Interest, AAMC GRAND Meeting of Research Deans, Denver, CO.
- 05/02 Invited speaker, Phaciliatates Meeting on Vaccines, Paris, France.
- 07/02 Invited speaker, 36<sup>th</sup> Annual United States/Japan Conference on Viral Diseases, Matsumoto, Japan.
- 07/02 Presenter, American Society Virology, Lexington, KY.
- 07/02-07/05 Member, Board of Governors, Iris and B. Gerald Cantor Center for Visual Arts, Stanford University, Stanford, CA.
- 03/03 Member, NIAID DMID Study Section –Food and Waterborne Pathogens Review.
- 03/03 Invited Speaker, UC Davis, Medical Microbiology, “Influenza Vaccines”.
- 03/03– Senior Editor, *Journal of Virology*.
- 03/03-11/08 Member, GAVI-ADIP Management Committee.
- 04/03 Invited speaker, Johns Hopkins School Public Health, “Influenza Vaccines”.
- 04/03 Member, Technical Review and Advisory Committee (TRAC) for the Accelerated Development and Introduction Plan (ADIP) for Rotavirus Vaccines at

Updated 3/23/18

- Program for Appropriate Technology in Health (PATH).
- 05/03 International Scientific Panel on SARS, Singapore government's program to combat SARS.
- 05/03 Invited speaker, Rockefeller University, "Influenza Vaccines".
- 07/03 Eli Lilly Lectureship, Influenza Vaccines, ASV, UC Davis, Davis, CA.
- 07/03 Presenter, Medical Grand Rounds, Stanford University, "Influenza Vaccine".
- 07/03 Invited Speaker, "Rotavirus Immunity, 8<sup>th</sup> International Symposium on Double Stranded RNA Virus, IL Ciocco, Italy.
- 08/03 Consultant, Gates Foundation, Acute Respiratory Disease, Seattle, WA.
- 09/03 WHO Consultant, Respiratory Measles Vaccine, London, England.
- 10/03– Elected American Association for the Advancement of Science (AAAS) Fellow, Washington, D.C.
- 10/03 Invited Speaker, "Influenza Vaccines", Viral Vaccine Meeting, Barcelona, Spain.
- 12/03 Invited Speaker, "Vaccines: Changing Perspectives", NIH, Washington, D.C.
- 12/03 Invited Participant, NIH Fogarty Center Strategic Review, Bethesda, MD.
- 02/04 Invited Participant, IOM Forum on Microbial Threat, Washington, D.C.
- 02/04 Invited Speaker, AAAS Symposia "Influenza Vaccines", Seattle, WA.
- 03/04 Invited Speaker, AAAAS Symposia "Influenza Vaccines", San Francisco, CA.
- 03/04 Invited Speaker, ASM Bioterrorism Plenary Symposia "Realities of Vaccine Development", Baltimore, MD.
- 04/04 Invited Consultant, Glaxo, Smith, Kline – Rotavirus Vaccines, Brussels, Belgium
- 04/04 Organizer and Speaker, International Congress on Respiratory Viruses, Chicago, IL.
- 05/04 Invited speaker, Palo Alto Rotary Club, "Vaccines", Palo Alto, CA.
- 05/04 Invited Participant, Kaiser Permanente Blue Sky Research Conference, San Francisco, CA.
- 06/04 Invited Speaker, Influenza Vaccines, IVR Global Vaccine Research Forum, Monteux, Switzerland.
- 07/04 Invited Speaker, VI International Rotavirus Symposium, Mexico City, Mexico.
- 07/04 Invited Participant, NIH Conference on Regional Centers of Translational Medicine. Bethesda, MD.
- 08/04-08/06 Member, Scientific Advisory Board, Global Vaccines, Inc.
- 10/04– Member, Scientific Advisory Board, Southeast Regional Center of Excellence for Emerging Infections and Biodefense.
- 10/04 Research Policy Committee, American Gastroenterological Association.
- 02/05 Invited Speaker, La Jolla Institute for Allergy and Immunology, San Diego, CA.
- 02/05 Invited Speaker, WHO Consultation of Specifications for a Live Rotavirus Vaccine, Mexico City, Mexico.
- 02/05 Invited Participant, Aerosol Measles Vaccine Project Review, Bill & Melinda Gates Foundation, Seattle, WA.
- 02/05 Invited Participant, Coccidioidomycosis: Host Response and Vaccine Development Conference, California Healthcare Foundation, Oakland, CA.
- 02/05 Invited Speaker, International Conference on Emerging Infectious Diseases, Dubai, United Arab Emirates.
- 03/05 Invited Participant, Colloquium on "Vaccine Development: Current Status and Future Needs", American Academy of Microbiology, Baltimore, MD.
- 04/05 Invited Speaker, John R. La Montagne Memorial Symposium on Pandemic Influenza Research, IOM Washington, D.C.
- 06/05 Invited Participant, Symposium on the Integrity of Reporting of Clinical Research Studies, Washington, D.C.
- 06/05-05/08 Member, AGA Research Policy Committee
- 06/05 Invited Participant, AAMC Symposium on Integrity of Reporting Clinical Research, Washington, D.C.
- 07/05 Invited speaker and organizer, 38<sup>th</sup> Annual United States/Japan Conference on Viral Diseases, Stanford, CA.
- 09/05 Invited participant, Conflict of Interest Committee Chairs Annual Meeting, University of Alabama, Birmingham, AL.



Updated 3/23/18

- 10/05 Invited Participant, Southeast Regional Center of Excellence for Emerging Infection & Biodefense (SERCEB) Annual meeting, Chapel Hill, N.C.
- 10/05 Invited Speaker, IOM 35<sup>th</sup> Annual Meeting, Washington, D.C.
- 12/05 Invited Participant, 3<sup>rd</sup> GAVI Partner's Meeting, New Delhi, India.
- 02/06 Invited Speaker, 2006 AAHRPP Conference, Stanford School of Medicine, Stanford, CA.
- 03/06 Invited Speaker, 2006 VIII International Symposium for Respiratory Viral Infections, Hawaii.
- 04/06 Invited Speaker, 2006 AAMC GRAND Meeting, Washington, D.C.
- 04/06 Invited Discussant, 2006 Clinical Research Forum, Washington, D.C.
- 06/06 Invited Speaker, 7<sup>th</sup> International Rotavirus Symposium, Lisbon, Portugal.
- 06/06 Invited Speaker, Association of Academic Health Centers, Forum on Regulation; Clinical Trials Billing, Washington, D.C.
- 07/06 Invited Speaker, Interference Issues In Vaccination with Multivalent Live Attenuated Viral Vaccines: Myths and Realities, Annecy, France.
- 07/06 Invited Speaker, Fortieth Joint Working Conference on Viral Diseases, Sendai, Japan.
- 07/06 Organizer and Invited Speaker, Vaccines for Viral Infections in Developing Countries, Yokohama City, Japan.
- 09/06 Invited Participant, NIH, NIAID Blue Ribbon Panel on Influenza, Potomac, VA
- 09/06 Invited Speaker, Forum on Conflict of Interest, Cleveland, OH
- 09/06 Invited Speaker, IOM meeting on Intradisciplinary Research, Washington, D.C.
- 09/06 Invited Speaker, ICAAC Symposia on Vaccines, San Francisco, CA.
- 10/06 Invited Speaker, 9<sup>th</sup> International Symposium on Stranded RNA Viruses, Cape Town, South Africa.
- 10/06 Invited Speaker, Rediscovering B cells Symposia, Trudeau Institute, Saranac, New York
- 12/06 Invited Speaker, Northern California International Health Interest Group, Palo Alto, CA
- 12/06 Invited Speaker, Institute Pasteur Euro Conference, "Infections and Digestive Tract Disease", Paris, France.
- 01/07– Member, Forum on Conflict of Interest, AAMC
- 01/07 Invited Participant, AAMC Task Force on Industry Support for Education, Wash. D.C.
- 01/07 Invited Participant AAMC/AAU advisory committee on Conflict of Interest, Wash. D.C.
- 02/07 Invited Speaker "Rotavirus Pathogenesis" U.C. Davis, Davis, CA.
- 02/07 Invited Speaker, AAAS symposium "Pandemic Influenza" San Francisco, CA
- 02/07 Invited Speaker, "Rotavirus Pathogenesis", Loma Linda University, Loma Linda, CA
- 02/07-6/12 Member, IAVI Scientific Advisory Committee
- 03/07 Participant, Pfizer meeting on Conflict of Interest, San Francisco, CA.
- 04/07 Invited Speaker, Vaccines and Enteric Disease Conference, Lisbon, Portugal
- 05/07 Invited Speaker, "Influenza Vaccination" –Blood Research Institute, Milwaukee, WI
- 05/07 Recipient-AGA Mentors Award. AGA, Washington, DC.
- 07/07 Invited Speaker, 41<sup>st</sup> US-Japan Viral Disease Conference, Baltimore, MD
- 08/07 Invited Speaker, Palo alto Research Center (PARC), "Pandemic Influenza"
- 09/07 Invited Speaker, AAMC Forum on Conflict of Interest in Academe (FOCI Academe) Annual Meeting, Baltimore, MD
- 2007-2011 Member, National Academy of Science Standing Committee on DoD Biodefense
- 12/07 Invited Speaker, NIAID/FDA/WHO Workshop "Immune Correlates of Protection Against Influenza A Viruses", Bethesda, MD
- 02/08 Invited Speaker, AUTM meeting. Conflict of Interest, San Diego, CA
- 2008– Member, Electorate Nominating Committee of the Section of Medical Sciences, AAAS
- 03/08 Invited Speaker, Keystone Symposia, "HIV Vaccines: Progress and Prospects", Banff, Canada
- 05/08 Invited Speaker, Medimmune, Mountain View, CA
- 05/08 Invited Speaker, 42<sup>nd</sup> US Japan Meeting, Nagasaki, Japan
- 07/08 Invited Speaker, Medical Grand Rounds, Stanford, CA "Rotaviruses- an update"
- 07/08-07/09 President, American Society of Virology
- 11/08 Invited Lecturer, The Sidney Grossberg Lecture, Medical College of Wisconsin, "The New Rotavirus Vaccines: The Second Time is a Charm", Milwaukee, Wisconsin
- 11/08 Walter Albion Hewlett Awardee, Stanford University, Stanford, CA

Updated 3/23/18

11/08 Invited Speaker, Medical Grand Rounds, Stanford University, “Bench to Bedside & Back Again”  
12/08 Ad Hoc Reviewer, Board of Scientific Counselors, Laboratory of Infectious Diseases, NIH, Bethesda, MD  
03/09 Invited Participant, Conflict of Interest and Public Disclosure Meeting, Cleveland Clinic, Cleveland, OH  
04/09 Invited Presentation, “COI: the Wild West and the Stanford Experience; the Clinical Research Forum, Washington, DC.  
06/09 Invited Speaker, University of Michigan GI Research Conference, “Rotavirus Vaccines: Failure, Success and Why” Ann Arbor, MI  
06/09 Plenary Speaker, Double Stranded RNA Meeting, Hamilton Island, Australia  
06/09 Invited Speaker, AAMC/FOCIA Meeting on Conflict of Interest “Stanford in the Spotlight”, Boston, MA  
07/09 Invited Speaker, Society of Mucosal Immunology, “Rotavirus Vaccines” Boston, MA  
07/09 Invited Speaker, 43<sup>rd</sup> US Japan Meeting, Philadelphia, PA  
07/09– Member, Selection of Award for Distinguished Researcher Committee, Association of American Medical Colleges, Washington, DC  
07/09– Member, Board of Scientific Counselors, Division of Intramural Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD  
09/09– Chair, US Delegation to the Joint Working Group of the Indo-US Vaccine Action Program, NIH, Bethesda, MD  
01/10 Invited Speaker, UC Davis Comparative Medicine Department, Davis, CA  
01/10– Member, Forum of Drug Discovery, Development and Translation, Institute of Medicine of the National Academies  
02/10– Fellowship in the American Academy of Microbiology, Washington, DC  
02/10 Invited Discussant, Drug Development Forum, IOM, Washington, DC  
03/10 Invited Speaker, UTMB Translational Research Symposium, Galveston, TX  
03/10 Annual Honoree, The American Liver Foundation’s Salute to Excellence, San Francisco, CA  
03/10 Invited Speaker, Microbiology Department, Columbia University School of Medicine  
03/10 Invited Speaker, Columbia University School of Medicine Symposia on Conflict of Interest  
06/10 Co-Chair, Board of Scientific Counselors, Division of Intramural Research, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD  
06/10 Invited Speaker, 44<sup>th</sup> US Japan Meeting, Sapporo, Japan  
08/10 Invited Speaker, IOM Drug Discovery Forum, Conflict of Interest, Public Websites, Wash., DC  
08/10 Organizer, Workshop on Oral Immunization of Children in Low Income Countries, Goa, India  
09/10 Invited Speaker, Conference on Emerging Viral Infections in SE Asia, Hanoi, Vietnam  
12/10 Invited Speaker, Human Immune Monitoring Consortium, Rockville, MD  
04/11 Invited Speaker, 2<sup>nd</sup> European Expert Meeting on Rotavirus Vaccination, Padua, Italy  
05/11 Invited Speaker, Diarrhea: A Worldwide Scourge: Digestive Disease Week 2011, Chicago, IL  
05/11 Invited Speaker, Hilleman Lecture ASM, New Orleans, LA  
06/11 Invited Speaker, US Japan Meeting, Stanford University, Stanford, CA  
06/11 Moderator, IOM workshop on Public Engagement and Clinical Trials: New Models and Disruptive Technologies, New York, NY  
09/11 Invited Speaker, 6<sup>th</sup> International Conference on Vaccines for Enteric Diseases, Cannes, France  
10/11 Invited Speaker, 32<sup>nd</sup> annual AIM Educational conference, Anaheim, CA  
02/12 Invited Keynote Speaker, Effect of Chronic Viral Infection on Outcomes in Solid Organ Transplantation Symposium, Stanford, CA  
02/12–12/13 CTSA C4 External Advisory Board Member  
04/12 Invited Speaker, Association of American Medical Colleges 2012 Forum on Conflict of Interest in Academe, Atlanta, GA  
06/12 Invited Speaker, 46<sup>th</sup> US Japan Viral Disease Panel, Beppo, Japan.  
09/12 Invited Convener and Speaker, INDO-US Vaccine Action Programme, Silver Jubilee Celebrations, New Delhi, India

Updated 3/23/18

- 09/12 Invited Speaker, Tenth International Rotavirus Symposium, Fulfilling the Promise of Rotavirus Vaccines, Bangkok, Thailand
- 10/12 Invited Speaker, UCSF Immunology Seminar Series, UCSF Parnassus, San Francisco, CA
- 11/12 Invited Speaker, 4<sup>th</sup> International PhD Workshop on Inflammation and Immunity, Vienna, Austria
- 12/12 Invited Speaker, 11<sup>th</sup> International Symposium on Double-Stranded RNA Viruses, San Juan, PR
- 01/13–12/13 CTSA CCEC Co-Chairman
- 02/13 Invited Speaker, University of Washington, Department of Microbiology, Seattle, WA
- 03/13 Invited Speaker, 47<sup>th</sup> annual US/Japan Meeting, Singapore
- 03/13 Invited Speaker, Rockefeller University, New York City, NY
- 05/13 Mt. Sinai School of Medicine Universal Influenza Vaccine External Advisory Board, NY
- 10/13 Invited Speaker, Rotavirus at 40, Emory University, Atlanta, Georgia
- 11/13 Invited Speaker, International Conference on Vaccines for Enteric Diseases, Bangkok, Thailand
- 04/14 Invited Speaker, UCSD CTSA Annual Retreat, San Diego, CA
- 05/14 Invited Consultant, PATH Conference on Universal Flu Vaccine, Geneva, Switzerland
- 05/14 Invited Speaker, International Symposium on Clinical and Translational Medicine, Shanghai, China
- 07/14 Invited Speaker, Rotavirus Vaccination and Intussusception Technical Meeting, PATH, Wash. DC
- 07/14 Invited Distinguished Speaker, Influenza Vaccination; BARDA; Wash DC
- 09/14 Invited Speaker, 11<sup>th</sup> International Rotavirus Symposium, New Delhi, India
- 09/14 Inaugural Member, Board of Visitors, School of Medicine, University of Alabama at Birmingham
- 09/14 Invited Speaker, NIH Workshop on Human Rotaviruses and Noroviruses, Wash. DC
- 10/14 Invited Consultant, UCSF CTSI External Advisory Board meeting, San Francisco, Ca
- 12/14 Member - Rotavac 5C Scientific Advisory Board (SAB)
- 12/14 Invited Consultant, Yale University CTSA, New Haven, Conn.
- 01/15 Invited Consultant, Scripps/CHAVI, La Jolla, Ca
- 01/15 Invited Speaker, EID and US/Japan Viral Disease Panel, Taipei, Taiwan
- 02/15 Invited Reviewer, THSTI-IAVI HIV Vaccine Design Program, New Delhi, India
- 2/15-2/16 Chair Elect, Section on Medical Sciences of the American Association for the Advancement of Science (AAAS)
- 2/16-2/17 Chair, Section on Medical Sciences of the American Association for the Advancement of Science (AAAS)
- 03/15 Invited Speaker, The Robert Chanock Memorial Lecture, NIH, Bethesda, Md.
- 05/15 Recipient of the Gold Medal Award from Columbia College of Physicians and Surgeons for Distinguished Achievements on Research
- 05/15 Invited Plenary Speaker, 6<sup>th</sup> European Rotavirus Biology Meeting (ERBM), Dijon, France
- 10/15 Invited Speaker, 12<sup>th</sup> International Double Stranded RNA Virus Symposium, Goa, India
- 12/15 Invited Speaker, MCB75 Symposium (From Molecules to Organisms), Bangalore, India
- 01/16 Invited Speaker, US-India Vaccine Action Program (VAP) Working Group Meeting, New Delhi India
- 03/16 Invited speaker, Rotavirus Immunity, Foundation Merieux Conference, France
- 04/16 UAB Board of Visitors, Birmingham, Alabama
- 05/16 Meeting participant, Indo/US VAP, New Delhi, India
- 07/16 Invited Speaker, Norovirus Vaccine Experts Meeting, Johns Hopkins University, Baltimore, MD
- 07/16 Invited Speaker, Mucosal Immunology Meeting, Toronto, Canada
- 09/16 Invited Speaker, Twelfth International Rotavirus Symposium, Melbourne, Australia
- 10/16 UAB Board of Visitors, Birmingham, Alabama
- 10/16 Invited Speaker, Symposium on Molecular Aspects of Virology, Mexico City, Mexico
- 10/16 Invited Speaker, US-Japan Virus Disease Panel Meeting, Sapporo, Japan
- 11/16 Member, Experts Consultancy Panel: Pediatric Vaccines for Respiratory Syncytial Virus, Washington DC
- 02/17 Panelist. Coulter Symposium: University Innovation-The Solution to 21st Century Healthcare Challenges, Ft Lauderdale, Florida
- 02/17 Chair, Medical Science Section Meeting, AAAS (American Association for the Advancement of Science) Annual Meeting, Boston, MA

- 06/17 Invited Speaker, European Rotavirus Biology Meeting (ERBM), Ireland  
01/18 Invited Speaker, US-Japan Conference, China, 2018.  
01/18 Invited Consultant, Columbia University Clinical and Translational Science Advisory Board, NYC  
04/18 Invited Consultant, UCSD Clinical and Translational Science Advisory Board, San Diego, Ca

## **BIBLIOGRAPHY**

### **Original**

1. Gocke DJ, Greenberg HB, Kavey NB. Hepatitis antigen: Detection of infectious blood donors. *Lancet* 2:248-249, 1969.
2. Gocke DJ, Greenberg HB, Kavey NB. Correlation of Australia antigen with postransfusion hepatitis. *J. Am. Med. Assoc.* 212:877, 1970.
3. Greenberg HB, Gocke DJ. An analysis of antibody response to Australia antigen in man. *J. Infect. Dis.* 123:356-364, 1971.
4. Brunner H, Greenberg HB, James WD, Horswood RL, Chanock RM. Decreased virulence and protective effect of genetically stable temperature-sensitive mutants of *Mycoplasma Pneumoniae*. *Annals of New York Acad. of Sci.* 225:436-452, 1973.
5. Brunner H, Greenberg HB, James WD, Horswood RL, Couch RB, Chanock RM. Antibody to *Mycoplasma Pneumoniae* in nasal secretions and sputa of experimentally infected human volunteers. *Infect. Immun.* 8:612-620, 1973.
6. Greenberg HB, Helms CM, Brunner H, Chanock RM. Asymptomatic infection of adult volunteers with a temperature sensitive mutant of *Mycoplasma Pneumoniae*. *Proc. Natl. Acad. Sci. USA* 71:4015-4019, 1974.
7. Helms CM, Greenberg HB, Brunner H, Grizzard MB, Chanock RM. Immunogenicity and decreased virulence of a genetically stable temperature-sensitive mutant of *M. Pneumoniae* in adult volunteers. *INSERM* 429-434, 1974.
8. Greenberg HB, Pollard RB, Lutwick LI, Gregory PB, Robinson WS, Merigan TC. Effect of human leukocyte interferon on hepatitis B virus infection in patients with chronic active hepatitis. *New Engl. J. of Med.* 295: 517-522, 1976.
9. Greenberg HB, Helms CM, Grizzard MB, James WD, Horswood RL, Chanock RM. Immunoprophylaxis of experimental *Mycoplasma Pneumoniae* disease: Effect of route of administration on the immunogenicity and protective effect of inactivated *M. Pneumoniae* vaccine. *Infect. Immun.* 16:88-92, 1977.
10. Brunner H, Prescott B, Greenberg HB, James WD, Horswood RI, Chanock RM. Unexpectedly high frequency of antibody to *Mycoplasma pneumoniae* in human sera as measured by sensitive techniques. *J. Infect. Dis.* 135:524-530, 1977.
11. Landers TA, Greenberg HB, Robinson WS. Structure of hepatitis B Dane particle DNA and nature of the endogenous DNA polymerase reaction. *J. Virol.* 23:368-376, 1977.
12. Greenberg HB, Sack DA, Rodriguez W, Sack RB, Wyatt RG, Kalica AR, Horswood RL, Chanock RM, Kapikian AZ. Microtiter solid-phase radioimmunoassay for detection of *Escherichia coli* heat-labile enterotoxin. *Infect. Immun.* 17:541-545, 1977.
13. Yolken RH, Greenberg HB, Merson MM, Sack RB, Kapikian AZ. Enzyme-linked immunosorbent assay for detection of *Escherichia coli* heat-labile enterotoxin. *J. Clin. Microbiol.* 6:439-444, 1977.
14. Greenberg HB, Wyatt RG, Valdesuso J, Kalica AR, London WT, Chanock RM, Kapikian AZ. Solid-phase microtiter radioimmunoassay for detection of the Norwalk strain of acute nonbacterial epidemic gastroenteritis virus and its antibodies. *J. Med. Virol.* 2:97-108, 1978.
15. Kapikian AZ, Greenberg HB, Cline WL, Kalica AR, Wyatt RG, James HD, Lloyd NL, Chanock RM, Ryder RW, Kim HW. Prevalence of antibody to the Norwalk agent by a newly developed immune adherence hemagglutination assay. *J. Med. Virol.* 2:281-294, 1978.
16. Wyatt RG, Greenberg HB, Dalgard DW, Allen WP, Sly DL, Thornwell TS, Chanock RM, Kapikian AZ. Experimental infection of chimpanzees with the Norwalk agent. *J. Med. Virol.* 2:89-96, 1978.
17. Greenberg HB, Kapikian AZ. Detection of Norwalk agent antibody and antigen by solid-phase radioimmunoassay and immune adherence hemagglutination assay. *J. Am. Vet. Med. Assoc.* 173:620-623, 1978.

18. Smith D, Gribble TJ, Yeager A, Greenberg HB, Purcell R, Robinson WS, Schwartz HC. Spontaneous resolution of severe aplastic anemia associated with viral hepatitis A in a six-year-old child. *Am. J. Hematol.* 5:247-252, 1978.
19. Yolken RH, Wyatt RG, Zissis G, Brandt CD, Rodriguez WJ, Kim HW, Parrott RH, Urrutia JJ, Mata L, Greenberg HB, Kapikian AZ, Chanock RM. Epidemiology of human rotavirus types 1 and 2 as studied by ELISA. *New Engl. J. of Med.* 299:1156-1161, 1978.
20. Greenberg HB, Levine MM, Merson MH, Sack RB, Sack DA, Valdesuso JR, Nalin D, Hoover D, Chanock RM, Kapikian AZ. Solid-phase microtiter radio-immunoassay blocking test for detection of antibodies to *Escherichia coli* heat-labile enterotoxin. *J. Clin. Microbiol.* 9:60-64, 1979.
21. Wyatt RG, Yolken RH, Urrutia JJ, Mata L, Greenberg HB, Chanock RM, Kapikian AZ. Diarrhea associated with rotavirus in rural Guatemala: A longitudinal study of 24 infants and young children. *Am. J. Trop. Med. Hyg.* 28:325-328, 1979.
22. Greenberg HB, Gebhard RL, McClain CJ, Soltis RD, Kapikian AZ. Antibodies to viral gastroenteritis viruses in Crohn's disease. *Gastroenterology* 76:349-350, 1979.
23. Sack RB, Froelich JL, Zulich AW, Hidi DS, Kapikian AZ, Ørskov F, Ørskov I, Greenberg HB. Prophylactic doxycycline for traveler's diarrhea: results of a prospective double-blind study of Peace Corps volunteers in Morocco. *Gastroenterology* 76:1368-1373, 1979.
24. Greenberg HB, Valdesuso J, Yolken RH, Gangarosa E, Gary W, Wyatt RG, Konno T, Suzuki H, Chanock RM, Kapikian AZ. Role of Norwalk virus in outbreaks of nonbacterial gastroenteritis. *J. Infect. Dis.* 139:564-568, 1979.
25. Greenberg HB, Valdesuso J, Kapikian AZ, Chanock RM, Wyatt RG, Szmuness W, Larrick J, Kaplan J, Gilaman RH, Sack DA. Prevalence of antibody to the Norwalk virus in various countries. *Infect. Immun.* 26:270-273, 1979.
26. Kapikian AZ, Barile MF, Wyatt RG, Yolken RH, Tully JG, Greenberg HB, Kalica AR, Chanock RM. Mycoplasma contamination in cell culture of Crohn's disease material. *Lancet.* 2 (8140): 466-467, 1979.
27. Blacklow NR, Cukor G, Bedigian MK, Echeverria P, Greenberg HB, Schreiber DS, Trier JS. Immune response and prevalence of antibody to Norwalk enteritis virus as determined by radioimmunoassay. *J. Clin. Microbiol.* 10:903-909, 1979.
28. Schoub BD, Kalica AR, Greenberg HB, Bertran DM, Sereno MM, Wyatt RG, Chanock RM, Kapikian AZ. Enhancement of antigen incorporation and infectivity of cell cultures by human rotavirus. *J. Clin. Microbiol.* 9:488-492, 1979.
29. Kaplan JE, Larrick JW, Yost J, Farrell L, Greenberg HB, Herrmann KL, Sulzer AJ, Walls KW, Pederson L. Infectious disease patterns in the Waorani, an isolated Amerindian population. *Am. J. Trop. Med. Hyg.* 29:298-312, 1980.
30. Steinoff MC, Douglas RG, Jr., Greenberg HB, Callahan DR. Bismuth subsalicylate therapy of viral gastroenteritis. *Gastroenterology* 78:1495-1499, 1980.
31. Wyatt RG, James WD, Bohl EH, Theil KW, Saif LJ, Kalica AR, Greenberg HB, Kapikian AZ, Chanock RM. Human rotavirus type 2: cultivation in vitro. *Science* 207:189-191, 1980.
32. Gunn RA, Terranova WA, Greenberg HB, Yashuk J, Gary GW, Wells JG, Taylor PR, Feldman RA. Norwalk virus gastroenteritis aboard a cruise ship: An outbreak on five consecutive cruises. *Am. J. Epidemiol.* 112: 820-827, 1980.
33. Grohmann GS, Greenberg HB, Welch BM, Murphy AM. Oyster-associated gastroenteritis in Australia. The detection of Norwalk virus and its antibody by immune electron microscopy and radioimmunoassay. *J. Med. Virol.* 6:11-19, 1980.
34. Merson MH, Yolken RH, Sack RB, Froehlich JL, Greenberg HB, Huq I, Black RW. Detection of *Escherichia coli* enterotoxins in stools. *Infect. Immun.* 29:108-113, 1980.
35. Greenberg HB, Kalica AR, Wyatt RG, Jones RW, Kapikian AZ, Chanock RM. Rescue of noncultivable human rotavirus by gene reassortment during mixed infection with its mutants of a cultivatable bovine rotavirus. *Proc. Natl. Acad. Sci. USA* 78:420-424, 1981.
36. Greenberg HB, Robinson WS, Knauer CM, Gregory PB. Hepatitis B viral markers in severe viral hepatitis: influence of steroid therapy. *Hepatology* 1:54-57, 1981.

37. Greenberg HB, Valdesuso JR, Kalica AR, Wyatt RG, McAuliffe VJ, Kapikian AZ, Chanock RM. Proteins of Norwalk virus. *J. Virol.* 37:994-999, 1981.
38. Kapikian AZ, Cline WL, Greenberg HB, Wyatt RG, Kalica AR, Banks CE, James HD, Jr., Flores J, Chanock RM. Antigenic characterization of human and animal rotaviruses by immune adherence hemagglutination assay (IAHA): Evidence for distinctness of IAHA and neutralization antigens. *Infect. Immun.* 33:415-425, 1981.
39. Kalica AR, Greenberg HB, Espejo RT, Flores J, Wyatt RG, Kapikian AZ, Chanock RM. Distinctive ribonucleic acid patterns of human rotavirus subgroups 1 and 2. *Infect. Immun.* 33:958-961, 1981.
40. Taylor JW, Gary GW, Jr., Greenberg HB. Norwalk-related viral gastroenteritis due to contaminated drinking water. *Am. J. Epidemiol.* 114:584-592, 1981.
41. Santosham M, Sack RB, Froehlich J, Greenberg HB, Yolken RH, Kapikian AZ, Javier C, Medina C, Ørskov F, Ørskov I. Biweekly prophylactic doxycycline for traveler's diarrhea. *J. Infect. Dis.* 143:598-602, 1981.
42. Kalica AR, Greenberg HB, Wyatt RG, Flores J, Sereno MM, Kapikian AZ, Chanock RM. Genes of human (strain Wa) and bovine (strain UK) rotaviruses that code for neutralization and subgroup antigens. *Virology* 112:385-390, 1981.
43. Scullard GH, Andres LL, Greenberg HB, Smith JL, Sawhney VK, Neal EA, Mahal AS, Popper H, Merigan TC, Robinson WS, Gregory PB. Antiviral treatment of chronic hepatitis B virus infection: Improvement in liver disease with interferon and adenine arabinoside. *Hepatology* 1:228-232, 1981.
44. Gurwith M, Wenman W, Hinde D, Feltham S, Greenberg HB. A prospective study of rotavirus infection in infants and young children. *J. Infect. Dis.* 144:218-224, 1981.
45. Oshiro LS, Haley CE, Roberto RR, Riggs JL, Croughan M, Greenberg HB, Kapikian AZ. A 27-nm virus isolated during an outbreak of acute infectious nonbacterial gastroenteritis in a convalescent hospital: a possible new serotype. *J. Infect. Dis.* 143:791-795, 1981.
46. Ryder RW, Oquist CA, Greenberg HB, Taylor DN, Ørskov F, Ørskov I, Kapikian AZ, Sack RB. Traveler's diarrhea in Panamanian tourists in Mexico. *J. Infect. Dis.* 144:442-448, 1981.
47. Grohmann GS, Murphy AM, Christopher PJ, Auty E, Greenberg HB. Norwalk virus gastroenteritis in volunteers consuming depurated oysters. *Australian J. of Exp. Biol. and Med. Sci.* 59 (pt. 2) 219-228, 1981.
48. Gump D, Caul E, Eade O, Greenberg HB, Kapikian AZ, MacPherson B, Mitchell P, Parent K, Richmond S, Beeken W. Lymphocytotoxic and microbial antibodies in Crohn's disease and matched controls. *Antonie van Leeuwenhoek* 47:455-464, 1981.
49. Baron RC, Murphy FD, Greenberg HB, Davis CE, Bregman DJ, Gary GW, Hughes JM, Schonberger LB. Norwalk gastrointestinal illness: an outbreak associated with swimming in a recreational lake and secondary person-to-person transmission. *Am. J. Epidemiol.* 115:163-72, 1982.
50. Koopman JS, Eckert EA, Greenberg HB, Strohm BC, Isaacson RE, Monto AS. Norwalk virus enteric illness acquired by swimming exposure. *Am. J. Epidemiol.* 115:173-177, 1982.
51. Black RE, Greenberg HB, Kapikian AZ, Brown KH, Becker S. Acquisition of serum antibody to Norwalk virus and rotavirus and relation to diarrhea in a longitudinal study of young children in rural Bangladesh. *J. Infect. Dis.* 145:483-490, 1982.
52. Griffin MR, Surowiec JJ, McCloskey DI, Capuano B, Pierzynski B, Quinn M, Wojnarski R, Parkin WE, Greenberg HB, Gary GW. Foodborne Norwalk virus. *Am. J. Epidemiol.* 115:178-184, 1982.
53. Wilson R, Anderson LJ, Holman RC, Gary GW, Greenberg HB. Waterborne gastroenteritis due to the Norwalk agent: Clinical and epidemiologic investigation. *Public Health Briefs* 72:72-74, 1982.
54. Kaplan JE, Gary GW, Baron RC, Singh N, Schonberger LB, Feldman R, Greenberg HB. Epidemiology of Norwalk gastroenteritis and the role of Norwalk virus in outbreaks of acute nonbacterial gastroenteritis. *Ann. Int. Med.* 96:756-761, 1982.
55. Gunn RA, Janowski HT, Lieb S, Prather EC, Greenberg HB. Norwalk virus gastroenteritis following raw oyster consumption. *Am. J. Epidemiol.* 115:348-351, 1982.
56. Greenberg HB, Wyatt RG, Kapikian AZ, Kalica AR, Flores J, Jones R. Rescue and serotypic characterization of noncultivable human rotavirus by gene reassortment. *Infect. Immun.* 37:104-109, 1982.

57. Wyatt RG, Greenberg HB, James WD, Pittman AL, Kalica AR, Flores J, Chanock RM, Kapikian AZ. Definition of human rotavirus serotypes by plaque reduction assay. *Infect. Immun.* 37:110-115, 1982.
58. Ryder RW, Greenberg HB, Singh N, Oro G, deGuardia A, Sack RB, Kapikian AZ. Seroepidemiology of heat-labile enterotoxigenic *Escherichia coli* and Norwalk virus infections in Panamanians, Canal Zone residents, Apache Indians and United States Peace Corps volunteers. *Infect. Immun.* 37:903-906, 1982.
59. Gebhard RL, Greenberg HB, Singh N, Henry P, Sharp HL, Kaplan L, Kapikian AZ. Acute viral enteritis and exacerbations of inflammatory bowel disease. *Gastroenterology* 83:1207-1209, 1982.
60. Flores J, Greenberg HB, Myslinki J, Kalica AR, Wyatt RG, Kapikian AZ, Chanock RM. Use of transcription probes for genotyping rotavirus reassortants. *Virology* 121:288-295, 1982.
61. Flores J, Myslinki J, Kalica AR, Greenberg HB, Wyatt RG, Kapikian AZ, Chanock RM. In vitro transcription of two human rotaviruses. *J. Virol.* 43:1032-1037, 1982.
62. Goodman RA, Buehler JW, Greenberg HB, McKinley TW, Smith JD. Norwalk gastroenteritis associated with a water system in a rural Georgia community. *Arch. Env. Health* 37:358-360, 1982.
63. Kappus KD, Marks JS, Holman RC, Bryant JK, Baker C, Gary GW, Greenberg HB. An outbreak of Norwalk gastroenteritis associated with swimming in a pool and secondary person-to-person transmission. *Am. J. Epidemiol.* 116:834-839, 1982.
64. Flores J, Perez I, White L, Perez M, Kalica AR, Greenberg HB, Marquina R, Wyatt RG, Kapikian AZ, Chanock RM. Genetic relatedness among human rotaviruses as determined by RNA hybridization. *Infect. Immun.* 37:648-655, 1982.
65. Greenberg HB, Flores J, Kalica AR, Wyatt RG, Jones R. Gene coding assignments for growth restriction, neutralization and subgroup specificities of the W and DS-1 strains of human rotavirus. *J. Gen. Virol.* 64:313-320, 1983.
66. Greenberg HB, McAuliffe V, Valdesuso J, Wyatt R, Flores J, Kalica A, Hoshino Y, Singh N. Serological analysis of the subgroup protein of rotavirus, using monoclonal antibodies. *Infect. Immun.* 39:91-99, 1983.
67. Kapikian AZ, Wyatt RG, Levine MM, Yolken RH, VanKirk DH, Dolin R, Greenberg HB, Chanock RM. Oral administration of a human rotavirus to volunteers: Induction of illness and correlates of resistance. *J. Infect. Dis.* 147:95-106, 1983.
68. Kalica AR, Flores J, Greenberg HB. Identification of the rotaviral gene that codes for hemagglutination and protease-enhanced plaque formation. *Virology* 125:194-205, 1983.
69. Greenberg HB, Valdesuso J, Van Wyke K, Midthun K, Walsh M, McAuliffe V, Wyatt RG, Kalica AR, Flores J, Hoshino Y. Production and preliminary characterization of monoclonal antibodies directed at two surface proteins of rhesus rotavirus. *J. Virol.* 47:267-275, 1983.
70. Hoshino Y, Wyatt RG, Greenberg HB, Kalica AR, Flores J, Kapikian AZ. Isolation and characterization of an equine rotavirus. *J Clin Microbiol.* 18 (3): 585-591, 1983.
71. Gurwith M, Wenman W, Gurwith D, Brunton J, Feltham S, Greenberg HB. Diarrhea among infants and young children in Canada: a longitudinal study in three northern communities. *J. Infect. Dis.* 147:685-692, 1983.
72. Hoshino Y, Wyatt RG, Greenberg HB, Kalica AR, Flores J, Kapikian AZ. Isolation, propagation, and characterization of a second equine rotavirus serotype. *Infect. Immun.* 41:1031-1037, 1983.
73. Wyatt RG, James HD Jr., Pittman AL, Hoshino Y, Greenberg HB, Kalica AR, Flores J, Kapikian AZ. Direct isolation in cell culture of human rotaviruses and their characterization into four serotypes. *J. Clin. Microbiol.* 18:310-317. 1983.
74. Hoshino Y, Wyatt RG, Greenberg HB, Kalica AR, Flores J, Kapikian AZ. Serological comparison of canine rotavirus with various simian and human rotaviruses by plaque reduction neutralization and hemagglutination inhibition tests. *Infect. Immun.* 41:169-173, 1983.
75. White L, Perez I, Perez M, Urbina G, Greenberg HB, Kapikian A, Flores J. Relative frequency of rotavirus subgroups 1 and 2 in Venezuelan children with gastroenteritis as assayed with monoclonal antibodies. *J. Clin. Microbiol.* 19:516-520, 1984.
76. Petrie BL, Greenberg HB, Graham DY, Estes MK. Ultrastructural localization of rotavirus antigens using colloidal gold. *Virus Research* 1:133-152, 1984.

77. Hoshino Y, Wyatt RG, Greenberg HB, Flores J, Kapikian AZ. Serotypic similarity and diversity of rotaviruses of mammalian and avian origin as studied by plaque-reduction neutralization. *J. Infect. Dis.* 149:694-702, 1984.
78. Kuritsky JN, Osterholm MT, Greenberg HB, Korlath JA, Godes JR, Hedberg CW, Forfang JC, Kapikian AZ, McCullough JC, White KE. Norwalk gastroenteritis: a community outbreak associated with bakery product consumption. *Ann. Int. Med.* 100:519-521, 1984.
79. Baron RC, Greenberg HB, Cukor G, Blacklow NR. Serologic responses among teenagers after natural exposure to Norwalk virus. *J. Infect. Dis.* 150:531-534, 1984.
80. Ryder RW, Singh N, Reeves WC, Kapikian AZ, Greenberg HB, Sack RB. Evidence of immunity induced by naturally acquired rotavirus and Norwalk virus infection on two remote Panamanian islands. *J. Infect. Dis.* 151:99-105, 1985.
81. Midthun K, Greenberg HB, Hoshino Y, Kapikian AZ, Wyatt RG, Chanock RM. Reassortant rotaviruses as potential live rotavirus vaccine candidates. *J. Virol.* 53:949-954, 1985.
82. Oliver B, Ng S, Marshall J, Greenberg HB, Gust ID, Cresswell V, Ward B, Kennett M, Birch C. Prolonged outbreak of Norwalk gastroenteritis in an isolated guest house. *Med. J. Aus.* 142:391-395, 1985.
83. Shaw R, Stoner-Ma DL, Estes MK, Greenberg HB. Specific enzyme-linked immunoassay for rotavirus serotypes 1 and 3. *J. Clin. Microbiol.* 22:286-291, 1985.
84. Offit PA, Blavat G, Greenberg HB, Clark HF. Molecular basis of rotavirus virulence: Role of gene segment 4. *J. Virol.* 57:46-49, 1986.
85. Offit PA, Shaw RD, Greenberg HB. Passive protection against rotavirus-induced diarrhea by monoclonal antibodies to surface proteins VP3 and VP7. *J. Virol.* 58:700-703, 1986.
86. White KE, Osterholm MT, Mariotti JA, Korlath JA, Lawrence DH, Ristinen TL, Greenberg HB. A foodborne outbreak of Norwalk virus gastroenteritis: Evidence for post-recovery transmission. *Am. J. Epidemiol.* 124:120-126, 1986.
87. Greenberg HB, Vo PT, Jones R. Cultivation and characterization of three strains of murine rotavirus. *J. Virol.* 57:585-590, 1986.
88. Offit PA, Clark HF, Blavat G, Greenberg HB. Reassortant rotaviruses containing structural proteins VP3 and VP7 from different parents induce antibodies protective against each parental serotype. *J. Virol.* 60:491-496, 1986.
89. Shaw RD, Vo PT, Offit PA, Coulson BS, Greenberg HB. Antigenic mapping of the surface proteins of rhesus rotavirus. *Virology* 155:434-451, 1986.
90. Shaw RD, Fong KJ, Losonsky GA, Levine MM, Maldonado Y, Yolken R, Flores J, Kapikian AZ, Vo PT, Greenberg HB. Epitope-specific immune responses to rotavirus vaccination. *Gastroenterology* 93:941-950, 1987.
91. Taniguchi K, Urasawa T, Morita Y, Greenberg HB, Urasawa S. Direct serotyping of human rotavirus in stools by an enzyme-linked immunosorbent assay using serotype 1-, 2-, 3-, and 4-specific monoclonal antibodies to VP7. *J. Infect. Dis.* 155:1159-1166, 1987.
92. Kaljot KT, Shaw RD, Rubin DH, Greenberg HB. Infectious rotavirus enters cells by direct cell membrane penetration, not by endocytosis. *J. Virol.* 62:1136-1144, 1988.
93. Svensson L, Grahnquist L, Pettersson C-A, Grandien M, Stintzing G, Greenberg HB. Detection of human rotaviruses which do not react with subgroup I- and II-specific monoclonal antibodies. *J. Clin. Microbiol.* 26:1238-1240, 1988.
94. Mackow ER, Shaw RD, Matsui SM, Vo PT, Dang M-N, Greenberg HB. The rhesus rotavirus gene encoding protein VP3: Location of amino acids involved in homologous and heterologous rotavirus neutralization and identification of a putative fusion region. *Proc. Natl. Acad. Sci. USA* 85:645-649, 1988.
95. Ward RL, Knowlton DR, Schiff GM, Hoshino Y, Greenberg HB. Relative concentrations of serum neutralizing antibody to VP3 and VP7 proteins in adults infected with a human rotavirus. *J. Virol.* 62:1543-1549, 1988.
96. Burns JW, Greenberg HB, Shaw RD, Estes MK. Functional and topographical analyses of epitopes on the hemagglutinin (VP4) of the simian rotavirus SA11. *J. Virol.* 62:2164-2172, 1988.



97. Kabcenell AK, Poruchynsky MS, Bellamy AR, Greenberg HB, Atkinson PH. Two forms of VP7 are involved in the assembly of SA11 rotavirus in the endoplasmic reticulum. *J. Virol.* 62:2929-2941, 1988.
98. Mackow ER, Shaw RD, Matsui SM, Vo PT, Benfield DA, Greenberg HB. Characterization of homotypic and heterotypic VP7 neutralization sites of rhesus rotavirus. *Virology* 165:511-517, 1988.
99. Shaw RD, Mackow ER, Dyll-Smith ML, Lazdins I, Holmes IH, Greenberg HB. Serotypic analysis of VP3 and VP7 neutralization escape mutants of rhesus rotavirus. *J. Virol.* 62:3509-3512, 1988.
100. Ward RL, Knowlton DR, Greenberg HB. Phenotypic mixing during coinfection of cells with two strains of human rotavirus. *J. Virol.* 62:4358-4361, 1988.
101. Flores J, Daoud G, Daoud N, Puig M, Martinez M, Perez-Schael I, Shaw R, Greenberg HB, Midthun K, Kapikian AZ. Reactogenicity and antigenicity of rhesus rotavirus vaccine (MMU-18006) in newborn infants in Venezuela. *Pediatr. Infect. Dis. J.* 7:776-780, 1988.
102. Paul PS, Lyoo YS, Woode GN, Zheng S, Greenberg HB, Matsui SM, Schwartz KJ, Hill HT. Isolation of a bovine rotavirus with a "super-short" RNA electrophoretic pattern from a calf with diarrhea. *J. Clin. Microbiol.* 26:2139-2143, 1988.
103. Matsui SM, Offit PA, Vo PT, Mackow ER, Benfield DA, Shaw RD, Padilla-Noriega L, Greenberg HB. Passive protection against rotavirus-induced diarrhea by monoclonal antibodies to the heterotypic neutralization domain of VP7 and the VP8 fragment of VP4. *J. Clin. Microbiol.* 27:780-782, 1989.
104. Mackow ER, Barnett J, Chan H, Greenberg HB. The rhesus rotavirus outer capsid protein VP4 functions as a hemagglutinin and is antigenically conserved when expressed by a baculovirus recombinant. *J. Virol.* 63:1661-1668, 1989.
105. Matsui SM, Mackow ER, Greenberg HB. Molecular determinant of rotavirus neutralization and protection. *Adv Virus Res* 36: 181-214, 1989.
106. Reddy DA, Greenberg HB, Bellamy AR. Rotavirus serotype IV: nucleotide sequence of genomic segment nine of the St. Thomas 3 strain. *Nucl. Acid Res.* 17:449, 1989.
107. Cheung RC, Robinson WS, Marion PL, Greenberg HB. Epitope mapping of neutralizing monoclonal antibodies against duck hepatitis B virus. *J. Virol.* 63:2445-2451, 1989.
108. Kaljot KT, Ling JP, Gold JWM, Laughon BE, Bartlett JG, Kotler DP, Oshiro LS, Greenberg HB. Prevalence of acute enteric viral pathogens in acquired immunodeficiency syndrome patients with diarrhea. *Gastroenterology* 97:1031-1032, 1989.
109. Offit PA, Greenberg HB, Dudzik KI. Rotavirus-specific protein synthesis is not necessary for recognition of infected cells by virus-specific cytotoxic T lymphocytes. *J. Virol.* 63:3279-3283, 1989.
110. Nishikawa K, Hoshino Y, Taniguchi K, Green KY, Greenberg HB, Kapikian AZ, Chanock RM, Gorziglia M. Rotavirus VP7 neutralization epitopes of serotype 3 strains. *Virology* 171:503-515, 1989.
111. Kjeldsberg E, Anestad G, Greenberg HB, Orstavik I, Pedersen R, Slettebo E. Norwalk virus in Norway: An outbreak of gastroenteritis studied by electron microscopy and radioimmunoassay. *Scan. J. Infect. Dis.* 21:521-526, 1989.
112. Bass DM, Mackow ER, Greenberg HB. NS35 and not VP7 is the soluble rotavirus protein which binds to target cells. *J. Virol.* 64:322-330, 1990.
113. Johnson PC, Mathewson JJ, DuPont HL, Greenberg HB. Multiple-challenge study of host susceptibility to Norwalk gastroenteritis in U.S. adults. *J. Infect. Dis.* 161:18-21, 1990.
114. Svensson L, Padilla-Noriega L, Taniguchi K, Greenberg HB. Lack of cosegregation of the subgroup II antigens on genes 2 and 6 in porcine rotaviruses. *J. Virol.* 64:411-413, 1990.
115. Uhnoo I, Riepenhoff-Talty M, Dharakul T, Chegass P, Fisher JE, Greenberg HB, Ogra PL. Extramucosal spread and development of hepatitis in immunodeficient and normal mice infected with rhesus rotavirus. *J. Virol.* 64:361-368, 1990.
116. Ward RL, Knowlton DR, Greenberg HB, Schiff GM, Bernstein DI. Serum-neutralizing antibody to VP4 and VP7 proteins in infants following vaccination with WC3 bovine rotavirus. *J. Virol.* 64(6):2687-2691, 1990.
117. Mackow ER, Yamanaka MY, Dang MN, Greenberg HB. DNA amplification-restricted transcription-translation: Rapid analysis of rhesus rotavirus neutralization sites. *Proc. Natl. Acad. Sci. USA* 87:518-522, 1990.

118. Matsui SM, Mackow ER, Matsuno S, Paul PS, Greenberg HB. Sequence analysis of gene 11 equivalents from “short “ and “super short” strains of rotavirus. *J. Virol.* 64:120-124, 1990.
119. Snodgrass DR, Fitzgerald T, Campbell I, Scott FMM, Browning GF, Miller DL, Herring AJ, Greenberg HB. Rotavirus serotypes 6 and 10 predominate in cattle. *J. Clin. Microbiol.* 28:504-507, 1990.
120. Mackow ER, Vo PT, Broome R, Bass D, Greenberg HB. Immunization with baculovirus-expressed VP4 protein passively protects against simian and murine rotavirus challenge. *J. Virol.* 64:1698-1703, 1990.
121. Gordon SM, Oshiro LS, Jarvis WR, Donenfeld D, Ho M-S, Taylor F, Greenberg HB, Glass R, Madore HP, Dolin R, Tablan O. Foodborne Snow Mountain agent gastroenteritis with secondary person-to-person spread in a retirement community. *Am. J. Epidemiol.* 131:702-710, 1990.
122. Ward RL, Knowlton DR, Greenberg HB, Schiff GM, Bernstein DI. Serum-neutralizing antibody to VP4 and VP7 proteins in infants following vaccination with WC3 bovine rotavirus. *J. Virol.* 64:2687-2691, 1990.
123. Padilla-Noriega L, Arias CF, Lopez S, Puerto F, Snodgrass DR, Taniguchi K, Greenberg HB. Diversity of rotavirus serotypes in Mexican infants with gastroenteritis. *J. Clin. Microbiol.* 28:1114-1119, 1990.
124. Yeager M, Dryden KA, Olson NH, Greenberg HB, Baker TS. Three-dimensional structure of rhesus rotavirus by cryoelectron microscopy and image reconstruction. *J. Cell Biol.* 110:2133-2144, 1990.
125. Matson DO, Estes MK, Burns JW, Greenberg HB, Taniguchi K, Urasawa S. Serotype variation of human group A rotaviruses in two regions of the U.S.A. *J. Infect. Dis.* 162:605-614, 1990.
126. Dharakul T, Rott L, Greenberg HB. Recovery from chronic rotavirus infection in mice with severe combined immunodeficiency: Virus clearance mediated by adoptive transfer of immune CD8+ T lymphocytes. *J. Virology* 64:4375-4382, 1990.
127. Cheung RC, Trujillo DE, Robinson WS, Greenberg HB, Marion PL. Epitope-specific antibody response to the surface antigen of duck hepatitis B virus in infected ducks. *Virology* 176:546-552, 1990.
128. Uhnoo I, Riepenhoff-Talty M, Chegass P, Fisher JE, Greenberg HB, Ogra PL. Effect of
129. malnutrition on extraintestinal spread of rotavirus and development of hepatitis in mice. *Nutr. Res.* 10:1419-1429, 1990.
130. Kassuba A, Saif LJ, Greenberg HB. Subgroup classification of porcine group-A rotaviruses, using monoclonal antibodies in an enzyme-linked immunosorbent assay. *Am. J. Vet. Res.* 51:938-944, 1990.
131. Bass DM, Mackow ER, Greenberg HB. Identification and partial characterization of a Rhesus rotavirus binding glycoprotein on murine enterocytes. *Virology* 183: 602-610, 1991.
132. Matsui SM, Kim JP, Greenberg HB, Su W, Sun Q, Johnson PC, DuPont HL, Oshiro LS, Reyes GR. The isolation and characterization of a Norwalk virus-specific cDNA. *J. Clin. Invest.* 87:1456-1461, 1991.
133. Fiore L, Greenberg HB, Mackow ER. The VP8 fragment of VP4 is the rhesus rotavirus hemagglutinin. *Virology* 181:553-563, 1991.
134. Ward RL, McNeal MM, Clemens JD, Sack DA, Rao M, Huda N, Green KY, Kapikian AZ, Coulson BS, Bishop RF, Greenberg HB, Gerna G, Schiff GM. Reactivities of serotyping monoclonal antibodies with culture-adapted human rotaviruses. *J. Clin. Microbiol.* 29:449-456, 1991.
135. Wright TL, Hsu HH, Donegan E, Feinstone S, Greenberg HB, Read A, Ascher NL, Roberts JP, Lake JR. Hepatitis C virus not found in fulminant non-A, non-B hepatitis. *Ann. Int. Med.* 115:111-112, 1991.
136. Ruggeri FM, Greenberg HB. Antibodies to the trypsin cleavage peptide VP8 neutralize rotavirus by inhibiting binding of virions to target cells in culture. *J. Virol.* 65:2211-2219, 1991.
137. Bass DM, Mackow ER, Greenberg HB. Identification and partial characterization of a rotavirus binding glycoprotein on murine enterocytes. *Virology* 183:602-610, 1991.
138. Svensson L, Finlay BB, Bass D, von Bonsdorff C-H, Greenberg HB. Symmetric infection of rotavirus on polarized human intestinal epithelial (Caco-2) cells. *J. Virol.* 65:4190-4197, 1991.
139. Hsu HH, Gonzalez M, Fong SKH, Feinstone SM, Greenberg HB. Antibodies to hepatitis C virus in low risk blood donors: implications for counseling positive donors. *Gastroenterology* 101:1724-1727, 1991.

140. Hsu HH, Wright TL, Luba D, Martin M, Feinstone SM, Garcia G, Greenberg HB. Failure to detect hepatitis C virus genome in human secretions with the polymerase chain reaction. *Hepatology* 14:763-767, 1991.
141. Dharakul T, Labbe M, Cohen J, Bellamy AR, Street JE, Mackow ER, Fiore L, Rott L, Greenberg HB. Immunization with baculovirus-expressed recombinant rotavirus proteins VP1, VP4, VP6, and VP7 induces CD8+ T lymphocytes that mediate clearance of chronic rotavirus infection in SCID mice. *J. Virol.* 65:5928-5932, 1991.
142. Dormitzer PR, Ho DY, Mackow ER, Mocarski ES, Greenberg HB. Neutralizing epitopes on herpes simplex virus-1-expressed rotavirus VP7 are dependent on coexpression of other rotavirus proteins. *Virology* 187:18-32, 1992.
143. Wright TL, Donegan E, Hsu HH, Ferrell L, Lake JR, Kim M, Combs C, Fennessy S, Roberts JP, Ascher NL, Greenberg HB. Recurrent and acquired hepatitis C viral infection in liver transplant recipients. *Gastroenterology* 103:317-322, 1992.
144. Bass DM, Baylor M, Broome R, Greenberg HB. Molecular basis of age-dependent gastric inactivation of rhesus rotavirus in the mouse. *J. Clin. Invest.* 89:1741-1745, 1992.
145. Raj P, Matson DO, Coulson BS, Bishop RF, Taniguchi K, Urasawa S, Greenberg HB, Estes MK. Comparisons of rotavirus VP7-typing monoclonal antibodies by competition binding assay. *J. Clin. Microbiol.* 30:704-711, 1992.
146. Padilla-Noriega L, Fiore L, Rennels MB, Losonsky GA, Mackow ER, Greenberg HB. Humoral immune response to VP4 and its cleavage products VP5\* and VP8\* in infants vaccinated with rhesus rotavirus. *J. Clin. Microbiol.* 30:1392-1397, 1992.
147. Sukumaran M, Gowda K, Maiya PP, Srinivas TP, Kumar MS, Aijaz S, Reddy RR, Padilla-Noriega L, Greenberg HB, Rao CD. Exclusive asymptomatic neonatal infections by human rotavirus strains having subgroup I specificity and "long" RNA electropherotype. *Arch. Virology* 126:239-251, 1992.
148. Dormitzer PR, Greenberg HB. Calcium chelation induces a conformational change in recombinant herpes simplex virus-1-expressed rotavirus VP7. *Virology* 189:828-832, 1992.
149. DeLeon R, Matsui SM, Baric RS, Herrmann JE, Blacklow NR, Greenberg HB, Sobsey MD. Detection of Norwalk virus in stool specimens by reverse transcriptase-polymerase chain reaction and nonradioactive oligoprobes. *J. Clin. Microbiol.* 30:3151-3157, 1992.
150. Bass DM, Baylor MR, Chen C, Mackow EM, Bremont M, Greenberg HB. Liposome-mediated transfection of intact viral particles reveals that plasma membrane penetration determines permissivity of tissue culture cells to rotavirus. *J. Clin. Invest.* 90:2313-2320, 1992.
151. Kool DA, Matsui SM, Greenberg HB, Holmes IH. Isolation and characterization of a novel reassortant between avian Ty-1 and simian RRV rotaviruses. *J. Virol.* 66:6836-6839, 1992.
152. Ward RL, McNeal MM, Sander DS, Greenberg HB, Bernstein DI. Immunodominance of the VP4 neutralization protein of rotavirus in protective natural infections of young children. *J. Virol.* 67:464-468, 1993.
153. Dunn SJ, Greenberg HB, Ward RL, Nakagomi O, Burns JW, Vo PT, Pax KA, Das M, Gowda K, Rao CD. Serotypic and genotypic characterization of human serotype 10 rotaviruses from asymptomatic neonates. *J. Clin. Microbiol.* 31:165-169, 1993.
154. Das M, Dunn SJ, Woode GN, Greenberg HB, Rao CD. Both surface proteins (VP4 and VP7) of an asymptomatic neonatal rotavirus strain (I321) have high levels of sequence identity with the homologous proteins of a serotype 10 bovine rotavirus. *Virology* 194:374-379, 1993.
155. Matsui SM, Kim JP, Greenberg HB, Young LM, Smith LS, Lewis TL, Herrmann JE, Blacklow NR, Dupuis K, Reyes GR. Cloning and characterization of human astrovirus immunoreactive epitopes. *J. Virology.* 67:1712-1715, 1993.
156. Padilla-Noriega L, Werner-Eckert R, Mackow ER, Gorziglia M, Larralde G, Taniguchi K, Greenberg HB. Serologic analysis of human rotavirus serotypes P1A and P2 using monoclonal antibodies. *J. Clin. Microbiol.* 31:622-628, 1993.
157. Hsu HH, Donets M, Greenberg HB, Feinstone SM. Characterization of hepatitis C virus structural proteins using a recombinant baculovirus expression system. *Hepatology* 17:763-771, 1993.

158. Broome RL, Vo PT, Ward RL, Clark HF, Greenberg HB. Murine rotavirus genes encoding outer capsid proteins VP4 and VP7 are not major determinants of host range restriction and virulence. *J. Virol.* 67:2448-2455, 1993.
159. Midthun K, Greenberg HB, Kurtz JB, Gary GW, Lin F-YC, Kapikian AZ. Characterization and seroepidemiology of a type 5 astrovirus associated with an outbreak of gastroenteritis in Marin County, California. *J. Clin. Microbiol.* 31:955-962, 1993.
160. Weclawicz K, Kristensson K, Greenberg HB, Svensson L. The endoplasmic reticulum-associated VP7 of rotavirus is targeted to axons and dendrites in polarized neurons. *J. Neurocytol.* 22:616-626, 1993.
161. Dunn SJ, Ward RL, McNeal MM, Cross TL, Greenberg HB. Identification of a new neutralization epitope on VP7 of human serotype 2 rotavirus and evidence for electro-pherotype differences caused by single nucleotide substitutions. *Virology* 197:397-404, 1993.
162. Shif I, Silberstein I, Ashkenazi S, Greenberg HB, Samra Z. A monotype of human rotavirus serotype I involved in diarrhea outbreak in a pediatric ward. *Isr. J. Med. Sci.* 30:240-242, 1994.
163. Lewis TL, Greenberg HB, Herrmann JE, Smith LS, Matsui SM. Analysis of astrovirus serotype 1 RNA, identification of the viral RNA-dependent RNA polymerase motif, and expression of a viral structural protein. *J. Virol.* 68:77-83, 1994.
164. Hsu HH, Wright TL, Tsao SC, Combs C, Donets M, Feinstone SM, Greenberg HB. Antibody response to hepatitis C virus infection after liver transplantation. *Am. J. Gastroenterol.* 89:1169-1174, 1994.
165. Dunn SJ, Cross TL, Greenberg HB. Comparison of the rotavirus nonstructural protein NSP1 (NS53) from different species by sequence analysis and northern blot hybridization. *Virology* 203:178-183, 1994.
166. Gouvea V, De Castro L, Timenetsky M, Greenberg HB. Rotavirus serotype G5 associated with diarrhea in Brazilian children. *J. Clin. Microbiol.* 32:1408-1409, 1994.
167. Dunn SJ, Burns JW, Cross TL, Vo PT, Ward RL, Bremont M, Greenberg HB. Comparison of VP4 and VP7 of five murine rotavirus strains. *Virology* 203:250-259, 1994.
168. Svensson L, Dormitzer PR, von Bonsdorff C-H, Manula L, Greenberg HB. Intracellular manipulation of disulfide bond formation in rotavirus proteins during assembly. *J. Virol.* 68:5204-5215, 1994.
169. Dormitzer PR, Both GW, Greenberg HB. Presentation of neutralizing epitopes by engineered rotavirus VP7's expressed by recombinant vaccinia viruses. *Virology* 204:391-402, 1994.
170. Cheung RC, Matsui SM, Greenberg HB. Rapid and sensitive method for detection of hepatitis C virus RNA by using silica particles. *J. Clin. Microbiol.* 32:2593-2597, 1994.
171. Dubuisson J, Hsu HH, Cheung RC, Greenberg HB, Russell DG, Rice CM. Formation and intracellular localization of hepatitis C virus envelope glycoprotein complexes expressed by recombinant Vaccinia and Sindbis viruses. *J. Virology.* 68:6147-6160, 1994.
172. Lopez S, Espinosa R, Greenberg HB, Arias CF. Mapping the subgroup epitopes of rotavirus protein VP6. *Virology* 204:153-162, 1994.
173. Feng N, Burns JW, Bracy L, Greenberg HB. Comparison of mucosal and systemic humoral immune responses and subsequent protection in mice orally inoculated with a homologous or a heterologous rotavirus. *J. Virol.* 68:7766-7773, 1994.
174. Padilla-Noriega L, Dunn SJ, Lopez S, Greenberg HB, Arias CF. Identification of two independent neutralization domains on the VP4 trypsin cleavage products VP5\* and VP8\* of human rotavirus ST3. *Virology* 206:148-154, 1995.
175. Burns JW, Krishnaney AA, Vo PT, Rouse RV, Anderson LJ, Greenberg, HB. Analyses of homologous rotavirus infection in the mouse model. *Virology* 207:143-153, 1995.
176. Emslie KR, Miller JM, Slade MB, Dormitzer PR, Greenberg HB, Williams KL. Expression of SA11 rotavirus VP7 in the simple eukaryote, *Dictyostelium discoideum*. *J. Virology* 69:1747-1754, 1995.
177. Fiore L, Dunn SJ, Ridolfi B, Ruggeri FM, Mackow ER, Greenberg, HB. Antigenicity, immunogenicity and passive protection induced by immunization with the baculovirus-expressed VP7 protein from rhesus rotavirus. *J. Gen. Virology* 76:1981-1988, 1995.

178. Dunn SJ, Fiore L, Werner RL, Cross TL, Broome RL, Ruggeri FM, Greenberg HB. Immunogenicity, antigenicity, and protection efficacy of baculovirus expressed VP4 trypsin cleavage products, VP5(1)\* and VP8\* from rhesus rotavirus. *Arch. Virol.* 140:1969-1978, 1995.
179. baronFalconer MM, Gilbert JM, Roper AM, Greenberg HB, Gavora JS. Rotavirus-induced fusion-from-without in tissue culture cells. *J. Virol.* 69:5582-5591, 1995.
180. Franco MA, Greenberg HB. Role of B cells and cytotoxic T lymphocytes in clearance of and immunity to rotavirus infection in mice. *J. Virol.* 69:7800-7806, 1995.
181. Contreras JF, Menchaca GE, Padilla-Noriega L, Tamez RS, Greenberg HB, Lopez S, Arias CF. Heterogeneity of VP4 neutralization epitopes among serotype IIA human rotavirus strains. *Clin. Diag. Lab. Immunol.* 2:506-508, 1995.
182. Ludert JE, Feng N, Yu JH, Broome RL, Hoshino Y, Greenberg HB. Genetic mapping indicates that VP4 is the rotavirus cell attachment protein *in vitro* and *in vivo*. *J. Virol.* 70:487-493, 1996.
183. Ludert J, Krishnaney AA, Burns JW, Greenberg HB. Cleavage of rotavirus VP4 *in vivo*. *J. Gen. Virol.* 77:391-395, 1996.
184. Burns JW, Siadat-Pajouh M, Krishnaney A, Greenberg HB. Protective effect of rotavirus VP6-specific IgA monoclonal antibodies that lack neutralizing activity. *Science* 272:104-107, 1996.
185. Ishida S-I, Feng N, Tang B, Gilbert JM, Greenberg HB. Quantification of the systemic and local immune responses to individual rotavirus proteins during rotavirus infection in mice. *J. Clin. Micro.* 34:1694-1700, 1996.
186. Umlauf F, Wong D, Oefner PJ, Underhill PA, Cheung RC, Wright TL, Kolykhalov AA, Gruenewald K, Greenberg HB. Hepatitis C virus detection by a single-round PCR specific for the terminal 3' non-coding region. *J. Clin. Micro.* 34:2552-2558, 1996. (PMID: not found)
187. Giammarioli AM, Mackow ER, Fiore L, Greenberg HB, Ruggeri FM. Murine IgA monoclonal antibodies recognize a novel neutralization epitope on the outer capsid protein VP4 of Rhesus rotavirus. *Virology* 225:97-110, 1996. (PMID: not found)
188. Aijaz S, Gowda K, Jagannath HV, Reddy RR, Maiya PP, Ward RL, Greenberg HB, Raju M, Babu A, Rao CD. Epidemiology of symptomatic human rotaviruses in Bangalore and Mysore, India, from 1988 to 1994 as determined by electropherotype, subgroup and serotype analysis. *Arch Virol.*, 141:715-726, 1996. PMID: 8645107
189. Feng N, Vo PT, Chung D, Vo T-V P, Hoshino Y, Greenberg HB. Heterotypic protection following oral immunization with live heterologous rotavirus in a mouse model. *J. Infect. Dis.*, 175:330-341, 1997. PMID: 9203654
190. Franco MA, Tin C, Rott LS, VanCott JL, McGhee JR, Greenberg HB. Evidence for CD8<sup>+</sup>T cell immunity to murine rotavirus in the absence of perforin, fas and interferon gamma. *J. Virol.* 71:479-486, 1997. PMID: 8985374
191. Franco MA, Tin C, Greenberg HB. CD8<sup>+</sup>T cells can mediate almost complete short-term and partial long-term immunity to rotavirus in mice. *J. Virol.*, 71:4165-4170, 1997. PMID: 9094702
192. Ishida S-I, Feng N, Gilbert JM, Tang B, Greenberg HB. Immune responses to individual rotavirus proteins following heterologous and homologous rotavirus infection in mice. *J. Inf. Dis.*, 175:1317-1323, 1997. PMID: 9180169
193. Gilbert JM, Greenberg HB. Virus-like particle induced fusion-from-without in tissue culture cells: Role of outer-layer proteins VP4 and VP7. *J. Virol.*, 71:4555-4563, 1997. PMID: 9151849
194. Umlauf F, Wong D, Underhill PA, Oefner PJ, Jin L, Urbanek MN, Gruenewald K, Greenberg HB. Hepatitis G virus infection in hemodialysis patients and the effects of interferon treatment. *Am. J. Gastro.*, 29:1986:1991, 1997. PMID: 9362177
195. Rott LS, Rosé JR, Bass D, Williams MB, Greenberg HB, Butcher EC. Expression of mucosal homing receptor a4b7 by circulating CD4<sup>+</sup> cells with memory for intestinal rotavirus. *J. Clin. Invest.*, 100:1204-1208, 1997. PMID: 9276738
196. Franco MA, Greenberg HB. Immunity to rotavirus in T cell deficient mice. *Virology*, 238:169-179, 1997. PMID: 9400590

197. Tang B, Gilbert JM, Matsui, SM, Greenberg HB. Comparison of the rotavirus gene 6 from different species by sequence analysis and localization of subgroup-specific epitopes using site-directed mutagenesis. *Virology*, 237:89-96, 1997. PMID: 9344910
198. Angel J, Tang B, Feng N, Greenberg HB, Bass D. Studies of the role for NSP4 in pathogenesis of homologous murine rotavirus diarrhea. *J. Infect. Dis.* 177:455-458, 1998. PMID: 9466536
199. Rosé JR, Williams MB, Rott LS, Butcher EC, Greenberg HB. Expression of mucosal homing receptor a4b7 correlates with the ability of CD8<sup>+</sup> memory T cells to clear rotavirus infection, *J. Virol.*, 72:726-730, 1998. PMID: 9420279
200. Gollop R, Nakagomi O, Silberstein I, Shulman LM, Greenberg HB, Mendelson E, Shif I. Three forms of AU-1 like human rotaviruses differentiated by their overall genomic constellation and by the sequence of their VP8. *Arch. Virology*, 143:263-277, 1998. PMID: 9541612
201. Ludert JE, Mason BB, Angel J, Tang, B, Hoshino Y, Feng N, Vo PT, Mackow EM, Ruggeri FM, Greenberg HB. Identification of mutations in the rotavirus spike protein VP4 that alters sialic-acid-dependent infection. *J. Gen. Virol.*,79:725-729, 1998. PMID: 9568967
202. Gilbert J, Greenberg HB. Cleavage of RRV VP4 arginine 247 is essential for rotavirus-like particle induced fusion-from-without. *J. Virol.* 72:5323-5327, 1998. PMID: 9573313
203. Williams MB, Rosé JR, Rott LS, Franco MA, Greenberg HB, Butcher EC. The memory B cell subset responsible for the secretory IgA response and protective humoral immunity to rotavirus expresses the intestinal mucosal homing receptor a4b7. *J. Immunol.*,161:4227-4235, 1998. PMID: 9780197
204. Padilla-Noriega L, Méndez-Toss M, Menchaca G, Contreras JF, Romero-Guido P, Puerto FI, Guiscafré H, Mota F, Herrera I, Cedillo R, Munoz O, Calva J, de Lourdes Guerrero M, Coulson B, Greenberg HB, López S, Arias CF. Antigenic and genomic diversity of human rotavirus VP4 in two consecutive epidemic seasons in Mexico. *J. Clin. Micro.*, 36:1688-1692, 1998. PMID: 9620401
205. Chen SC, Jones DH, Fynan EF, Farrar GH, Clegg JCS, Greenberg HB, Herrmann JE. Protective immunity induced by oral immunization with a rotavirus DNA vaccine encapsulated in microparticles. *J. Virology*, 72:5757-5761, 1998. PMID: 9621034
206. Ramachandran M, Gentsch JR, Parashar UD, Jin S, Woods PA, Holmes JL, Kirkwood CD, Bishop RF, Greenberg HB, Urasawa S, Gerna G, Bresee JS, Glass RI, NRSSS. Detection and characterization of novel rotavirus strains in the United States. *J. Clin. Micro.*, 36:3223-3229, 1998. PMID: 9774569
207. Glenn JS, Marsters JC, Greenberg HB. Use of a prenylation inhibitor as a novel antiviral agent. *J. Virol.*72:9303-9306, 1998. PMID: 9765479
208. Nakagomi T, Horie Y, Koshimura Y, Greenberg HB, Nakagomi O. Isolation of human rotavirus with a super-short RNA pattern possessing a new P2 subtype. *J. Clin. Micro.*, 1213-1216, 1999. PMID: 10074557
209. Chen SC, Fynan EF, Greenberg HB, Herrmann JE. Immunity obtained by gene-gun inoculation of a rotavirus DNA vaccine to the abdominal epidermis or anorectal epithelium. *Vaccine*, 17:3171-3176, 1999. PMID: 10462253
210. He X-S, Rehmann B, López-Labrador FX, Boisvert J, Cheung R, Mumm J, Wedemeyer H, Wright TL, Davis MM, Greenberg HB. Quantitative analysis of hepatitis C virus-specific CD8<sup>+</sup> T cells in peripheral blood and liver using MHC-peptide complex tetramers. *Proc. Natl.Acad. Sci. USA*, 96:5692-5697, 1999. PMID: 10318946
211. Herrmann JE, Chen SC, Jones DH, Tinsley-Bown A, Fynan EF, Greenberg HB, Farrar GH. Immune responses and protection obtained by oral immunization with rotavirus VP4 and VP7 DNA vaccines encapsulated in microparticles. *Virology*, 259:148-153, 1999. PMID: 10364499
212. Angel J, Franco MA, Greenberg HB, Bass D. Lack of a role for type I and type II interferons in the resolution of rotavirus-induced diarrhea and infection in mice. *J. Interferon Cytokine Res.*, 19:655-659, 1999. PMID: 10433367
213. Rollo EE, Kumar KP, Reich NC, Coehn J, Angel J, Greenberg HB, Sheth R, Anderson J, Oh Hempson SJ, Mackow ER, Shaw RD. The Epithelial Cell Response to Rotavirus Infection. *J. Immunol.* 163(8): 4442-4452, 1999. PMID: 10510386

214. Baumert TF, Vergall J, Satoi J, Thomson M, Lechmann M, Herion D, Greenberg HB, Ito S, Liang TJ. Hepatitis C virus-like particles synthesized in insect cells as a potential vaccine candida. *Gastroenterology*, 117:1397-1407, 1999. PMID: 10579981
215. Peter G, des-Vignes-Kendrick M, Eickhoff TC, et al (National Vaccine Advisory Committee). Lessons learned from a review of the development of selected vaccines. *Pediatrics*, 104(4): 942-950, 1999. PMID: 10506239
216. Ohashi K, Marion P, Nakai H, Meuse L, Cullen JM, Schwall R, Greenberg HB, Glenn JS, Kay MA. Sustained survival of human hepatocytes in mice: A model for a vivo infection with human hepatitis B and hepatitis delta viruses. *Nat Med.*, 6:327-331, 2000. PMID: 10700236
217. O'Brien G, Bryant C, Voogd C, Greenberg HB, Gardner R, Bellamy AR. Rotavirus VP6 expressed by PVX vectors in *Nicotiana benthamiana* coats PVX rods and also assembles into virus-like particles. *Virology*, 270:444-453, 2000. PMID: 10793003
218. VanCott JL, Franco MA, Greenberg HB, Sabbaj S, Tang B, Murray R, McGhee JR. Protective immunity to rotavirus shedding in the absence of interleukin-6: Th1 cells and IgA develop normally. *J Virology*, 74:5250-5256, 2000. PMID: 10799601
219. Kunkel EJ, Campbell JJ, Haraldsen G, Pan J, Boisvert J, Roberts AI, Ebert EC, Vierra MA, Goodman SC, Genovese MC, Wardlaw AJ, Greenberg HB, Parker CM, Butcher EC, Andrew DP, Agace WW. Lymphocyte CCR9 and epithelial TECK expression distinguish the small intestinal immune compartment: Epithelial expression of tissue-specific chemokines as an organizing principle in regional immunity. *J Exp Med.*, 192:761-767, 2000. PMID: 10974041
220. Berenguer M, Lopez-Labrador FX, Greenberg HB, Wright TL. Hepatitis C virus and the host: An imbalance induced by immunosuppression. *Hepatology*, 32:433-435, 2000. PMID: 10915755
221. Dormitzer PR, Greenberg HB, Harrison SC. Purified recombinant rotavirus VP7 forms soluble, calcium-dependent trimers. *Virology*, 277:420-428, 2000. PMID: 11080489
222. Cook DN, Prosser DM, Reinhold F, Zhang J, Kuklin NA, Abbondanzo SJ, Niu X-D, Chen S-C, Manfra DJ, Wiekowski MT, Sullivan LM, Smith SR, Greenberg HB, Narula SD, Lipp M, Lira SA. CCR6 mediates dendritic cell localization, lymphocyte homeostasis, and immune responses in mucosal tissue. *Immunity*. 12: 495-503, 2000. PMID: 10843382
223. Kuklin NA, Rott L, Darling J, Campbell JJ, Franco M, Feng N, Müller W, Wagner N, Altman J, Butcher EC, Greenberg HB.  $\alpha 4\beta 7$  independent pathway for CD8 T cell mediated intestinal immunity to rotavirus. *J Clin Inv.* 106:1541-1552, 2000. PMID: 11120761
224. Cooper SS, Glenn J, Greenberg HB. Host-microbe interactions: viruses/Lessons in defense: hepatitis C, a case study. *Cur Opin Microbiol.* 3: 363-365. 2000. PMID: 10972495
225. Matsui SM, Greenberg HB. Immunity to calicivirus infection. *J Infect Dis.* 181 (suppl 2): S331-335, 2000. PMID: 10804146
226. Campbell JJ, Murphy K, Kunkel EJ, Soler D, Wardlaw AJ, Brightling CE, Boisvert J, Greenberg HB, Vierra MA, Goodman S, Genovese MC, Butcher EC, Wu L. CCR7 expression and memory T cell diversity in humans. *J Immunol.*, 166:877-884, 2001. PMID: 11145663
227. Kuklin NA, Rott L, Feng N, Conner ME, Wagner N, Muller W, Greenberg HB. Protective intestinal anti-rotavirus B cell immunity is dependent on  $\alpha 4\beta 7$  integrin expression but does not require IgA antibody production. *J Immunol.*, 166:1894-1902, 2001. PMID: 11160237
228. Gilbert JM, Feng N, Patton JT, Greenberg HB. Rotavirus assembly-interaction of surface protein VP7 with middle layer protein VP6. *Arch Virology*, 146:1155-1171, 2001. PMID: 11504422
229. He XS, Rehmann B, Boisvert J, Mumm J, Maecker HT, Roederer M, Wright TL, Maino Davis, Greenberg HB. Direct functional analysis of epitope-specific CD8<sup>+</sup> T cells in peripheral blood. *Viral Immunol.*, 14:59-69, 2001. PMID: 11270597
230. Yang K, Wang S, Chang KO, Lu S, Saif L, Greenberg HB, Brinker JP, Herrmann JE. Immune responses and protection obtained with rotavirus VP6 DNA vaccines given by intramuscular injection. *Vaccine*, 19:3285-3291, 2001. PMID: 11312027
231. Kim CH, Kunkel EJ, Boisvert J, Johnston B, Campbell JJ, Genovese MC, Greenberg HB, Butcher EC. Bonzo/CXCR6 expression defines type 1-polarized T-cell subsets with extralymphoid tissue-homing potential. *J Clin Invest.*, 107:595-601, 2001. PMID: 11238560

232. Dormitzer PR, Greenberg HB, Harrison SC. Proteolysis of monomeric recombinant rotavirus VP4 yields an oligomeric VP5\* core. *J Virology*, 75:7339-7350, 2001. PMID: 11462006
233. Boisvert J, He X-S, Cheung R, Keeffe EB, Wright T, Greenberg HB. Quantitative analysis of HCV in peripheral blood and liver: Replication detected only in liver. *J Infect Dis.* 184:827-835, 2001. PMID: 11550124
234. Tihova M, Dryden KA, Bellamy AR, Greenberg HB, Yeager M. Localization of cell receptor binding and membrane fusion sites on the VP4 hemagglutinin of rotavirus: Implications for cell entry. *J. Mol Biol.*, 314:985-992, 2001. PMID: 11743716
235. Kunkel EJ, Boisvert J, Murphy K, Vierra MA, Genovese MC, Wardlaw AJ, Greenberg HB, Hodge MR, Wu L, Butcher EC, Campbell JJ. Expression of the chemokine receptors CCR4, CCR5, and CXCR3 by human tissue-infiltrating lymphocytes. *Am J Pathol.*, 160:347-355, 2002. PMID: 11786428
236. Youngman KR, Franco MA, Kuklin NA, Rott LS, Butcher EC, Greenberg HB. Correlation of tissue distribution, developmental phenotype, and intestinal homing receptor expression of antigen-specific B cells during the murine anti-rotavirus immune response. *J Immunol.*, 168:2173-2181, 2002.
237. Cuadras MA, Feigelstock D, An S, Greenberg HB. Gene expression pattern in Caco-2 cells following rotavirus infection. *J Virology*, 76:4467-4482, 2002.
238. Lavori PW, Krause-Steinrauf H, Brophy M, Buxbaum J, Cockroft J, Cox D, Fiore L, Greely H, Greenberg HB, Holmes EW, Nelson L, Sugarman J. Principles, organization, and operation of a DNA bank for clinical trials: A Department of Veterans Affairs cooperative study. *Controlled Clinical Trials* 23:222-239, 2002.
239. Bowman EP, Kuklin N, Youngman KR, Lazarus N, Kunkel EJ, Pan J, Greenberg HB, Butcher EC. The intestinal chemokine thymus-expressed chemokine (CCL25) attracts IgA antibody-secreting cells. *J. Exp. Med.*, 195:269-275, 2002.
240. Jaimes MC, Rojas OL, Gonzalez AM, Cajiao I, Charpilienne Aa, Pothier P, Kohli E, Greenberg HB, Franco MA, Angel J. Frequencies of virus specific CD4+ and CD8+ T lymphocytes secreting interferon gamma after acute natural rotavirus infection in children and adults. *J Virology*, 76:4741-4749, 2002.
241. Feng N, Lawton JA, Gilbert J, Kuklin N, Vo P, Prasad BVV, Greenberg HB. Inhibition of rotavirus replication by a non-neutralizing, rotavirus VP6-specific IgA Mab. *J Clin. Invest.* 109:1203-1213, 2002.
242. Schwartz-Cornil I, Benureau Y, Greenberg HB, Hendrickson B, Cohen J. Heterologous protection induced by the inner capsid proteins of rotavirus requires transcytosis of mucosal immunoglobulins. *J Virology*, 76:8110-8117, 2002.
243. Wedemeyer H, He X-S, Nascimbeni M, Davis AR, Greenberg HB, Alter H, Rehermann B. Impaired effector function of hepatitis C virus-specific CD8<sup>+</sup>T cells in chronic HCV infection. *J. Immunol.*, 169:3447-3458, 2002.
244. Hoffmann E, Mahmood K, Yang C-F, Webster RG, Greenberg HB, Kemble G. Rescue of influenza B virus from eight plasmids. *Proc Natl Aca Sci U.S.A.*, 99:11411-11416, 2002.
245. Bordier BB, Marion PL, Ohashi K, Kay MA, Greenberg HB, Casey JL, Glenn JS. A prenylation inhibitor prevents production of infectious Hepatitis Delta Virus particles. *J Virol.* 76:10465-10472, 2002.
246. Gutgemann I, Darling JM, Greenberg HB, Davis MM, Chien YH. A blood-borne antigen induces rapid T-B cell contact: A potential mechanism for tolerance induction. *Immunology*, 107:420-425, 2002.
247. Boisvert J, Kunkel EJ, Campbell JJ, Keeffe EB, Butcher EC, Greenberg HB. Analysis of liver-infiltrating lymphocytes in end-stage HCV infection: Subsets, activation status, and chemokine receptor phenotypes. *J. Hepatol.*, 38(1): 67-75. 2003.
248. Jin H, Lu B, Zhou H, Yang C-F, Kemble G, Greenberg H. Multiple amino acid residues confer temperature-sensitivity of FluMist™ vaccine strains derived from *ca* A/Ann Arbor/6/60. *Virology*, 306: 18-24, 2003.



249. Weitkamp J-H, Kallewaard N, Kusuhara K, Feigelstock D, Feng N, Greenberg HB, Crowe JE. Generation of recombinant human monoclonal antibodies to rotavirus from single antigen-specific B cells selected with fluorescent virus-like-particles. *J Immunol. Method*, 275:223-37, 2003.
250. He X-S, Mahmood K, Maecker HT, Kemble GW, Arvin AM, Greenberg HB. Analysis of the frequencies and memory T cell phenotypes of human CD8+T cells specific for influenza A viruses. *J Inf. Dis.*, 187:1075-84, 2003.
251. Gonzalez AM, Jaimes MC, Cajiao I, Rojas OL, Cohen J, Pothier P, Kohli E, Butcher EC, Greenberg HB, Angel J, Franco MA. Rotavirus specific B cells induced by recent infection in adults and children predominantly express the intestinal homing receptor  $\alpha 4\beta 7$ . *Virology*, 305:93-105, 2003.
252. Ji X, Cheung R, Cooper S, Li Q, Greenberg HB, He X-S. Interferon-alpha regulated gene expression in patients initiating interferon treatment for chronic hepatitis C. *Hepatology*, 3: 610-621, 2003.
253. Kemble G, Greenberg H. Novel generations of influenza vaccines. *Vaccine*: 21(16):1789-1795, 2003.
254. Elazar M, Cheong K-H, Liu P, Greenberg HB, Rice CM, Glenn JS. The amphipathic helix-dependent localization of NS5A mediates HCV RNA replication. *J Virology*, 77(10):6055-61, 2003. PMID: 12719597
255. Cuadras MA, Greenberg HB. Rotavirus infectious particles use lipid rafts during replication for transport to the cell surface in vitro and in vivo. *Virology*, 313(1):308-21, 2003. PMID: 12951042
256. Zhou Q, Toivola DM, Feng N, Greenberg HB, Franke WW, Omary MB. Keratin 20 helps maintain intermediate filament organization in intestinal epithelia. *Mol. Biol. Cell*, 4(7):2959-71, 2003. PMID: 12857878
257. Rojas OL, González AM, González R, Pérez-Schael I, Greenberg HB, Franco MA, and Angel J. Human rotavirus specific T cells: Quantification by ELISPOT and expression of homing receptors on CD4+ T cells. *Virology*, 314:671-679, 2003. PMID: 14554094
258. Weitkamp JH, Kallewaard N, Kusuhara K, Bures E, Williams JV, LaFleur B, Greenberg HB, Crowe JE Jr. Infant and Adult Human B Cell Responses to Rotavirus Share Common Immunodominant Variable Gene Repertoires. *J Immunol.*, 171:4680-P4688, 2003. PMID: 14568943
259. Lopez-Labrador FX, He X-S, Berenguer M, Cheung RC, Gonzalez-Candelas F, Wright TL, Greenberg, HB. Genetic variability of Hepatitis C virus non-structural protein 3 and virus-specific CD8+ response in patients with chronic hepatitis C. *J Medical Virology*, 72:575-585, 2004. PMID: 14981760
260. López-Labrador FX, He X-S, Berenguer M, Cheung RC, Wright TL, and Greenberg HB. The use of class-I HLA tetramers for the detection of Hepatitis C Virus NS3-specific CD8+ T-cells in patients with chronic infection. *Journal of Immunological Methods*, 287:91-99, 2004. PMID: 15099758
261. Vethanayagam RR, Ananda Babu M, Nagalaxmi KS, Maiya PP, Venkatesh HA, Purohit S, Behl R, Bhan MK, Ward RL, Greenberg HB, Durga RC. Possible Role of Neonatal Infection with the Asymptomatic Reassortant Rotavirus (RV) Strain I321 in the Decrease in Hospital Admissions for RV Diarrhea, Bangalore, India, 1988-1999. *J Infect Dis.*, Jun 15;189(12):2282-9, 2004. PMID: 15181576
262. Chen SF, Tu W-w, Sharp MA, Tongson EC, He X-S, Greenberg HB, Holmes TH, Wang Z, Kemble G, Manganello A-M, Adler SP, Dekker CL, Lewis DB, and Arvin AM. Antiviral CD8-T cells in the control of primary human cytomegalovirus infection in early childhood. *J Inf Dis*, 189:1619-1627, 2004. PMID: 15116598
263. Wang J, Holmes TH, Cheung R, Greenberg HB, He X-S. Expression of chemokine receptors on intrahepatic and peripheral lymphocytes in chronic hepatitis C: its relationship to liver inflammation Running head: liver lymphocytes in chronic hepatitis C. *J Infect Dis.*, Sep 1;190(5):989-998, 2004. PMID: 15295707
264. Jaimes MC, Rojas OL, Kunkel EJ, Lazarus NH, Soler D, Butcher EC, Bass D, Angel J, Franco MA, and Greenberg HB. Maturation and trafficking markers on Rotavirus-Specific B cells during acute infection and convalescence in children. *J Virol.*, Oct;78(20):10967-76, 2004. PMID: 15452217

265. He X-S, Draghi M, Mahmood K, Holmes TH, Kemble GW, Arvin AM, Parham P, and Greenberg HB. T cell-dependent production of IFN-gamma by NK cells in response to influenza A virus. *J Clin Invest.* Dec;114(12):1812-9, 2004. PMID: 15599406
266. Zhou Q, Ji X, Chen L, Greenberg HB, Lu SC, and Omary MB. Keratin mutation primes mouse liver to oxidative injury. *Hepatology* Mar;41(3):517-25, 2005. PMID: 15726665
267. Jaimes, M., N. Feng, and H. Greenberg. 2005. Characterization of homologous and heterologous rotavirus specific T cell responses in infant and adult mice. *J Virology*, 79:4568-4579, 2005. PMID: 15795243
268. Weitkamp J-H, Kallewaard NK, Bowen AL, LaFleur BJ, Greenberg HB, Crowe, Jr JE. VH1-46 is the Dominant Immunoglobulin Heavy Chain Gene Segment in Rotavirus -Specific Memory B Cells Expressing the Intestinal-Homing Receptor alpha4 beta7. *J Immunology* March:174(6):3454-60, 2005. PMID: 15749880
269. Hoffmann E, Mohmood K, Chen Z, Yang C-F, Spaete J, Greenberg HG, Herlocher ML, Jin H, Kemble G. Multiple Gene Segments Control the Temperature Sensitivity and attenuation Phenotypes of *ca B/Ann Arbor/1/66*. *J Virology*, Sep:79(17):11014-21, 2005. PMID: 16103152
270. Weitkamp, J-H, LaFleur B, Greenberg HB, Crowe JE. Natural evolution of a human virus-specific antibody gene repertoire by somatic hypermutations requires both hotspot-directed and randomly-directed processes. *Hum Immunol.* Jun:66(6):666-76, 2005. PMID. 15993712
271. Feng N, Jaimes MC, Lazarus NH, Monak D, Zhang C, Butcher EC and Greenberg HB. Redundant Role of Chemokines CCL25/TECK and CL28/MEC in IgA Plasmablast Recruitment to the Intestinal Lamina Propria After Rotavirus Infection. *Journal of Immunology*.176:5749-59, 2006. PMID: 16670280
272. Cuadras MA, Bordier BB, Zambrano JL, Ludert JE, and Greenberg HB. Dissecting rotavirus particles-raft interaction with siRNAs. Insights of rotavirus transit through the secretory pathway. *J Virology*, 80(8):3935-46, 2006. PMID: 16571810
273. Fenaux M, Cuadras MA, Feng N, Jaimes M, & Greenberg HB. Extra-Intestinal spread and replication of homologous (EC) and Heterologous (RRV) rotavirus in BALB/c Mice. *J Virology*,80(11):5219-32, 2006. PMID: 16699002
274. Ray P, Fenaux M, Sharma S, Malik J, Subodh S, Bhatnagar S, Greenberg H, Glass RI, Gentsch J, Bhan MK. Quantitative Evaluation of Rotavirus Antigenemia in Children with Acute Rotavirus Diarrhea. *J Inf. Dis.* 194(5):588-93, 2006. PMID: 16897656
275. Bhandari N, Sharma P, Glass RI, Ray P, Greenberg HB, Taneja S, Saksena M, Rao CD, Gentsch JR, Parashar U, Maldonado Y, Ward RL and Bhan MK. Safety and Immunogenicity of Two Live Attenuated Human Rotavirus Vaccine Candidates, 116E and I321, in Infants: Results of a Randomized Controlled Trial. *Vaccine*, 24(31-32):5817-23, 2006. PMID: 16735085
276. Blutt SE, Fenaux M, Warfield KL, Greenberg HB, Conner ME. Active Viremia in Rotavirus-Infected Mice. *J Virology*. 80(13):6702-5, 2006. PMID: 16775359
277. He X-S, Xuhuai Ji, Hale MB, Cheung R, Aijaz Ahmed A , Guo Y, Nolan GP, Pfeiffer LM, Wright TL, Risch N, Tibshirani R, Greenberg HB. Global transcriptional response to interferon is a determinant of HCV treatment outcome and is modified by race. *Hepatology* 44:352-59, 2006. PMID: 16871572
278. Wang J, Holmes TH, de Guevara LL, Cheung R, Wright TL, He X-S and Greenberg HB. Phenotypic and functional status of intrahepatic T cells in chronic hepatitis C. *J Infect Dis* 194(8): 1068-77, 2006. PMID: 16991081
279. He X-S, Holmes TH, Zhang C, Mohmood K, Kemble GW, Lewis DB, Dekker CL, Greenberg HB, Arvin AM. Cellular immune responses in children and adults receiving inactivated or live attenuated influenza vaccines: Human T cell and NK cell responses to influenza vaccines. *J Virology* 80:11756-66, 2006. PMID: 16971435
280. Corthésy B, Yann B, Clémentine P, Fourgeux C, Parez N, Greenberg HB, Schwartz-Cornil I. Rotavirus anti-VP6 secretory IgA contributes to protection via intracellular neutralization but not via immune exclusion. *J Virology* 80:10692-99, 2006. PMID: 16956954
281. Sasaki S, Jaimes MC, Holmes TH, Dekker CL, Mohmood K, Kemble GW, Arvin AM, and Greenberg HB. Comparison of the influenza virus-specific effector and memory B-cell responses to

- immunization of children and adults with live attenuated or inactivated influenza virus vaccines. *J Virology* 81:215-228, 2007. PMID: 17050593
282. Zeman AM, Holmes TH, Stamatis S, Tu W, He XS, Bouvier N, Kemble G, Greenberg HB, Lewis DB, Arvin AM, Dekker CL. Humoral and cellular immune responses in children given annual immunization with trivalent inactivated influenza vaccine. *Pediatr Infect Dis J.*, Feb; 26(2):107-15, 2007. PMID: 17259871
283. Zhong B, Strnad P, Toivola D, Ji X, Greenberg HB, Omary B. Reg-II is an exocrine pancreas injury-response product that is up-regulated by keratin absence or mutation. *Molecular Biology of the Cell.*, (18): 4969-4978, 2007. PMID:17898082
284. Feng N, Kim BK, Fenaux M, Nguyen H, Vo P, Omary B, Greenberg HB. The role of interferon in homologous and heterologous rotavirus infection on the intestines and extra-intestinal organs of suckling mice. *J. Virol.* 82(15): 7578-90, 2008. PMCID 2493311
285. He XS, Holmes TH, Sasaki S, Jaimes MC, Kemble GW, Dekker CL, Arvin AM, Greenberg HB. Baseline levels of influenza-specific CD4 memory T-cells affect T-cell responses to influenza vaccines. *PLoS ONE.*, 3 (7): e2574, 2008. PMCID 2440350
286. He XS, Holmes TH, Mahmood K, Kemble GW, Dekker CL, Arvin AM, Greenberg HB. Phenotypic changes in influenza-specific CD8 T cells after immunization of children and adults with influenza vaccines. *JID: 197 (15 March):* 803-11, 2008. PMID: 18279048
287. Jiang JQ, He XS, Feng NG, Greenberg HB. Qualitative and quantitative characteristics of rotavirus-specific CD8 T cells vary depending on the route of infection. *J. Virol.* 82(14): 6812-6819, 2008. PMCID 2446946
288. Kim B, Feng N, Narvaez CF, He X-S, Eo SK, Lim CW, Greenberg HB. The influence of CD4+ CD25+ Foxp3+ regulatory T cells on the immune response to rotavirus infection. *Vaccine* 26: 5601-5611, 2008. PMCID 2574936
289. Rojas OL, Narvaez CF, Greenberg HB, Angel J, Franco MA. Characterization of rotavirus specific B cells and their relation with serological memory. *Virology.* 380(2): 234-42, 2008. PMCID 2582161
290. Sasaki S, He Xiaosong, Holmes T, Dekker C, Kemble G, Arvin A, Greenberg HB. Influence of prior influenza vaccination on antibody and B-cell responses. *PLoS ONE.* 3 (8): e2975, 2008. PMCID 2500171
291. Aoki ST, Settembre E, Trask DS, Greenberg HB, Harrison SC, Dormitzer PR. Structure of rotavirus outer-layer protein VP7 bound with a neutralizing Fab. *Science* 324 (5933): 1444-7, 2009. PMCID 2995306
292. Bhandari N, Sharma P, Taneja S, Kumar T, Rongsen-Chandola T, Appaiahgari MB, Mishra A, Singh S, Vrati S, and The Rotavirus Vaccine Development Group. A dose escalation safety and immunogenicity study of live attenuated oral rotavirus vaccine 116E in infants: a randomized, double-blind, placebo controlled trial. *JID.* 200 (3); 421-429, 2009.
293. Feng N, Sen A, Nguyen H, Vo P, Hoshino Y, Deal EM, Greenberg HB. Variation in Antagonism of the Interferon Response to Rotavirus NSP1 Results in Differential Infectivity in Mouse Embryonic Fibroblasts. *J Virol.* 83 (14): 6987-6994, 2009. PMCID 2704795
294. Patel MM, Clark AD, Glass RI, Greenberg HB, Tate J, Santosham M, Sanderson CFB, Steele D, Cortese M, Parashar UD. Broadening the age restriction for initiating rotavirus vaccination in regions with high rotavirus mortality: Benefits of mortality reduction versus risk of fatal intussusception. *Vaccine* 27 (22): 2916-22, 2009. PMID: 19428901
295. Sen A, Feng N, Ettayebi K, Hardy ME, Greenberg HB. IRF3 Inhibition by Rotavirus NSP1 is Host Cell and Virus Strain Dependent but Independent of NSP1 Proteasomal Degradation. *J Virol.* 83 (20); 10322-10335, 2009. PMCID 2753142
296. Yoder JD, Trask SD, Vo PT, Binka M, Feng N, Harrison SC, Greenberg HB, Dormitzer PR. VP5 Rearranges When Rotavirus Uncoats. *J Virol.* 83 (21):11372-11377, 2009. PMCID 2772785
297. He X, Nanda S, Xuhai J, Calderon-Rodriguez G, Greenberg HB, Liang T. Differential transcriptional responses to IFN-alpha and IFN-gamma in Primary Human Hepatocytes. *J Interferon Cytokine Res.* 30 (5): 25-34, 2010. PMCID: PMC2947462

298. Narvaez CF, Franco MA, Angel J, Morton JM, Greenberg HB. Rotavirus differentially infects and polyclonally stimulates human B cells depending on their differentiation state and tissue of origin. *J. Virol.* 84 (9): 4543-4555, 2010. PMID: 2863723
299. Deal EM, Jaimes MC, Crawford SE, Estes MK, Greenberg HB. Rotavirus structural proteins and dsRNA are required for the human primary plasmacytoid dendritic cell IFN $\alpha$  response. *Plos Pathogens.* PLoS Pathog. June 3:6(6):e1000931, 2010. PMID: 20532161
300. Barreto A, Rodriguez L-S, Rojas O, Wolf M, Greenberg H, Franco M, Juana A. Membrane vesicles released by intestinal epithelial cells infected with rotavirus inhibit T Cell function. *Viral Immunology.* 23 (6): 595-608, 2010. PMID: 21142445
301. Wolf MM, Vo PT, Greenberg HB. Rhesus Rotavirus entry into a polarized epithelium is endocytosis dependent and involves sequential VP4 conformational changes. *J. Virol.* 85 (6): 2492-2503, 2011. PMID: 21191022
302. Feng N, Sen A, Wolf M, Vo P, Hoshino Y, Greenberg HB. Roles of VP4 and NSP1 in determining the distinctive replication capacities of simian rotavirus RRV and bovine rotavirus UK in the mouse biliary tract. *J. Virol.* 85 (6): 2686-2694, 2011. PMID: 21191030
303. He XS, Sasaki S, Narvaez CF, Zhang C, Liu H, Woo JC, Kemble GW, Dekker CL, Davis MM, Greenberg HB. Plasmablast-derived polyclonal antibody response after influenza vaccination. *Journal of Immunological Methods.* 365: 67-75, 2011. PMID: 21182843
304. Sen A, Dermody T, Pruijssers AJ, Garcia-Sastre A, Greenberg H. The early interferon response to rotavirus is regulated by PKR and depends on MAVS/IPS-1, RIG-I, MDA-5, and IRF3. *J. Virol.* 85 (8): 3717-32, 2011. PMID: 21307186
305. Criglar J, Greenberg HB, Estes MK, Ramig RF. Reconciliation of Rotavirus Temperature-Sensitive Mutant Collections and Assignment of Reassortment Groups D, J. and K to Genome Segments. *J. Virol.* 85 (10): 5048-5060, 2011. PMID: 21367894
306. Sasaki S, Sullivan M, Narvaez CF, Holmes T, Furman D, Zheng N-Y, Nishtala M, Wrammert J, , Smith K, James J, Dekker C, Davis MM, Wilson PC, Greenberg HB, and He X-S. Limited efficacy of inactivated influenza vaccine in elderly individuals is associated with decreased production of vaccine-specific antibodies. *JCI.* 121 (8): 3109-3119, 2011. PMID: 21785218
307. Aoki ST, Trask SD, Coulson B, Greenberg HB, Dormitzer PR, Harrison SC. Cross-linking of rotavirus outer capsid protein VP7 by antibodies or disulfides inhibits viral entry. *J. Virol.* 85 (20): 10509-17, 2011. PMID: 21849465
308. Wolf M, Deal E, Greenberg H. Rhesus rotavirus trafficking during entry into MA104 cells is restricted to the early endosome compartment. *J. Virol.* 86 (7): 4009-4013, 2012. PMID: 22278225
309. Welsh JP, Lu Y, He X-S, Greenberg HB, Swartz JR. Cell-free production of trimeric influenza hemagglutinin head domain proteins as vaccine antigens. *Biotechnology and Bioengineering.* 109 (12), 2962-9, 2012. PMID: 22729608
310. Narvaez CF, Feng N, Vasquez C, Sen A, Angel J, Greenberg HB, Franco MA. Human rotavirus specific IgM memory B cells have differential cloning efficiencies and switch capacities and play a role in antiviral immunity in vivo. *J. Virol.* 86 (19): 10829-40, 2012. PMID: 22855480
311. Sen, A., Rothenberg, M.E., Mukherjee, G., Feng, N., Nair, N., Kalisky, T., Johnstone, I. M., Clarke, M. F., and Greenberg, H. B. Innate immune response to homologous rotavirus infection in the small intestinal villous epithelium at single-cell resolution. *PNAS,* 109(50), 20667-20672, 2012. PMID: 23188796
312. He XS, Sasaki S, Baer J, Khurana, S, Golding H, Treanor J, Topham D, Sangster M, Jin H, Dekker C, Subbarao K, Greenberg H. Heterovariant cross-reactive B-cell responses induced by the 2009 pandemic influenza A/H1N1 vaccine. *JID.* (207): 288-296, 2013. PMID: 23107783
313. Jiang N, He J, Weinstein JA, Penland L, Sasaki S, He XS, Dekker CL, Zheng NY, Huang M, Sulliovan M, Wilson PC, Greenberg HB, Davis MM, Fisher DS, Quake SR. Lineage structure of the human antibody repertoire in response to influenza vaccination. *Sci transl Med.* Feb 6;5(171)ra19 doi: 10.1126/scitranslmed.3004794, 2013. PMID: 23390249
314. Deal E, Lahl K, Narvaez CF, Butcher E, Greenberg H. Plasmacytoid dendritic cells promote rotavirus-induced human and murine B cell responses. *JCI.* 123 (6): 2464-74. 2013. PMID: 23635775

315. Newell EW, Sigal N, Nair N, Kidd B, Greenberg HB, Davis MM. Combinatorial tetramer staining and mass cytometry analysis facilitate t-cell epitope mapping and characterization. *Nature Biotech.* (Epub ahead of print) 2013. PMID: 23748502
316. Feng N, Yasukawa L, Sen A, Greenberg HB. Permissive replication of homologous murine rotavirus in the mouse intestine is primarily regulated by VP4 and NSP1. *J Virol.* 87(15):8307-16, 2013. PMID: 23698306
317. Dina Uzri and Harry Greenberg. Characterization of rotavirus RNAs that activate innate immune signaling through the RIG-I-like receptors. *PLoS ONE* 8(7):e69825.doi:10.1371/journal.pone.0069825. 2013. PMID: 23894547
318. Sen, A., Rott, L., Phan, N., Mukherjee, G., and Greenberg, HB. The rotavirus NSP1 protein inhibits IFN-mediated STAT1 activation. *J Virol* 88(1):41-53, 2014. PMID: 24131713
319. Bhandari N, Rongsen-Chandola T, Bavdekar A, John J, Antony K, Taneja S, Goyal N, Kawade A, Kang G, Rathore SS, Juvekar S, Muliylil J, Arya A, Shaikh H, Abraham V, Vrati S, Michael Proschan M, Kohberger R, Thiry G, Glass R, Greenberg HB, Curlin G, Rao TS, Boslego J, Bhan MK (for the India Rotavirus Vaccine Group). Efficacy of a Monovalent Human-Bovine (116E) Rotavirus Vaccine in Indian Infants. *Lancet* Mar 11 pii: S0140-6736(13) 62630-6, 2014. PMID 24629994. Published online.
320. Bhan M, Glass R, Ella K, Bhandari N, Boslego J, Greenberg HB, Mohan K, Curlin G, Rao TS. Team Science and the Creation of a Novel Indian Rotavirus Vaccine: A New Paradigm for Vaccine Development. *Lancet* Mar 11. pii: S0140-6736(14) 60191-4. doi: 10.1016/S0140-6736(14)60191-4.,2014. PMID 24629993
321. Sasaki S, Holmes TH, Albrecht RA, García-Sastre A, Dekker CL, He XS, Greenberg HB. Distinct cross-reactive B-cell responses to live attenuated and inactivated influenza vaccines. *J Infect Dis.* 2014 Sep 15;210(6):865-74. doi: 10.1093/infdis/jiu190. Epub 2014 Mar 27. PMID: 24676204
322. Xiao-Song He, Tyson H. Holmes, Mrinmoy Sanyal, Randy A. Albrecht, Adolfo García-Sastre, Cornelia L. Dekker, Mark M. Davis, and Harry B. Greenberg. Distinct patterns of B-cell activation and priming by natural influenza infection versus inactivated influenza vaccination. *J Inf Dis.* 2014 Oct 21. pii: jiu580. [Epub ahead of print] PMID: 25336731
323. Nitya Nair, Evan W. Newell, Christopher Vollmers, Stephen R. Quake, John M. Morton, Mark M. Davis, Xiao-Song He, Harry B. Greenberg. High-dimensional immune profiling of total and rotavirus VP6-specific intestinal and circulating B cells by mass cytometry. *Mucosal Immunology.* Advance online publishing, April 22, 2015. PMID:25899688
324. Lin JD, Feng N, Sen A, Balan M, Tseng HC, McElrath C, Smirnov S, Peng J, Yasukawa LL, Durbin RK, Durbin JE, Greenberg HB, Kotenko SV. Distinct roles of type I and type III interferons in intestinal immunity to homologous and heterologous rotavirus infections. *PLOS Pathogens.* 2016 April; 12(4): e1005600. Published online 2016 April 29. doi: 10.1371/journal.ppat.1005600. PMCID: PMC4851417
325. Toro JF, Salgado DM, Vega R, Rodriguez JA, Rodriguez LS, Angel J, Franco MA, Greenberg HB, and Narvaez CF Total and envelope protein-specific antibody-secreting cell response in pediatric dengue is highly modulated by age and subsequent infections. *PLOS One* 11(8), 2016. PMID 27569782; PMC4999220
326. Ding S, Mooney N, Li B, Kelly MR, Feng N, Loktev AV, Sen A, Patton JT, Jackson PK, Greenberg HB. Comparative Proteomics Reveals Strain-Specific  $\beta$ -TrCP Degradation via Rotavirus NSP1 Hijacking a Host Cullin-3-Rbx1 Complex. *PLOS Pathog.* Oct 5; 12(10): e1005929. doi: 10.1371/journal.ppat.1005929, 2016. PMID: 27706223
327. Seong Y, Lazarus NH, Sutherland LS, Habtezion A, Abramson T, He X, Greenberg HB, Butcher E. Trafficking receptor signatures define blood plasmablasts responding to tissue-specific immune challenge. *JCI, Insight* 90233: 1-17, 2017. PMID 28352656
328. Li B, Ding S, Feng N, Mooney N, Ooi YS, Ren L, Diep J, Kelly MR, Yasukawa LY, Patton JT, Yamazaki H, Shirao T, Jackson PK, Greenberg HB. Debrin restricts rotavirus entry by inhibiting dynamin-mediated endocytosis. *PNAS.* doi.10.1073 (early edition), 2017. PMID 28416666. PMCID: PMC5422808

329. Nair N, Feng N, Blum LK, Sanyal M, Ding S, Jiang B, Sen A, Morton JM, He X, Robinson WH, Greenberg HB. VP4- and VP7-specific antibodies mediate heterotypic immunity to rotavirus in humans. *Sci Transl Med*. Jun 21;9(395). pii: eaam5434. doi: 10.1126/scitranslmed.aam5434, 2017. PMID: 28637924
330. Zhu S, Ding S, Wang P, Wang G, Lei X, Palm NW, Pan W, Zheng Y, Feng N, Lu J, Shan L, Abraham C, Fikrig E, Greenberg HB, Flavell RA. Nlrp9 inflammasome recognizes and restricts enteric viral infection in intestinal epithelial cells. *Nature*. Jun 29;546(7660):667-670. doi: 10.1038/nature22967. Epub 2017. PMID: 28636595
331. Lumb JH, Li Q, Popov LM, Ding S, Keith M, Merrill BD, Greenberg HB, Li JB, and Carette JE. DDX6 represents aberrant activation of interferon-stimulated genes. *Cell Rep*. Jul 25;20(4): 819-831. doi: 10.1016/j.celrep.06.085, 2017. PMID:28746868
332. Sen A, Sharma A, Greenberg HB. Rotavirus degrades multiple type I interferon receptors to inhibit IFN signaling and protects against mortality from endotoxin in suckling mice. *J Virology*. Doi:10.1128/JVI.01394-17. Posted online October 2017.
333. Ding S, Diep J, Feng N, Ren L, Li B, Ooi YS, Wang X, Brulois KF, Li X, Kuo CJ, Solomon DA, Carette JE, Greenberg HB. STAG 2 deficiency induces IFN responses via cGAS-STING pathway and restricts virus infection. *Nature Communications*. In press, 2018.
334. Perdomo-Celis F, Romero F, Salgado DM, Vega R, Rodriguez J, Angel J, Franco MA, Greenberg HB, Narvaez CF. Identification and characterization at the single-cell level of cytokine-producing circulating cells in children with dengue. *J Inf Disease*. In press, 2018.

### **Manuscripts submitted**

1. Ding S, Ren L, Feng N, Zhu S, Ge X, Li B, Flavell RA, and Greenberg HB. Rotavirus VP3 targets MAVS for degradation to inhibit type III interferon expression in intestinal epithelial cells. Submitted, 2018.
2. Henry C, Zheng N\_Y, Huang M, Cabanov A, Rojas KT, Kaur K, Andrews S, Palm AE, Chen Y, Li Y, Hoskova K, Utset HA, Wrammert J, Ahmed R, Holden-Wiltse J, Topham D, Treanor J, Kramme F, Hensley SE, Greenberg H, He X, and Wilson PC. Aged individuals no longer efficiently adapt their B cell responses to influenza. Submitted, 2018.
3. Ren L, Ding S, Li B, Ramanathan M, Khavari PA, and Greenberg HB. Profiling of rotavirus 3'UTR binding proteins reveals ATP5B as a novel host factor that supports late stage virus replication. Submitted, 2018.
4. Diep J, Ooi YS, Wilkinson AW, Johnson JR, Ding S, Peters CE, Kobluk KJ, Greenberg HB, Nagamine CM, Krogan NJ, Gozani O, Carette JE. Enterovirus pathogenesis requires the host methyltransferase SETD3. Submitted, 2018.

### **Symposia, Proceedings and Review Articles**

1. Greenberg HB, Prescott B, Helms CM, Brunner H, James W, Horswood R, Chanock RM. Sharing of glycolipid antigenic determinants by mycoplasma pneumoniae vegetables and certain bacteria. In: *Proceedings of a Symposium on New Approaches for Inducing Natural Immunity to Pyogenic Infections*. Winter Park, Florida, pp. 151-156, March 1973.
2. Wyatt RG, Greenberg HB, Kalica AR, Chanock RM, Kapikian AZ. Structural and physicochemical properties of small enteric viruses. In: *INSERM Symposium Series: Viral Enteritis of Humans and Animals*, R. Scherrer (Ed.), 90:163-182, 1979.
3. Santosham M, Sack RB, Froehlich JL, Aurelian L, Greenberg HB, Yolken RH, Kapikian AZ, Javier C, Medina C, Ørskov F, Ørskov I. Biweekly prophylactic doxycycline for travelers diarrhea. In: *Current Chemotherapy and Infectious Diseases, Proceedings of the 11<sup>th</sup> International Congress of Chemotherapy and the 19<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy*, 2:922-924, 1980.
4. Nalin DR, Russell R, Greenberg HB, Levine MM. Reduced vitamin A absorption after enteric infections. In: *Current Chemotherapy and Infectious Diseases, Proceedings of the 11<sup>th</sup> International*

- Congress of Chemotherapy and the 19<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, 2:947-948, 1980.
5. Kapikian AZ, Wyatt RG, Greenberg HB, Kalica AR, Kim HW, Brandt CD, Rodriguez WJ, Parrott RH, Chanock RM. Approaches to immunization of infants and young children against gastroenteritis due to rotaviruses. In: *Reviews of Infectious Diseases*, 2:459-469, 1980.
  6. Kapikian AZ, Wyatt RG, Levine MM, Black RE, Greenberg HB, Flores J, Kalica AR, Hoshino Y, Chanock RM. Studies in volunteers with human rotaviruses. In: *International Symposium on Enteric Infections in Man and Animals: Standardization of Immunological Procedures*, Dublin, Ireland, 1982. *Develop. Biol. Standard.* (S. Karger, Basel), 53:209-218, 1983.
  7. Greenberg HB, Kalica AR, Flores J, Kapikian AZ, Wyatt RG, Jones R, Valdesuso J. Gene coding assignments for rotaviruses studied with genetic reassortants and monoclonal antibodies. In: *Symposium on double-stranded RNA viruses*, R.W. Compans, D.H.L. Bishop (Eds.), St. Thomas, Elsevier Press/Virgin Islands, pp. 289-302, 1983.
  8. Flores J, Sereno M, Lai CJ, Boeggeman E, Perez I, Purcell R, Kalica AR, Greenberg HB, Wyatt RG, Hansen J, Kapikian AZ, Chanock RM. Use of single-stranded rotavirus RNA transcripts for the diagnosis of rotavirus infection, the study of genetic diversity among rotaviruses and the molecular cloning of rotavirus genes. In: *Symposium on Double-Stranded RNA Viruses*. R.W. Compans D.H.L. Bishop (Eds.), St. Thomas, Elsevier Press/Virgin Islands, pp. 115-127, 1983.
  9. Wyatt RG, Kapikian AZ, Greenberg HB, Kalica AR, Flores J, Hoshino Y, Chanock RM, Levine M.M. Development of vaccines against rotavirus disease. In: *Prog. Food. Nutr. Sci.*, Pergamon Press Ltd., 7:189-192, 1983.
  10. Gebhard RL, Greenberg HB. Viral gastroenteritis. In: *Practical Gastroenterology*, 11:3-7, 1983.
  11. Greenberg HB, Midthun K, Wyatt RG, Flores J, Hoshino Y, Chanock RM, Kapikian AZ. Use of reassortant rotaviruses and monoclonal antibodies to make gene-coding assignments and construct of Virus Virulence and Immunity, R.M. Chanock, R.A. Lerner (Eds.), Cold Spring Harbor Laboratory, New York, pp. 319-327, 1984.
  12. Greenberg HB, Offit P, Tran C, Kapikian AZ, Robinson WS, Shaw R, Gaeta R, Bellamy R. Vaccine strategies for prevention of rotavirus diarrhea. In: *Infectious Diarrhoea in the Young: Strategies for Control in Humans and Animals*, S. Tzipori (Ed.), Victoria, Australia, pp. 447-455, 1985.
  13. Greenberg HB, Midthun K. Norwalk and other small round viruses. In: *Infectious Diarrhoea in the Young: Strategies for Control in Humans and Animals*, S. Tzipori (Ed.), Victoria, Australia, pp. 240-247, 1985.
  14. Greenberg HB, Shaw RD. Human rotavirus serotypes. In: *Infectious Diarrhoea in the Young: Strategies for Control in Humans and Animals*, S. Tzipori (Ed.), Victoria, Australia, pp. 201-207, 1985.
  15. Greenberg HB, Offit P, Kapikian AZ, Robinson WS, Shaw R. Vaccine strategies for prevention of rotavirus diarrhea. In: *Microecology and Therapy*. Institute for Microecology, Federal Republic of Germany (Ed.), 15:47-54, 1985.
  16. Wyatt RG, Kapikian AZ, Hoshino Y, Flores J, Midthun K, Greenberg HB, Glass RI, Askaa J, Levine M, Black RE, Clements ML, Potash L, London WT. Development of rotavirus vaccines. In: *Control and Eradication of Infectious Diseases: An International Symposium*. PAHO Co-publication Series No. 1. Washington, DC, Pan American Health Organization 1985;17-28.
  17. Greenberg HB, Offit P. Gene coding assignments for rotavirus surface proteins. In: *Development of Vaccines and Drugs against Diarrhea*. 11<sup>th</sup> Nobel Conference, J Holmgren, A. Lindberg, and R. Mollby (Eds.), Stockholm, 1985. Student literature, Lund, Sweden, pp. 221-225, 1986.
  18. Offit PA, Blavat G, Clark FE, Shaw R, Greenberg HB. Role of gene segments 4 and 9 in determining rotavirus virulence and protection against rotavirus challenge. In: *Vaccines 86 - New Approaches to Immunization*, F. Brown, R.M. Chanock, R.A. Lerner (Eds.), Cold Spring Harbor Laboratory, 1986.
  19. Greenberg, HB (Participant). *Symposium on Novel Diarrhoea Viruses*. Ciba Foundation Symposium 128. John Wiley & Sons Ltd., London, July 15-17, 1986.
  20. Flores J, Kapikian AZ, Greenberg HG, Wyatt RG. Perspectivas para el desarrollo de vacunas contra rotavirus. *Cienia Tecnol Venez.* 3:5156,1986.

21. Greenberg HB, Offit PA, Shaw RD. Neutralization of rotaviruses, in vitro and in vivo molecular determinants of protection and role of local immunity. In: *Mucosal Immunity and Infections at the Mucosal Surfaces*, W. Strober, M.E. Lamm, J.R. McGhee, S.P. James (Eds.), Oxford University Press, New York, pp. 319-330, 1988.
22. Shaw RD, Fong KJ, Losonsky GA, Levine MM, Flores J, Zapikiam AZ, Vo PT, Greenberg HB. Epitope-specific immune responses to rotavirus vaccination. *Gastroenterology*, 93:941-950, 1987.
23. Matsui SM, Mackow ER, Shaw RD, Vo PT, Dang MN, Greenberg HB. Conservation of amino acids involved in heterotypic neutralization on the rhesus rotavirus VP3 gene. In: *Inflammatory Bowel Disease: Current Status and Future Approach*. Elsevier Science Publ./Amsterdam, The Netherlands, pp. 641-646, 1988.
24. Snodgrass DR, Campbell I, Fitzgerald T, Scott FMM, Greenberg HB. Prevalence of bovine rotavirus serotypes. In: *Proceedings of the 15<sup>th</sup> World Buiatrics Congress*, Spain, pp. 921-925, 1988.
25. Mackow ER, Greenberg HB. Vaccine "Ultimate" Rotavirus Control. *U.S. Medicine*. 26:13-14, 1990.
26. Blacklow NR, Greenberg HB. Viral gastroenteritis. *N. Engl. J. Med.* 325:252-264, 1991.
27. Bass DM, Greenberg HB. Strategies for the identification of icosahedral virus receptors. *J. Clin. Invest.* 89:3-9, 1992.
28. Greenberg HB, Matsui SM. Astroviruses and caliciviruses: Emerging enteric pathogens. *Infect. Agent. Dis.*, 1:71-92, 1992.
29. Greenberg HB. Rotavirus vaccination - current status: A brief summary. *NY Acad. Sci. Biotech. R&D Trends* 700:32-35, 1993.
30. Burns JW, Greenberg HB. Viral gastroenteritis. *Infect. Dis. in Clin. Practice*, 3:411-417, 1994.
31. Greenberg HB, Broome R, Feng N, Burns JW. Rotavirus diarrhea: The molecular basis of virulence and immunity. In: *Etiology and Pathogenesis of Infectious Diseases*. Palais des Congrès, Hotel Méridien Président, Dakar, Sénégal, pp. 93-95, 1995.
32. Franco MA, Feng N, Greenberg HB. Rotavirus immunity in the mouse. In: *Sapporo International Symposium on Viral Gastroenteritis*, In: *Arch Virol.*, S12:141-152, 1996.
33. Herrmann JE, Chen SC, Fynan EF, Santoro JC, Greenberg HB, Robinson HL. DNA vaccines against rotavirus infections. In: *Sapporo International Symposium on Viral Gastroenteritis*, Published in *Archives Virology*, S12:207-215, 1996.
34. Franco MA, Feng N, Greenberg HB. Molecular determinants of immunity and pathogenicity of rotavirus infection in the mouse model. *J. Infect. Disease*, 5<sup>th</sup> Rotavirus Vaccine Workshop, *J. Infect. Dis.*, 174:S47-S50, 1996.
35. Herrmann JE, Chen SC, Fynan EF, Santoro JC, Greenberg HB, Robinson HL. Protection against rotavirus infections by DNA vaccination. 5<sup>th</sup> Rotavirus Vaccine Workshop. *J. Inf. Dis.*, 174:S93-S97, 1996.
36. Chen SC, Fynan EF, Robinson HL, Lu S, Greenberg HB, Santoro JC, Herrmann JE. Protective immunity induced by rotavirus DNA vaccines. *Vaccine*, 15:899-902, 1997.
37. Cheung RC, Keefe EB, Greenberg HB. Hepatitis G virus: Is it a hepatitis virus? *West. J. Med.*, 167:23-33, 1997.
38. Rosè J, Franco M, Greenberg HB. Immunity of rotavirus infection in the mouse. *Advance in Virus Research*, Academic Press, 51:203-235, 1998.
39. Herrmann JE, Chen SC, Jones DH, Farrar GH, Clegg JCS, Greenberg HB, Fynan EF. Mucosal immunity induced by oral immunization with a rotavirus VP6 DNA vaccine encapsulated in microparticles. *Proceedings. 4<sup>th</sup> Intl. Congr. Vet. Virol.*, 245-246, 1999.
40. Franco M, Greenberg HB. Immunity to rotavirus infection in mice. *J. Inf. Dis.*, 179:S466-S469, 1999.
41. Matsui SM, Greenberg HB. Immunity to calicivirus infection. *J. Inf. Dis.*, 181:S331-S335, 2000.
42. Franco MA, Greenberg HB. Immunity to homologous rotavirus infection in adult mice. *Trends Microbiol.* 8(2):5052, 2000.
43. Cooper SS, Glenn J, Greenberg HB. Lessons in defense- hepatitis C, a case study. In *Host-microbe interactions: viruses*, edited by HB Greenberg. *Current Opinion in Microbiology*, 3:363-365, 2000.
44. Franco MA, Greenberg HB. Challenges for rotavirus vaccines. *Virology.*, 281:153-155, 2001.
45. He X-S, Greenberg HB. CD8+ T-cell response against hepatitis C virus. *Viral Immunology*, 15:121-131, 2002.



46. Greenberg, HB and Crowe Jr., JE (Eds), The Pediatric Infectious Disease Journal, 2004 International Congress on Respiratory Viruses (supplement) 23:S254-S261, 2004.
47. Greenberg, HB and Piedra, PA. Immunization against Viral Respiratory Disease. *Pediatric Infect Dis.* 23(11):S01-08, 2004.
48. Glass RI, Bhan MK, Ray P, Bahl R, Parashar UD, Greenberg HB, Rao CD, Bhandari N, Maldonado Y, Ward RL, Bernstein DI, Gentsch JR. Development of candidate rotavirus vaccines derived from neonatal strains in India. *J Infect Dis.* 1;192 Suppl 1:S30-5, 2005
49. Arvin AM, Greenberg HB. New Viral vaccines. *Virology*, 344:240-249, 2006.
50. Franco M, Angel J and Greenberg HB. Immunity and correlates of protection for rotavirus vaccines. *Vaccines* 24(15): 2718-31, 2006.
51. Angel J, Franco M, and Greenberg HB. Rotavirus vaccines: recent developments and future considerations. *Nature Reviews/Microbiology.* 5: 529-539, 2007.
52. Greenberg HB, Estes MK. Rotaviruses: from pathogenesis to vaccination. *Gastroenterology.* 136 (6): 1939-51, Epub May 7, 2009.
53. *Enquist LW for the Editors of the Journal of Virology. Virology in the 21<sup>st</sup> Century. J Virol. 83 (11): 5296-5308, 2009.*
54. Angel J, Franco MA, Greenberg H. Rotavirus immune responses and correlates of protection. *Cur Opin Vir.* 2 (4): 419-425, 2012.
55. Arnold M, Sen ., Greenberg HB, and Patton JT. 2012. The battle between rotavirus and its host for control of the interferon signaling pathway. *PLOS Pathogens.* 9 (1) e1003064:1-8, 2013.
56. Crawford SE, Ramani S, Tate JE, Parashar UD, Svensson L, Hagbom M, Franco MA, Greenberg HB, O’Ryan M, Kang G, Desselberger U and Estes MK. Rotavirus Infection. In *Nature Reviews.* 3:17083, 2017.

### **Book Chapters**

1. Greenberg HB, Robinson WS. Hepatitis A. Chapter 67. In: *Infectious Diseases: A Modern Treatise of Infectious Processes*, 2<sup>nd</sup> Edition, P.D. Hoepflich (Ed.), 604-608, 1977.
2. Robinson WS, Greenberg HB. Hepatitis B. Chapter 68. In: *Infectious Diseases: A Modern Treatise of Infectious Processes*, 2<sup>nd</sup> Edition, P.D. Hoepflich (Ed.), 609-617, 1977.
3. Greenberg HB, Robinson WS, Merigan TC. Management of chronic hepatitis B: The use of antiviral agents. Chapter 24. In: *Problems in Liver Disease*, C.S. Davidson (Ed.), 232-239, 1979.
4. Kapikian AZ, Yolken RH, Greenberg HB, Wyatt RG, Kalica AR, Chanock RM, Kim HW. Viral gastroenteritis. Chapter 30. In: *Diagnostic Procedures for Viral, Rickettsial and Chlamydial Infections*, 5<sup>th</sup> Edition, E.H. Lennette, N.J. Schmidt (Eds.), American Public Health Association, Washington, D.C., 927-995, 1979.
5. Greenberg HB, Wyatt RG, Kalica AR, Yolken RH, Black R, Kapikian AZ, Chanock RM. New insights in viral gastroenteritis. In: *Perspectives in Virology XI*, M. Pollard (Ed.), Alan R.Liss Inc., 163-187, 1981.
6. Kapikian AZ, Greenberg HB, Kalica AR, Wyatt RG, Kim HW, Brandt CD, Rodriguez WJ, Flores J, Singh N, Parrott RH, Chanock RM. New developments in viral gastroenteritis. Chapter 1. In: *Acute Enteric Infections in Children: New Prospects for Treatment and Prevention*, T. Holme, J. Holmgren, M. H. Merson, R. Molby (Eds.), Elsevier/North Holland Biomedical Press, 9-57, 1981.
7. Wyatt RG, Kapikian AZ, Greenberg HB, Kalica AR, Chanock RM. Prospects for development of a vaccine against rotavirus diarrhea disease. Chapter 30. In: *Acute Enteric Infections in Children: New Prospects for Treatment and Prevention*, T. Holme, J. Holmgren, M.H. Merson, R. Molby (Eds.), Elsevier/North Holland Biomedical Press, 505-522, 1981.
8. Kapikian AZ, Greenberg HB, Wyatt RG, Kalica AR, Kim HW, Brandt CD, Rodriguez WJ, Parrott RH, Chanock RM. Viral gastroenteritis. Chapter 11. In: *Viral Infections of Humans: Epidemiology and Control*, 2<sup>nd</sup> Edition, A.S. Evans (Ed.), Plenum Medical Book Company, 283-326, 1982.
9. Kapikian AZ, Greenberg HB, Wyatt RG, Kalica AR, Chanock RM. The Norwalk group of viruses: Agents associated with epidemic viral gastroenteritis. In: *Virus Infections of the Gastrointestinal Tract*, D.A.J. Tyrrell, A.Z. Kapikian (Eds.), Marcel Dekker, New York, NY, 147-177, 1982.

10. Greenberg HB. Viral Gastroenteritis. In: Harrison's Principles of Internal Medicine. 11<sup>th</sup> Edition, McGraw-Hill Book Company, 707-709, 1986.
11. Shaw RD, Greenberg HB. Viral gastroenteritis. Chapter 67. In: Infectious Diseases: A Modern Treatise of Infectious Processes, 4<sup>th</sup> Edition, P.D. Hoepflich, M.C. Jordan (Eds.), pp. 686-691, 1989.
12. Greenberg HB, Monroe S, Skaar M. The small round viruses associated with gastroenteritis in humans. In: Viral Diarrhea's of Man and Animals, L. Saif, K. Theil (Eds.), CRC Press Inc., pp. 137-159, 1989.
13. Matsui SM, Mackow ER, Greenberg HB. Molecular determinant of rotavirus neutralization and protection. *Advances in Virus Research* 36:181-214, 1989.
14. Greenberg HB. Viral gastroenteritis. In: Harrison's Principles of Internal Medicine. 12<sup>th</sup> Edition, McGraw-Hill Book Company, 716-717, 1991.
15. Bass DM, Greenberg HB. Pathogenesis of viral gastroenteritis. In: *Diarrheal Diseases*. M. Field (Ed.), Current Topics in Gastroenterology. Elsevier Science Publishing Company, 139-157, 1991.
16. Dormitzer PR, Greenberg HB. Rotavirus gastroenteritis: Basic facts and prospects for prevention and therapy. In: *Contemporary Issues in Infectious Disease*, Vol. 10, M.A. Sande, R.K. Root (Eds.), Churchill Livingstone Press, 73-99, 1992.
17. Greenberg HB, Clark HF, Offit PA. Rotavirus pathology and pathophysiology. In: *Current Topics in Microbiology and Immunology*. R. F. Ramig (Ed.), Springer-Verlag Press, 185:255-283, 1994.
18. Shaw RD, Greenberg HB. Rotaviruses-General Features. In: *Encyclopedia of Virology*, R. Webster (Ed.), Saunders Scientific Publications, pp. 1274-1281, 1994.
19. Greenberg HB. Viral gastroenteritis. In: Harrison's Principles of Internal Medicine, 13<sup>th</sup> Edition, McGraw-Hill Book Company, 153:819-821, 1994.
20. Matsui SM, Greenberg HB. Medical management of foodborne viral gastroenteritis and hepatitis. In: *Foodborne Disease Handbook*, Vol. 2, Y.H. Hui, J.R. Graham, K.D. Murrell, D.O. Clivers (Eds.), Marcel Dekker Press, pp. 145-158, 1994.
21. Shaw RD, Greenberg HB. Viral gastroenteritis. In: *Infectious Diseases*, P. Hoepflich, C. Jordan (Eds.), Lippincott Publisher. pp.716-720, 1994.
22. Hsu HH, Greenberg HB. Hepatitis C virus. In: *Infectious Diseases*, P. Hoepflich, C. Jordan (Eds.), Lippincott Publisher. pp. 820-825, 1994.
23. Bass DM, Greenberg HB. Group A rotaviruses in infections of the GI tract. M. Blaser, P.D. Smith, J.I. Ravdin, H.B. Greenberg, R.L. Guerrant (Eds.), Raven Press. pp. 967-982, 1995.
24. Matsui SM, Greenberg HB. Astroviridae: Astroviruses. B. Field (Ed.), Raven Press. *Virology*. 811-824, 1996.
25. Saif LJ, Greenberg HB. Rotaviral Gastroenteritis, In: *Pathology of Infectious Diseases*, D H Connor, F W Chandler (Eds.), Appleton & Lange Publisher. 1:297-302, 1997.
26. Greenberg HB. Viral gastroenteritis. In: Harrison's Principles of Internal Medicine. 14<sup>th</sup> Edition, McGraw-Hill Book Company, 1116-1118, 1997.
27. Conner ME, Estes MK, Offit PA, Clark F, Franco M, Feng N, Greenberg HB. Development of a Mucosal Rotavirus Vaccine, In: *Mucosal Vaccine*, H. Kiyono, J. McGhee and P. Ogra (Eds.). Academic Press, Inc. 325-344, 1996.
28. Franco M, Rosé J, Greenberg HB. Rotaviruses. In: *Essentials of Tropical Infectious Diseases for the clinician*. D. Guerrant, C Livingstone (Eds.), 1133-1138, 1998.
29. Feng N, Franco MA, Greenberg HB. Murine model of rotavirus infection. In: *Mechanisms in pathogenesis of enteric diseases*, Presented at First International Rushmore Conference, Plenum Press, 35:233-240, 1997.
30. Ward, RL, Greenberg HB, Estes, MK. Viral gastroenteritis vaccines. In: *Mucosal Immunology* 2<sup>nd</sup> Edition. PL Ogra, J Mestecky, ME Lamm, W Strober, JR McGhee, and J Bienenstock (Eds.). Academic Press, Inc., 867-880, 1998.
31. Shaw RD and Greenberg HB. Rotaviruses-General Features. In: *Encyclopedia of Virology*, 2<sup>nd</sup> Edition, R.G. Webster and A. Granoff eds., WB Saunders Co., Orlando, FL., 1576-1593, 1999.
32. Rosé J, Greenberg HB. Viruses; Adenovirus: Enteric, In: *Antimicrobial Therapy and Vaccines*, VL Yu, TC Merigan, SL Barriere (Eds.) Williams & Williams, 1195-1196, 1998.
33. Rosé J, Greenberg HB. Viruses; Astroviruses, In: *Antimicrobial Therapy and Vaccines*, VL Yu, TC Merigan, SL Barriere (Eds.) Williams & Williams, 1196-1197, 1998.

34. Rosé J, Greenberg HB. Viruses; Norwalk Virus, In: Antimicrobial Therapy and Vaccines, VL Yu, TC Merigan, SL Barriere (Eds.) Williams & Williams, 1307-1308, 1998.
35. Rosé J, Greenberg HB. Viruses; Rotaviruses, In: Antimicrobial Therapy and Vaccines, VL Yu, TC Merigan, SL Barriere (Eds.) Williams & Williams, 1328-1334, 1998.
36. Greenberg HB, Matsui SM, Loutit JS. Small intestine: Infections with common bacterial and viral pathogens. In: Textbook of Gastroenterology, 2<sup>nd</sup> Edition. T. Yamada, et al., eds. Lippincott-Williams & Wilkins Publishers, Philadelphia, PA, 1611-1640, 1999.
37. Greenberg HB, Matsui SM, Loutit JS. Small intestine: Infections with common bacterial and viral pathogens. In: Atlas of Gastroenterology, Second Edition. T. Yamada, et al., eds. Lippincott-Williams & Wilkins Publishers, Philadelphia, PA, 268-279, 1999.
38. Gilbert J, Greenberg HB. Rotavirus Entry into Tissue Culture Cells. In: Rotaviruses Methods and Protocols. J Gray, U Desselberger (Eds.) The Humana Press, Inc., 34:67-78, 2000.
39. Franco MA, Greenberg HB. In vivo study of immunity to rotaviruses: Selected methods in mice. In: Rotaviruses: Methods and Protocols. J Gray, U Desselberger (Eds), The Humana Press, Inc., 34:133-146, 2000.
40. Franco M, Rosé J, Greenberg HB. Rotaviruses, In: Tropical infectious diseases: Principles, pathogens and practice. RL Guerrant, DH Walker, PF Weller (Eds), Livingstone, 1133-1138, 1999.
41. Greenberg HB. Viral gastroenteritis. In: Harrison's Principles of Internal Medicine. 15<sup>th</sup> Edition, E.Braunwald (Eds.) McGraw-Hill Book Company, 1135-1138, 2001.
42. Matsui SM, Greenberg HB. Astroviruses. In: Fields of Virology. 4<sup>th</sup> Edition. D.M. Knipe, P.M. Howley, D. Griffin, R. Lamb, M. Martin, S. Straus (Eds), Lippincott -Williams and Wilkins Publishers, Philadelphia PA. 875-893, 2001.
43. Franco MA, Greenberg HB. Rotaviruses. In: Clinical Virology, 2<sup>nd</sup> Edition. D Richman, R Whitley, F Hayden (Eds.). ASM Press, 743-762, 2002.
44. Bass D, Greenberg HB. Viruses; Adenovirus: Enteric, In: Antimicrobial Therapy and Vaccines, Williams & Williams, 1134-1140, 2002.
45. Bass D, Greenberg HB. Viruses; Astroviruses, In: Antimicrobial Therapy and Vaccines, Williams &
46. Williams, 1141-1142, 2002.
47. Bass D, Greenberg HB. Viruses; Caliciviruses, In: Antimicrobial Therapy and Vaccines, Williams &
48. Williams, 1143-1144, 2002.
49. Bass D, Greenberg HB. Viruses; Rotaviruses, In: Antimicrobial Therapy and Vaccines, Williams &
50. Williams, 1405-1411, 2002.
51. Greenberg HB, Matsui SM, Holodniy M. Small intestine: infections with common bacterial and viral pathogens. In: Textbook of Gastroenterology Vol. II, 4<sup>th</sup> Edition .Chapter 74. T. Yamada, DH Alpers, N Kaplowitz, L Laine, C Owyang, DW Powell, (Eds), Lippincott Williams & Wilkins, 1530-1561, 2003.
52. He X-S, Greenberg HB. Detection and characterization of virus-specific CD8+T cells using the tetramer approach. In: Methods in Molecular Medicine: Hepatitis B and D protocols. R Hamatake, J Lau (Eds). Humana Press, Totowa, NJ., 89-96, 2004.
53. Feigelstock DA, Cuadras MA, Greenberg HB. Microarrays and host-virus interactions: A transcriptional analysis of Caco-1 cells following rotavirus infection. In: Viral Gastroenteritis: Perspectives in Medical Virology. U Desselberg, J Gray (Eds). 9:255-290, 2003.
54. Gonzales AM, Jaimes MC, Rojas OL, Angel J, Greenberg HB, Franco MA. Human adaptive immunity to rotaviruses: a model of intestinal mucosal adaptive immunity. In: Viral Gastroenteritis: Perspectives in Medical Virology. U Desselberg, J Gray (Eds) Elsevier, 9:307-316, 2003.
55. Greenberg HB, Matsui SM, Holodniy M. Small intestine: infections with common bacterial and viral pathogens. In: Atlas of Gastroenterology, 3<sup>rd</sup> Edition. Yamada T, Alpers DH, Kaplowitz N, Laine L, Owyang C, Powell DW, (Eds). Lippincott Williams & Wilkins, Philadelphia, PA. 316-22, 2003.
56. Ward RL, Greenberg HB, Estes MK. Viral Gastroenteritis Vaccines. In: Mucosal Immunology Vol. I, 3<sup>rd</sup> Edition .Chapter 49. J. Mestecky, M.E. Lamm, W. Strober, J. Bienenstock, J.R. McGhee, L. Mayer, (Eds). Elsevier Academic Press, Burlington, MA. 88-903, 2005.
57. Jaimes, M. C., J. Angel, M. A. Franco, and H. B. Greenberg. Rotavirus Infections. In Tropical Infectious Diseases. R. L. Guerrant, (Ed). Elsevier. 673-679, 2005.

58. Angel J, Franco MA, Greenberg HB. Rotaviruses. In: Encyclopedia of Virology, Third Edition. Volume 4; Elsevier. 507-513, 2008.
59. Greenberg HB, Kemble GW. Live, Attenuated Influenza Vaccine. In: Influenza Vaccines for the Future. Rino Rappuoli and Giuseppe Del Giudice (Eds). 203-220, 2008.
60. Franco MA, Greenberg HB. Rotaviruses. In: Clinical Virology, 2<sup>nd</sup> Edition. Chapter 34. D Richman, R Whitley, F Hayden (Eds.). 743-762, 2008.
61. Greenberg HB, Arvin AM. Live Attenuated Vaccines: Influenza, Rotavirus and Varicella Zoster Virus. In: Replicating Vaccine: A New Generation. Dormitzer, Mandl & Rappuoli (Eds). 15-46, 2011.
62. Franco MA, Greenberg HB. Rotaviruses, Noroviruses, and Other Gastrointestinal Viruses. In: Cecil Medicine, 24<sup>th</sup> Edition. Chapter 388, 2145-2147, 2011.
63. Greenberg HB, Kemble GW. Live, Attenuated Influenza Vaccine. In: Influenza Vaccines for the Future. Rino Rappuoli and Giuseppe Del Giudice (Eds). 283-297, 2011.
64. Angel J, Franco MA, Greenberg HB. Rotavirus Infections. In: Tropical Infectious Diseases: Principles, Pathogens and Practice, 3<sup>rd</sup> Edition. Guerrant, Walker, Weller (Eds). 406-410, 2011.
65. Estes MK, Greenberg HB. Rotaviruses. In: 6<sup>th</sup> edition Fields Virology. Chapter 46. Lippincott - Williams and Wilkins Publishers, Philadelphia PA. 1347-1401, 2013.
66. Franco M, Greenberg HB. Rotavirus. In: Antibodies for Infectious Diseases, Chapter 18. James Crowe, Jr., Diana Boraschi, Rino Rappuoli (Eds). 2013. Also online: Microbiol Spectrum 1(2):AID-0011-2013. (Idoi:10.1128/microbiolspec.AID-0011-2013)
67. Greenberg HB. Principles of Mucosal Vaccine Strategies in: Principles of Mucosal Immunology, Chapter 27. Phillip D. Smith, Thomas t. MacDonald, Richard S. Blumberg (Eds). 413-428, 2013.
68. Harry Greenberg. Vaccine Development. In: A Practical Guide to Drug Development in Academia (The SPARK Approach). Eds. Mochly-Rosen D and Grimes E. Chapter 2.5, 51-55. Springer, 2014.
69. Dorsey M. Bass and Harry B. Greenberg. Rotaviruses. In: Antimicrobe. In press, 2014.
70. Dorsey M. Bass and Harry B. Greenberg. Astroviruses. In: Antimicrobe, In press, 2014.
71. Franco M, Greenberg HB. Rotaviruses, Noroviruses and Other Gastrointestinal Viruses. In: Goldman-Cecil Medicine, 25<sup>th</sup> Edition, Chapter 380, pp. 2244-2247, 2015
72. Angel J, Franco M, and Greenberg HB. Rotaviruses. In: Encyclopedia of Virology, Third Edition, pp. 507-513, 2016.
73. Sen A. and Greenberg HB. Innate immune responses to rotavirus infection. In: Viral Gastroenteritis (Chapter 2.8): molecular epidemiology and pathogenesis. Editors: Svensson L, Desselberger U, Greenberg HB, and Estes MK. Elsevier Academic Press, pp. 243-260, 2016.
74. Greenberg HB, Dormitzer PR. Vaccination against viruses. In: Encyclopedia of Immunobiology. Ed: Biron C. Elsevier. Submitted 2016.
75. Franco MA, Angel J, Greenberg HB. Rotaviruses. In: Clinical Virology, 3<sup>rd</sup> Edition. D Richman, R Whitley, F Hayden (Eds.). Chapter 36: pp. 853-872, 2017.
76. Franco M, Greenberg HB. Rotaviruses, Noroviruses and Other Gastrointestinal Viruses. In: Goldman Cecil Medicine, 26<sup>th</sup> Edition, Chapter 380. In press, 2018.

### **Books**

1. Blaser M, Smith PD, Ravdin JI, Greenberg HB, Guerrant RL (Eds), Infections of the Gastrointestinal Tract. 1<sup>st</sup> Edition, Raven Press, New York. pp. 1-1578. 1995.
2. Blaser M, Smith PD, Ravdin JI, Greenberg HB, Guerrant RL (Eds), Infections of the Gastrointestinal Tract, 2<sup>nd</sup> Edition, Lippincott - Williams and Wilkins, 2002.
3. Swensson L, Desselberger U, Greenberg HB, and Estes MK. Viral Gastroenteritis: molecular epidemiology and pathogenesis. Elsevier Academic Press, 2016.

### **Letters, Published Reviews, Consensus Statements, Guest Editorships and Recorded Discussions**

1. Liang M, Greenberg HB, Pincus T, Robinson WS. Hepatitis-B antibody in polymyalgia rheumatica. Lancet 1:43, 1976 (letter).
2. Greenberg HB, Wyatt RG, Kapikian AZ. Norwalk virus in vomitus. Lancet 1:55, 1979 (letter).
3. Greenberg HB. Vomitus: new nosocomial infection risk? No standard guidelines for isolation precautions. Hosp. Infect Control. 6(3):29-30, 1979.

4. Kapikian AZ, Barile MF, Wyatt RG, Yolken RH, Tully JG, Greenberg HB, Kalica AR, Chanock RM. Mycoplasma contamination in cell culture of Crohn's disease material. *Lancet* 2:466-467, 1979 (letter).
5. Wright TL, Hsu H, Greenberg HB. Hepatitis C virus and fulminant hepatitis. *Ann. Intern. Med.* 115[12]: 983-984, 1991 (letter).
6. Helicobacter pylori in Peptic Ulcer Disease. NIH Consensus Development Panel. *JAMA* 272:65-69, 1994.
7. Greenberg HB. Novartis Foundation Symposium No. 238 – Gastroenteritis viruses referenced discussant. Wiley Press. 2001.
8. Greenberg, HB and Crowe Jr., JE (Eds), *The Pediatric Infectious Disease Journal*, 2004 International Congress on Respiratory Viruses (supplement) 23:(11)S254-S261. 2004.
9. WHO informal consultation on quality, safety and efficacy specifications for live attenuated rotavirus vaccines Mexico City, Mexico, 8-9 February 2005. *Vaccine*. 2005.
10. Kaper, J et al. Vaccine Development: Current Status and Future Needs. *American Academy of Microbiology*, Copyright October 2005, 1-26.
11. Greenberg HB. The Scientific Basis of Influence and Reciprocity: A Symposium. AAMC June 12, 2007, Washington DC, Discussant, Page 29.
12. Greenberg HB. Rotavirus Vaccination and Intussusception: Act Two. *NEJM*, 364 (24), June 16, 2011, 2354-2355.
13. Ding S, Greenberg HB. Zika mRNA vaccine induces long-term protective immunity. Guest editorial. *AME Med J* 2:86, 2017.