

## CURRICULUM VITAE

Name: Sankar Swaminathan, M.D.

June 3, 2019

### Present Position and Address:

Professor and Chief, Division of Infectious Disease,  
Don Merrill Rees Presidential Endowed Chair  
Department of Internal Medicine, University of Utah School of  
Medicine, Salt Lake City, UT 84132

Date of Birth: July 4, 1958

Place of Birth: Trivandrum, India

Citizenship: USA

### Education:

1979 A.B magna cum laude, Biochemistry and Molecular  
Biology, Harvard College, Cambridge, Massachusetts  
1982 M.S. Microbiology and Immunology, Emory University School  
of Medicine, Atlanta, Georgia  
1984 M.D. Emory University School of Medicine, Atlanta, Georgia

### Professional and Teaching Experience:

1984-1985 Intern, Internal Medicine, University of Chicago Medical  
Center, Chicago, IL.  
1985-1987 Resident, Internal Medicine, University of Chicago Medical  
Center, Chicago, IL  
1987-1988 Clinical Fellow, Division of Infectious Disease, Beth Israel  
Hospital, Brigham & Women's Hospital, Dana Farber Cancer  
Institute, Boston, MA.  
1987-1988 Clinical Fellow in Medicine, Harvard Medical School, Boston,  
MA.  
1988-1990 Research Fellow, Division of Infectious Disease, Beth Israel  
Hospital, Brigham & Women's Hospital, Dana Farber Cancer  
Institute, Boston, MA.  
1988-1990 Research Fellow, Department of Microbiology and Molecular  
Genetics, Harvard Medical School, Boston, MA.  
1990-1992 Instructor in Medicine, Division of Infectious Disease, Brigham &  
Women's Hospital, Boston, MA.  
1992-1995 Assistant Professor, Division of Infectious Disease, Departments  
of Medicine and Microbiology and Immunology, Thomas  
Jefferson University, Philadelphia, PA.

- 1992-1995 Member, Graduate Faculty, College of Graduate Studies, Thomas Jefferson University, Philadelphia, PA.
- 1995-1997 Assistant Professor, Division of Infectious Diseases, Department of Internal Medicine, University of Texas Medical Branch, Galveston.
- 1995-2000 Scientist, Sealy Center for Oncology and Hematology, University of Texas Medical Branch, Galveston.
- 1996-2000 Member, Graduate Faculty, Department of Microbiology and Immunology, University of Texas Medical Branch, Galveston.
- 1997-2000 Associate Professor, Division of Infectious Diseases, Departments of Internal Medicine and Microbiology & Immunology, University of Texas Medical Branch, Galveston.
- 2000-2008 Associate Professor, Departments of Internal Medicine and Molecular Genetics and Microbiology, University of Florida, Gainesville, FL.
- 2008-2010 Professor, Departments of Internal Medicine and Molecular Genetics and Microbiology, University of Florida, Gainesville, FL.
- 2009-2010 Acting Chief, Division of Infectious Disease, Department of Internal Medicine University of Florida, Gainesville, FL.
- 2005-2010 Program Co-Director: Cancer Epigenetics and Tumor Virology, UF Shands Cancer Center, University of Florida, Gainesville, FL.
- 2010- curr. Professor and Chief, Infectious Diseases Division, University of Utah School of Medicine, Salt Lake City, UT.
- 2012- curr. Attending Physician, George E. Wahlen VA Medical Center, Salt Lake City, UT.
- 2013- curr. Adjunct Professor, University of Utah, Department of Experimental Pathology.

#### Research Activities:

- A. 1. Epstein-Barr Virus.  
 2. Kaposi's sarcoma-associated herpesvirus (KSHV, Human herpesvirus 8).  
 3. Transcriptional and post-transcriptional gene regulation in oncogenic herpesviruses.
- B. 1988-1993 Physician Scientist Award K11, National Cancer Institute, National Institutes of Health.
- 1992-1997 FIRST Award R29, National Cancer Institute, National Institutes of Health: Role of the EBV interleukin BCRF1 in B cell infection and transformation.
- 1995-1998 Investigator, NIH Grant NO1-DE-52606: Passive Immunization: Treatment of Rabies Virus with Human Monoclonal Antibodies.

- 1997-1999 John Sealy Memorial Endowment Fund Recruitment Grant: The Role of Epstein-Barr Virus BMLF1 in Gene Regulation and Expression.
- 1998-2000 T32 AI07536-01, Emerging and Reemerging Infectious Diseases.
- 1999-2002 R21 CA82985-03 (HL), Regulation of angiogenesis by human herpesvirus 8.
- 2001-2006 T32 AI07110, Basic Microbiology and Infectious Diseases, Preceptor.
- 2006-2011 T32 CA09126 Training in Cancer Biology, Preceptor.
- 2009-2011 RC2 CA148407, Building a recombinant Herpesvirus core laboratory to systematically analyze the role of viral miRNAs in innate and adaptive immunity.
- 2006-2012 1R01CA119905, Viral and cellular gene regulation during lytic KSHV replication.
- 2008-2012 1R01CA119917, MicroRNAs in the KSHV life cycle, Coinvestigator.
- 2014-2017 K08 Immune Responses to Vibrio Cholerae in Children Principal Investigator(s): Daniel T. Leung; Sankar Swaminathan
- 1999-2023 1R01 CA81133, Post-transcriptional gene regulation by EBV SM protein.
- 2014-2019 1I01BX002262, Restriction of Oncogenic Herpesviruses by Host Cell Factors (VA Merit Review), Principal Investigator.
- 2018-2020 CSSG P30 supplement: Epigenetic Risk Factors for Lymphoma in HIV patients

#### Committee Responsibilities:

##### A. National and International:

- 1997 Ad hoc member, Virology study section (VR), National Institutes of Health.
- 1998-2001 Fellowship & Young Investigator Grants Award Committee, Infectious Diseases Society of America.
- 1999 Ad hoc member, Virology study section (VR), National Institutes of Health.
- 1999 Member, CSR Special Emphasis Panel, ZRG1 VR(01), National Institutes of Health.
- 1999 Member, CSR Special Emphasis Panel, ZRG1 AARR-1 (03), National Institutes of Health.
- 2000 Member, AIDS study section AARR-4 01 S, National Institutes of Health.
- Member, CSR Special Emphasis Panel, ZRG1 AARR-1 (07), April 2000, National Institutes of Health.
- Member, CSR Special Emphasis Panel, ZRG1 AARR-1 (08), July

- 2000, National Institutes of Health.  
Member, CSR Special Emphasis Panel, ZRG1 AARR-1 (09) Oct, 2000, National Institutes of Health.
- 2001-2003 Member, AIDS study section AARR-4 01 S, National Institutes of Health.
- 2004 Ad hoc member, VirB study section, National Institutes of Health. Program Project Special Emphasis Panel NCI-C RPRB (S1) (P).
- 2005 Member, Special Emphasis Panel, NIH AARR (A) 03.  
Member, Special Emphasis Panel, NIH, AARR-A 94.
- 2006 Member, Special Emphasis Panel NIH, AOIC.
- 2006 Reviewer, Science Foundation Ireland, Dublin, Ireland.
- 2006 Member, ZRG1 AARR-C 04, NIH Special Emphasis Panel.
- 2006 NCI Cellular and Molecular Biology P01 Cluster Review Panel BBRPD.
- 2007 Ad hoc member, AOIC study section, National Institutes of Health.
- 2007 Member, Molecular Oncology P01 Special Emphasis Panel
- 2008 Ad hoc member, DDR Study Section, National Institutes of Health.
- 2009 Member, Molecular Oncology P01 Special Emphasis Panel  
Member, ZRG1 IDM-C 58 R, RFA09-003 Challenge Grants Panel 9  
Member, 2009/10 ZRG1 IMM-E (58) R
- 2010 Member, Molecular Oncology P01 Special Emphasis Panel 2010-2012 CSR College of Reviewers, NIH.
- 2011 Member, European Commission Evaluation Panel. FP7-HEALTH-2011.2.4.1-3: Epidemiology and aetiology of infection-related cancers. Brussels, Belgium.
- 2011-2015 Member, National Comprehensive Cancer Network (NCCN) Prevention and Treatment of Cancer-Related Infections.
- 2011 ZRG1 AARR-K(02) Special Emphasis Panel Ad Hoc  
Member, VirA NIH Study section  
Member, ZAI1 LGR-I (M1) PO1 Review Panel
- 2012 Member ZRG1 IDM-M (02) M, NIH Special Emphasis Panel.  
Member ZAI1-LGR-I-M1, NIH PO1 Review Panel  
Member, ZCA1 RPRB-0 (O1) P, NCI PO1 Review Panel  
Ad Hoc Member, VirB NIH Study section  
Ad Hoc Member, AOIC NIH study section  
Chair, NIH Special Emphasis Panel ZRG1 AARR-K(03) Member, Special Emphasis Panel, NCI-I R  
Grant reviewer, Medical Research Council, United Kingdom
- 2012-2015 Research Committee, Infectious Diseases Society of America
- 2012 NIAID/IDSA ID Research Careers Meeting Program Committee
- 2013 Member, NCI-I NIH study section  
Member, Special Emphasis Panel II Program Project Review Panel

- 2013-2017 Chair, NIAID/IDSA ID Research Careers Meeting Program Committee
- 2014-2018 Member VirA NIH study section.
- 2015 Member, NIH AIDS Malignancy Consortium Review Panel, NIH.
- 2015 Member, NCI UNC Lineberger Comprehensive Cancer Center Site Visit Committee, Chapel Hill, NC.
- 2015 European Commission Evaluation Panel. PHC 14 – 2015: New therapies for rare diseases. Brussels, Belgium.
- 2016 Member, European Commission Evaluation Panel. SC1-PM-082017: New therapies for rare diseases. Brussels, Belgium.
- 2017 Member, NIH SEP ZCA1 RTRB-R (M2) R. RFA-CA-16-018 Collaborative Consortia for the Study of HIV-Associated Cancers: U.S. and Low- and Middle-Income Country (LMIC) Partnerships (U54).
- 2017 Member, NCI Cancer Center Site Visit Committee, University of Wisconsin, Madison, WI.
- 2018 Ad hoc member, AOIC study section, NIH, NCI.
- 2015-current Vice-Chair, National Comprehensive Cancer Network (NCCN) Panel - Prevention and Treatment of Cancer-Related Infections.
- 2018-2020 Member, Antimicrobial Drugs Advisory Committee, FDA.
- 2019 Member, Program Project (P01) Review Panel, NIH/NCI, ZCA1 RPRB-L (M1)
- 2019 Member, NCI Cancer Center Site Visit Committee, University of Washington, Seattle, WA.

#### B. OTHER:

- 1993-1994 Thesis Committee for Gloria Chang, M.S. candidate in Department of Microbiology and Immunology, Thomas Jefferson University, Philadelphia, PA.
- 1994-1995 Thesis Committee for John Maggioncalda, Ph.D. candidate in Department of Microbiology and Immunology, Thomas Jefferson University, Philadelphia, PA.
- 1995-2000 Bone Marrow Transplant Task Force, University of Texas Medical Branch, Galveston.
- 1997-1998 Graduate Medical Education Subcommittee for the LCME Self Study Task Force, University of Texas Medical Branch, Galveston.
- 1998-2000 Student Evaluation Committee, NIAID Training Grant on Emerging and Tropical Infectious Diseases, University of Texas Medical Branch, Galveston.
- 1998-2000 McLaughlin Fellowship Fund Committee, University of Texas Medical Branch, Galveston, TX.

- 1999-2000 Biological Safety Committee, University of Texas Medical Branch, Galveston, TX.
- 1999-2000 Antimicrobial Advisory Subcommittee of the Pharmacy & Therapeutics Committee, University of Texas Medical Branch, Galveston, TX.
- 2000-2001 Joint Faculty Search Committee, Department of Pharmacology and Therapeutics and UF Shands Cancer Center.  
Laboratory Utilization Review Committee, Shands Hospital at University of Florida.
- 2002-2006 Chair, Tumor Virology Faculty Search Committee, UF Shands Cancer Center
- 2000-2004 Ph. D. supervisory committee, Jerome O'Neil, Molecular Genetics and Microbiology.
- 2005-2008 Ph. D. supervisory committee, Rebecca Skalsky, Molecular Genetics and Microbiology.
- 2005-2010 Co-Chair, UF Shands ACS Institutional Research Grant Review Committee.
- 2005-2008 Member, Harn Museum Faculty Council.
- 2005-present Mentor, ASM Minority Mentoring Program.
- 2006 Organizing Committee, Twelfth International Symposium on EBV and Associated Diseases, Boston, U.S.A., July 8-12th, 2006.
- 2006 External Reviewer, Viral Oncology Program of the University of Maryland Greenbaum Cancer Center.
- 2006-2009 Faculty Council, Department of Medicine representative.
- 2007-2010 Member, University of Florida Performing Arts Advisory Committee for Policy and Operations.
- 2007-2009 Member, Senate Nominating Committee.
- 2009-2010 Member, University of Florida Cultural Plaza Advisory Committee
- 2011 Grant Reviewer for Landsteiner Foundation for Blood Transfusion Research, Netherlands
- 2012 Member, University of Utah School of Medicine, Surgery Chairman Search Committee
- 2012-2014 Mission Based Management Advisory Committee, University of Utah
- 2014- 2018 Pharmacy and Therapeutics Committee, University of Utah Health Plans

#### Teaching Responsibilities:

##### Courses Directed

- 2000 - 2010 Co-Director, GMS 6181 Virology Seminar, University of Florida, Gainesville, FL
- 2011- curr. Director, INTMD 7650 - Infectious Disease Clinical Clerkship  
Director, INTMD 7880 - Research Problems in Infectious Disease

## Course Lectures

- 1997 - 2000 Instructor, University of Texas Medical Branch. Infectious Diseases Core Curriculum, Galveston, TX.
- 1997 - 2000 Instructor, Epstein Barr Virus, University of Texas Medical Branch, Microbiology & Immunology. Graduate Virology Course, Galveston, TX.
- 1997 - 2000 Instructor, University of Texas Medical Branch. Infections in patients with impaired immune response, JMS Lecture series, Galveston, TX
- 2000 - 2010 Instructor, GMS 6181, University of Florida. Virology Seminar
- 2000 - 2010 Instructor, BMS 5300, University of Florida. Medical Microbiology & Infectious Diseases-Herpesviruses
- 2000 - 2010 Instructor, Controversies in Microbiology, University of Florida
- 2000 - 2005 Instructor, GMS 6001, University of Florida. IDP Fundamentals, X.pigmentosum, Ataxia-Telangiectasia
- 2001 - 2010 Instructor, University of Florida. Clinical Microbiology Conferences (CMC's)
- 2002 - 2010 Instructor, GMS6035, University of Florida. Cancer Biology, Viral Oncogenesis
- 2005 - 2010 Instructor, GMS 6036, University of Florida. Advanced Virology III.
- 2007 - 2010 Instructor, GMS 6001: DNA Replication, University of Florida. IDP Core Course.
- 2011 Instructor, PATH 6410: Molecular Virology, University of Utah, Pathology
- 2012 Instructor (1): MS2015 H+D - Basic Virology, University of Utah
- 2012 Instructor (1): MS2015 H+D - Viral Pathogenesis, University of Utah
- 2012 Instructor (1): MS2015 H+D - CNS Infections, University of Utah
- 2012 Instructor (1): MS2015 H+D - Bioterrorism, University of Utah
- 2013 Instructor (1): MS2016 H+D - Basic Virology, University of Utah
- 2013 Instructor (1): MS2016 H+D - Viral Pathogenesis, University of Utah
- 2013 Instructor (1): MS2016 H+D - Select Agents/Zoonoses, University of Utah
- 2013 Instructor (1): MS2016 H+D - GI Infections, University of Utah
- 2013 Instructor (1): MS2016 H+D - CNS Infections, University of Utah
- 2013 Instructor, PATH 6410: Molecular Virology, University of Utah, Pathology
- 2014 Instructor, MD ID (1): MS2017 H+D - Introduction to Virology, University of Utah, Deans Office - SOM
- 2014 Instructor, MD ID (1): MS2017 H+D - Viral Pathogenesis, University of Utah, Deans Office - SOM
- 2014 Instructor, MD ID (1): MS2017 H+D - GI Infections, University of Utah, Deans Office - SOM

- 2014 Instructor, MD ID (1): MS2017 H+D - Zoonoses, University of Utah, Deans Office - SOM
- 2014 Instructor, MD ID (1): MS2017 H+D - CNS Infections, University of Utah, Deans Office - SOM
- 2015 Instructor, MD ID (1): MS2017 H+D - Introduction to Virology, University of Utah, Deans Office - SOM
- 2015 Instructor, MD ID (1): MS2017 H+D - Viral Replication, University of Utah, Deans Office - SOM
- 2015 Instructor, MD ID (1): MS2017 H+D - Viral Genetics, University of Utah, Deans Office - SOM
- 2015 Instructor, MD ID (1): MS2017 H+D - Viral Pathogenesis, University of Utah, Deans Office - SOM
- 2015 Instructor, MD ID (1): MS2017 H+D - Zoonoses, University of Utah, Deans Office - SOM
- 2015 Instructor, MD ID (1): MS2017 H+D - CNS Infections, University of Utah, Deans Office - SOM

#### Clinical Teaching

- 2009 Infectious Disease Fellow lectures: Herpesviruses, Catheterrelated infections, Bioterrorism agents
- 2009 2nd year medical student EPC (Physical Diagnosis)
- 2011 Primary Instructor, INTMD 7880 (1): Infectious Dis Research, 4 SCH, 1 student, University of Utah, Internal Medicine
- 2012 Primary Instructor, INTMD 7650 (1): Inf Dis Clerkship, 6 SCH, 2 students, University of Utah, Internal Medicine
- 2013 Primary Instructor, INTMD 7650 (1): Inf Dis Clerkship, 8 SCH, 2 students, University of Utah, Internal Medicine
- 2014 Primary Instructor, INTMD 7650 (1): Inf Dis Clerkship, 2 SCH, 1 student, University of Utah, Internal Medicine

#### Laboratory Teaching

- 2012 Path 6830, [Lab Orientation, 6830] Eun A Kim
- 2014 Primary Instructor, INTMD 7880 (1): Infectious Dis Research, 4 SCH, 1 student, University of Utah, Internal Medicine

#### Trainee Supervision

##### PhD/Doctorate

- 2000 - 2004 Advisor, Ashish Gupta, University of Florida. Role of KSHV-SM protein in angiogenesis and endothelial cell transformation *Trainee's Current Career Activities*: Physician, Cardiology.
- 2000-2004 Supervisor, Garnet Suck, Medizinische Universitaet zu Luebeck, Germany. Protein interactions of Epstein-Barr Virus SM Protein. *Trainee's Current Career Activities*: Head of cell processing

- laboratory, centre for transfusion medicine, Health Sciences Authority, Singapore.
- 2006 - 2007 Advisor, Melusine Gaillard, University of Western Brittany, France. Protein interactions of Epstein-Barr Virus SM Protein. *Trainee's Current Career Activities:* Scientific Communications .
- 2006 - 2010 Supervisor, Dinesh Verma, University of Florida. *Trainee's Current Career Activities:* Research Assistant Professor, University of Utah.
- 2007 - 2009 Advisor, Bindhu Monica Selvakumar, University of Florida. Effect of Interferon-stimulated genes on virus replication  
*Trainee's Current Career Activities:* Staff position, Christian Medical College, Vellore.
- 2009 - 2015 Supervisor, Dajiang Li, University of Florida. *Trainee's Current Career Activities:* Research Assistant Professor, University of Utah, Salt Lake City, UT.
- 2010 - 2011 Supervisor, Eleonora Forte, University of Utah. Innate immune responses to EBV and KSHV. *Trainee's Current Career Activities:* Postdoctoral fellow, Northwestern University, Chicago, IL.
- 2011 - 2012 Supervisor, Dominique Kagele, University of Utah. *Trainee's Current Career Activities:* Technical information scientist, Jackson Laboratory, Sacramento, CA.
- 2016- curr. Supervisor, Wenmin Fu. University of Utah. Host chromatin factor control of herpesvirus replication. *Trainee's Current Career Activities:* Postdoctoral fellow, University of Utah, Salt Lake City, UT.

### Masters

- 2007 - 2008 Preceptor, Zhao Han, University of Florida

### Undergraduate

- 2004 Advisor, Zhao Han, University of Florida. RNA binding characteristics of EBV SM protein. *Trainee's Current Career Activities:* Received M.S. Medical student.

### Graduate Student Committees

- 1993 - 1994 Member, Gloria Chang, Masters Thesis Committee. Department of Microbiology and Immunology, Thomas Jefferson University, Philadelphia, PA.
- 1994 - 1995 Member, John Maggioncalda, PhD/Doctorate Committee. Department of Microbiology and Immunology, Thomas Jefferson University, Philadelphia, PA.
- 2000 - 2004 Member, Jerome O'Neil, University of Florida, PhD/Doctorate Committee. Ph. D. supervisory committee, Molecular Genetics and Microbiology

- 2005 - 2008 Member, Rebecca Skalsky, University of Florida, PhD/Doctorate Committee. Ph. D. supervisory committee, Molecular Genetics and Microbiology.
- 2011-2015 Ph.D. Thesis Committee, Peter Ramirez, Experimental Pathology, University of Utah
- 2013-2015 Ph.D. Thesis Committee, John Frank, Biochemistry, University of Utah

#### Membership in Scientific Societies:

American College of Physicians  
 International Association for Research on Epstein-Barr Virus and Associated Diseases  
 American Society for Microbiology  
 Infectious Diseases Society of America

#### Board Certification:

1987 Board Certified, American Board of Internal Medicine.  
 1990 Board Certified, Infectious Disease, American Board of Internal Medicine.  
 2003 Board Certified, Infectious Disease, American Board of Internal Medicine.  
 2014 Board Certified, Infectious Disease, American Board of Internal Medicine.

#### Licensure:

2015 Utah License Registration 7746146-1205

#### Awards and Honors:

1975 Presidential Scholar  
 1977-1979 Harvard Scholar  
 1979 magna cum laude, Harvard College  
 1999 Fellow, American College of Physicians  
 2000 Department of Internal Medicine Basic Science Research Award, University of Texas Medical Branch, Galveston, TX.  
 2008 University of Florida Department of Medicine Teaching Excellence Award  
 2011 Fellow, Infectious Diseases Society of America  
 2008-2011 University of Florida Research Foundation Professorship  
 2004-present Member, Governing Board, International Association for Research on Epstein-Barr virus and Associated Diseases.  
 2005-present Editorial Board, Journal of Virology.  
 2006-present Editorial Board, Future Microbiology.

2006-present Treasurer, International Association for Research on Epstein-Barr virus and Associated Diseases.

2009-present Editorial Board, Advances in Tumor Virology

2014-present Associate Editor, PLOS Pathogens

Additional Information:

1996-	Reviewer, Clinical Infectious Diseases
1996-	Reviewer, Journal of Biological Chemistry
2000-	Reviewer, Journal of Clinical Microbiology
2001-	Reviewer, Journal of Virology
2002-	Reviewer, Cancer Research
2003-	Reviewer, Virology
2003-	Reviewer, Clinical Cancer Research
2003-	Reviewer, Proc. Natl. Acad. Sci. USA
2004-	Reviewer, Journal of the National Cancer Institute
2005-	Reviewer, Blood
2005	Reviewer, Human Gene Therapy
2006	Reviewer, Laboratory Investigation
2007	Reviewer, Journal of Cellular Physiology
2007	Reviewer, EMBO Journal
2007	Reviewer, Journal of Leukocyte Biology
2007	Reviewer, Virus Research
2008	Reviewer, PLOS Pathogens
2008	Reviewer, Journal of Bacteriology
2008	Reviewer, Journal of Cellular Biochemistry
2009	Reviewer, Journal of General Virology
2009	Reviewer, Cancer Biology and Therapy
2013	Guest Editor, PLOS Pathogens
2015	Reviewer, Oncogene, Proc. Natl. Acad. Sci. USA
2017	Reviewer, Nature Microbiology

Bibliography:

A. Articles in peer-reviewed journals:

1. Swaminathan S, Gooding L. Inhibition of glycosylation prevents surface H-2 K and D antigen expression on SV40 virus-transformed cells. *Eur J. Immunol.* 1983; 13:335-339.
2. Swaminathan S, Tomkinson B, Kieff E. Recombinant Epstein-Barr virus with deleted small RNA (EBER) genes transforms lymphocytes and replicates in vitro. *Proc. Natl. Acad. Sci.* 1991; 88:1546-1550.

3. Swaminathan S, Huneycutt B, Reiss C, Kieff E. Epstein-Barr virus encoded small RNAs (EBERs) do not modulate interferon effects in infected lymphocytes. *J. Virol.* 1992; 66: 5133-5136.
4. Swaminathan S, Hesselton R, Sullivan J, Kieff E. 1993. Epstein-Barr virus recombinants with specifically mutated BCRF1 genes. *J. Virol.* 1993; 67: 7406-7413.
5. Kurilla M, Swaminathan S, Welsh R, Kieff E, Brutkiewicz R. 1993. The effects of virally expressed interleukin-10 on vaccinia virus infection in mice. *J. Virol.* 1993; 67: 7623-7628.
6. Swaminathan S. Characterization of Epstein-Barr Virus recombinants with deletions of the BamHI C EBNA promoter. *Virology* 1996; 217: 532-541.
7. Evans TJ, Farrell, P and Swaminathan, S. Molecular genetic analysis of Epstein-Barr virus Cp promoter function. *J. Virol.* 1996; 70: 1695-1705.
8. Ruvolo, V, Wang, E, Boyle, S, Swaminathan, S. The Epstein-Barr virus nuclear protein SM is both a post-transcriptional inhibitor and activator of gene expression. *Proc. Natl. Acad. Sci.* 1998; 95:8852-8857.
9. Fuentes-Panana, EM, Swaminathan, S, Ling, PD. Transcriptional activation signals found in the EBV latency C promoter are conserved in the latency C promoter sequences from baboon and rhesus monkey EBV-like lymphocryptoviruses (cercopithecine herpesviruses 12 and 15). *J. Virol.* 1999, 73:826-833.
10. Boyle, S, Ruvolo, V, Gupta, AK, Swaminathan, S. Association with the cellular export receptor CRM1 mediates function and intracellular localization of the EBV SM protein, a regulator of gene expression. *J. Virol.* 1999, 73:68726881.
11. Gupta, AK, Ruvolo, V, Patterson, C, Swaminathan, S. The HHV8 homolog of Epstein Barr Virus SM protein (KS-SM) is a post-transcriptional activator of gene expression. *J. Virol.* 2000, 74:1038-44.
12. Ruvolo V, Gupta, AK, Swaminathan, S. Epstein-Barr virus SM protein interacts with messenger RNA in vivo and mediates a gene-specific increase in cytoplasmic mRNA. *J. Virol.* 2001, 75: 6033-6041.

13. Boyer JL, Swaminathan, S and Silverstein, SJ. The Epstein-Barr virus SM protein is functionally similar to ICP27 from herpes simplex virus. *J. Virol.* 2002, 76(18):9420-33.
14. Ruvolo V, Navarro L, Sample C, David M, Swaminathan S. The EpsteinBarr Virus SM protein activates STAT1 and induces interferon stimulated gene expression. *J. Virol.* 2003, 77(6):3690-701.
15. Swaminathan, S. Molecular biology of Epstein-Barr virus and Kaposi's sarcoma-associated herpesvirus.. *Semin. Hematol.* 2003, 40(2):107-15.
16. Ruvolo V, Sun L, Howard K, Sung S, Delecluse H-J, Hammerschmidt W, Swaminathan S. Functional analysis of Epstein-Barr virus SM protein: identification of amino acids essential for structure, trans-activation, splicing inhibition and virion production. *J. Virol.* 2004, 78(1):340-352.
17. Nicewonger, J, Suck, G, Bloch D, Swaminathan, S. Epstein Barr virus SM protein induces and recruits cellular Sp110b to stabilize mRNAs and enhance EBV lytic gene expression. *J. Virol.* 2004, 78(17):9412-22.
18. Swaminathan, S. Post-transcriptional gene regulation in gammaherpesviruses. *J. Cell. Biochem.* 2005, 95(4):698-711.
19. Han, Z and Swaminathan, S. The KSHV lytic gene ORF57 is essential for infectious virion production. *J Virol.* 2006, 80(11):5251-60.
20. Han, Z, Marendy, E, Wang, Y-D, Yuan, J, Sample, JT, Swaminathan, S. Multiple roles of Epstein Barr virus SM protein in lytic replication. *J. Virol.* 2007 81(8): 4058-69.
21. Nekorchuk, M, Han, Z, Hsieh, T and Swaminathan, S. Kaposi's sarcoma-associated herpesvirus ORF 57 protein enhances nuclear mRNA accumulation independent of effects on RNA export. *J Virol.* 2007, 81:(18): 9990-9998.
22. Verma, D and Swaminathan, S. Epstein-Barr virus SM protein functions as an alternative splicing factor, *J Virol.* 2008, 82(14): 7180-8..
23. Swaminathan S. Noncoding RNAs produced by oncogenic human herpesviruses. *J Cell Physiol.* 2008 Aug;216(2):321-6. doi: 10.1002/jcp.21480. Review. PubMed PMID: 18484093.

24. Verma, D, Ling, C, Johannsen, E, Nagaraja, T, Swaminathan, S. Negative autoregulation of EBV replicative gene expression by Epstein-Barr virus (EBV) SM protein, *J. Virol.* 2009 Aug;83(16):8041-50.
25. Han Z, Verma D, Hilscher C, Dittmer DP, Swaminathan S. General and target-specific RNA binding properties of Epstein Barr virus SM post-transcriptional regulatory protein. *J Virol.* 2009, 83(22): 11635-11644.
26. Swaminathan, S. 2009. Gamma-secretase inhibitors - Do they have a role in the treatment of B cell lymphoma? *Cancer Biol. Ther. Cancer Biol. Ther.* 8(22):2126-43.
27. Verma, D, Bais, S, Gaillard, M and Swaminathan, S. Epstein-Barr virus SM protein utilizes cellular splicing factor SRp20 to mediate alternative splicing. *J. Virol.* 2010, 84(22):11781-9.
28. Li, D, Verma, D and Swaminathan, S. Binding of cellular export factor REF/Aly by KSHV ORF57 protein is not required for efficient KSHV lytic replication. *J. Virol.* 2012, 86(18):9866-9874.
29. Verma D, Kim EA, Swaminathan, S. Cell-based screening assay for antiviral compounds targeting the ability of herpesvirus posttranscriptional regulatory proteins to stabilize viral mRNAs. *J Virol.* 2013, 87(19):10742-51.
30. Baden LR, Bensinger W, Angarone M, Casper C, Dubberke ER, Freifeld AG, Garzon R, Greene JN, Greer JP, Ito JI, Karp JE, Kaul DR, King E, Mackler E, Marr KA, Montoya JG, Morris-Engemann A, Pappas PG, Rolston K, Segal B, Seo SK, Swaminathan S, Naganuma M, Shead DA; National Comprehensive Cancer Network. Prevention and treatment of cancer-related infections. *J Natl Compr Canc Netw.* 2012, 10(11):1412-45.
31. Li DJ, Verma D, Mosbrugger T, Swaminathan S, CTCF and Rad21 Act as Host Cell Restriction Factors for Kaposi's Sarcoma-Associated Herpesvirus (KSHV) Lytic Replication by Modulating Viral Gene Transcription. *PLoS Pathog.* 2014 Jan;10(1):e1003880. doi: 10.1371/journal.ppat.1003880. Epub 2014 Jan 9.
32. Hammond SP, Swaminathan S, Bensinger WI, Baden LR. 2014. Hepatitis B Virus Screening and Potential Reactivation in Patients Undergoing Treatment for Cancer. *J Natl Compr Canc Netw* 12:1655-1657.

33. Hanson KE, Swaminathan S. Cytomegalovirus antiviral drug resistance: future prospects for prevention, detection and management. *Future Microbiol.* 2015;10(10):1545-8. doi: 10.2217/fmb.15.82. Epub 2015 Oct 6.
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