Jeffrey I. Cohen, MD

Education and Training

1976	B.A., University of Pennsylvania
1981	M.D., Johns Hopkins University
1981-1982	Residency in Medicine, Duke University Medical Center
1984-1987	Medical Staff Fellow, Hepatitis Virus Section, Laboratory of Infectious Diseases, NIH, Bethesda, MD
1987-1989	Fellow in Medicine, Division of Infectious Diseases, Beth Israel and Brigham & Women's Hospital, Boston, MA

A. POSITIONS AND HONORS

Professional Experience

Instructor in Medicine, Harvard Medical School, Boston, MA. 1989-1990
Senior Staff Fellow, Lab Clinical Investigation, NIH, Bethesda, MD. 1990-1994
Head, Molecular Virology Unit, Lab Clinical Investigation, NIH, Bethesda, MD 1994-1997
Head, Medical Virology Section, Lab Clinical Investigation, NIH, Bethesda, MD 1998-2004
Head, Medical Virology Section; Lab Clinical Infectious Diseases, NIH, Bethesda, 2004-2010
Chief, Laboratory of Infectious Diseases, NIH, Bethesda, 2010-present

Editorial Boards, Review Positions, Honors

Editorial Boards, The Johns Hopkins Medical Journal (1979-81), Virology (2003-present), Journal of Virology (2005-present), Journal of Infectious Diseases (2006-present); Associate Editor Fields Virology (2011-present); Faculty of 1000, contributing faculty member (2002-present, Membership in American Society of Clinical Investigation (1995); Fellow, Infectious Diseases Society of America (1996); membership in American Association of Physicians (2004); Chair, NIAID Institutional Review Board (1994-1995); Chair, NIH Institutional Biosafety Committee (1999-2002); Chair, NIAID Promotion and Tenure Committee (2001-2004); Shingles Prevention Study Executive Committee (2010-present); Zoster Working Group of the CDC Advisory Committee on Immunization Practices (2010-present)

Sorin Biomedica Prize, Sixth International Symposium on Viral Hepatitis and Liver Disease (1987); Maxwell Finland Young Investigator Award in Infectious Diseases, Harvard Medical School (1990); National Institutes of Health Merit Award (1996); NIH Director's Award (2000); Varicella-Zoster Virus Research Foundation Scientific Achievement Award (2004)

B. REPRESENTATIVE PUBLICATIONS (selected from 300 total publications)

Cohen JI, Seidel KE. Generation of varicella-zoster virus (VZV) and viral mutants from cosmid DNAs: VZV thymidylate synthetase is not essential for replication in vitro. Proc. Natl. Acad. Sci. USA 1993; 90:7376-7380.

Moriuchi H, Moriuchi M, Picchyangkura R, Triezenberg SJ, Straus SE, Cohen JI. Hydrophobic cluster analysis predicts an amino-terminal domain of varicella-zoster virus ORF10 required for transcriptional activation. Proc. Natl. Acad. Sci. USA, 1995;92:9333-9337.

Cohen JI. Varicella-zoster: the virus. Infectious Disease Clinics of North America, 1996;10:457-468.

Cohen JI, Wang Y, Nussenblatt R, Straus SE, Hooks JJ. Chronic uveitis in guinea pigs infected with varicella-zoster virus expressing E. coli beta-galactosidase. J. Infect Dis. 1998;177:293-300.

Cohen JI. Infection of cells with varicella-zoster virus down-regulates surface expression of class I MHC antigens. J. Infect. Dis. 1998;177:1390-1393.

Reddy SM, Cox E, Iofin I, Soong W, Cohen JI. Varicella-zoster virus (VZV) ORF32 encodes a phosphoprotein that is posttranscriptionally modified by the VZV ORF47 protein kinase. J Virol, 1998;72:8083-8088.

Moffat JF, Zerboni L, Sommer MH, Heineman TC, Cohen JI, Kaneshima H, Arvin A. The ORF47 and ORF66 putative protein kinases of varicella-zoster virus determine tropism for human T cells and skin in the SCID-hu mouse. Proc. Natl. Acad. Sci. USA 1998;95:11969-11974.

Cohen JI, Straus SE. Varicella-zoster virus-general features. In:Webster RG, Granoff A, ed. Encyclopedia of Virology. London: Academic Press, 1999;1872-1877.

Cohen JI, Brunell PA, Straus SE, Krause PR. Recent advances in varicella-zoster virus infection. Ann Intern Med 1999;130:922-932.

Soong W, Schultz JC, Patera AC, Sommer MH, Cohen JI. Infection of human T lymphocytes with varicella-zoster virus: an analysis with viral mutants and clinical isolates. J Virol. 2000;74:1864-1870.

Argaw T, Cohen JI, Klutch M, Lekstrom K, Yoshikawa T, Asano Y, Krause PR. Nucleotide sequences that distinguish Oka vaccine from parental Oka and other varicella-zoster virus isolates. J Infect Dis. 2000;181:1153-7.

Kinchington PR, Cohen JI. Viral proteins. In: Gershon A, Arvin A. Varicella-zoster virus. Cambridge, U.K.: Cambridge Press 2000; 74-104.

Sato H, Pesnicak L, Cohen JI. Varicella-zoster virus ORF2 encodes a membrane phosphoprotein that is dispensable for viral replication and for establishment of latency. J Virol 2002; 76:3575-3578.

Sato H, Callanan LD, Pesnicak L, Krogmann T, Cohen JI. Varicella-zoster virus (VZV) ORF17 protein induces RNA cleavage and is critical for replication of VZV at 37^{o}C, but not 33^{o}C. J Virol 2002; 76:11012-11023.

Xia D, Srinivas S, Sato H, Pesnicak L, Straus SE, Cohen JI. Varicella-zoster virus ORF21, which is expressed during latency, is essential for virus replication but dispensable for establishment of latency. J Virol 2003, 77: 1211-1218.

Visalli RJ, Fairhurst J, Srinivas S, Hu W, Feld B, DiGrandi M, Curran K, Ross A, Bloom JD, van Zeijl M, Jones TR, O'Connell, Cohen JI. Identification of small molecule compounds that selectively inhibit varicella-zoster virus replication. J Virol 2003;77: 2349-2358.

Sato H, Pesnicak L, Cohen JI. Varicella-Zoster Virus ORF47 protein kinase which is required for replication in human T cells, and ORF66 protein kinase which is expressed during latency, are dispensable for establishment of latency. J Virol, 2003;77:11180-11185.

Cohen JI, Cox E, Pesnicak L, Srinivas S, Krogmann T. The varicella-zoster virus ORF63 latency-associated protein is critical for establishment of latency. J. Virology 2004; 78:11833-11840.

Cohen JI, Krogmann T, Bontems S, Sadzot C, Pesnicak L. Regions of the varicella-zoster virus ORF63 latency-associated protein important for efficient replication in vitro are also critical for efficient establishment of latency. J. Virol. 2005; 79 5069-5077

Cohrs RJ, Gilden DH, Gomi Y, Yamanishi K, Cohen JI. Comparison of virus transcription during lytic infection of the Oka parental and vaccine strains of varicella zoster virus. J Virol 2006; 80:2076-2082.

Hoover SE, Cohrs RJ, Rangel ZG, Gilden DH, Munson P, Cohen JI. Downregulation of varicella-zoster virus (VZV) immediate-early ORF62 transcription by VZV ORF63 correlates with virus replication in vitro and with latency. J Virol 2006;80:3459-3468.

Li Q, Ali, MA, Cohen JI. Insulin degrading enzyme is a cellular receptor for varicella-zoster virus infection and for cell-to-cell spread of virus. Cell 2006, 127:305-316.

Cohen JI, Straus SE, Arvin AM. Varicella-zoster virus: Replication, pathogenesis, and management. In: Knipe DM, Howley PM, et al. Fields Virology. Philadelphia, Lipincott-Williams & Wilkins, 2007, pages 2773-2818.

Cohen JI, Krogmann T, Pesnicak L, Ali MA. Absence or overexpression of the varicella-zoster virus (VZV) ORF29 latency-associated protein impairs late gene expression and reduces latency in a rodent model. J Virol 2007;81:1586-1591.

Cohen JI. Varicella-zoster virus vaccine: evolution in action. Proc Natl Acad Sci USA 2007:104:7-8.

Ambagala APN, Cohen JI. Varicella-zoster virus IE63, a major viral latency protein, is required

to inhibit the IFN-alpha-induced anti-viral response. J Virol 2007; 81:7844-51.

Li Q, Krogmann K, Ali MA, Tang W-J, Cohen JI. The amino terminus of varicella-zoster virus (VZV) glycoprotein E is required for binding to insulin degrading enzyme, a VZV receptor. J Virol 2007; 81:8525-8532.

Rau R, Fitzhugh CD, Baird K, Cortez KJ, Li L, Fischer S, Cowen EW, Balow JE, Walsh TJ, Cohen JI, Wayne AS. Triad of severe abdominal pain, inappropriate antidiuretic hormone secretion, and disseminated varicella-zoster virus infection preceding cutaneous manifestations after hematopoietic stem cell transplantation: Utility of PCR for early recognition and therapy. Ped Infect Dis J 2008; 27:265-8.

Ambagala AP, Bosma T, Ali MA, Poustovoitov M, Gershon MD, Adams PD, Cohen JI. Varicella-Zoster Virus Immediate-Early 63 Protein Interacts with Human Anti-Silencing Function 1 Protein and Alters its Ability to Bind Histones H3.1 and H3.3. J Virology 2008, 83:200-9.

Cohen JI. Rheumatoid Arthritis and the Incidence of Herpes Zoster: Risky Business. Clin Infect Dis, 2009;48:1372-4.

Cohen JI. The varicella-zoster virus genome. Curr Top Microbiol Immunol. 2010;342:1-14.

Cohen JI. Varicella-zoster virus transcriptional regulation and the roles of VZV IE proteins. In: Weller SK (ed). Alphaherpesviruses: Molecular Virology, Caister Academic Press, Norfolk, United Kingdom, 2011, pp.1-16.

Cohen JI. Varicella-zoster virus (Chickenpox, Shingles). In: Goldman L and Schaffer AI (ed). Cecil Medicine, 24th ed. Elsevier Saunders, New York, 2012, pages 2128-2131.

Liu X, Li Q, Dowdell K, Fischer ER, Cohen JI. Varicella-Zoster virus ORF12 protein triggers phosphorylation of ERK1/2 and inhibits apoptosis. J Virol, 2012;86:3143-51.

Liu X, Cohen JI. VZV ORF12 protein activates the PI3K/Akt pathway to regulate cell cycle progression. J Virol. 2013;87 1842-1848.

Liu X, Cohen JI. Inhibition of Bim enhances replication of varicella-zoster virus and delays plaque formation in virus-infected cells. J Virol. 2014;88:1381-1388.

Cohen JI. Herpes zoster. N Engl J Med, 2013;369:255-63.

Yamamoto T, Ali MA, Liu X, Cohen JI. Activation of H2AX and ATM in varicella-zoster virus (VZV)-infected cells is associated with expression of specific VZV genes. Virology 2014, 452-453:52-8.

Cohen JI, Ali MA, Bayat A, Steinberg SP, Park H, Gershon AA, Burbelo P. Detection of Antibodies to Varicella-Zoster virus in recipients of the varicella vaccine using a luciferase immunoprecipitation system assay. Clin Vaccine Immunol. 2014;21:1288-91