

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed on Form Page 2.
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NAME Anthony Bart Nesburn, M.D.		POSITION TITLE Adjunct Professor	
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Univ. of Calif.at L.A. (Magna Cum Laude)	B.A.	1956	Premed Sciences
Harvard Medical School, Boston (Cum	M.D.	1960	Medical
Boston City Hospital (Harvard Service)		1960-61	Internship
Massachusetts Eye & Ear Infirmary, Boston		1966-68	Resident/Ophthal.

A. POSITIONS AND HONORS:**PROFESSIONAL EXPERIENCE**

- 1961 Research Fellow in Ophthalmology, Harvard Medical School, Boston.
- 1964-1966 Research Fellow, Harvard University, Research Division of Infectious Disease, Dr. John F. Enders, Children's Medical Center, Boston. Instructor, Harvard Medical School.
- 1966-1968 Head, Virology Laboratory, Howe Laboratory of Ophthalmology, Massachusetts Eye & Ear Infirmary.
- 1968-1984 Assistant, Associate and Clinical Professor of Ophthalmology, USC Medical School.
- 1968-1984 Director Virology Lab, Doheny Eye Foundation/USC School of Medicine.
- 1972&1976 Member, 1st, 2nd, National Eye Institute (NEI) Program Planning Corneal Task Force.
- 1973-1976 Member, Vision Research Program Committee, National Eye Institute.
- 1980-1983 Chairman (3rd) NEI, Corneal Task Force, Program Planning Subcommittee.
- 1984-1985 Clinical Professor of Ophthalmology, USC School of Medicine, Los Angeles.
- 1985-Pres. Clinical Professor of Ophthalmology, UCLA School of Medicine, Los Angeles.
- 1985-2002 Director of Ophthalmology Research Laboratories-Cedars-Sinai Medical Center, Los Angeles.
- 1988 Committee Chairman, "New Research Strategies for Corneal Diseases Research, "NEI, Reporting to the NAEC for Program Planning 1990-1992, Washington, D.C.
- 1997-2000 Member, National Advisory Eye Council, National Institutes of Health, Washington, D.C.
- 2002-Pres. Adjunct Professor and Vice Chairman for Research, Dept. Ophthalmology, UC Irvine

B. SELECTED PEER REVIEWED PUBLICATIONS (in chronological order)(selected form a total of 170)

- Perng, GC, Slanina, SM, Yukht, A, Ghiasi, H, **Nesburn, AB** and Wechsler, SL: Herpes simplex virus type 1 serum neutralizing antibody titers increase during latency in rabbits latently infected with latency-associated transcript (LAT) positive but not LAT negative viruses. J. Virol. 73:9669-9672. 1999.
- Ghiasi, H, Perng, G, **Nesburn, AB** and Wechsler, SL: either a CD4(+) or CD8(+)T cell function is sufficient for clearance of infectious virus from trigeminal ganglia and establishment of herpes simplex virus type 1 latency in mice. Microb Pathog. 27:387-394. 1999.
- Ghiasi, H, Cai, S, Slanina, SM, Perng, GC, **Nesburn, A.B.** and Wechsler, SL: The role of interleukin (IL)-2 and IL-4 in HSV-1 ocular replication and eye disease. Infect. Dis. 179:1086-1093. 1999.
- Perng, GC, Slanina, SM, Yukht, A, Ghiasi, H, **Nesburn, AB** and Wechsler, SL: the LAT gene enhances establishment of HSV-1 latency in rabbits. J. Virol. 74:1885-1891. 2000.
- Perng, Gc, Jones, C, Ciacci-Zanella, J, Stone, M, Henderson, G, Yukht, A, Slanina, SM, Hofman, FM, Ghiasi, H, **Nesburn, AB** and Wechsler, SL: Virus-induced neuronal apoptosis blocked by the Herpes simplex virus latency associated transcript. Science 287:1500-1503. 2000.
- Ghiasi, H, Cai, S, Perng, GC, **Nesburn, AB** and Wechsler, SL: Both CD4+ and CD8+ T-cells are involved in protection against HSV-1 induced corneal scarring. Br.J.Ophthalmol. 84:408-412. 2000.
- Ghiasi, H, Perng, GC, **Nesburn, AB** and Wechsler, SL: Role of natural killer cells in protection against death and corneal scarring following ocular HSV-1 infection. Antiviral Res. 45:33-45. 2000.
- Inman, M, Perng, GC, Henderson G, Ghiasi, H, **Nesburn, AB**, Wechsler, SL and Jones, C: Localization of

- DNA sequences in the latency associated transcript (LAT) gene of herpes simplex virus type 1 that promote cell survival and spontaneous reactivation. *J. Virol.* 75:3636-3646. 2001.
9. Perng, GC, Slanina, SM, Ghiasi, H, **Nesburn, AB** and Wechsler: The effect of LAT (latency associated transcript) on the herpes simplex virus type 1 (HSV-1) latency-reactivation phenotype is mouse strain dependent. *J. g. Virol.* 82:1117-1122. 2001.
 10. Samoto, K, Perng, GC, Ehtesham, M, Liu, Y, Wechsler, SL, **Nesburn, AB**, Black, KL and Yu, JS: A herpes simplex virus type 1 mutant deleted for γ 34.5 and LAT kills glioma cells in vitro and is inhibited for in vivo reactivation. *Cancer Gene Therapy*, 8:269-277. 2001.
 11. Perng, GC, Esmaili, D, Slanina, SM, Yukht, A, Ghiasi, H, Osorio, N, Mott, KR, Maguen, B, Jin, L, **Nesburn, AB** and Wechsler, SL: Three HSV-1 LAT mutants with distinct asymmetric effects on virulence in mice compared to rabbits. *J.Virol.* 75:9018-9028. 2001.
 12. Ghiasi, H, Hofman, FM, Wallner, K, Cai, S, Perng GC, **Nesburn, AB** and Wechsler, SL: Corneal macrophage infiltrates following ocular herpes simplex virus type 1 challenge vary in BALB/c mice vaccinated with different vaccines. *Vaccine* 19:1266-1273. 2001.
 13. Ghiasi, H, Osorio, Y, Perng, GC, **Nesburn, AB** and Wechsler, SL: Recombinant HSV type 1 expressing murine interleukin-4 is less virulent than wild-type virus in mice. *J. Virol.* 75:9029-9036. 2001.
 14. Perng, GC, Maguen, B, **Nesburn, AB**, Inman, M, Henderson, G, Jones, C and Wechsler, SL: A gene capable of blocking apoptosis can substitute for the herpes simplex virus type 1 latency-associated transcript gene and restore wild-type reactivation levels. *J. Virol.* 76:1224-1235. 2002.
 15. Perng, Gc, Maguen, B, Lin, L, Mott, KR, Juryli, J, BenMohamed, L, Yukht, A, Osorio, N, **Nesburn, AB**, Henderson, G, Inman, M, Jones, C and Wechsler, SL: A novel Herpes simplex virus type 1 transcript (AL-RNA) antisense to the 5' end of the latency associated transcripts produces a protein in infected rabbits. *J. Virol.* 76:1-8.
 16. Osorio, Y, Wechsler, SL, **Nesburn, AB** and Ghiasi, H: Reduced severity of HSV-1 induced corneal scarring in IL-12-deficient mice. *Virus Res.* 90:317-326. 2002.
 17. BenMohamed, L., Wechsler, SL and **Nesburn, AB**: Lipopeptide Vaccines-Yesterday, Today and Tomorrow. *Lancet Infectious Diseases.* 2: 425-431. 2002
 18. Perng, G-C, Maguen, B., Lin, L., Mott, K. R. Kuryli, J., BenMohamed, L., Yukht, A., Osorio, **Nesburn, AB**, Henderson, G., Inman, M., Jones C., and Wechsler, SL: A novel Herpes Simplex Virus Type 1 transcript (AL-RNA) Antisense to the 5' End of the Latency associated Transcripts produces a protein in infected Rabbits. *J. Virology.* 76(16):1-8. 2002
 19. BenMohamed, L, McNamara, CD, Georges, B, Gras-Masse, H, Wechsler, SL and **Nesburn, AB**: Identification of Novel Potent CD4⁺ T Helper Immunogenic Peptides From The Herpes Simplex Virus Glycoprotein D That Confer Protective *J. Virology.* 77 (17): 9463-9473. 2003
 20. **Nesburn, AB**, Ramos, TV, Zhu, X, Asgarzadeh, H, Nguyen, V & BenMohamed, L: Local and Systemic B-cell and Th1 Responses Induced Following Ocular Mucosal Delivery of Multiple Epitopes of Herpes Simplex Virus Type 1 Glycoprotein D Together with Cytosine-Phosphate-Guanine Adjuvant. *Vaccine.* 23:873-883. 2005.
 21. Zhang, X, Issagholian, A, Berg, EA, Fishman, JB, **Nesburn, AB** & BenMohamed L: Th-CTL Chimeric Epitopes Extended by N^F-Palmitoyl-Lysines Induce Herpes Simplex Virus Type 1-Specific Effector CD8⁺ Tc₁ Responses and Protect Against Ocular Infection. *J Virol.* 79(24):15289-15301. 2005
 22. **Nesburn, AB**, Bettahi, I, Zhang, X, Zhu, X, Chamberlain, W, Afifi, RE, Wechsler, SL & BenMohamed, L: Topical/Mucosal Delivery of Sub-Unit Vaccines That Stimulate the Ocular Mucosal Immune System. *The Ocular Surface.* 4(4): 9-18. 2006.
 23. Nesburn AB, Bettahi I, Dasgupta G, Chentoufi AA, Zhang X, You S, Morishige N, Wahlert AJ, Brown DJ, Jester JV, Wechsler SL & **BenMohamed L.** 2007. Functional Foxp3⁺ CD4⁺CD25(Bright⁺) "Natural" Regulatory T Cells are Abundant in Rabbit Conjunctiva and Suppress Virus-Specific CD4⁺ and CD8⁺ Effector T Cells During Ocular Herpes Infection. *J. Virol.* Jul;81(14):7647-61.
 24. Bettahi I; Nesburn AB., Yoon S; Mohebbi A; Sue V; Vanderberg V; Wechsler SL & **BenMohamed L.** 2007 Protective Immunity Against Ocular Herpes Infection and Disease Induced by Highly Immunogenic Self-Adjuvanting Glycoprotein D Lipopeptide Vaccines. *Invest Ophthalmol Vis Sci.* Oct;48(10):4643-53.
 25. Chentoufi A.A. Zhang X. Lamberth L. Dasgupta G. Bettahi I. Nguyen A. Wu M. Zhu X. Mohebbi A. Buus S. Wechsler S.L. Nesburn A.B. & **BenMohamed L.** 2008. Human Leukocyte Antigen (HLA)-A*0201-

Principal Investigator/Program Director (Last, First, Middle):

Restricted CD8+ Cytotoxic T-Lymphocyte Epitopes Identified from Herpes Simplex Virus Glycoprotein D. *J. Immunology*. Jan 1;1(180):426-37.

26. Renaudet O. **BenMohamed L.** Dasgupta G. Bettahi I & Dumy P.. Nguyen A. Wu M. Zhu X. Mohebbi A. Buus S. Wechsler S.L. Nesburn A.B. & **2008.** Towards a Self-Adjuvanting Multivalent B and T cell Epitope Containing Synthetic Glycolipopeptide Cancer Vaccine. *ChemMedChem*. *In press*.

C. RESEARCH SUPPORT

On Going Research Support:

Title: "Ocular Mucsol Immunity" (1RO1 EY15225)

Role On Project: Co-Investigator Nesburn (PI).

Agency: NIH/NEI

Period: 08/01/04 -06/30/08

Major Goals: The overall goal of this proposal is to develop a better understanding of the ocular mucsol immune system (OMIS). This will be done in an experimental rabbit model whose ocular anatomy; immunohistology and immune response to HSV infection mimics that of man.

Title: "Vision Research Infrastructure Development Grant" (R24 EY16663)

Role on Project: Director of the Tissue Culture Core Facility Nesburn (PI)

Agency: NIH/NEI

Period: 06/01/05 - 05/30/10

Major Goals: Support vision research within the Department of Ophthalmology at the University of California Irvine through establishing cell culture and microscopic imaging core facilities.