



STONY BROOK UNIVERSITY

# Office of the President

## Curriculum Vitae

### **SAMUEL LEONARD STANLEY, JR., M.D.**

#### **PERSONAL INFORMATION**

Place of birth: Seattle, Washington

Spouse: Ellen Li, M.D., Ph.D.

Citizenship: U.S.A.

Present Position: Vice Chancellor for Research, Washington University in St. Louis

#### **EDUCATION:**

1976 B.A., Biological Sciences, The College of the University of Chicago, IL

1980 M.D., Medicine, Harvard University Medical School, Cambridge, MA

1984-1987 Post-doctoral, Immunology, Washington University School of Medicine, St. Louis, MO

#### **ACADEMIC POSITIONS/EMPLOYMENT:**

1976 Teaching Assistant in Biology, The College of the University of Chicago, IL

1980-1981 Medical Intern, Massachusetts General Hospital, Boston, MA

1981-1983 Medical Resident, Massachusetts General Hospital, Boston, MA

1983-1984 Fellow in Infectious Diseases, Washington University School of Medicine, St. Louis, MO

1985-1988 Pfizer Fellow in Microbiology and Immunology, Washington University School of Medicine, St. Louis, MO

1987-1988 Instructor in Medicine, Washington University School of Medicine, St. Louis, MO

1988 Assistant Professor, Division of Infectious Diseases, Washington University School of Medicine, St. Louis, MO

1989 Assistant Professor, Department of Molecular Microbiology, Washington University School of Medicine, St. Louis, MO

1990-Present Chief Medical Consultant, BarnesCare Travelers Clinic

1993-1999 Associate Professor (with tenure), Department of Medicine

1994-2004 Associate Professor, Department of Molecular Microbiology

1999-Present Professor, Department of Medicine

2003-Present Director, Midwest Regional Center of Excellence for Biodefense and Emerging Infectious Diseases Research

2004-Present Professor, Department of Molecular Microbiology

2006-Present Vice Chancellor for Research, Washington University in Saint Louis

#### **UNIVERSITY AND HOSPITAL APPOINTMENTS AND COMMITTEES:**

1987-Present Attending physician, Internal Medicine and Infectious Diseases, Barnes-Jewish Hospital of St. Louis, Chief Medical Consultant, BarnesCare Travelers Clinic

1989 Chairman, Committee to formulate a health policy for Washington University Personnel who work with animals.

1992-2000 Member, Washington University MA/MD Committee

1992-2001 Program Committee, American Society of Tropical Medicine and Hygiene

1995-1997 At-large Representative Washington University Faculty Senate  
 Member, Senate Council of Washington University  
 Member, Advisory Committee on Academic Freedom and Tenure

1997-1999 Faculty Representative, Washington University Benefits Committee

1999-2004 Selection Committee and Advisory Board Medical Student International Fellowships

2000-2002 Clinical Representative to the Executive Faculty, Washington University School of Medicine

2000-2004 Chairman, Institutional Biological and Chemical Safety Committee

2001-2002 Division of Biology and Biomedical Sciences Graduate Admissions Committee

2006-Present Chairman, Research Strategic Planning for Washington University School of Medicine

2007-Present Chairman, Skandalaris Center Research Planning Committee

**MEDICAL LICENSURE AND BOARD CERTIFICATION:**

Massachusetts License 1980-83

Missouri License 1983-present

American Board of Internal Medicine, Certification in Internal Medicine 1983

American Board of Internal Medicine, Certification in Infectious Diseases 1986

**MILITARY SERVICE:**

None

**HONORS:**

1976 Honors in Biological Sciences, University of Chicago

1976 Phi Beta Kappa, University of Chicago

1979 Albert Schweitzer Fellow of Harvard Medical School

1985-1988 Pfizer Postdoctoral Fellow

1994-1999 Research Career Development Award, NIH

1999-2004 Burroughs-Wellcome Scholar in Molecular Parasitology

2000 Distinguished Service Teaching Award—Washington University School of Medicine

2002-2004 Permanent member, Tropical Medicine and Parasitology Study Section

2004-2006 Permanent member, Eukaryotic Pathogenesis Study Section

2005-2006 Excellence in Mentoring, Washington University School of Medicine

2006 Distinguished Service Award, Washington University Medical Center Alumni Assn

2007-2008 Ambassador, Paul G. Rogers Society for Global Health Research

**COMMUNITY AND REGIONAL RESPONSIBILITIES:**

2006- Board of Directors, Center for Emerging Technologies

2006- Board Member, Research Alliance of Missouri

2006- Board of Trustees, Saint Louis Academy of Science

2007- Board Member, St. Louis Center of Excellence, Missouri Life Sciences Trust Fund

**EDITORIAL and REVIEW RESPONSIBILITIES:**

*Editorial Board:*

Infection and Immunity 1998-2003

*Ad hoc reviewer for:*

New England Journal of Medicine

Clinical Infectious Diseases

Journal of Infectious Diseases

Molecular Microbiology

Gastroenterology

Physiological Reviews

Cellular Microbiology

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PNAS

Acta Tropica

Vaccine

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Parasite Immunology

Experimental Parasitology

Lancet

Journal of Parasitology

Am.J.Tropical Medicine and Hygiene

Laboratory Animal Science

Molecular and Biochemical Parasitology

Nature

*Ad hoc grant reviewer for:*

Wellcome Trust

International Center for Diarrhoeal Disease Research

USAID

American Federation for AIDS Research

NIH—SEPs on TDRU program

Temporary member: NIH-TMP study section 10-2000, 6-2002

EpScor NSF Site Visit Team 2005

#### **NATIONAL PANELS:**

National Science Advisory Board for Biosecurity (NSABB), Criteria Roundtable Adviser 6/2006

NIH Blue Ribbon Panel on the New England Infectious Diseases Research Laboratory 2008-

NIH National Advisory Allergy & Infectious Diseases Council 2008 - 2012

U.S. Department of Commerce, Emerging Technology and Research Advisory Committee 2008 -

#### **PROFESSIONAL SOCIETIES AND ORGANIZATIONS:**

Associate Member American College of Physicians, 1981

Member, Infectious Disease Society of America, 1989

Member, American Society of Tropical Medicine and Hygiene, 1988

Member, American Federation for Clinical Research, 1989

Member, American Society for Microbiology, 1992

Fellow, Infectious Disease Society of America, 1995

Member, American Society for Clinical Investigation, 1995

Secretary-Treasurer, Board of Directors, Infectious Diseases Society of St. Louis, 2004-2007

#### **MAJOR INVITED LECTURES:**

*Visiting scientist and lecturer*—Centro de Investigacion y de Estudios Avanzados del IPN, Mexico City, Mexico 3/91

"Molecular approach to *Entamoeba histolytica* pathogenesis", St. Louis University 4/91.

*Chair*—Amebiasis Session, American Society Tropical Medicine Hygiene—"Isolation of an

*Entamoeba histolytica* cDNA clone encoding a protein with a zinc finger domain." Boston, 11/91.

*Keynote Speaker*—"Role of the amebic cysteine proteinase in amebic liver abscess formation". Meeting of the Society of Biological Chemistry (Mexico), Zacatecas, Mexico, 11/94.

*Co-chair and Speaker*—Merck Symposium on Amebiasis—"New models for amebiasis". ASTMH Meetings, Cincinnati. 11/94

*Speaker*—"Scid mouse model of amebiasis" and "Scid mice and gene knockout mice as models for parasitic disease". India/U.S.A. Joint Vaccine Action Program, Lucknow, India. 12/94.

*Speaker*—"What can murine models tell us about the immunobiology of amebiasis?" Berne Immunology

- Center, U. of Va., Charlottesville. 12/94
- Speaker*—"Progress in a vaccine for amebiasis.", Eur. Conf. Trop. Med., Hamburg, 11/95
- Chair and Speaker*—Symposium—New insights into the immunobiology of parasitic diseases from knockout and scid mice. ASTMH Meeting, 12/96.
- Speaker*—Bernardo Sepulveda Molecular Biology Seminar, XIII Congress on Amebiasis, Mexico City, Mexico. 1/97
- Speaker*—Keystone Symposium on Cellular and Molecular Cross Talk at Mucosal Surfaces, Santa Fe, New Mexico 3/97.
- Speaker*—"EhADH2 enzyme: A novel target for anti-amebic drugs". ICTDR Conference, Washington, D.C., 4/97.
- Speaker*—"Oral and DNA vaccines to prevent amebiasis." ICTDR Conference, Washington, D.C., 4/98.
- Speaker*—"How intestinal epithelial cells regulate the inflammatory response to enteric pathogens". U.T. Health Sciences Center, San Antonio, TX. 6/98
- Visiting professor and Speaker*—"Amebiasis: Putting man into mouse to understand an ancient enemy." NYU Medical Center Grand Rounds. 1/99
- Speaker*—"Pathways for amebic induction of inflammation and programmed cell death", Burroughs Wellcome Symposium, ASTMH Meeting, Washington, D.C., 11/99.
- Speaker*—"Pathways for amoebic induction of inflammation and tissue damage." International Symposium on Amoebiasis. Hamburg, Germany, 7/2000.
- Speaker*—National Institutes of Health/National Institute for Allergic and Infectious Diseases "Amebic dysentery and ICE." 4/2001.
- Speaker*—St. Louis University "Amebic dysentery and ICE 9/2001
- Speaker*—U.T. El Paso "Amebic dysentery and ICE" 10/2001
- Speaker*—Southern Illinois University at Carbondale "Amebic dysentery and ICE", 10/2001.
- Speaker*—Washington University School of Medicine, Department of Pediatrics Grand Rounds, "Amebiasis—new insights into an ancient enemy" 10/2001
- Chairman, and Speaker*: Session on Amebiasis: Ellison Foundation Conference on Tropical Diseases, Bhubaneswar, India, Feb. 2002
- Speaker*—Woods Hole Tropical Medicine and Parasitology Course: "Amebiasis", July 2002, July 2003.
- Speaker*—Plenary Session, X International Conference on Parasitology, Vancouver, B.C. "Pathways for amebic induction of inflammation and programmed cell death. Aug. 2002.
- Speaker*—Special Symposium in Honor of Jean Hickman. ASTMH meeting Denver. "New insights into amebiasis from SCID-HU-INT mice. Nov. 2002
- Speaker*—EMBO Conference on Amebiasis, Paris, France "Role of TNF in amebic induced inflammation". Mar. 2003
- Speaker*—Engineering Connections Series—"SARS and other emerging infectious diseases—the dangers of a small world". Washington University Sept. 2003
- Speaker*—Yonsei University—Challenges in the Post Genomic Era—"Simultaneous host/pathogen genomics." Nov. 2003.
- Speaker*—Korean Society of Parasitology—Pathways for amebic induction of inflammation and and programmed cell death. Nov. 2003.
- Speaker*—Institute Pasteur—"New insights into dysentery from SCID-HU-INT mice". Nov 2003.
- Speaker*—University of Illinois, Emerging Infectious Diseases Conference "Pathogenesis of amebiasis". Mar.2004.
- Speaker*—University of Pennsylvania, Parasitology Group: "Understanding amebiasis from the host and pathogen perspective. Nov. 2004
- Speaker*—Washington University School of Medicine, Medical Grand Rounds: "Emerging Infectious Diseases—Preparing for the Unexpected and the Inevitable". Nov. 2004
- Speaker*—7th Annual Conference on Hemophilia—San Juan Puerto Rico, Emerging Infections —Preparing for the unexpected and the inevitable. Feb. 2005

*Speaker*—NIAID/NIDDK workshop on Humanized Mouse Models of Disease. Washington, DC.

*Speaker*—ASM Biodefense Meeting, Washington D.C., : "Chimeric SCID-Human Mice to Study Enteric Pathogens." Feb. 2006

*Speaker*—MMI/ID Seminar Series: "Molecular Dissection of *Entamoeba histolytica* Pathogenesis." Mar. 2006

*Speaker*—Washington University Reunion Medical Update: "Avian Influenza & Emerging Infectious Diseases." May, 2006.

*Speaker*—Washington University Reunion College: "The Threat of Emerging Infectious Diseases, Avian Influenza and Beyond." May, 2006

*Speaker*—Pathobiology of human diseases series: Biodefense and the immunogenetics of smallpox vaccination. Washington University, May 2007.

*Speaker*—IGCC-Public Policy and Biological Threats: Training the Next Generation; "Basics of Viral Pathogenesis and Disease." La Jolla, CA, July 2007.

*Speaker*—13th Annual Kentucky EPSCoR Statewide Conference. "Perspectives and lessons-learned in building academic team science." Lexington, KY, October 2007.

*Speaker*—5th Annual MRCE Meeting, Washington University. "Immunogenetics of Smallpox Vaccination." St. Louis, MO, October 2007.

*Speaker*—IGCC-Public Policy and Biological Threats: Training the Next Generation; "Basics of Viral Pathogenesis and Disease." La Jolla, CA, July 2008.

*Speaker*—Institute for Public Health, International Public Health Activities at Washington University in St. Louis; Washington University, September 2008.

*Speaker*—Tradeline, Inc., Academic Medical & Health Science Centers 2008; "Key program and facility initiatives to grow disease-focused research and funding." San Francisco, CA, October 2008.

#### **RESEARCH SUPPORT:**

Principal Investigator, U54 AI057160-01, "Midwest Regional Center for Excellence in Biodefense and Emerging Infectious Diseases Research, 9/1/03 to 3/1/14, Direct costs: \$5,123,000/yr.

Principal Investigator, NIAID R01 AI-30084, "Molecular Dissection of *Entamoeba histolytica* pathogenesis." 7/01/95 to 1/31/2011. Current year direct costs: \$250,000

Co-Investigator, 1UL1RR024992-01 (Kenneth Polonsky, M.D. Principal Investigator) Washington University Institute of Clinical and Translational Sciences (CTSA), Co-Director, Tracking and Evaluation Program. 9/17/07 to 5/31/12, Current year funds \$6,818,890.

Principal Investigator, Pathways of inflammation and tissue damage in amebiasis. Burroughs Wellcome Scholar in Molecular Parasitology. 7/1/99 to 6/30/06, Total direct costs: \$425,000.00

Principal Investigator, NIAID R01 AI-51621-01 "Structure-Function of *Entamoeba* alcohol dehydrogenase 2". 5/01/02 to 3/31/06, Direct costs \$200,000/yr.

#### **CLINICAL TITLE AND RESPONSIBILITIES:**

Attending physician, Red Medical Service, Barnes Hospital, 1989 to 2007.

Attending physician, Infectious Diseases Service, Barnes-Jewish Hospital, 1987 to 2007.

Chief Medical Consultant, BarnesCare Travelers Clinic, 1990 to present.

#### **TEACHING TITLE AND RESPONSIBILITIES:**

Lecturer, Washington University School of Medicine, 1st Year Course in Microbiology "Introduction to Tropical Medicine".

Lecturer, Washington University School of Medicine, 2nd Year Course in Pathophysiology of Infectious Diseases "Bacteremia and Sepsis" and "Protozoa I, Protozoa III" "Cases in Tropical Medicine"

Lecturer, Infectious Diseases and the Diagnostic Laboratory Course, "Intestinal Protozoa".

Lecturer, Clinical Infectious Diseases Course, "Diarrheal Diseases", "Diseases of Travelers", and

"Bacteremia and Sepsis", "Tropical Diseases".

Lecturer, Lucille P. Markey Special Emphasis Pathway in Human Pathobiology, "Vaccines for Malaria".

Lecturer, Microbial Pathogenesis Course, "MDR genes and pathogenesis".

Lecturer, Molecular Mechanisms of Disease Course, "Vaccines against parasitic diseases".

Instructor, Case Problems in Cell Biology and Biochemistry

Instructor, Tropical Medicine Course

Faculty advisor: International Health and Tropical Medicine Forum

Lecturer, Barnes Housestaff Conference, "Diseases of Travelers".

Lecturer, Microbiology 1st year Graduate Student Course: "Protozoan taxonomy and diversity"

## **PUBLICATIONS:**

### **Peer-Reviewed**

Wong, YC; **Stanley Jr, SL**; Garber, BB. Separation and characterization of neuronal and glial cell populations from embryonic chick cerebra in culture. *Anatomischer Anzeiger*, 1981; 150:351-373.

**Stanley Jr, SL**; Kehl, O. Ascending paralysis associated with diethylcarbamazine treatment of a *M. loa loa* infestation—A case report and review of the literature. *Tropical Doctor*, 1982; 12:16-19.

**Stanley Jr, SL**; Lusk, R. Thoracic actinomycosis presenting as a brachial plexus syndrome. *Thorax*, 1985; 40:74-75.

Powderly, WG; **Stanley Jr, SL**; Medoff, G. Pneumococcal endocarditis: Report of a series and review of the literature. *Review of Infectious Diseases*, 1986; 8:786-789.

**Stanley Jr, SL**; Bischoff, JK; Davie, JM. Antigen induced rheumatoid factors: Protein and carbohydrate antigens induce different rheumatoid factor responses. *Journal of Immunology*, 1987; 139:2936-2942.

**Stanley Jr, SL**; Li, E; Davie, JM. Antigen induced rheumatoid factors: Characterization of monoclonal rheumatoid factors produced after protein and carbohydrate immunization. *Molecular Immunology*, 1988; 25:285-291.

Li, E; Becker, A; **Stanley Jr, SL**. Use of Chinese hamster ovary cells with altered glycosylation patterns to define the carbohydrate specificity of *Entamoeba histolytica* adhesion. *Journal of Experimental Medicine*, 1988, May; 167 (5):1725-1730.

Li, E; Becker, A; **Stanley Jr, SL**. Chinese hamster ovary cells deficient in N-acetylglycosaminyltransferase I activity are resistant to *Entamoeba histolytica*-mediated cytotoxicity. *Infection & Immunity*, 1989; 57:812.

**Stanley Jr, SL**; Becker, A; KunzJenkins, C; Foster, L; Li, E. Cloning and expression of a membrane antigen of *Entamoeba histolytica* possessing multiple tandem repeats. *Proceedings of the National Academy of Sciences of the USA*, 1990, Jul 1; 87(13):4976-4980.

Burch, DJ; Li, E; Reed, S; Jackson, TFHG; **Stanley Jr, SL**. Isolation of a strainspecific *Entamoeba histolytica* cDNA clone. *Journal of Clinical Microbiology*, 1991; 29:696-701.

**Stanley Jr, SL**; Jackson, TFHG; Reed, SL; Calderon, J; KunzJenkins, C; Gathiram, V; Li, E. Serodiagnosis of invasive amebiasis using a recombinant *Entamoeba histolytica* protein. *JAMA*, 1991, Oct; 266(14):1984-1986.

**Stanley Jr, SL**; Foster, L; Phillips, N. Molecular analysis of carbohydrate antigen induced monoclonal IgM antiIgG antibodies (rheumatoid factors). *Molecular Immunology*, 1992, Apr; 29(4):453-61.

**Stanley Jr, SL**; Huizenga, H; Li, E. Isolation and partial characterization of a surface glycoconjugate of *Entamoeba histolytica*. *Molecular & Biochemical Parasitology*, 1992; 50:127-138.

- Stanley Jr, SL**; Li, E. Isolation of an *Entamoeba histolytica* cDNA clone encoding a protein with a putative zinc finger domain. *Molecular & Biochemical Parasitology*, 1992; 50:185-188.
- Li, E; KunzJenkins, C; **Stanley Jr, SL**. Isolation and characterization of genomic clones encoding a serinerich *Entamoeba histolytica* protein. *Molecular & Biochemical Parasitology*, 1992; 50:355-358.
- Cieslak, PR; **Stanley Jr, SL**. Advances in amebiasis: implications for the clinician. *Infectious Diseases in Clinical Practice*, 1992; 1(3):151-157.
- Zhang, Y; Li, E; Jackson, TFHG; Zhang, T; Gathiram, V; **Stanley Jr, SL**. Use of a recombinant 170 kDa surface antigen of *Entamoeba histolytica* in serodiagnosis of amebiasis, and identification of immunodominant domains of the native molecule. *Journal of Clinical Microbiology*, 1992, Nov; 30(11):2788-2792.
- Cieslak, PR; Virgin IV, HW; **Stanley Jr, SL**. A severe combined immunodeficient (SCID) mouse model for infection with *Entamoeba histolytica*. *Journal of Experimental Medicine*, 1992, Dec; 176(6):1605-1609.
- Myung, K; Burch, DJ; Jackson, TFHG; **Stanley Jr, SL**. Serodiagnosis of invasive amebiasis using a recombinant *Entamoeba histolytica*-antigen based ELISA. *Archives of Medical Research*, 1992; 23(2):285-288.
- Zhang, Y; Aley, S; **Stanley Jr, SL**; Gillin, FD. Cysteine-dependent zinc binding by membrane proteins of *Giardia lamblia*. *Infection & Immunity*, 1993; 61:520-524.
- Cieslak, PR; Zhang, T; **Stanley Jr, SL**. Expression of a recombinant *Entamoeba histolytica* antigen in a *Salmonella typhimurium* vaccine strain. *Vaccine*, 1993; 11:773-776.
- Zhang, Y; Li, E; **Stanley Jr, SL**. *Entamoeba histolytica*: The EHZc3 cDNA clone encodes a zinc-binding protein. *Experimental Parasitology*, 1993, Aug; 77(1):118-120.
- Zhang, T; Cieslak, PR; Foster, L; Kunz-Jenkins, C; **Stanley Jr, SL**. Antibodies to the serine rich *Entamoeba histolytica* protein (SREHP) prevent amebic liver abscess in severe combined immunodeficient (SCID) mice. *Parasite Immunology*, 1994, May; 16(5):225-230.
- Zhang, T; Cieslak, PR; **Stanley Jr, SL**. Protection of gerbils from amebic liver abscess by immunization with a recombinant *Entamoeba histolytica* antigen. *Infection & Immunity*, 1994, Apr; 62(4):1166-70.
- Yang, W; Li, E; Kairong, T; **Stanley Jr, SL**. *Entamoeba histolytica* has an alcohol dehydrogenase homologous to the adhE gene product of *Escherichia coli*. *Molecular & Biochemical Parasitology*, 1994; 64:253-260.
- Zhang, T; **Stanley Jr, SL**. Protection of gerbils from amebic liver abscess by immunization with a recombinant protein derived from the 170 kDa adhesin of *Entamoeba histolytica*. *Infection & Immunity*, 1994; 62(6):2605-2608.
- Li, E; Stenson, WF; Kunz-Jenkins, C; Swanson, PE; Duncan, R; **Stanley Jr, SL**. *Entamoeba histolytica* interactions with polarized human intestinal Caco-2 epithelial cells. *Infection & Immunity*, 1994; 64(11):5112-5119.
- Stanley Jr, SL**; Tian, K; Koester, JP; Li, E. The serine rich *Entamoeba histolytica* protein (SREHP) is a phosphorylated membrane protein containing O-linked terminal N-acetylglucosamine (O-GlcNAc) residues. *Journal of Biological Chemistry*, 1995, Feb; 270(8):4121-4126.
- Stanley Jr, SL**; Blanchard, JL; Johnson, N; Foster, L; Kunz-Jenkins, C; Zhang, T; Tian, K; Cogswell, FB. Immunogenicity of the recombinant serine rich *Entamoeba histolytica* protein (SREHP) amebiasis vaccine in the African Green Monkey. *Vaccine*, 1995, Jul; 13(10):947-951.
- Zhang, T; Li, E; **Stanley Jr, SL**. Oral immunization with the dodecapeptide repeat of the serine rich *Entamoeba histolytica* protein (SREHP) fused to the cholera toxin B subunit induces a mucosal and systemic anti-SREHP antibody response. *Infection & Immunity*. 1995, Apr; 63(4):1349-1355.

**Stanley Jr, SL**; Zhang, T; Rubin, D; Li, E. Role of the amebic cysteine proteinase in amebic liver abscess in severe combined immunodeficient (SCID) mice. *Infection & Immunity*, 1995, Apr; 63(4):1587-1590.

Velazquez, C; Valette, I; Cruz, M; Labra, M-L; Montes, J; **Stanley Jr, SL**; Calderon, J. Identification of immunogenic epitopes of the 170-kDa subunit adhesin of *Entamoeba histolytica* in patients with invasive amebiasis. *Journal of Eukaryotic Microbiology*, 1995, Sep; 42(5):636-641.

Li, E; Yang, W-G; Zhang, T; **Stanley Jr, SL**. Interaction of laminin with *Entamoeba histolytica* cysteine proteinases and its effect on amebic pathogenesis. *Infection & Immunity*. 1995, Oct; 63(10):4150-4153.

Flores, BM; **Stanley Jr, SL**; Yong, TS; Ali, M; Diedrich, DL; Torian, BE. Surface localization, regulation, and biologic properties of the 96-kDa alcohol/aldehyde dehydrogenase (EhADH2) of pathogenic *Entamoeba histolytica*. *Journal of Infectious Diseases*, 1996, Jan; 173(1):226-231.

Yong, TS; Li, E; Clark, D; **Stanley Jr, SL**. Complementation of a *Escherichia coli* adhE mutant by the *Entamoeba histolytica* EhADH2 gene provides a method for the identification of new anti-amebic drugs. *Proceedings of the National Academy of Sciences of the USA*, 1996, Jun 25; 93(13):6464-6469.

Seydel, KB; Braun, K; Zhang, T; Jackson, TFG; **Stanley Jr, SL**. Human anti-amebic antibodies provide protection against amebic liver abscess formation in the SCID mouse. *The American Journal of Tropical Medicine & Hygiene*, 1996; 55:330-332.

Zhang, T; **Stanley Jr, SL**. Oral immunization with an attenuated vaccine strain of *Salmonella typhimurium* expressing the serine rich *Entamoeba histolytica* protein induces an anti-amebic immune response and protects gerbils from amebic liver disease. *Infection & Immunity*, 1996, May; 64(5):1526-1531.

Seydel, KB; Li, E; **Stanley Jr, SL**. Human intestinal epithelial cells produce pro-inflammatory cytokines in response to infection in a SCID-HU-INT model of amebiasis. *Infection & Immunity*, 1997, May; 65(5):1631-1639.

Lotter, H; Zhang, T; Seydel, KB; **Stanley Jr, SL**; Tannich, E. Identification of an epitope on the *Entamoeba histolytica* 170 kDa-lectin conferring antibody mediated protection against invasive amebiasis. *Journal of Experimental Medicine*, 1997, May 19 185(10):1793-1801.

Ryan, ET; Butterson, JR; Zhang, T; **Stanley Jr, SL**; Calderwood, SB. Oral immunization with attenuated vaccine strains of *Vibrio cholerae* expressing a dodecapeptide repeat of the serine rich *Entamoeba histolytica* protein fused to the cholera toxin B subunit induces systemic and mucosal anti-amebic and anti-V. cholerae antibody responses in mice. *Infection & Immunity*, 1997, Aug; 65(8):3118-3125.

Seydel, KB; Zhang, T; **Stanley Jr, SL**. Neutrophils play a critical role in early resistance to amebic liver abscess in SCID mice. *Infection & Immunity*, 1997, Sep; 65(9):3951-3953.

Zhang, T; **Stanley Jr, SL** Expression of the serine rich *Entamoeba histolytica* protein (SREHP) in the avirulent vaccine strain *Salmonella typhi* TY2x4297 cya crp asd: Safety and immunogenicity in mice. *Vaccine*, 1997, Aug-Sep; 15(12-13): 1319-1322.

Marinets, A; Zhang, T; Guillen, N; Gounon, P; Bohle, B; Vollman, U; Scheiner, O; Wiedermann, G; **Stanley Jr, SL**; Duchene, M. Protection against invasive amoebiasis by a single monoclonal antibody directed against a lipophosphoglycan antigen localized on the surface of *Entamoeba histolytica*. *Journal of Experimental Medicine*, 1997; 186:1557-1565.

Wang, L; Calderon, J; **Stanley Jr, SL**. Identification of B cell epitopes in the serine rich *Entamoeba histolytica* protein *The American Journal of Tropical Medicine & Hygiene*, 1997, Dec; 57(6):723-726.



**Stanley Jr, SL**; Jackson, TFHG; Foster, L; Singh, S. Longitudinal study of the antibody response to recombinant *Entamoeba histolytica* antigens in patients with amebic liver abscess. *The American Journal of Tropical Medicine & Hygiene*, 1998, Apr; 58(4):414-416.

Sultan, F; Jin-L-I; Jobling, MG; Holmes, RK; **Stanley Jr, SL** Mucosal immunogenicity of a holotoxin-like molecule containing the serine rich *Entamoeba histolytica* protein (SREHP) fused to the A2 domain of cholera toxin. *Infection & Immunity*, 1998, Feb; 66(2):462-468.

Seydel, KB; Zhang, T; Champion, GA; Fichtenbaum, C; Swanson, PE; Tzipori, S; Griffiths, JK; **Stanley Jr, SL**. *Cryptosporidium parvum* infection induces human TNF and IL-8 production from human intestinal xenografts in SCID mice. *Infection & Immunity*, 1998; 66:2379-2398.

Seydel, KB; **Stanley Jr, SL**. *Entamoeba histolytica* induces host cell death in amebic liver abscess by a non-Fas, non-TNF-dependent pathway of apoptosis. *Infection & Immunity*, 1998 Jun; 66(6):2980-2983.

Seydel, KB; Li, E; Zhang, Z; **Stanley Jr, SL**. Epithelial cell-initiated inflammation plays a crucial role in early tissue damage in amebic infection of human intestine. *Gastroenterology*, 1998, Dec; 115(6):1446-1453.

Temesvari, LA; Harris, EN; **Stanley Jr, SL**; Cardelli, JA. Early and late endosomal compartments of *Entamoeba histolytica* are enriched in cysteine proteinases, acid phosphatases and several Ras-related Rab GTPases. *Molecular & Biochemical Parasitology*, 1999; 103:225-241.

Zhang, T; **Stanley Jr, SL**. DNA vaccination with the serine rich *Entamoeba histolytica* protein (SREHP) prevents amebic liver abscess in rodent models of disease. *Vaccine*, 1999, Dec 10; 18(9-10):868-874.

Seydel, KB; Smith, SJ; **Stanley Jr, SL**. Interferon-gamma and nitric oxide are required for host defense in a murine model of amebic liver abscess. *Infection & Immunity*, 2000; 68:400-402.

Lotter, H; Khajawa, F; **Stanley Jr, SL**; Tannich, E. Protection of gerbils from amebic liver abscess by vaccination with a 25 mer peptide derived from the "cysteine-rich" region of the *Entamoeba histolytica* galactose-specific adherence lectin. *Infection & Immunity*, 2000; 68:4416-4421.

Zhang, Z; Yan, L; Wang, L; Seydel, KB; Li, E; Ankri, S; Mirelman, D; **Stanley Jr, SL**. *Entamoeba histolytica* cysteine proteinases with interleukin-1 beta converting enzyme (ICE) activity cause intestinal inflammation and tissue damage in amebiasis. *Molecular Microbiology*, 2000, Aug; 37(3):542-548.

Zhang, Z; Jin, L; Champion, G; Seydel, KB; **Stanley Jr, SL**. Shigella infection in SCID-HU-INT mice: role for neutrophils in containing bacterial dissemination in human intestine. *Infection & Immunity*, 2001; 69:3240-3247.

Stenson, W; Zhang, Z; Riehl, T; **Stanley Jr, SL**. Amebic infection induces cyclooxygenase-2 (COX-2) production in human intestine. *Infection & Immunity*, 2001; 69:3382-3388.

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#### **PATENTS:**

U.S. Patent 5,130,147: *Entamoeba histolytica* Immunogenic protein and cDNA clone.

Significance: patent of the SREHP cDNA clone; recombinant SREHP is a major vaccine candidate for amebiasis, and a reagent utilized in prototype diagnostic tests.

Inventor: Samuel L. Stanley Jr., and Ellen Li.

Assignee: Washington University, St. Louis.

U.S. Patent 5,275,935: Amebic glycoconjugate and monoclonal antibody.

Significance: patent of the amebic glycoconjugate, a major surface antigen of amebae and a monoclonal antibody, CC 8.6 which recognizes this antigen. Possible uses in diagnostic kits.

Inventor: Samuel L. Stanley, Jr., and Ellen Li.

Assignee: Washington University, St. Louis.

US Patent 5,807,000: Method of screening anti-amebic compounds.

Significance: Describes the use of mutant *E. coli* strains complemented with amebic antigens to screen compounds for anti-amebic activity.

Inventor: Samuel L. Stanley, Jr.

Assignee: Washington University, St. Louis.

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