

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Leslie H. Tobler	POSITION TITLE Senior Scientist , Blood Systems Research Institute (BSRI), San Francisco, CA Lecturer , Hematology, Biology and Nursing Departments, San Francisco State University (SFSU)
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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
Kantonsspital St. Gallen, St. Gallen, Switzerland	M. T. A.	1963	Medical Technology
California State University, Hayward, CA	B.S.	1973	Medical Technology
University of California, Berkeley, CA (UCB)	M. P. H.	1974	Med Virol/Immunology
University of California, Berkeley, CA (UCB)	Dr. P.H.	1981	Med Virol/Immunology

RESEARCH AND PROFESSIONAL EXPERIENCE: Concluding with present position, list in chronological order previous employment, experience, and honors. Include present membership on any Federal Government public advisory committee. List, in chronological order, the titles, all authors, and complete references to all publications during the past three years and representative earlier publications pertinent to this application. If the list of publications in the last three years exceeds two pages, select the most pertinent publications. **DO NOT EXCEED TWO PAGES.**

Section A. EMPLOYMENT and EXPERIENCE

- 1964 - 1972 Medical Technologist, Kantonsspital St Gallen, St Gallen, Switzerland
1979 Medical Technologist, Clinical Lab, Alta Bates Hospital, Berkeley CA
1979 - 1983 Post-doctoral fellow, Univ Calif Los Angeles (UCLA) Medical Center, Dept of Pediatrics, Torrance CA (Dr. David T. Imagawa).
1983 Post-doctoral fellow, Univ Calif San Francisco (UCSF) Cancer Research Inst, San Francisco CA (Dr. Jay A. Levy).
1984 - 1985 Lecturer, Dept of Biology, San Francisco State Univ (SFSU), San Francisco CA
1984 - 1988 Research, Bio-Rad Laboratories, Hercules CA.
1988 - 1990 Research, Monoclonal Antibodies, Inc., Sunnyvale CA.
1990 - present Research, Blood Systems Research Institute (formerly the Research Division of Blood Centers of the Pacific / Irwin Memorial Blood Centers), San Francisco CA
1991 - present Lecturer, Center for Hematology, Dept of Biology & Nursing, (formerly the Center for Biomedical Laboratory Sciences, Dept of Biology), SFSU, San Francisco CA

HONORS

- 1974 - 1979 S PHS Training Grant AO3-AH00535
1977 - 1979 Student Basic Support for Research, UCB
1978 - 1979 Grossman Endowment Award, UCB
1979 Brian Ridpath Award, UCB

Section B. PUBLICATIONS

- Zoller L, **Tobler L**. Vergleich der Keimzahlbestimmung Uricult-Gussplatte. (German) Das Medizinische Laboratorium, 9:214-7, 1969.
- Tobler L**, Hostenstein R. Direkte und indirekte Bestimmung der arteriellen Sauerstoffsättigung. (German) Das Medizinische Laboratorium, 10:223-6, 1971.
- Tobler LH**. Rosetting in Measles Virus Infected SSPE Hamsters and Multiple Sclerosis Patients. Doctoral Thesis, University of California, Berkeley. 1981.
- Tobler LH**, Johnson KP, Buehring GC. Rosetting of Measles or Mumps Virus Infected Cells with Lymphocytes from Multiple Sclerosis Patients. Arch Neurol, 39:565-9, 1982.
- Tobler LH**, Johnson KP, Buehring GC. Immune Response of Hamsters to Experimental Central Nervous System Infection with Measles Virus. J Neuroimmunol, 2:307-20, 1982.
- Bui HD, **Tobler LH**, Van Pelt LF, Howard EB, Imagawa DT. Canine Bladder Epithelial Cells in Culture: Susceptibility to Canine Distemper and Measles Viruses. Amer J Veterinary Res, 43:1268-70, 1982.
- Tobler LT**, Imagawa DT. Mechanism of Persistence with Canine Distemper Virus: Difference Between a Laboratory Strain and an Isolate from a Dog with Chronic Neurological Disease. Intervirology, 21:77-86, 1984.

8. Levy JA, **Tobler LH**, McHugh TM, Cassavant CH, Stites DP. Long-Term Cultivation of T Cell Subsets from Patients with Acquired Immune Deficiency Syndrome. *Clin Immunol & Immunopathol*, 35:328-336, 1985
9. Lee T-H, Sunzeri FJ, **Tobler LH**, Williams BG, Busch MP. Quantitative Assessment of HIV-1 DNA Load by Coamplification of HIV-1 gag and HLA-DQ-alpha Genes. *AIDS*, 5:683-91, 1991.
10. Evans CS, **Tobler L**, Polito A, Stewart J, Chien D, Wilber J, Quan S, Delaney S, Kuo G, Busch MP. Comparative Evaluation of Hepatitis C Virus Antibody Supplemental Test Systems. *Transfusion*, 32:408-14, 1992.
11. Busch MP, Wilber JC, Johnson P, **Tobler L**, Evans CS. Impact of Specimen Handling and Storage on Detection of Hepatitis C Virus RNA. *Transfusion*, 32:420-5, 1992.
12. Busch MP, **Tobler LH**, Quan S, Wilber JC, Johnson P, Polito A, Steane E, Zola A, Bahl C, Nelles M, Lee SR. A Pattern of 5-1-1 and c100-3 Only on Hepatitis C Virus (HCV) Recombinant Immunoblot Assay Does Not Reflect Hepatitis C Virus Infection in Blood Donors. *Transfusion*, 33:84-8, 1993.
13. **Tobler LH**, Busch MP, Wilber J, Dinello R, Quan S, Polito A, Kochesky R, Bahl C, Nelles M, Lee SR. Evaluation of c22-3 Indeterminate Reactivity in Volunteer Blood Donors. *Transfusion*, 34:130-4, 1994.
14. **Tobler LH**, Busch MP. Application of Polymerase Chain Reaction in Screening Blood Donors for Infectious Diseases. *Proceedings of Transfusion Medicine Symposium, Fukushima, Japan, April 1996.* pp 3-5 (English), 7-8 (Japanese). (first publication of # 16, below)
15. **Tobler LH**, Busch MP. Application of Polymerase Chain Reaction in Screening Blood Donors for Infectious Diseases. Presented at Transfusion Medicine Symposium, Fukushima, Japan, April 1996. (2nd publication of # 15, above) *Japanese J Transfusion Med*, 43(5):809-11 (English), 811-2 (Japanese), 1997.
16. **Tobler LH**, Busch MP. History of Post-Transfusion Hepatitis. *Clin Chem*, 43(8-B, Part 2):1487-93, 1997.
17. **Tobler LH**, Kaufman E, Gefter N, Schable C, Busch MP. Use of Human Immunodeficiency Virus (HIV) Type 1 and 2 Recombinant Strip Immunoblot Assay to Resolve Enzyme Immunoassay anti-HIV-2 Repeatedly Reactive Samples after anti-HIV-1/2 Combination Enzyme Immunoassay Screening. *Transfusion*, 37:921-5, 1997.
18. Busch MP, **Tobler LH**, Tegtmeier G, Polito A, Quan S, Hirschler NV, Dockter J, Giachetti C, Mimms L. Use of Third-Generation Hepatitis C Virus (HCV) Enzyme Immunoassay (EIA) to Resolve Second-Generation HCV EIA-Reactive and Second-Generation Recombinant Immunoblot Assay-Indeterminate Blood Samples: Data to Support Current FDA Guidance on HCV Lookback. *Transfusion*, 40:10-4, 2000.
19. **Tobler LH**, Tegtmeier G, Stramer SL, Quan S, Dockter J, Giachetti C, Busch MP. Lookback on Donors Who Are Repeatedly Reactive on First Generation Hepatitis C Virus Assay: Justification and Rational Implementation. Summary of Analysis Presented at January 28, 1999 meeting of HHS Advisory Committee on Blood Safety and Availability, Washington DC. *Transfusion*, 40:15-24, 2000.
20. **Tobler LH**, Lee SR, Stramer SL, Peterson J, Kochesky R, Watanabe K, Quan S, Polito A, Busch MP. Performance of Second- and Third-Generation RIBAs for Confirmation of Third-Generation HCV EIA-Reactive Blood Donations. *Transfusion*, 40:917-23, 2000.
21. Hahn JA, Page-Shafer K, Lum PJ, Bourgois P, Stein E, Evans JL, Busch MP, **Tobler LH**, Phelps B, Moss AR. Hepatitis C Virus Seroconversion Among Young Injection Drug users: Relationships and Risk. *J Infect Dis*, 186:1558-64, 2002.
22. Fang CT, **Tobler LH**, Haesche C, Busch MP, Phelps B, Leparc G. Fluctuation of Hepatitis C Viral Load Prior to Seroconversion in a Healthy Volunteer Blood Donor. [Case Report] *Transfusion*, 43:541-4, 2003.
23. Shata MT, Tricoche N, Perkus M, Tom D, Brotman B, McCormack P, Pfahler W, Lee D-H, **Tobler LH**, Busch MP, Prince AM. Exposure to Low Infective Doses of HCV Induces Cellular Immune Responses Without Consistently Detectable Viremia or Seroconversion in Chimpanzees. *Virology*, 314:601-16, 2003.
24. Operskalski EA, Mosley JW, **Tobler LH**, Fiebig EW, Nowicki MJ, Mimms LT, Gallarda J, Phelps BH, Busch MP, for the Transfusion-Transmitted Viruses Study and the Retrovirus Epidemiology Donor Study. HCV Viral Load in anti-HCV-Reactive Donors and Infectivity for Their Recipients. *Transfusion*, 43:1433-41, 2003.
25. **Tobler LH**, Stramer SL, Lee SR, Masecar BL, Peterson JE, Davis EA, Andrews WE, Brodsky JP, Kleinman SH, Phelps BH, Busch MP. Impact of HCV 3.0 EIA Relative to HCV 2.0 EIA on Blood-Donor Screening. *Transfusion*, 43:1452-9, 2003.
26. McAuley JD, Caglioti S, Williams RC, Robertson GF, Morgan L, **Tobler LH**, Busch MP. Clinical Significance of Nondiscriminated Reactive Results with the Chiron Procleix HIV-1 and HCV Assay. *Transfusion*, 44:91-6, 2004.
27. Delwart EL, Kalmin ND, Jones TS, Ladd DJ, **Tobler LH**, Tsui RCP, Busch MP. First Case of HIV Transmission by an RNA-Screened Blood Donation. *Vox Sang*, 86:171-7, 2004.
28. Prince AM, Pawlotsky J-M, Soulier A, **Tobler LH**, Brotman B, Pfahler W, Lee D-H, Li L, Shata MT. HCV Replication Kinetics in Chimpanzees with Self-Limited and Chronic Infections. *J Viral Hepatitis*, 11:236-42, 2004.
29. Herring BL, Page-Schafer K, **Tobler LH**, Delwart EL. Frequent Hepatitis C Virus Superinfection in Injection Drug Users. *J Infect Dis*, 190:1396-1403, 2004.

30. **Tobler LH**, Bianco C, Glynn SA, Schreiber GB, Dille BJ, Prince HE, Lanciotti RS, Linnen JM, Gallarda J, Shyamala V, Smith D, Kleinman SH, Busch MP. Detection of West Nile Virus (WNV) RNA and antibody in Frozen Plasma Components from a Voluntary Market Withdrawal during the 2002 Peak Epidemic (In Press).

Section C. OTHER SUPPORT

Ongoing and recently completed research (no pending research). Include person's role and responsibilities on project. Do not include direct costs or percent effort or discuss overlap.

Leslie H. Tobler, Dr.P.H.

1. N01-HB-47114. Retrovirus Epidemiology Donor Study, REDS. 9/30/99 – 9/29/04
PI: EL Murphy (UCSF prime); MP Busch (BSRI sub) (competitive renewal application in process)
Extensive multi-center national long-term (since 1989) study of risk, incidence & prevalence of virus infection in blood donors, originally HIV-1, HTLV-I/II. Expanded to other new & emerging potentially transfusion-transmissible viruses, e.g., HCV, GBV, WNV, etc. Includes several sub-studies.
Dr Tobler is extensively involved in applied research relating to infectious disease issues within the blood supply and national policy issues.
2. Collaborative Study Agreement with Chiron Corporation. 5/1/03 – 4/30/05
Ongoing collaborative agreement between BSRI and Chiron Corporation, Emeryville, CA. Funds various development studies primarily related to validation, fine-tuning of new blood screening technologies, and testing for known and new infectious agents.
3. DA-02-009. Acute Hepatitis C Infection in Young Injection Drug Users 1/14/03 – 8/13/04
PI: K Page-Shafer (UCSF prime); MP Busch (BSRI sub)
This project monitors young (~20 years old) injection drug users in San Francisco for hepatitis C infection. Dr Tobler directs central sample processing laboratory and maintains repository for these samples at BSRI.
4. Blood Systems Foundation (BSF) Grant: Viral Reference Laboratory and Repository Core (VRLRC) at Blood Systems Research Institute.
PI: L Tobler 1/1/04 – 12/31/04
Funds from this grant are currently used to maintain and enhance the capabilities of the Viral Serology Core group at BSRI. This funding allows for the establishment of an infrastructure at BSRI to support applied research relating to infectious disease issues within the blood supply and national policy issues.
5. R01-HL-076902 Natural History of Acute and Chronic HCV in Blood Donors
award dates 9/1/03 – 8/31/08, start date delayed till 2004
PI: MP Busch
Co-Investigator: L Tobler
The focus of this extensive study of blood donors newly identified with non-transfusion-acquired HCV is: 1) Determine cause-specific morbidity, mortality, and medical follow-up with treatment status; 2) Characterize determinants of viral clearance in donors with resolved HCV infection including recurrent viremia; 3) Investigate HCV genetic and cellular immune responses during both resolved and chronic HCV infection; and 4) Investigate HCV genetic evolution and cellular immune responses during acute infection

8/09/04