

## **Robert H. Keller, MD, MS, FACP, AAHIVS**

### **Education and Training:**

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| 1966      | Bachelor of Arts in Biology<br>Master of Science in Biology<br>Fordham University, Bronx, New York |
| 1970      | Doctor of Medicine (MD) with honors<br>Temple University, Philadelphia, Pennsylvania               |
| 1970-1974 | Internship, Resident and Senior Resident<br>University of Rochester, Rochester, New York           |
| 1974-1976 | Fellow and Senior Fellow<br>Department of Immunology<br>Mayo Clinic, Rochester, Minnesota          |
| 1976      | Master of Science in Immunology<br>Mayo Graduate School of Medicine<br>Rochester, Minnesota        |

### **Professional and Faculty Positions:**

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| 2001 - | Founder, Chairman, CEO & CSO<br>Phoenix BioSciences which has developed a new first in class and first in man<br>viral-host interaction inhibitor for HIV / AIDS |
| 1999-  | Founder, Chairmain,CEO and Director of Research<br>Vitimmune, Inc<br>Hollywood, Florida  |
| 1998-  | Voluntary Adjunct Professor<br>Miller School of Medicine, University of Miami<br>Miami, Florida  |
| 1996-  | Chairman and CEO<br>Immune Balance Technologies<br>Hollywood, Florida  |

1994-	Director of Medicine & Research Biodoron Medical Center Hollywood, Florida
1994-1995	Consultant in Immunology and Hematology Health Professionals, Inc and Center for Special Immunology
1992-1995	Director Immune Reconstitution Program Center for Special Immunology
1992-1995	Medical Director Center for Special Immunology Miami Beach, Florida
1987-1996	President and Medical Director The Wilson Bode Center Fort Lauderdale, Florida
1986-1987	Associate Director of Research and Development Coulter Immunology Coulter Electronics, Inc., Hialeah, Florida
1982-1986	Medical Director Wilson Bode Center for Hematology and Immunology Research Milwaukee, Wisconsin
1982-1986	Clinical Professor Department of Health Sciences (Hematology, Immunology, Flow Cytometry) University of Wisconsin Milwaukee, Wisconsin
1982-1986	Associate Professor Departments of Medicine and Biophysics (Allergy and Immunology, Flow Cytometry) Medical College of Wisconsin Milwaukee, Wisconsin
1982-1986	Clinical Investigator and Staff Physician

Zablocki VAMC  
Milwaukee, Wisconsin

1980-1982      Director of Immunology  
Midwest Children's Cancer Center (Immunology, Flow Cytometry,  
Transplantation)  
Chief of Immunology  
Milwaukee Children's Hospital  
Milwaukee, Wisconsin

1980-1982      Associate Professor  
Department of Pediatrics (Hematology/Oncology, Immunology)  
Medical College of Wisconsin  
Milwaukee, Wisconsin

1979-1982      Clinical Associate Professor  
Department of Health Sciences (Hematology, Immunology,  
Flow Cytometry)  
University of Wisconsin  
Milwaukee, Wisconsin

1978-1980      Research Associate and Staff Physician  
Research Service  
Zablocki VAMC  
Milwaukee, Wisconsin

1977-1980      Assistant Professor  
Department of Medicine (Hematology/Oncology)  
Medical College of Wisconsin  
Milwaukee, Wisconsin

1977              Assistant Professor  
Department of Immunology  
Mayo Medical School  
Rochester, Minnesota

1974-1977      Fellow and Senior Research Fellow in Immunology  
Mayo Clinic Foundation  
Mayo Graduate School of Medicine  
Rochester, Minnesota

### **Hospital Staff Appointments:**

1976-1977	Mayo Clinic, Rochester, Minnesota
1977-1986	Zablocki VAMC, Milwaukee, Wisconsin
1977-1986	Milwaukee County Medical Complex, Milwaukee, Wisconsin
1992-1997	Mount Sinai Medical Center, Miami Beach, Florida
1992-1999	Cleveland Clinic Hospital, Fort Lauderdale, Florida
1992-1999	Miami Heart Institute, Miami Beach, Florida
1997-1999	Palmetto General Hospital, Hialeah, Florida
1992-	Broward General Medical Center, Fort Lauderdale, Florida
1997-	Hollywood Medical Center, Hollywood, Florida
1997-	South Shore Hospital, Miami Beach, Florida
1997-	Memorial Medical Center, Hollywood, Florida

### **Fellowships and Awards:**

1967-1969	Health Professions Scholarship Temple University School of Medicine
1974-1975	Mayo Foundation Research Fellowship Mayo Graduate School of Medicine
1975-1978	National Arthritis Foundation Fellowship
1978-1981	VA Career Development Award, Research Associate
1983-1986	VA Career Development Award, Clinical Investigator

### **Grant Support During Academic Tenure**

1978-1980	Alpha-fetoprotein Immunoregulation in a Model of Murine Lymphoma Veterans Administration Research Principal Investigator	\$210,000
1981-1986	Immunoregulatory Dysfunction in Non-Hodgkin's Lymphoma NIH, NCI Principal Investigator	\$430,000
1982-1986	Immunologic Studies of Environmental	

	Lung Disease NIH (NIAID) Co-Principal Investigator	\$525,000
1983-1986	VA Career Development Award Clinical Investigator	\$240,000
1984-1986	Clinical Applications of Laser Flow Cytometry Principal Investigator NIH (RR Shared Equipment Program)	\$105,609
1984-1987	Immunoregulatory Dysfunction Principal Investigator VA	\$245,000
1985-1986	Monoclonal Antibodies in the Detection of Cervical Carcinoma Co-Principal Investigator Hillman Foundation	\$85,000
1986-1987	Isoprinosine Modulation of the Immuno- regulatory Imbalances in AIDS and ARC Principal Investigator of FDA IND Newport Foundation	\$125,000

**Honors:**

1970	Alpha Omega Alpha Temple University, School of Medicine
1970	Medical Degree with honors Temple University, School of Medicine
1979	Superior Performance Award in Research Veterans Administration
1980-	Fellow, American College of Physicians
1991-	Who's Who in Science and Technology
1994-	Who's Who in the World

- 1996- Who's Who in Medicine and Science
- 1998 HIV Medical Professional of the Year  
PWAC, Broward County, Florida
- 1999 Humanitarian of the Year  
National Hemophilia Foundation
- 2001- 2000 Outstanding Scientists of the 21<sup>st</sup> Century
- 2002 - 1000 Great Americans of the 21<sup>st</sup> Century
- 2003 - America's Top Physicians in Internal Medicine, Immunology and Hematology
- 2004 - Elected to Board of Governors  
Academy of HIV Medicine of the State of Florida
- 2004 – 2006 AMA Physicians Recognition Award
- 2005 - Greatest Scholars of the Twenty First Century

**Invited Lectureships:**

- 1977 Second Fogarty International Conference on  
Neonatal Liver Disease  
Baltimore, Maryland
- 1977 International Conference on the Diagnosis and  
Prevention of Neural Tube Defects  
Los Angeles, California
- 1977 Second International Conference on Diagnostic Immunology  
Heniker, New Hampshire
- 1979 Radioimmunochemical Detection of Cancer  
Albuquerque, New Mexico
- 1980 Visiting Professor of Hematology  
University of Mississippi  
Jackson, Mississippi

- 1981            Visiting Professor of Hematology  
University of California  
Irvine, California
- 1981            Third International Conference on Diagnostic  
Immunology, Section Chair
- 1982            Visiting Professor of Pathology  
University of Texas Medical Branch  
Galveston, Texas
- 1983            Visiting Professor of Medicine  
Wilfred Hall Air Force Research Center  
Galveston, Texas
- 1984            Visiting Professor Max Plank Institute for Biochemie  
Munich, Germany
- 2005            Visiting Professor of Immunology and Pharmacology  
Peking Union Medical School (University of Beijing)  
Beijing, China

**Editorial Boards:**

Diagnostic Immunology 1986-1990  
Journal of Leukocyte Biology 1984-1986  
Chronicle Interventions in Aging 2005 -

**Reviewer:**

Journal of Immunology 1990-Present  
Chronicle Interventions in Aging 2005 -

**Consultantships:**

Coulter Epics  
Coulter Immunology  
Corning Scientific  
National Aeronautics and Space Administration (NASA)  
Abbott HIV Advisory Board  
Baxter Advisory Board for Hemophilia  
Baxter Advisory Board for Hemophilia Inhibitor Patients  
Scientific Advisory Board, Virxsys, 2004 –

Scientific Advisory Board, Powermedica, 2004 –  
Consultant in Cancer Therapy, PRSS-J, Toyko, 2005 –  
Medical Advisory Council, American Federation of Hemophilia, 2002 -

**Certifications:**

National Board of Medical Examiners, 1971 and 1990  
American Board of Internal Medicine, 1974 -  
American Academy of HIV Medicine, 2001 -

**Current Medical Licensure:**

New York	#112195
Wisconsin	#19121
Florida	#58991

**Certification:**

ACLS	1990 -
ATLS	1990 -

**Professional Societies:**

Alpha Omega Alpha  
American Association for the Advancement of Science  
American Association of Immunologists  
American College of Physicians  
American Federation of Clinical Research  
American Society of Clinical Pathology  
American Society of Hematology  
International Society of Hematology  
International Society of Hematopathology  
International Immunocompromised Host Society  
International Society of Analytical Cytology  
Clinical Cytometry Society  
New York Academy of Sciences  
Clinical Immunology Society  
National Organization for Rare Disorders

### **Teaching Experience:**

- 1980      Survey in Basic and Clinical Immunology  
Department of Medicine  
Medical College of Wisconsin
  
- 1983      Principles of Laser Flow Cytometry  
Department of Health Sciences  
University of Wisconsin
  
- 1981        Special Topics in Immunology  
Immunoregulation in Cancer  
Department of Biology  
Marquette University
  
- 1986      Co-Director Flow Cytometry Program  
University of Wisconsin  
Introduction to Flow Cytometric Analysis  
Principles of Image and Laser Cytometry  
Hybridomas and Monoclonal Antibodies  
Laboratory Evaluation of Immunoregulation  
Clinical Immunophenotyping and DNA Analysis  
Advanced Cytometry  
Advanced Cytometric Techniques

### **Invited Professional Lectures:**

- 1979-      Dr. Keller has been the invited speaker at more than 2000 state, regional, national, and international, medical and scientific seminars and workshops in the fields of:

- AIDS and Immunoregulation
- Clinical Immunology
- Chronic Fatigue Syndrome and Fibromyalgia
- Autoimmune Disease and Control of Aberrant Immune Response
- Nutrition and the Immune Response
- Hormones and the Immune Response
- Hepatitis C
- Hemophilia

## Protecting the Immune System Before, During, and After Cancer

### Therapy

- 2000 Host of *Today's Health*, WAXY 790 and Web streamed at Vitimmune.com and RobKellermd.org
- 2005 Host of Voice America Web Based Interactive Radio Show, The Path to Wellness and Youth

### Committee Service:

Veterans Administration:	1985-1986 Research and Development Committee Clement J. Zablocki VAMC 1986-1989 VA Oncology Merit Review Board
International Society for Analytical Cytology:	1984-1986 Research and Development Committee: Controls & Standard
University of Wisconsin:	1983-1986 Flow Cytometry Evaluation Committee, Co Chair
National Institutes of Health:	1983-1986 NIH Immunology Special Study Section
Medical College of Wisconsin:	1980-1982 Faculty Welfare Committee 1980-1982 Animal Care Committee 1982-1986 Flow Cytometry Protocol Committee, Chair
Cancer Committee for Hollywood Medical Center	1992-
Committee of Ten Thousand:	1998- Medical Advisory Board
National Hemophilia Federation:	1996- Medical Advisory Committee
National Hemophilia Foundation-Florida Chapter:	1994- Medical Advisory Committee
Mount Sinai Medical Center	1994-1997 Cancer Committee
Hollywood Medical Center	2001- Cancer Committee
Board of Governors American Academy HIV Med (FL)	2003 –
ProAssurance Malpractice Underwriting Committee	2005-
AAHIVM Standards of Practice Committee	2005-

### Statement of Research Interest:

- 1) HIV: Dissection of the immune perturbations associated with HIV infection including therapy with experimental immunomodulatory agents.
- 2) Dissection of the immune perturbations associated with hemophiliac complications and therapeutic intervention using experimental immunoregulatory agents.

- 3) Creation and utilization of unique `designer` monoclonal antibodies for the diagnosis, monitoring, imaging and therapy of human hematologic and solid tumor malignancies.
- 4) Immune response and immunoregulation: dissection of the basic human immune response and the roles of cytokines and other regulatory molecules and the demonstration and characterization of aberrant responses in neoplastic and immunologic disease.

**Patents Issued:**

- 1) R.H. Keller and Dr. X. Wen: Allerg-ease (2000)
- 2) R.H. Keller, D.W. Kirchenbaum: ALL-Immune (2002)
- 3) R.H. Keller, PBS 119 a novel treatment for chronic viral infections (2004)
- 4) R.H. Keller, A Paradigm Shift in Treating Neurogenerative Diseases Including Alzheimers and Parkinsons.

**Provisional Patents:**

- 1) R.H. Keller and W.M. Reiter: Treatment of late stage HIV-1 infection with haplo-matched peripheral blood mononuclear cells.
- 2) ALL-Slender, a natural weight loss formula
- 3) Cognitall, a natural formula to improve short term memory

**Books:**

1. Keller, R.H. The Role of Immunology and Hormones in Combating Disease and Aging (in preparation).

**Book Chapters:**

- 1) Keller, R.H. and Tomasi, T.B.: **Alpha-fetoprotein: A Potential Regulator of Immune Function.** In Diseases of the Liver and Biliary Tract. Javitts, N.NIH, Bethesda, Maryland, pp. 119-134, 1977.

- 2) Keller, R.H., Calvinico, N.J., Fink, J.N., and Stevens, J.O.: **Immunobiologic Aspects of Primate Hypersensitivity Pneumonitis.** In Environmental Toxicology. Dungworth, D.L. (ed), Academic Press, New York, pp.383-395, 1981.
- 3) Keller, R.H., Blake, D.G., Lyman, S. and Siebenlist, R.: **The Immunobiology of Human Non-Hodgkin's Lymphomas.** In Clinical Cellular Immunology. Luderer, A. (ed). Humana Press, New York, pp. 213-246, 1982.
- 4) Patrick, C.W., Keller, R.H., and Horan, P.K.: **Flow Cytometry, Cell Sorting and Hybridomas.** American Society Clinical Pathology Press. St. Louis, MO, pp. 1-182, 1982.
- 5) Patrick, C.W., Parker, J., Keller, R.H., and Horan, P.K.: **The Clinical Utility of Monoclonal Antibodies and Immunophenotyping.** In Flow Cytometry and Cell Sorting in Hematologic Disease. American Society of American Pathologists Press. Chicago, IL pp. 1-191.
- 6) Calvinico, N.J., Fink, J.N., and Keller, R.H.: **Hypersensitivity Pneumonitis.** In The Immunology of the Lung. Bienenstock, J. (ed), Academic Press, New York pp 365-366, 1984.
- 7) Keller, R.H., Milson, T.J., Janicek, K.M., Patrick, L.C., Sohnle, P., and Patrick, C.W.: **Clinical Utilization of the Technicon H-6000 Flow Cytochemical Flow System in Allergy Testing.** In Proceedings of the 4<sup>th</sup> International Technicon Hematology Colloquium. Simson, E. (ed) Academic Press, New York, pp 179-188, 1984.
- 8) Patrick, C.W., Horan, P.K, and Keller, R.H.: **Immunophenotypic and Functional Analysis Using Laser Flow Cytometry: Clinical Utility.** American Society of Clinical Pathology Press, Chicago, IL, 1985, pp. 1-168.
- 9) Patrick, C.W. and Keller, R.H.: **Lymphocytes: Biochemistry, Physiology, Function, and Morphology.** In Principles of Hematology: Clinical and Laboratory Practice. R.L. Bick, (ed) C.V. Mosby, St. Louis, MO in press.
- 10) Patrick, C.W. and Keller, R.H.: **The Emerging Role of Laser Flow Cytometry and Monoclonal Antibodies in Clinical Medicine.** In: Principles of Hematology: Clinical Laboratory Practice. R.L. Bick (ed) C.V. Mosby, St. Louis, MO, in press.
- 11) Keller, R.H. and Patrick, C.W.: **Characterization of the Human Myeloid Series by Monoclonal Antibodies.** In Monoclonal Antibodies in Laboratory Medicine. Swartz, M. (ed) Academic Press, New York, in press.

- 12) Patrick, C.W., McFadden, P.W., and Keller, R.H.: **Immunophenotypic Analysis of Human Bone Marrow Employing Monoclonal Antibodies and Laser Flow Cytometry.** In Proceedings of the Second International Conference on Technological Advances in Laboratory Hematology. Howen, B. (ed), Academic Press, 1985.
- 13) Keller, R.H., Janicek, K.M., and Patrick, C.W.: **The Clinical Significance of Laser Flow Cytometry DNA Analysis.** In Proceedings of the Second International Conference on Technological Advances in Laboratory Hematology. Howen, B. (ed) Academic Press, New York, 1985.
- 14) Keller, R.H., Van Riel, F., Maislis, J., Lane, J.T., Reiter, W.M., Klimas, N.G, Fletcher, M.A.: **Association of Histocompatibility Class II Antigens wit the Chronic Fatigue Immune Dysfunction Syndrome.** In Clinical Infectious Disease. University of Chicago, Chicago, IL, 1994:18 (Supp 1): S154-6.
- 15) **Antioxidants and the skin, A Paradigm for aging.**  
R.H. Keller and E. Arrayove (in press) 2004

#### **Original Research Contributions and Invited Reviews:**

- 1) Keller, R.H. and Tomasi, T.B.: **Alpha-fetoprotein, E-Rosette Formation and Tumor Cell Growth.** N Engl J Med 293(24): 1265-1266, 1975.
- 2) Tomasi, T.B., Dattwyler, R., Murgita, R. and Keller, R.H.: **Immunosuppression by Alpha-fetoprotein.** Trans Am Assoc Phys. 88:293-298, 1976.
- 3) Geubel, A.P., Keller, R.H., Summerskill, W.H.J., Dickson, E.R., Tomasi, T.B. and Shorter, R.G.: **Lymphocyte Cytotoxicity and Inhibition Studied with Autologous Liver Cells: Observation in Chronic Acute Liver Disease and the Primary Biliary Cirrhosis Syndrome.** Gasterenterol. 71:450-459, 1976.
- 4) Keller, R.H. and Clavanico, N.J., and Tomasi, T.B.: **Immunosuppressive Properties of AFP: Role of Estrogens.** In Onco Developmental Gene Expression. Fichman, W.H. and Sell, S. (eds) Academic Press, New York, p.278, 1976.
- 5) Keller, R.H. and Tomasi, T.B.: **Synthesis of Alpha-fetoprotein by Murine Lymphoid Cells in Allogenic Reactions.** J Exp Med 143:1120, 1976.
- 6) Banks, P., Keller, R.H., Li, V.Y. and White, E.B.: **Malignant Lymphomas of Plasmablastic Identity: A Neoplasm with Both “Immunoblastic” and Plasma Cell Features.** Am J Med 64:609-610, 1978.

- 7) Keller, R.H., Atwater, J.S., Martin, R.S. and Tomasi, T.B.: **Ataxia Telangiectasia, Immunosuppression and AFP: Is There a Relationship?** In Prevention of Neural Tube Defects. Crandall, B. (ed) Academic Press, New York, pp.27-40, 1978.
- 8) Guirgis, H.A., Lynch, H.T., Keller, R.H., Tomasi, T.B., Vandervoorde, J., Brodsky, F., Lynch, J., Rankin, L. and Malony, K.: **Carcinoembryonic Antigen (CEA) and Alpha-fetoprotein (AFP) in Cancer-Prone Families: Communicable Implications.** In Proceeding of the Third Annual Symposium on the Detection and Prevention of Cancer. Part I (2), 1987.
- 9) Keller, R.H., Dattwyler, R.J., Harrison, E. and Tomasi, T.B.: **Alpha-fetoprotein in Human Lymphoproliferative Disease.** J Lab Clin Immunol, 2:93-98, 1979.
- 10) Kaplan, H.J., Meredith, T.A., Aeberg, T.M. and Keller, R.H.: **Intraocular Reticulum Cell Sarcoma (Histiocytic Lymphoma) in Richter's Syndrome: A Neoplasm of the Immune System.** Arch Ophthal 98:707-710, 1980.
- 11) Keller, R.H., Blake, B.G., Lyman, S. and Siebenlist, R.: **Immunoregulatory Abnormalities in Chronic Lymphocytic Leukemia.** J Lab Clin Immunol 6:201-208, 1981.
- 12) Choi, H. and Keller, R.H.: **Co-existence of Chronic Lymphocytic Leukemia and Hodgkin's Disease.** Cancer 48:48-55, 1981.
- 13) Kaplan, H.J., Aeberg, T.M. and Keller, R.H.: **Etiology of Recurrent Clinical Uveitis.** Ber Dtsch Ophthal Ges 78:159, 1981.
- 14) Kaplan, H.J. and Keller, R.H.: **Recurrent Clinical Uveitis: Cell Surface Markers on Vitreous Lymphocytes.** Arch Ophthal 100:585-592, 1982
- 15) Keller, R.H., Fink, J.N., Lyman, S. and Pederson, G.: **Suppressor Cells in Asymptomatic Pigeon Breeders.** J Clin Immunol 2:46-51, 1982.
- 16) Milson, T.J., Grief, D. and Keller, R.H.: **The Variable Effect of Cryopreservation on Peripheral Blood Mononuclear Populations.** J Clin Lab Immunol 7:205-218, 1982.
- 17) Keller, R.H., Calvanico, N.J. and Stevens, J.O.: **Hypersensitivity Pneumonitis In Non-human Primates.** In Studies on the Relationship of Immunoregulation and Disease Activity. J Immunol 128:116-123, 1982.

- 18) Keller, R.H.: **Alpha-fetoprotein: Biologic and Clinical Potential.** In Tumor Imaging: The Radioimmunochemical Detection of Cancer. Burchiel, S. and Rhodes, B. (eds) Mason Publishing, New York, pp. 179-188, 1982.
- 19) Patrick, C.W. and Keller, R.H.: **New Techniques in the Diagnosis of Hematopoietic Malignancies: Monoclonal Antibodies, Flow Cytometry and Cell Sorting.** Am Soc Clin Pathol Sp Topic Series 20(3)106-109, 1982.
- 20) Keller, R.H., Libnoch, J.A., Patrick, C.W., Blake, D.G., Choi, H. and Hanson, R.D.: **Fc Gamma Bearing T Cells in Non-Hodgkin's Lymphomas.** Diag Immunol 1:27-32, 1983.
- 21) Keller, R.H., Feldman, E. and Libnoch, J.A.: **Immunoregulatory Abnormalities in the Kindred of Waldenström's Macroglobulinemia Patients.** Am J Hematol 14:15-22, 1983.
- 22) Keller, R.H. and Calvanico, N.J.: **Suppressor Macro-molecules.** Crit Rev Immunol 5(2): 149-199, 1984.
- 23) Fudenberg, H.H., Wilson, G.B., Keller, R.H., Metcalf, J.F., Pauling, E.E., Stuart, E.J. and Floyd, E.: **Clinical Application of the Leukocyte Migration Inhibition Assay: New Methods for Determining Transfer Factor Potency and for Prediction of Clinical Response.** In Proceedings of the IV International Conference on Transfer Factor. Academic Press, New York, pp. 293-310, 1984.
- 24) Patrick, C.W. and Keller, R.H.: **A Simple Device for the Collection of Cells Sorted by Flow Cytometry: Preservation of Integrity and Viability.** Cytometry 5(3):308-311, 1984.
- 25) Keller, R.H., Milson, T.J., Janicek, K.M. and Patrick, C.W.: **Monoclonal Antibodies: Clinical Utility and the Misunderstood Epitope.** Lab Med 15(12):785-802, 1984.
- 26) Keller, R.H., Swartz, S.J., Leven, S., Bar Sella, S. and Fink, J.N.: **Immunoregulation in Hypersensitivity Pneumonitis: Phenotypic and Functional Studies of Bronchoalveolar Lavage Lymphocytes.** Am Rev Res Dis 130:766-771, 1984.
- 27) Patrick, C.W., Swartz, S.J., Harrison, K.A. and Keller, R.H.: **Collection and Preparation of Hemopoietic Cells for Cell Marker Analysis.** Lab Med 15(10): 659-665, 1984.
- 28) Patrick, C.W., Milson, T.J., McFadden, P.W. and Keller, R.H.: **Flow**

**Cytometry and Cell Sorting.** Lab Med 15(11):740-745, 1984.

- 29) Wilson, G.B., Fudenberg, H.H. and Keller, R.H.: **Guidelines for Immunotherapy of Antigen Specific Defects with Transfer Factor.** J Clin Lab Immunol 13:51-58, 1984.
- 30) Baumann, M.A., Libnoch, J.A., Patrick, C.W., Choi, H. and Keller, R.H.: **Prolonged Survival in Richter's Syndrome with Subsequent Re-emergence of Chronic Lymphocytic Leukemia: A Case Report Including Serial Cell Surface Phenotype Analysis.** Am J Hematol 20:67-72, 1985.
- 31) Marti, G.E., Patrick, C.W., Muirhead, K., Magruder, L., Vail, M., Schuette, W., Keller, R.H., Horan, P.K. and Gralnick, H.R.: **Normal Blood Density Gradient Lymphocyte Subset Analysis: In an Inter-Laboratory Flow Cytometric Comparison of 85 Normal Adults.** Am J Hematol 20:41-52, 1985.
- 32) Milson, T.J., Patrick, C.W., Sohnle, P.G., Patrick, L.C. and Keller, R.H.: **Flow Cytochemical Analysis of Atopic Reactions.** Diag Immunol 3:182-186, 1986.
- 33) Milson, T.J., Patrick, C.W., Torke, N.J. and Keller, R.H.: **Holding Media for Cell Surface Phenotyping Analysis.** J Immunol Methods 87:155-159, 1986.
- 34) Baumann, M.A., Milson, T.J., Patrick, C.W., Libnoch, J.A. and Keller, R.H.: **Immunoregulatory Abnormalities in Myelodysplastic Disorders.** Am K Hematol 22:79-86, 1986.
- 35) Hansen, R.M, Lerner, N., Abrams, R.A., Patrick, C.W., Malik, M.I. and Keller, R.H.: **Chronic Lymphocytic Leukemia with Pure Red Cell Aplasia: Laboratory Demonstration of Persistent Leukemia in Spite of Apparent Complete Clinical Remission.** Am J Hematol 22:79-86, 1986.
- 36) Baumann, M.A., Keller, R.H., McFadden, P.W., Libnoch, J.A. and Patrick, C.W.: **Myeloid Cell Surface Phenotype in Myelodysplasia: Evidence for Abnormal Persistence of an Early Myeloid Differentiation Antigen.** Am J Hematol 23:22-26, 1986.
- 37) Baumann, M.A., Milson, T.J., Patrick, C.W., Libnoch, J.A. and Keller, R.H.: **Correlation of Numbers of Natural Killer Cells with Clinical Course in Large Cell Lymphoma.** Cancer 57:2309-2312, 1986.
- 38) Patrick, C.W., Ash, R., Libnoch, J.A. and Keller, R.H.: **Clinical Cytometry and Immunophenotyping: I. Flow Cytometric Analysis of Normal Peripheral Blood and Bone Marrow.** Path Immunopathol Res 6:64-76, 1987.

- 39) Patrick, C.W., Libnoch, J.A., Kallas, G.A. and Keller, R.H.: **Sequential Immunophenotypic Studies in Chronic Lymphocytic Leukemia: UCLA Molecular Biology Symposium.** Chronic Lymphocytic Leukemia: Recent Progress-Future Directions. R. Gale and K. Rai (eds) Alan R. Liss, New York, 59, 1987.
- 40) Keller, R.H., Libnoch, J.A., Kallas, G.A., and Patrick, C.W.: **Sequential Evaluation of T Cell Subsets in B-CLL. UCLA Molecular Biology Symposium: Chronic Lymphocytic Leukemia: Recent Progress-Future Directions.** R. Gale and K. Rai (eds) Alan R. Liss, New York, 59, 1987.
- 41) Fudenberg, H.H, Whitten, H.D., Galbraith, G.M.P., Goust, J.M., Patrick, C.W. and Keller, R.H.: **Deficiency of 'Interactive' T Cells in Individuals with Recurrent Infection: Effect of DLE-TF Therapy.** Am J Med. In Press, 1994.
- 42) Keller, R.H., Van Reil, F., Maislis, J., Lane, J.T., Reiter, W.M., Klimas, N.G. and Fletcher, M.A.: **Association of Histocompatibility Class II Antigens with the Chronic Fatigue Immune Dysfunction Syndrome.** In Clin Inf Disease 18(Supp 1): S154-156, 1994.

#### **Papers Submitted, In review and/or Revision**

- 1) Patrick, C.W. and Keller, R.H.: **A Comparative Study of Anticoagulants in Cell Surface Marker Phenotyping and Functional Analysis.** Am J Clin Pathol.
- 2) Keller, R.H., Milson, T.J. and Patrick, C.W.: **Sequential Immunoregulatory Phenotypic and Functional Changes During Viral Illness: A Comparison of Rhinoviral Infection and Acquire Immunodeficiency Syndrome.** Lancet (in Revision).
- 3) Keller, R.H., Choi, H., Libnoch, J.A. and Patrick, C.W.: **A Natural Murine Model of Non-Hodgkin's Lymphoma.** J Immunol (in revision).
- 4) Choi, H., Libnoch, J.A., Aimargo, U., Heckman, M. and Keller, R.H.: **Castelman's Tumor: Well Differentiated Lymphocytic Lymphoma and Large Cell Lymphoma in a Single Patient.** Human Pathol (in revision).
- 5) Keller R.H., Wen K., and Kirchenbaum G. ALL-ergese a TCM blend of standardized herbs for the treatment of allergies. (in revision)
- 6) Adult Growth Hormone Deficiency: A Correlate of Immune Overactivity (in preparation)

- 7) All Immune: A Safe Effective Method of Improving Lymphocytes Glutathione Levels in Multiple Diseases Associated with Immune Stress.

**ABSTRACTS:** Asterisks (\*) denote those papers selected for presentation at national or international meetings.

- 1)\* Keller, R.H., Dattwyler, R.J., Harrison, E. and Tomasi, T.B.: **Alpha-fetoprotein in Human Lymphoproliferative Disease.** Blood 46(4):1035, 1975.
- 2)\* Guebel, A.P., Keller, R.H., Summerskill, W.H.J., Tomasi, T.B. and Shorter, R.G.: **Cytotoxicity of Autologous and Normal Lymphocytes Against Isolated Liver Cells in Patients with Primary Biliary Cirrhosis.** Gastroenterol 68:104, 1975.
- 3)\* Keller, R.H., Summerskill, W.H.J., Guebel, A.P., Shorter, R.G., and Tomasi, T.B.: **Alpha-fetoprotein and Suppression of Cell Mediated Immunity in Chronic Acute Liver Disease (CALD).** Gastroenterol 70:A-43:901, 1976.
- 4)\* Keller, R.H., Guirgis, H., Lynch, H. and Tomasi, T.B.: **Alpha-fetoprotein (AFP) in Cancer Prone Families.** Clin Res 24:331, 1976.
- 5)\* Keller, R.H., Burritt, M.F., Thompson, R.L. and Tomasi, T.B.: **Alpha-fetoprotein (AFP): Synthesis in Allogeneic Reactions.** Clin Res 24:447, 1976.
- 6)\* Keller, R.H., Burritt, M.F. and Tomasi, T.B.: **Alpha-fetoprotein (AFP) Synthesis in Allogeneic Reactions.** Eleventh Leukocyte Culture Conference, Tucson, AZ, September 1976.
- 7)\* Guirgis, H.A., Lynch, H.T., Keller, R.H., Tomasi, T.B., Vandervoorde, J., Lynch, J., Rankin, L., Maoney, K. and Harris, R.: **Carcinoembryonic Antigen (CEA) and Alpha-fetoprotein (AFP) in Cancer Prone Families.** In Proceedings of the Scientific Session of the Third International Symposium on the Detection and Prevention, 1976.
- 8)\* Vogten, A.J.M., Shorter, R.G., Summerskill, W.M.J., Keller, R.H. and Tomasi, T.B.: **Cell Mediated Cytotoxicity Against Human Liver Lipoprotein in Liver Disease.** Gastroenterol 71:A-41:934, 1976.
- 9)\* Keller, R.H. and Tomasi, T.B.: **AFP: A Potential Regulator of Immune Function.** Second International Conference on Disease of the Liver. Bethesda,

MA, March 1977.

- 10) Keller, R.H., Blake, D.G., Lyman, S., Libnoch, J.A. and Fabiance, M.: **Suppressor Cells in Asymptomatic Chronic Lymphocytic Leukemia.** Clin Res 27:298, 1979.
- 11) Keller, R.H., Blake, D.G., Lyman, S. and Siebenlist, R.: **Altered Immunoregulation in Chronic Lymphocytic Leukemia.** Blood 54:97A, 1979.
- 12) Blake, D.G., Libnoch, J.A., Lyman, S. and Keller, R.H.: **Altered Immunologic Reactivity in Myelodysplastic Disorders.** Blood, 54:97A, 1979.
- 13)\* Miller, P.P, Jordan, R.E. and Keller, R.H.: **Suppression of Human Lymphocyte Response by Circulating Immune Complexes.** Clin Res 28: 351, 1980.
- 14)\* Keller, R.H., Fink, N.J., Lyman, S. and Pederson, G.: **Altered Immunoregulation in Hypersensitivity Pneumonitis.** Clin Res 28:102, 1980.
- 15)\* Keller, R.H., Lyman, S. and Siebenlist, R.: **The Influence of Human Mononuclear Cell Histamine Production on T Cell Immunoregulation.** Clin Res 28:230, 1980.
- 16)\* Keller, R.H., Lyman, S. and Siebenlist, R.: **Histamine in the Immune Response.** 4<sup>th</sup> World Congress of Immunology, Paris, France. July 1980.
- 17)\* Kaplan, H.J., Asberg, T.M. and Keller, R.H.: **Lymphocyte Subset in Clinical Uveitis.** Abs Assoc Res Vision Ophthal p. 33, 1980.
- 18)\* Siebenlist, R., Calvanico, N.J., Stevens, J.O. and Keller, R.H.: **Immunoregulation in Hypersensitivity Pneumonitis.** Fourth Midwest Autumn Immunology Conference, Chicago, IL, 1980.
- 19)\* Lyman, S., Patrick, C.W. and Keller, R.H.: **Non-Hodgkin's Lymphoma in the Mouse: A Naturally Occurring Murine Model of NHL.** Fourth Midwest Autumn Immunology Conference, Chicago, IL, 1980.
- 20)\* Young, D.G., Hussey, C.V., Keller, R.H. and Pisciotta, A.V.: **Eradication of Acquired Factor VII Inhibitor in Hodgkin's Disease Following Chemotherapy.** Am Fed Clin Res 28(4):731, 1980.
- 21)\* Keller, R.H., Patrick, C.W., Swartz, S.J., Libnoch, J.A. and Jordan, R.E.: **Flow Cytometry as an Adjunct in the Diagnosis and Staging of Lymphoproliferative**

**Disease.** IX International Conference on Analytical Cytology. Schloss Elmau, Germany, 1980.

- 22)\* Wilson, R.J., Greiff, D. and Keller, R.H.: **Cryopreservation of Non-specific T Cell Suppressor Cells.** Cryobiol 17:597, 1980.
- 23)\* Pontzer, C. and Keller, R.H.: **Rabbit Peripheral Blood T Cell Separation.** Fed Am Soc Exp Biol, 1980.
- 24)\* Keller, R.H., Calvanico, N.J. and Stevens, J.O.: **Immunoregulation in Pigeon Breeders Disease.** Clin Res 29:370, 1981.
- 25)\* Keller, R.H., Kirchner, P., Lyman, S., Siebenlist, R., Choi, H. and Patrick, C.W.: **Immunoregulatory T Cells in Non-Hodgkin's Lymphomas.** Blood 58:313, 1981.
- 26)\* Keller, R.H., Lyman, S., Choi, H. and Patrick, C.W.: **A Natural Model of Non-Hodgkin's Lymphoma.** Blood 58:524, 1981.
- 27)\* Lauer, S., Casper, J., Keller, R.H., Kirchner, P. and Camitta, B.: **The Use of Counterflow Centrifugation-Elutriation for the Separation of Bone Marrow Lymphoid Cells in Children with Acute Lymphocytic Leukemia (ALL) and Metastatic Solid Tumors.** Blood 58:133, 1981.
- 28)\* Keller, R.H., Choi, H. and Patrick, C.W.: **Nodular Non-Hodgkin's Lymphoma in the Mouse.** Blood 60:114A, 1982.
- 29)\* Keller, R.H., Lyons, M., Troy, J. and Jordan, R.E.: **Peripheral Blood Aneuploidy in Mycosis Fungoides and Pre-mycotic Lesions.** Blood 60:146A, 1982.
- 30)\* Keller, R.H., Swartz, S.J., Lyons, M., Troy, J. and Jordan, R.E.: **Peripheral Blood Involvement in Skin-limited T Cell Malignancy.** Am Fed Clin Res 31:568, 1983.
- 31)\* Geoghegan, W.D., Jordan, R.E. and Keller, R.H.: **Non-Langerhans Cells in the Keratinocyte Band in Culture Expressing HLA-DR.** Invest Derm Am Fed Clin Res 31:568, 1983.
- 32)\* Keller, R.H., Swartz, S.J., Patrick, C.W. and Kaplan, H.J.: **Intraocular Lymphoma: A Possible Systemic Disease.** Am Fed Clin Res 31:315, 1983.
- 33)\* Patrick, C.W., Libnoch, J.A., Choi, H. and Keller, R.H.: **Flow Cytometric Peripheral Blood Cell Surface Analysis as a Predictor of Richter's Syndrome (RS) in Chronic Lymphocytic Leukemia.** Blood 62:756, 1983.

- 34)\* Patrick, C.W., Swartz, S.J. and Keller, R.H.: **A Comparative Study of Heparin and Potassium EDTA as Anticoagulants for Cell Surface Marker and Immunologic Functional Analysis.** Am J Clin Pathol, 1983.
- 35)\* Keller, R.H., Swartz, S.J., Patrick, C.W., Steven, G. and Torke, N.J.: **Regression of Natural Murine Non-Hodgkin's Lymphoma Following Immunotherapy with Immunoregulatory Cell Types.** Blood 62:756, 1983.
- 36)\* Keller, R.H., Wagner, D. and Patrick, C.W.: **Sequential T Cell Phenotypic and Functional Changes During a Comparative Study of Rhinovirus Infection in Patients with the Acquired Immune Deficiency Syndrome (AIDS).** Blood 62:352, 1983.
- 37)\* Keller, R.H., Swartz, S.J. and Patrick, C.W.: **Metachromatic Granules in Human T8 (CD8) Bearing Lymphocytes.** Fifth World Congress of Immunology. Tokyo, Japan. July 1983.
- 38) Libnoch, J.A., Patrick, C.W., Griffin, J. and Keller, R.H.: **Flow Cytometric Cell Surface Analysis as a Predictor of Leukemic Transformation in the Myelo-dyplastic Syndrome (MDS).** Blood 62:610A, 1983.
- 39)\* Calvanico, N.J., Pontzer, C. and Keller, R.H.: **Regulation of Aerosol Induced Pulmonary Inflammation in Rabbits.** XII Congress of the European Academy of Allergy and Clinical Immunology, Rome, Italy, 1983.
- 40)\* Patrick, C.W., Swartz, S.J., McFadden, P.W., Wallace, A. and Keller, R.H.: **A Comparative Study of Manual and Flow Cytometry Cell Surface Marker Analysis.** Soc Analytical Cytology, Sea Island, Georgia, 1983.
- 41)\* Keller, R.H., Swartz, S.J., Troy, J., Patrick, C.W. and Jordan, R.E.: **Peripheral Blood Involvement in Skin Limited T Cell Malignancy.** Soc Analytical Cytology, Sea Island, Georgia, 1983.
- 42)\* Keller, R.H., Swartz, S.J., Leven, S. and Bar Sella, S.: **Immunoregulation in Hypersensitivity Pneumonitis: Phenotypic and Functional Studies of Bronchoalveolar Lavage Lymphocytes.** Am Acd Allergy 130:766-771, 1984.
- 43)\* Keller, R.H., Swartz, S.J., McFadden, P.W., Milson, T.J., Hermann, J., Thomas, E. and Patrick, C.W.: **Abnormal Peripheral Blood T Cell DNA Content in Skin Limited T Cell Malignancy.** Second International Conference on Malignant Lymphoma, Lugano, Switzerland, June 1984.

- 44) Patrick, C.W., Harrison, K.A., Libnoch, J.A., Cozine, M.G. and Keller, R.H.: **Monoclonal Antibody Profiles in Human B Cell Lymphoproliferative Disorders Suggests that B4 Positive Lymphocytes which Lack Expression of B1 Antigen May Include the B Memory Cells.** Second International Conference on Malignant Lymphoma, Lugano, Switzerland, June 1984.
- 45)\* Patrick, C.W., McFadden, P.W., Buchholz, T.B., Milson, T.J., Libnoch, J.A. and Keller, R.H.: **The Non-relevance of T4 to T8 (CD4:CD8) Ratios to Disease Activity in B Cell Malignancies.** Second International Conference on Malignant Lymphoma, Lugano, Switzerland, June 1984.
- 46)\* Keller, R.H., Swartz, S.J., Patrick, C.W., Steven, G. and Torke, N.J.: **Treatment of Naturally Occurring Murine Non-Hodgkin's Lymphomas Using Immunoregulatory Cell Types and IL-2.** Second International Conference Malignant Lymphoma, Lugano, Switzerland, June 1984.
- 47)\* Kissebah, A.H., James, R. Krakower, G., Arnaud, C., Etienne, J. and Keller, R.H.: **Holding Media for Cell Surface Phenotypic Analysis.** Midwest Autumn Conference, Chicago, IL, November 1984.
- 48)\* Milson, T.J., Patrick, C.W., Torke, N.J., Janicek, K.M., Harrison, K.A. and Keller, R.H.: **Alterations in Lymphoid and Myeloid Cell Surface Marker Phenotype Profiles Associated with the Development of Basophilic Crisis in Chronic Granulocytic Leukemia (Ph + CGL).** Blood 64(5):195A, 1984
- 49)\* Patrick, C.W., Libnoch, J.A., Milson, T.J., Kortright, K.H. and Keller, R.H.: **Common Variant of B Cell Chronic Lymphocytic Leukemia is Defined by the Monoclonal Antibody TQ1 (Leu 8).** Blood 65(5):149, 1984.
- 50)\* Baumann, M.A., Patrick, C.W., Libnoch, J.A. and Keller, R.H.: **Myeloid and Lymphoid Cell Surface Phenotype in Myelodysplasia: Correlation with In Vitro Assessment of Immune Function.** Blood 64(5):186A, 1984.
- 51)\* Keller, R.H., Larrick, J.W., Swartz, S.J., Torke, N.J. and Patrick, C.W.: **Treatment of a Natural Model of Murine Non-Hodgkin's Lymphoma with Recombination Interleukin 2(IL-2).** Blood 64(5):181, 1984.
- 52)\* Steven, G.C., Choi, H., Heckman, M.G. and Keller, R.H.: **Comparison of Flow Cytometry and In sit Cell Surface Marker Analysis.** Midwest Student Research Forum XVI, Wright State University, February 1985.

- 53)\* Kissebah, A.H., Krakower, G., James, R., Aranaud, C., Etienne, J. and Keller, R.H.: **Regional Differences in Preadiocyte Growth Potential from Immature and Sexually Mature Female Rats.** Am Fed Clin Res 33:434, 1985.
- 54)\* Kissebah, A.H., Krakower, G., James, R., Aranaud, C., Etienne, J. and Keller, R.H.: **Regional Specialization of Subcutaneous Tissue Growth Potential: Relationship to Ovarian Function.** Am Diabetes Assoc, Toronto, Canada, November 1985.
- 55)\* Baumann, M.A., Milson, T.J., Patrick, C.W., Libnoch, J.A. and Keller, R.H.: **Correlation of Natural Killer Cell Count with Prognosis in Large Cell Lymphoma.** Blood 66:185, 1985.
- 56)\* Patrick, C.W., Libnoch, J.A. and Keller, R.H.: **Clinical Utility of Dual Immunofluorescence Assay of Monoclonal Antibodies TQ1 and (CD19) on Peripheral Blood Cells in Chronic Lymphocytic Leukemia.** Blood 66: 181, 1985.
- 57)\* Patrick, C.W., Libnoch, J.A., Baumann, M.A. and Keller, R.H.: **Alterations of Myeloid Surface Receptors recognized by the Monoclonal Antibody MY 9 (CD33) in the Peripheral Blood May Serve to Identify Those Myelodysplastic Patients at Increased Risk for Leukemic Conversion.** Blood 66:226, 1985.
- 58) Keller, R.H., Milson, T.J., McFadden, P.W. and Patrick, C.W.: **In Vitro Augmentation of Immunologic Responsiveness in Patients with AIDS and ARC Using Isoprinosine.** Blood 66:113, 1985.
- 59) Keller, R.H., Patrick, L.C. and Patrick, C.W.: **Isoprinosine Augments In Vitro Immunoglobulin Synthesis in Chronic Lymphocytic Leukemia.** Blood 66:202, 1985.
- 60)\* Keller, R.H., Patrick, L.C. and Patrick, C.W.: **Isoprinosine Augments In Vitro Immunoglobulin Synthesis in Chronic Lymphocytic Leukemia (B-CLL).** International Symposium on Recent Approaches to Chronic Lymphoproliferative Disease, Prague, Czechoslovakia, September 1985.
- 61)\* Keller, R.H., Milson, T.J. and Patrick, C.W.: **The Relationship of Larger Lymphoid Elements, Clonally Restricted DNA Cell Cycle Analysis and Rai Staging in Chronic Lymphocytic Leukemia (B-CLL).** International Symposium on Recent Approaches to Chronic Lymphoproliferative Disease, Prague, Czechoslovakia, September 1985.
- 62)\* Patrick, C.W., Libnoch, J.A. and Keller, R.H.: **Immunophenotypic Dissection of**

**Chronic Lymphocytic Leukemia.** International Symposium on Recent Approaches to Chronic Lymphoproliferative Disease, Prague, Czechoslovakia, September 1985.

- 63)\* Keller, R.H., Libnoch, J.A., Patrick, L.C. and Patrick, C.W.: **In Vitro Improvement of Cellular and Humoral Immune Response by Isoprinosine in B-CLL.** XXI Congress of the International Society of Haematology, Sydney, Australia, May 1986.
- 64)\* Patrick, C.W., Libnoch, J.A. and Keller, R.H.: **Prolymphocytic Leukemia of B Cells is a Distinct Biologic Stage in B Cell Maturation.** XXI Congress of the International Society of Haematology, Sydney, Australia, May 1986.
- 65)\* Patrick, C.W., Libnoch, J.A. and Keller, R.H.: **Sequential Changes in the Expression of Lymphoid Surface Membrane Receptors in Chronic B Cell Lymphoproliferative Disease.** XXI Congress of the International Society of Haematology, Sydney, Australia, May 1986.
- 66)\* Patrick, C.W., Libnoch, J.A. and Keller, R.H.: **Clinical Utility of Dual Immunofluorescence Assay of Monoclonal Antibodies TQ1 and B4 (CD19) on Circulating B Cells in Chronic Lymphocytic Leukemia (B-CLL).** Sixth International Congress of Immunology, Toronto, Canada, July 1986.
- 67)\* Keller, R.H., Milson, T.J., Ellingboe, K.M. and Patrick, C.W.: **Sequential Clinical, Immunoregulatory, Phenotypic and Functional Changes in Patients with AIDS and ARC treated with Isoprinosine.** XXI Congress of the International Society of Haematology, Sydney, Australia, May 1986.
- 68)\* Keller, R.H., Milson, T.J., Ellingboe, K.M. and Patrick, C.W.: **Sequential Clinical, Immunoregulatory, Phenotypic and Functional Changes in Patients with AIDS and ARC treated with Isoprinosine.** International Conference on the Acquired Immunodeficiency Syndrome, Paris, France, June 1986.
- 69)\* Keller, R.H., Libnoch, J.A. and Patrick, C.W.: **T Cell Alterations in B-CLL: Sequential Changes in CD4 and CD8 Bearing Cells and in T Cell Immunoregulation.** UCLA Symposium on Molecular and Cell Biology, Silverado, California, December 1986.
- 70)\* Patrick, C.W., Libnoch, J.A., Kallas, G.A. and Keller, R.H.: **Sequential Immunophenotypic Studies in Chronic Lymphocytic Leukemia.** UCLA Symposium on Molecular and Cell Biology, Silverado, California, December 1986.
- 71)\* Reiter, W.M., Berger, D.S., Vorce, S., Cimoch, P.J., Vargas, A. and Keller, R.H.: **Combination Zidovudine and Didanosine Therapy for Patients Remaining**

**Persistently HIV P24 Antigen-Positive Despite Zidovudine Monotherapy.** VIII International AIDS Conference, Amsterdam, Netherlands, 1992.

- 72)\* Reiter, W.M., Keller, R.H., Cimoch, P.J. and Forgione, A.: **A Rapid Quantitative Flow Cytometry Assay to Evaluate CD4 + - Lymphocyte Activation Potential in Patients with HIV-1 Infection.** VIII International AIDS Conference, Amsterdam, Netherlands, 1992.
- 73)\* Cimoch, P.J., Reiter, W.M., Vorce, D., Cassarella, S.K., Thompson, B. and Keller, R.H.: **The Occurrence of Cytomegalovirus (CMV) Viruria in Late-Stage HIV-1 Infection and its Association with CMV Organ Involvement.** VIII International AIDS Conference, Amsterdam, Netherlands, 1992.
- 74)\* Reiter, W.M., Beach, R.S., Vorce, D., Cimoch, P.J., Vargas, A., Thompson, B. and Keller, R.H.: **Longitudinal Analysis the Effect of Anti-retroviral Monotherapy on CD4+ Lymphocyte Percentage.** VIII International AIDS Conference, Amsterdam, Netherlands, 1992.
- 75)\* Keller, R.H., Van Reil, F., Maislis, J., Lane, J.T., Reiter, W.M., Klimas, N.G. and Fletcher, M.A.: **Correlation of DR4 and DQ1 with Immunologic Defects in the Chronic Fatigue Syndrome.** First International Chronic Fatigue Syndrome Research Conference, Albany, New York, October 1992.
- 76)\* Keller, R.H., Reiter, W.M., Lane, J.T., Klimas, N.G., Vargas, A. and Maislis, J.A.: **Treatment of Late-Stage AIDS Patients with Combined Monthly Anti-HIV Hyperimmunoglobulins and Haplotype-matched Peripheral Blood Lymphocytes.** XI International Conference on AIDS, Berlin, 1993.
- 77) Reiter, W.M., Cimoch, P.J., Vorce, D.E., Keller, R.H., Berger, D. and Ping, A.: **Eighteen Month Longitudinal Analysis of the Effect of Zidovine Monotherapy Compared to Combination Antiretroviral Therapy on HIV-1 Disease Progression.** IX International Conference on AIDS, Berlin 1993.
- 78)\* Reiter, W.M., Vorce, D.E., Cimoch, P.J., Keller, R.H., Berger, D.S., and Ping, A.C.: **Cytotoxic CD8+ Lymphocyte Response to HIV-1 Infection Correlated with Longitudinal Analysis of CD4+ Lymphocyte Percentage.** IX International Conference on AIDS, Berlin, 1993
- 79) Berger, D.S., Reiter, W.M., Vorce, D.E., Cimoch, P.J., Keller, R.H. and Ping, A.C.: **Prevalence of Red Blood Cell Magnesium Deficiency in HIV-1 Infected Patients and its Association with Fatigue and Myalgia.** IX International

- Conference on AIDS, Berlin, 1993.
- 80) Reiter, W.M., Tomaka, F., Keller, R.H., Cimoch, P.J., Vargas, A. and Vorce, D.E.: **Unrecognized Moderate to Advanced Immunodeficiency in “HIV-Aware” Asymptomatic, Untreated Person with HIV-1 Infection.** IX International Conference on AIDS, Berlin, 1993.
- 81)\* Gomatos, P.J., Keller, R.H., Reiter, W.M., Lane, J.T., Cimoch, P.J., Vorce, D.E., Gianetti, B.L. and Uribe, M.R.: **Haplotype-Matched Peripheral Blood Mononuclear Cell (PBMC) Transfusions in Patients with Late-Stage AIDS.** X International Conference on AIDS, Yokohama, Japan, 1994.
- 82)\* Cimoch, P.J., Loss, S.D., Houghton, R.A., Reiter, W.M., Keller, R.H., Vorce, D.E., Nemecheck, P.M., Berger, D.S. and Tomaka, F.L.: **Antibody Response to Pneumococcal Vaccination in HIV-1 Infected Patients.** X International Conference on AIDS, Yokohama, Japan, 1994.
- 83)\* Tomaka, F.L., Cimoch, P.J., Reiter, W.M., Keller, R.H., Berger, D.S., Piperato, J.R., Nemecheck, P.M., Loss, S.D. and Houghton, R.A.: **Prevalence of Nutritional Deficiencies in Patients with HIV-1 Infection.** X International Conference on AIDS, Yokohama, Japan, 1994.
- 84)\* Keller, R.H., Helder, L.M., Piperato, J.P., Klimas, N.G., Reiter, W.M., Fletcher, M.A., Vorce, D.E. and Pittibone, H.: **Symptomatic Improvement Associated with Down Regulation of Immune Hyper Reactivity by Calcium Channel Blockade in CFIDs.** American Association for Chronic Fatigue Syndrome Research Conference, Ft Lauderdale, Florida, 1994.
- 85)\* Keller, R.H., Nolan, R.P. and Patrick, L.C.: **Natural Human Interferon (*Alpha Leukoferon*) Therapy in a Cohort of Hemophiliacs Co-infected with HIV and Hepatitis C.** Fourth Conference on Retroviruses and Opportunistic Infections, Washington, DC, 1997.
- 86)\* Patrick, C.W. and Keller, R.H.: Patient Screening for Myelodysplasia in Long-Term HIV+ Individuals. Conference on Clinical Laboratory Testing in HIV, Atlanta, GA, 1998.
- 87)\* Patrick, C.W., DeLeon, M., A. Leon, and Keller, R.H.: Measurement of Glutathione (GSH) as Indicator of Immune Status. Conference on Clinical Laboratory Testing in HIV, Atlanta, GA 1998.
- 88)\*\* Kushch, A. and Keller, R.H.: **Neuropsychological Correlates of Adjunct Therapy**

**with a Nutritional/Vitamin Supplement in a Medical Patient Sample.**  
National Academy of Neuropsychology, \*\* Orlando, FL, November 2000.

- 89) Keller, R.H.:PBS 119 Abstract “**Clinical Results of PBS 119 in Eight Patients for Two Years**” Submitted to the 12<sup>th</sup> Conference on Retroviruses & Opportunistic Infections (CROI), 2005
- 90) Keller, R.H.: PBS 119 Abstract “**In Vitro Analysis of PBS 119 Against HIV Viral Activity in Lab Adapted and HAART Resistant Strains of HIV**” Submitted to the 12<sup>th</sup> Conference on Retroviruses & Opportunistic Infections (CROI), 2005