

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

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

Education and Training:

1966	Bachelor of Arts in Biology Master of Science in Biology Fordham University, Bronx, New York
1970	Doctor of Medicine (MD) with honors

Temple University, Philadelphia, Pennsylvania

1970-1974	Internship, Resident and Senior Resident University of Rochester, Rochester, New York
1974-1976	Fellow and Senior Fellow Department of Immunology Mayo Clinic, Rochester, Minnesota
1976	Master of Science in Immunology Mayo Graduate School of Medicine Rochester, Minnesota

Professional and Faculty Positions:

2001 -	Chairman,CEO & CSO Phoenix BioSciences which has developed a new first in class and first in man viral-host interaction inhibitor for HIV / AIDS
1999-	Chairmain,CEO and Director of Research <u>Vit-Immune</u> , Inc Hollywood, Florida
1998-	Adjunct Professor Miller School of Medicine Miami, Florida
1996-	Chairman and CEO Immune Balance Technologies 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
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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 st Century
2002 -	1000 Great Americans of the 21 st 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
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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 / Reviews:

Diagnostic Immunology 1986-1990
 Journal of Leukocyte Biology 1984-1986
 Journal of Immunology 1990-Present

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
Underwriting Committee for Pronational Malpractice Insurance Company

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:

- 1978-1980 Survey in Basic and Clinical Immunology
Department of Medicine
Medical College of Wisconsin
- 1980-1983 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
- 1983-1986 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 1500 state, regional, national, and international, medical and scientific seminars and workshops in the fields of:

AIDS and Immunoregulation
Clinical Immunology
Chronic Fatigue Syndrome
Nutrition and the Immune Response
Hormones and the Immune Response
Hepatitis C
Hemophilia
- 2000 Host of *Today's Health*, WAXY 790 and Web streamed at Vitimmune.com

and RobKellermd.org

2005 Host of Voice America Web Based Healthcare Hour

Committee Service:

Veterans Administration:	1985-1986 Research and Development Committee Clement J. Zablocki VAMC
International Society for Analytical Cytology:	1986-1989 VA Oncology Merit Review Board
University of Wisconsin:	1984-1986 Research and Development Committee: Controls & Standard
National Institutes of Health:	1983-1986 Flow Cytometry Evaluation Committee, Co Chair
Medical College of Wisconsin:	1983-1986 NIH Immunology Special Study Section
Cancer Committee for Hollywood Medical Center	1980-1982 Faculty Welfare Committee
Pro-national Committee for Life Insurance	1980-1982 Animal Care Committee
Committee of Ten Thousand:	1982-1986 Flow Cytometry Protocol Committee, Chair
National Hemophilia Federation:	1992-
National Hemophilia Foundation-Florida Chapter:	1993-
Mount Sinai Medical Center	1998- Medical Advisory Board
Hollywood Medical Center	1996- Medical Advisory Committee
Board of Governors American Academy HIV Med (FL)	1994- Medical Advisory Committee
ProAssurance Malpractice Insurance Company	1994-1997 Cancer Committee
AAHIVM Clinical Practice Committee	2001- Cancer Committee
	2003 -
	2005-
	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.

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. Ludered, 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 4th 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., Vandervoerde, 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 Waldenstrum'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 Resp 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 J 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)

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., Vandervoerde, 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.
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