

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed on Form Page 2.
Photocopy this page or follow this format for each person.

NAME	POSITION TITLE		
Karl G. Blume, M.D.	Professor of Medicine		
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
University of Bonn, Germany (Preclinical Education, 1958-1960)			
University of Freiburg, Germany (Clinical Education, 1960-1963)	M.D.	1963	Medicine

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 to 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.**

Professional Experience and Positions

1963-1965	Internship in County Hospitals at Schwelm, Leverkusen, Duisburg, Germany
1965-1966	Research Fellowship, Dept. of Biochemical Genetics, University of Freiburg, Germany
1966-1968	Residency, Medical Poliklinik, University of Marburg, Germany
1968-1970	Assistant Professor, Dept. of Medicine, University of Freiburg, Germany
1971-1972	Research Fellowship, Dept. of Hematology, City of Hope Medical Center, Duarte, CA
1972-1975	Assistant Professor, Dept. Hematology & Oncology, University of Freiburg, Germany
1975	Associate Professor, Dept. Hematology & Oncology, University of Freiburg, Germany
1975-1978	Head of the Dept. of Bone Marrow Transplantation, City of Hope Medical Center
1978-1987	Head of the Dept. of Hematology and Bone Marrow Transplantation, City of Hope Medical Center
1987-2000	Director, Division of Bone Marrow Transplantation, Professor of Medicine, Stanford University Medical Center, Stanford, CA
2000-2002	Associate Chair for Research, Department of Medicine, Professor of Medicine, Stanford University
2003-present	Professor Emeritus; Senior Cancer Research Program Advisor, Stanford University

Appointments

1989-1995	Chairman, Bone Marrow Transplant Committee, Southwest Oncology Group
1995-2000	Co-Editor-in-Chief, <i>Biology of Blood and Marrow Transplantation</i> (with R.J. O'Reilley)
2008-present	Chairman, HHS-HRSA Advisory Council on Blood Stem Cell Transplantation

Books

- Blume, K.G. and Petz, L.D. (eds.). *Clinical Bone Marrow Transplantation*, 1983, Churchill-Livingstone, New York.
- Forman, S.J., Blume, K.G., and Thomas E.D. (eds.). *Bone Marrow Transplantation*, 1994, Blackwell Science, Boston.
- Thomas, E.D., Blume, K.G. and Forman, S. J. (eds.). *Hematopoietic Cell Transplantation*, 1999, Blackwell Science, Boston.
- Blume, K.G., Forman, S.J. and Appelbaum, F.R. (eds.). *Thomas' Hematopoietic Cell Transplantation*, 2004, Blackwell Science, Oxford.
- Appelbaum, F.R., Forman, S.J., Negrin, R.S., and Blume, K.G. (eds.). *Thomas' Hematopoietic Cell Transplantation*, 2009, Blackwell-Wiley Publishing, Oxford.

Publications (selected from 280 publications in peer-reviewed journals)

- Goedde HW, Blume KG, Holzer H. Quantitative determination of synthetic DL- α -hydroxyethyl-2-thiamine-pyrophosphate and its chemical and enzymic behavior. *Biochim. Biophys. Acta* 62:1-10, 1962.
- Blume KG, Rüdiger HW, Löhr GW. Electrophoresis of glutathione reductase from human red blood cells. *Biochim. Biophys. Acta* 151:686-688, 1968.
- Rüdiger HW, Passarge E, Hirth L, Goedde HW, Blume KG, Löhr GW, Benöhr HC, Waller HD. Triosephosphate isomerase gene in man. *Nature* 228:1320-1, 1970.

Blume KG, Beutler E. Purification and properties of galactokinase from human red blood cells. *J Biol Chem* 246:6507-10, 1971.

Srivastava SK, Blume KG, Beutler E, Yoshida A. Immunological difference between glucose-6-P dehydrogenase and hexose-6-P dehydrogenase. *Nature* 238:240-241, 1972.

Blume KG, Beutler E. Detection of glucose-phosphate isomerase deficiency by a screening procedure. *Blood* 39:685-687, 1972.

Blume KG, Arnold H, Löhr GW, Scholz G. On the molecular basis of pyruvate kinase deficiency. *Biochim. Biophys. Acta* 370:601-604, 1974.

Blume KG, Beutler E, Bross KJ, Chillar RK, Ellington OB, Fahey JL, Farbstein MJ, Forman SJ, Schmidt GM, Scott EP, Spruce WE, Turner MA, Wolf JL. Bone-marrow ablation and allogeneic marrow transplantation in acute leukemia. *N Engl J Med* 302:1041-6, 1980.

Yoshida A, Schmidt GM, Blume KG, Beutler E. Plasma blood group glycosyl-transferase activities after bone marrow transplantation. *Blood* 55:699-701, 1980.

Branch DR, Gallagher MT, Forman SJ, Winkler KJ, Petz LD, Blume KG. Endogenous stem cell repopulation resulting in mixed hematopoietic chimerism following total body irradiation and marrow transplantation for acute leukemia. *Transplantation* 34:226, 1982.

Forman SJ, Zaia JA, Clark BR, Wright CL, Mills BJ, Pottathil R, Racklin BC, Gallagher MT, Welte K, Blume KG. A 64,000 dalton matrix protein of human cytomegalovirus induces in vitro immune responses similar to those of whole viral antigen. *J Immunol* 134:3391-5, 1985.

Petz LD, Yam P, Wallace RB, Stock AD, de Lange G, Knowlton RG, Brown VA, Donniss-Keller H, Hill LR, Forman SJ, Blume KG. Mixed hematopoietic chimerism following bone marrow transplantation for hematologic malignancies. *Blood* 70:1331, 1987.

Blume KG, Forman SJ, O'Donnell MR, Doroshow JH, Krance RA, Nademanee AP, Snyder DS, Schmidt GM, Fahey JL, Metter GE. Total body irradiation and high-dose etoposide: a new preparatory regimen for bone marrow transplantation in patients with advanced hematologic malignancies. *Blood* 69:1015-20, 1987.

Lange W, Snyder DS, Castro R, Rossi JJ, Blume KG. Detection by enzymatic amplification of bcr-abl mRNA in peripheral blood and bone marrow cells of patients with chronic myelogenous leukemia. *Blood* 73:1735-41, 1989.

Schmidt GM, Horak DA, Niland JC, Duncan SR, Forman SJ, Zaia JA, *Chao NJ, and *Blume KG (* = listed among "other authors"). A randomized, controlled trial of prophylactic ganciclovir for cytomegalovirus pulmonary infection in recipients of allogeneic bone marrow transplants; the City of Hope-Stanford-Syntex CMV Study Group. *N Engl J Med* 324:1005-11, 1991.

Schmidt-Wolf IGH, Negrin RS, Kiem H-P, Blume KG, Weissman IL. Use of a SCID mouse/human lymphoma model to evaluate cytokine-induced killer cells with potent antitumor cell activity. *J Exp Med* 174:139-149, 1991.

Blume KG, Kopecky KJ, Henslee DJ, Forman SJ, Stiff PJ, LeMaistre CF, Appelbaum FR. A prospective randomized comparison of total body irradiation-etoposide versus busulfan-cyclophosphamide as preparatory regimens for bone marrow transplantation in patients with leukemia who were not in first remission: a Southwest Oncology Group study. *Blood* 81:2187-93, 1993.

Kernan NA, Bartsch G, Ash RC, Beatty PG, Champlin R, Filipovich A, Gajewski J, Hansen JA, Henslee-Downey J, McCullough J, McGlave P, Perkins HA, Phillips GL, Sanders J, Stroncek D, Thomas ED, Blume KG. Analysis of 462 transplantations from unrelated donors facilitated by the National Marrow Donor Program. *N Engl J Med* 328:593-602, 1993.

Chao NJ, Schmidt GM, Niland JC, Amylon MD, Dagens AC, Long GD, Nademanee AP, Negrin RS, O'Donnell MR, Parker PM, Smith EP, Snyder DS, Stein AS, Wong RM, Blume KG, Forman SJ. Cyclosporine, methotrexate, and prednisone compared with cyclosporine and prednisone for prophylaxis of acute graft-versus-host disease. *N Engl J Med* 329:1225-30, 1993.

Snyder DS, Chao NJ, Amylon MD, Taguchi J, Long GD, Negrin RS, Nademanee AP, O'Donnell MR, Schmidt GM, Stein AS, Parker PM, Smith EP, Konrad P, Stepan DE, Molina A, Lipsett JA, Hoppe RT, Niland JC, Dagens AC, Wong RM, Forman SJ, Blume KG. Fractionated total body irradiation and high-dose etoposide as a preparatory regimen for bone marrow transplantation for 99 patients with acute leukemia in first complete remission. *Blood* 82:2920-8, 1993.

Negrin RS, Kusnierz-Glaz CR, Still BJ, Schriber JR, Chao NJ, Long GD, Hoyle CA, Hu WW, Horning SJ, Brown BW, Blume KG, Strober S. Transplantation or enriched and purged peripheral blood progenitor cells from a single apheresis product in patients with non-Hodgkin's lymphoma. *Blood* 85:3334-3341, 1995.

Horning SJ, Chao NJ, Negrin RS, Hoppe RT, Long GD, Hu WW, Wong R, Brown BW, Blume KG. High-dose therapy and autologous hematopoietic progenitor cell transplantation for recurrent or refractory Hodgkin's disease: Analysis of the Stanford results and prognostic indices. *Blood* 89: 801-813, 1997.

Cassileth PA, Harrington DP, Appelbaum FR, Lazarus HM, Rowe JM, Paietta E, Willman C, Hurd DD, Bennett JM, Blume KG, Head DR, Wiernik PH. Chemotherapy compared with autologous or allogeneic bone marrow transplantation in the management of acute myeloid leukemia in first remission. *N Engl J Med* 339:1649-1656, 1998.

Reichardt VL, Okada CY, Benike CJ, Stockerl-Goldstein KE, Engleman EG, Blume KG and Levy R. Idiotype vaccination using dendritic cells after autologous peripheral blood stem cell transplantation for multiple myeloma - a feasibility study. *Blood* 93:2411-2419, 1999.

Thomas, ED and Blume, KG. Historical markers in the development of allogeneic hematopoietic cell transplantation. *Biology of Blood and Marrow Transplantation* 5:341-346, 1999.

Blume, KG and Thomas, ED. A review of autologous hematopoietic cell transplantation. *Biology of Blood and Marrow Transplantation* 6:1-12, 2000.

Bensinger WI, Martin PJ, Storer B, Clift R, Forman SJ, Negrin R, Kashyap A, Flowers MED, Lilleby K, Chauncey TR, Storb R, Appelbaum RF and *Blume, KG (* = listed among "other authors"). Transplantation of bone marrow as compared with peripheral-blood cells from HLA-identical relatives in patients with hematologic cancers. *N Engl J Med* 344:175-181, 2001.

Horning SJ, Negrin RS, Hoppe RT, Rosenberg SA, Chao NJ, Long GD, Brown BW, Blume KG. High-dose therapy and autologous bone marrow transplantation for follicular lymphoma in first complete or partial remission: Results of a phase II clinical trial. *Blood* 97:404-409, 2001.

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Laport GG, Alvarnas JC, Palmer JM, Snyder DS, Slovak ML, Cherry AM, Wong RM, Negrin RS, Blume KG, Forman SJ. Long-term remission of Philadelphia chromosome positive acute lymphoblastic leukemia after allogeneic hematopoietic cell transplantation from matched sibling donors: a 20-year experience with the fractionated total body irradiation-etoposide regimen. *Blood* 112:903-909, 2008.

Sorrer ML, Storer BE, Sandmaier BM, Maris M, Shizuru J, Maziarz R, Agura E, Chauncey TR, Pulsipher MA, McSweeney PA, Wade JC, Bruno B, Langston A, Radich J, Niederwieser D, Blume KG, Storb R, Maloney DG. Five-year follow-up of patients with advanced chronic lymphocytic leukemia treated with allogeneic hematopoietic cell transplantation after non-myeloablative conditioning. *J Clin Onc* 26:4912-4920, 2008.

Burroughs LM, O'Donnell PV, Sandmaier BM, Storer BE, Luznik L, Symons HJ, Jones RJ, Ambinder RE, Maris MB, Blume KG, Niederwieser DW, Bruno B, Maziarz RT, Pulsipher MA, Petersen FB, Storb R, Fuchs EJ, Maloney DG. Comparison of outcomes of HLA-matched related, unrelated, or HLA-haploidentical cell transplantation following non-myeloablative conditioning for related or refractory Hodgkin lymphoma. *Biol. Blood Marrow Transplant* 14:1279-1287, 2008.

Kohrt HE, Turnbull BB, Heydari K, Shizuru JA, Laport GG, Miklos DB, Johnston LJ, Arai S, Weng WK, Hoppe RT, Lavori PW, Blume KG, Negrin RS, Strober S, Lowsky R. TLI and ATG conditioning with low risk of graft-versus-host disease retains anti-tumor reactions after allogeneic hematopoietic cell transplantation from related and unrelated donors. *Blood* 2009 May 7 [Epub ahead of print].