

**CURRICULUM VITAE**

**RONALD HOFFMAN, MD**

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**PERSONAL:**

BIRTH DATE: June 17, 1945

BIRTH PLACE: Passaic, New Jersey

MARITAL STATUS: Married - Nan Laura Provisor

CHILDREN: Judith Helaine (28), Michael Nathaniel (26)

**EDUCATION:**

1967 New York University, B.A.

1971 New York University, M.D.

**PROFESSIONAL EXPERIENCE:**

- 1971-1973 Straight medical intern and first year medical resident, McGill University, Montreal, Quebec
- 1973-1974 Second year medical resident, Stanford University Hospital, Palo Alto, California
- 1974-1976 Hematology Fellow, Mt. Sinai Hospital, New York, N.Y.
- 1976-1977 Special Hematology Research Fellow (Erythropoietin Laboratory) Mt. Sinai Hospital, New York, N.Y.
- 1977-1980 Assistant Professor of Internal Medicine, Yale University School of Medicine, New Haven, Connecticut
- 1980-1982 Associate Professor of Internal Medicine, Yale University School of Medicine, New Haven, Connecticut
- 1982-1992 Chief of Hematology/Oncology, Indiana University School of Medicine, Indianapolis, Indiana
- 1987-1993 Bruce K. Wiseman Professor of Medicine, Indiana University School of Medicine, Indianapolis, Indiana
- 1990-1993 Professor of Pathology, Indiana University School of Medicine, Indianapolis, Indiana
- 1993-1995 Vice President of Research, SyStemix, Inc., Palo Alto, California
- 1994-1995 Clinical Associate Professor of Medicine, Stanford University School of Medicine, Stanford, California
- 1995-2003 Chief, Oncology-Hematology Section, University of Illinois College of Medicine, Chicago, Illinois
- 2000-2005 Director, University of Illinois Cancer Center

1995-Present Eileen Heidrick Professor of Oncology

**MAJOR RESEARCH INTERESTS:**

Hematopoietic stem cell differentiation  
Myeloproliferative Disorders

**HONORS:**

- 1967 Phi Beta Kappa
- 1976 Daniel P. Statz award, Mt. Sinai Hospital
- 1977 New York Blood Club - outstanding paper presented
- 1980-1985 Research Career Development Award, National Institutes of Health
- 1981 Member, Erythropoietin and Cell Proliferation Subcommittee of American Society of Hematology
- 1982 Chairman, Erythropoietin and Cell Proliferation Subcommittee of American Society of Hematology
- 1986-1990 Member-Hematology Study Section II, National Institutes of Health
- 1988 President, Midwest Blood Club
- 1990 G.W. Irwin Jr., Outstanding Service Award to Indiana University
- 1991 Councilor, International Society of Experimental Hematology
- 1991 Executive Committee Association of Hematology/Oncology Program Director
- 1991-1994 Committee for Training, American Society of Hematology
- 1992-1994 Subcommittee on Hematopoietic Growth Factors, American Society of Hematology
- 1995 Vice President, International Society of Experimental Hematology
- 1995-2000 Member Veterans Administration Merit Review Group - Hematology
- 1997-1998 President, International Society of Experimental Hematology
- 1997-1999 Program Committee, American Society of Hematology
- 1999-2000 Long-range Planning Committee, American Society of Hematology
- 1998-2003 Editor in Chief, *Experimental Hematology*
- 1998-2000 Advisory Committee, American Society of Hematology
- 2000-2001 Vice President, American Society of Hematology
- 2001-2002 President Elect, American Society of Hematology
- 2002-2003 President, American Society of Hematology
- 2004 Distinguished Professor Award, University of Illinois College of Medicine
- 2004-2008 Reviewer, Leukemia and Lymphoma Society of America, Translational Research Grants
- 2004-2009 Hematopoiesis Study Section, N.I.H.

**MEMBERSHIPS:**

American Federation of Clinical Research  
American Society of Hematology  
International Society of Experimental Hematology

American Association for the Advancement of Science  
Sigma XI  
Central Society for Clinical Research  
Midwest Blood Club, Councilor  
American Society for Clinical Investigation  
Association of American Physicians  
Society of Blood and Marrow Transplantation

**LICENSES:**

California No. G026080  
Connecticut No. 18812  
Indiana No. 31873  
Illinois No. 003-036-091393-01

**BOARD CERTIFICATIONS:**

1972 Diplomat, National Board of Medical Examiners  
1974 Diplomat, American Board of Internal Medicine  
1976 Diplomat, American Board of Internal Medicine-Hematology

**EDITORIAL BOARDS:**

1983-1985	Experimental Hematology
1988-1991	Journal of Laboratory and Clinical Medicine
1992-1997	Blood
1995-1998	Biology of Blood and Marrow Transplantation
1998-2002	Journal of Laboratory and Clinical Medicine
1998-2003	Editor, Experimental Hematology
2002-Present	Hem/Onc Today
2005-Present	Stem Cell Reviews
2004-Present	Hematology Clinics of North America
2004-Present	Blood Cells, Molecules & Diseases

**VISITING PROFESSORSHIPS:**

Vanderbilt University, 1984  
Mayo Clinic, 1985  
St. Jan Hospital, Bruges, Belgium, 1987  
Yale University, 1989  
Henry Ford Hospital, 1990  
University of Perugia, Italy, 1991  
University of Bologna, Bologna, Italy, 1992  
Beth Israel Hospital, New York, 1992

Royal Victoria Hospital, Montreal, Quebec, Canada, Kuchela Visiting Professor of Medicine, 1993  
Mount Sinai Hospital of New York, Dameshek Visiting Professor of Hematology, 1993  
Vanderbilt University, 1994  
University of Alabama at Birmingham, 1994  
University of Arkansas College of Medicine, 1998  
Medical College of Wisconsin, 1998  
University of Texas, San Antonio, 1999  
University of Bologna, 2000  
Mayo Clinic, 2000  
Baylor University School of Medicine, Hettig Visiting Professor, 2003  
Mt. Sinai School of Medicine, Gedalio and Sonla Grinberg Endowed Visiting Lectureship in Hematology, 2003  
Ohio State University School of Medicine, Stanley Balcerzak Lecturer, 2004  
Weill Medical College of Cornell University, Richard Silver Lecturer, 2005

### **CONSULTANTSHIPS and ADVISORY BOARDS:**

Systemix Inc., Palo Alto, CA  
Monsanto, Inc., St. Louis, MO  
Cancer Center of Modesto, CA  
Millennium Pharmaceuticals, Inc., Boston, MA  
ACTx Therapeutics, Atlanta, Georgia  
Gamida Cell Therapeutics, Israel  
Medical Advisory Board of MPD Foundation, Chicago, IL

### **PATENT:**

Expansion of human hematopoietic progenitor cells in a liquid medium. Patent Number 5,744,361, April 28, 1998.

### **RESEARCH PROGRAMS**

#### **ACTIVE RESEARCH SUPPORT:**

**P01 Myeloproliferative Disorder Research Consortium (PPG)** 4/1/06-3/31/11 50%  
NCI \$24,733,822 (Total Direct Costs)  
Abnormal Stem Cell Trafficking in Myelofibrosis (Project 5)  
Role: **PI** (both the overall PPG and Project 5)

**MPD Foundation** 1/1/06-1/1/11 10%  
Research and Development Grant \$1,511,865 (Total Direct Costs)  
Development and Use of In Vivo Murine Models in Polycythemia Vera for drug development.  
Role: **PI**

**Genzyme** 4/1/06-3/31/07 5%  
 Research and Development Grant \$179,781 (annual Direct Costs)  
Evaluation of the Effects of an Antibody to TGF-beta on Leukemic Conversion of Idiopathic Myelofibrosis.  
 Role: **PI**

**MP048010** 6/01/05-5/31/08 15%  
 US Army Medical Research Grant \$108,000 (annual direct cost)  
Characterization of the Hematopoietic Stem Cell in Patients with Idiopathic Myelofibrosis  
 The goal of this project is to phenotypically and functionally define the PB and BM CD34<sup>+</sup> cell population in patients with idiopathic myelofibrosis.  
 Role: **PI**

**R01 HL79164-03** 9/30/01-9/30/06 25%  
 NHLBI \$250,000 (annual direct cost)  
Hematopoietic Potential of Skeletal Muscle Cells  
 The goal of this project is to provide a platform for further advancing our understanding of the biology and therapeutic potential of MSC-HP.  
 Role: **PI**

**NIH 1 R01 HL73432-01 (Desimone)** 4/18/03-3/31/07 10%  
 NHLBI \$200,000 (annual direct cost)  
DNA Methylation, Chromatin, and Globin Gene Silencing  
 The major goal of this project is the development of new procedures to augment HbF production in patients with Sickle Cell diseases.  
 Role: **Co-Investigator**

**P01 HL55435-09 (PI: Nagel, Ronald)** 9/1/03-9/30/05 15%  
 NHLBI (UIC is subcontractor of Einstein University) \$132,834 (annual direct cost)  
Gene Therapy for Sickle-Cell Anemia  
 This supplemental proposal is to the initial submission of the Gene Therapy Program Grant. The goal of this project is to accelerate as much as it is possible and safe, the advent of clinical trials by expanding and retargeting of previous aims and new experimental aims.  
 Role: **Principal Investigator of subcontract**

**MPD Foundation** 12/1/02-11/30/05  
Organizational Grant For International MPD Consortium \$60,000  
 Role: **PI**

#### **COMPLETED RESEARCH SUPPORT:**

**P01 CA 57606-3 Preisler (PI)** 6/1/97-5/31/02  
 NIH/NCI  
Secondary Hematologic Disorders: Genesis and Treatment (Core E-Cell Sorting Core)

This project is a stem cell assay and flow cytometry core for a program project dealing with myelodysplasia.

Role: Co-Investigator; PI on Project

**R01 HL 63431-01**

8/1/99-7/31/03

NHLBI

Allochimerism Following Haploidentical Stem Cell Transplantation

This grant deals with the development of conditioning regimens for haploidentical transplants for nonhuman primates.

Role: PI

**Leukemia Society of America**

9/1/99-8/31/02

Ex-Vivo Cord Blood Stem Cell Expansion

This project deals with the evaluation of ex vivo expanded stem cell grafts in nonhuman primates.

Role: PI

**N01-HD-4-43203 Elias (PI)**

12/1/00-11/30/02

NIH

National Institute of Child Health and Human Development Fetal Cell Study

The major goal of this project is the development of in vitro assays to detect fetal cells in maternal blood for purposes of prenatal diagnosis.

Role: Co-Investigator

**Contract**

10/01/02-9/30/04

Large Scale Biology

\$116,307

State of California

This project deals with the use of PMVEC and HUBEC to expand cord blood baboon stem cells and test the marrow repopulating potential of the expanded cell product.

Role: PI

**PENDING RESEARCH SUPPORT**

**RFA-AI-04-045 Centers for Medical Countermeasures against Radiation (PPG)**

NIH

4/1/05-3/31/11

\$3,982,411 (Total direct cost) 20%

Model Testing of Radiation Protectors and Mitigators to Enhance Survival (Project 3)

Role: PI (Project 3)

**P01 HL55435-09 (PI: Nagel, Ronald)**

4/1/06-3/31/10

10%

NHLBI (UIC is subcontractor of Einstein University) \$148,810 (annual direct cost)

Gene Therapy for Sickle-Cell Anemia

This supplemental proposal is to the initial submission of the Gene Therapy Program Grant. The goal of this project is to accelerate as much as it is possible and safe, the advent of clinical trials by expanding and retargeting of previous aims and new experimental aims.

Role: Principal Investigator of subcontract

**PEER REVIEWED PUBLICATIONS:**

1. **Hoffman R**, Zanjani ED, Vila J, Zalusky R, Lutton JD, and Wasserman LR. Diamond-Blackfan syndrome: Lymphocyte-mediated suppression of erythropoiesis. *Science* 193: 899, 1976.
2. **Hoffman R**, Zanjani ED, Lutton JD, Zalusky R, and Wasserman LR. Suppression of erythroid colony formation by lymphocytes from patients with aplastic anemia. *N Engl J Med* 296: 10, 1977.
3. Zanjani ED, Lutton JD, **Hoffman R**, and Wasserman LR. Endogenous erythroid colony formation by bone marrow from patients with polycythemia vera: Dependence on erythropoietin. *J Clin Invest* 59: 841, 1977.
4. **Hoffman R**, Donovan P, and Cuttner J. Polycythemia with elevation of Hb F. *Lancet* 1: 866, 1977.
5. Dainiak N, **Hoffman R**, Maffei LA and Forget BG. Potentiation of human erythropoiesis in vitro by thyroid hormone. *Nature* 272: 260, 1978.
6. **Hoffman R** and Zanjani ED. Erythropoietin-dependent erythropoiesis during the erythroblastic phase of juvenile chronic granulocytic leukemia. *Brit J Haemat* 38: 511, 1978.
7. **Hoffman R**, Kopel S, Hsu SD, Dainiak N and Zanjani ED T-cell chronic lymphocytic leukemia presence in bone marrow and peripheral blood of cells that suppress erythropoiesis in vitro. *Blood* 52: 255, 1978.
8. Littman BH, Cooke CL and **Hoffman R**. Hypogammaglobulinemia followed by aplastic anemia with suppressor lymphocytes. A case report. *Clin Immuno Immunopath* 10: 344, 1978.
9. **Hoffman R**, Estren S, Kopel S, Marks SM and McCaffrey RP Lymphoblastic-like leukemic transformation of polycythemia vera. *Ann Intern Med* 88: 71, 1978.
10. Kaffe S, Hsu LU, **Hoffman R** and Hirschorn K. Association of 5q<sup>-</sup> and refractory anemia. *Am J. Hematol* 4: 269, 1978.
11. Myers RJ, **Hoffman R** and Zanjani ED Autoimmune hemolytic anemia: Involvement of erythroid precursor cells. *Am J Med* 65: 342, 1978.
12. Dainiak N, **Hoffman R**, Lebowitz A, Solomon L and Maffei L. Erythropoietin-dependent primary pure erythrocytosis. *Blood* 53: 1076, 1979.
13. **Hoffman R**, Sibrack L, Pober JS, Maffei L, Dainiak N and Waldron J. Antibody-mediated aplastic anemia and generalized fascial sclerosis: An unusual association with a small cell lymphoproliferative disorder with plasma differentiation. *N Eng J Med* 300: 718, 1979.
14. **Hoffman R**, Papayannopoulou T, Landau S, Wasserman L, DeMarch Q, and Stamatoyannopoulos G. Fetal hemoglobin in polycythemia: Cellular distribution in fifty unselected patients. *Blood* 53: 1148, 1979.
15. Ritchey AK, **Hoffman R**, Dainiak N, McIntosh S, Weininger R, and Pearson HA Antibody-mediated sideroblastic anemia. *Blood* 54: 734, 1979.
16. Pearson HA, Lobel JS, Kocoshis SA, Naiman JL, Windmiller J, Lammi AT, **Hoffman, R** and Marsh JC. A new syndrome of refractory sideroblastic anemia with vacuolization of marrow precursors and exocrine pancreatic dysfunction. *J Pediat* 95: 976, 1979.

17. **Hoffman R**, Murnane MJ, Benz EJ Jr, Prohaska R, Floyd V, Dainiak N, Forget BG and Furthmayr H. Induction of erythropoietic colonies in a human chronic myelogenous leukemia cell line. *Blood* 54: 1182, 1979.
18. Dainiak N and **Hoffman R**. Hemoglobin F production in testicular malignancy. *Cancer* 45: 2177, 1980.
19. Tonkonow B and **Hoffman R**. Aplastic anemia associated with cimetidine ingestion. *Arch Int Med* 140: 1123, 1980.
20. Clyne LP, Dainiak N, **Hoffman R** and Hardin JA. In vitro correction of anticoagulant activity and specific clotting factor assays in SLE. *Thromb Res* 18: 643, 1980.
21. Dainiak N, Hardin JA, Floyd V, Callahan M and **Hoffman R**. Humoral suppression of erythropoiesis in systemic lupus erythematosus (SLE) and rheumatoid arthritis. *Am J Med* 69: 537, 1980.
22. Benz EJ Jr, Murnane MJ, Tonkonow B, Berman B, Mazur E, Cavallesco C, Jenko T, Snyder E, Forget BG and **Hoffman R**. Embryonic-fetal erythroid characteristics of a human leukemic cell line. *Proc Natl Acad Sci (USA)* 77: 3509, 1980.
23. **Hoffman R**, Ibrahim N, Murnane MJ, Diamond A, Forget BG, and Levere RD. Hemin control of heme biosynthesis and catabolism in a human leukemia cell line. *Blood* 56: 567, 1980.
24. **Hoffman R**, Dainiak N, Floyd V, Ritchey AK and Mazur E. Erythropoiesis during an erythroblastic transformation of chronic myelocytic leukemia. *Cancer* 47: 720, 1981.
25. Dainiak N, **Hoffman R**, Ritchey AK, Floyd V and Callahan M. In vitro steroid sensitivity testing: A possible means to predict response to therapy in primary hypoproliferative anemia. *Am J Hemat* 9: 401, 1981.
26. Mazur EM, **Hoffman R**, Chasis J, Marchesi S and Bruno E. Immunofluorescent identification of human megakaryocyte colonies using an antiplatelet glycoprotein antiserum. *Blood* 57: 277, 1981.
27. Ritchey AK, **Hoffman R**, Coupal E, Floyd V, Pearson H and Forget BG. Imbalanced globin chain synthesis in cultured erythroid progenitor cells from thalassemic bone marrow and peripheral blood. *Blood* 57: 788, 1981.
28. Katz J, **Hoffman R**, Ritchey AK and Dainiak N. The proliferative capacity of pure red cell aplasia bone marrow cells. *Yale J Biol Med* 54: 89, 1981.
29. Mazur EM, **Hoffman R** and Bruno E. Regulation of human megakaryocytopoiesis: An in vitro analysis. *J Clin Invest* 68: 733, 1981.
30. **Hoffman R**, Mazur EM, Bruno E and Floyd V. Assay of an activity in the serum of patients with disorders of thrombopoiesis that stimulates formation of megakaryocyte colonies. *N Engl J Med* 305: 533, 1981.
31. Tonkonow BL, **Hoffman R**, Burger D, Elder JT, Mazur EM, Murnane MJ and Benz, EJ, Jr. Differing responses of globin and glycophorin gene expression to hemin in the human leukemia cell line K562. *Blood* 59: 738, 1982.
32. Gewirtz A, Benz EJ Jr, Rado T and **Hoffman R**. Constitutive expression of platelet glycoproteins by the human leukemia cell lines K562 cells. *Blood* 60: 785, 1982.
33. **Hoffman R**, Bruno E, Mazur EM and Denes A. Acquired amegakaryocytic thrombocytopenic purpura: A syndrome of diverse etiologies. *Blood* 60: 1173, 1982.

34. **Hoffman R**, Young N, Ershler WB, Mazur EM and Gewirtz A. Diffuse fasciitis and aplastic anemia: A report of four cases revealing an unusual association between rheumatologic and hematologic disorders. *Medicine* 61: 373, 1982.
35. Gewirtz A, Bruno E, Elwell J and **Hoffman, R**. In vitro studies of megakaryocytopoiesis in thrombocytotic disorders of man. *Blood* 61: 384, 1983.
36. Dainiak N, Kulkarn V, Howard D, Floyd V, Callahan M, Kalmanti M and **Hoffman R**. Mechanisms of abnormal erythropoiesis in malignancy. *Cancer* 51: 1101, 1983.
37. Gewirtz AM, Stewart AF, Vignery A and **Hoffman, R**. Hypercalcemia complicating acute myelogenous leukemia. A syndrome of multiple etiologies. *Br J Haematol* 54 (1): 133, 1983.
38. Nieneltow M, Cooper M, Breg W, Roy and **Hoffman R**. Evidence for the clonal origin of acquired hypomegakaryocytic thrombocytopenic purpura from a sex chromosome mosaic. *Cancer Genetics and Cytogenetics* 12 (3): 261, 1984.
39. **Hoffman R**, McPhedran P, Benz EJ Jr and Duffy TP. Isoniazid-induced pure red cell aplasia. *Am J Med Sci* 286: 1, 1983.
40. Murnane MJ and **Hoffman R**. Studies of BFU-E in flask cultures of human peripheral and cord blood cells. *Proc Soc Exp Biol Med* 174: 153, 1983.
41. Berkow RL, Straneva J, Bruno E and **Hoffman, R**. The isolation of human megakaryocytes by density centrifugation and counterflow centrifugal elutriation. *J Lab Clin Med* 103: 811, 1984.
42. Schreeder MR, Prchal JT, Parmley RT, Gewirtz AM and **Hoffman R**. An acute myeloproliferative disorder with myelofibrosis and differentiation of blasts to multiple cell lines. *Am J Clin Path* 83: 114, 1985.
43. Frei-Lahr D, Barton JC, Hoffman R, Burkett LL and Prchal JT. Blastic transformation of essential thrombocythemia: Dual expression of myelomonoblastic/megakaryo-blastic phenotypes. *Blood* 63: 866, 1984.
44. Lutton JD, Ibrahim NG, **Hoffman R**, Ritchey A and Levere, RD. Sideroblastic anemia: differences in bone marrow erythroid colony (CFU-E) growth responses to erythropoietin in plasma clot and methylcellulose cultures. *Am J Hem* 16: 219, 1984.
45. Dissing S, **Hoffman R**, Murnane MJ and Hoffman JF. Chloride transport properties of human leukemic cell lines K562 and HL60. *Am J Physiol* 247: 53, 1984.
46. **Hoffman R**, Yang H, Bruno E and Straneva JE. Purification and partial characterization of a megakaryocyte colony stimulating factor from human plasma. *J Clin Invest* 75: 1174, 1985.
47. Ibrahim NG, Lutton JD, **Hoffman R** and Levere RD. Regulation of heme metabolism in normal and sideroblastic bone marrow cells in culture. *J Lab Clin Med* 105: 593, 1985.
48. Nichols CR, **Hoffman R**, Einhorn LH, Williams SD, Wheeler LA and Garnick MB. Hematological malignancies associated with primary mediastinal germ cell tumors. *Ann Int Med* 102: 603, 1985.
49. **Hoffman R**, Zaknoen S, Yang H, Bruno E, LoBuglio AF, Arrowsmith JB and Prchal JT. An antibody cytotoxic to megakaryocyte progenitor cells in a patient with immune thrombocytopenic purpura. *New Engl J Med* 312: 1170, 1985.
50. Ritchey AK, Dainiak N and **Hoffman R**. Variable in vitro erythropoiesis in patients with transient erythroblastopenia of childhood. *The Yale Jour of Biol and Med* 58: 1, 1985.

51. Gewirtz AM and **Hoffman R**. Transitory hypomegakaryocytocytic thrombocytopenia: Etiologic association with ethanol abuse and implications regarding regulations of human megakaryocytopoiesis. *Br J Haematol* 62: 333, 1986.
52. Armstrong WP, Buck JD, **Hoffman R** and Waller BF. Cardiac involvement by lymphoma detection and follow up by two-dimensional echocardiography. *Am Heart J* 112: 627, 1986.
53. Beyer GS, Glant MD and **Hoffman R**. Development of IgA multiple myeloma in an aplastic patient treated with antithymocyte globulin. *New Engl J Med* 314: 247, 1986.
54. Yang H, Bruno E and **Hoffman R**. Studies of human megakaryocytopoiesis utilizing anti-megakaryocyte colony stimulating factor antibody. *J Clin Invest* 77: 1873, 1986.
55. Sledge G, Glant M, Jansen J, Heerema N, Roth B, Goheen M and **Hoffman R**. Establishment of a megakaryocytic leukemia cell line (EST-IU) from the marrow of a patient with leukemia at a medistinal germ cell neoplasm. *Cancer Res* 46: 2155, 1986.
56. Jayaram H, Pillween K, Nichols C, **Hoffman R**, and Weber G. Effect of in vitro tiazofurin in human normal and leukemic leukocytes. *Biochem Pharma* 35: 2029, 1986.
57. Broxmeyer HE, Williams D, Lu L, Cooper S, Anderson S, Beyer G, **Hoffman R** and Rubin B. The suppressive influence of human tumor necrosis factors on bone marrow hematopoietic progenitor cells from normal donors and patients with leukemia synergism of tumor necrosis factor and gamma interferon. *J Immunol* 136: 4487, 1986.
58. Straneva J, Goheen M, Hui S, Bruno E and **Hoffman R**. Terminal cytoplasmic maturation of human megakaryocytes in vitro. *Exp Hematol* 14: 919, 1986.
59. Lu L, Welte K, Gabilove J, Hangoc G, Bruno E, **Hoffman R** and Broxmeyer HE. Effects of recombinant human tumor necrosis factor, recombinant human interferon and prostaglandin E on colony formation of human hematopoietic progenitor cells stimulated by natural human pluripotent colony stimulating factor, pluripoietin and recombinant erythropoietin in serum free cultures. *Cancer Res* 46: 4357, 1986.
60. Geissler D, Lu L, Bruno E, Yang H, Broxmeyer H and **Hoffman R**. The influence of T-lymphocyte subsets and humoral factors on colony formation by human bone marrow and blood megakaryocyte progenitor cells in vitro. *J Immunol* 137: 2508, 1986.
61. Akard LP, **Hoffman R**, Elias L and Saiers JH. Alpha interferon and immune hemolytic anemia. *Annals Intern Med* 105: 306, 1986.
62. Elias L, **Hoffman R**, Boswell S, Tensen L and Bonnem EM. A trial of recombinant interferon in the myelodysplastic syndrome I. Clinical results. *Leukemia* 1: 105, 1987.
63. Palmer CG, Heerema NA, Griest A, Tricot G and **Hoffman R**. Cytogenetic findings in siblings with a myelodysplastic syndrome. *Cancer Genetics and Cytogenetics* 27: 241, 1987.
64. **Hoffman R**, Straneva J, Yang H, Bruno E and Brandt J. New insights into the regulation of human megakaryocytopoiesis. *Blood Cells* 13: 75, 1987.
65. Straneva J, Yang H, Hui S, Bruno E and **Hoffman R**. The effect of megakaryocyte colony stimulating factor on terminal cytoplasmic maturation of human megakaryocytes. *Exp Hematol* 15: 657, 1987.
66. Srivastava A, Heerema N, Lauer R, Nahreini P, Boswell H, **Hoffman R** and Antony A. A variant r (X;15) p 11; q 22) Translocation in acute promyelocytic leukemia. *Cancer Genetics and Cytogenetics* 29: 67, 1987.
67. Lu L, Walker D, Broxmeyer H, **Hoffman R**, Hu W and Walker E. Characterization of adult human marrow hematopoietic progenitors highly enriched by two-color cell sorting with

- My10 and major histocompatibility class II monoclonal antibodies. *J Immunol* 139: 1823, 1987.
68. DaSilva M, Heerema N, Schwenk R and **Hoffman R**. Evidence for the clonal nature of hypereosinophilic syndrome. *Cancer Genetics and Cytogenetics* 35: 61, 1988.
  69. McGuire WA, Yang H, Bruno E, Brandt J, Briddell R, Coates T and **Hoffman R**. Treatment of antibody mediated pure red cell aplasia with high dose intravenous gamma globulin. *N Engl J Med* 317: 1004, 1987.
  70. Tricot G, Jayaram H, Nichols C, Pennington K, Lapis E, Weber G and **Hoffman R**. Hematological and biochemical action of tiazofurin (NSC 286193) in a case of refractory acute myeloid leukemia. *Canc Res* 47: 4988, 1987.
  71. Antony A, Bruno E, Briddell R, Brandt J, Verma R and **Hoffman R**. Effect of perturbation of specific folate receptors during *in vitro* erythropoiesis. *J Clin Invest* 80: 1618, 1987.
  72. **Hoffman R**, Lu L, Jansen J, Bruno E, Brandt J, Boral L and Cheung K. The influence of T lymphocytes on hematopoiesis in a patient with T cell hypoplasia. *Am J Hematol*, 27: 118, 1988.
  73. Akard LP, Brandt J, Lu L, Jansen J and **Hoffman R**. Chronic T cell lymphoproliferative disorder and pure red cell aplasia: Further characterization of cell mediated inhibition of erythropoiesis and clinical response to cytotoxic chemotherapy. *Am J Med* 83: 1069, 1987.
  74. Nichols C, Loehrer P, Griest A and **Hoffman R**. VP-16, ifosfamide and cis platin (VIP) in recurrent lymphoma. *Medical Pediatric Oncol* 16: 12, 1988.
  75. Roth BJ, Sledge GW Jr, Straneva JE, Brandt J, Goheen M and **Hoffman R**. Analysis of phorbol ester stimulated human megakaryocyte development. *Blood* 72: 202, 1988.
  76. Bruno E, Briddell R and **Hoffman R**. Effect of recombinant and purified hematopoietic growth factors on human megakaryocyte colony formation. *Exp Hematol* 16: 317, 1988.
  77. Brandt J, Baird N, Lu L, Srour E and **Hoffman R**. Characterization of human hematopoietic progenitor cell capable of forming blast cell containing colonies *in vitro*. *J Clin Invest* 82: 1017, 1988.
  78. Srivastava A, Boswell HS, Heerema HA, Nahreini P, Lauer RC, Antony AC, **Hoffman R** and Tricot GJ. *kRAS* Oncogene Over-Expression in Myelodysplastic Syndrome with Translocation 5:12. *Cancer Genet Cytogenet* 35: 61, 1988.
  79. Bruno E, Miller ME and **Hoffman R**. Interacting cytokines regulate *in vitro* human megakaryocytopoiesis. *Blood* 73: 671, 1989.
  80. English D, Broxmeyer HE, Gabig TG, Akard LP, Williams D and **Hoffman R**. Temporal adaption of neutrophil oxidative responsiveness to n-formyl-methionyl-leucyl-phenylalanine. Acceleration by granulocyte-macrophage colony stimulating factor. *J of Immunol* 141: 2400, 1988.
  81. Lu L, Briddell RA, Graham CD, Brandt JE, Bruno E and **Hoffman R**. Effect of recombinant and purified human hematopoietic growth factors on *in vitro* colony formation by enriched populations of human megakaryocyte progenitor cells. *Br J Haematol* 70: 149, 1988.
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