

# FRANCIS W. RUSCETTI, PH.D.

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## CURRICULUM VITAE

### Education:

- 1968 B.S. (Biology), Boston University, Boston, MA
- 1972 Ph.D (Microbiology), University of Pittsburgh, Pittsburgh, PA

### Brief Chronology of Employment:

- 1972-1975 Research Instructor, Department of Medicine  
University of Pittsburgh, School of Medicine  
Pittsburgh, PA
- 1975-1978 Cell Biologist, Department of Cell Biology,  
Litton Bionetics, Inc., Kensington, MD
- 1978-1983 Cancer Expert, Laboratory of Tumor Cell Biology  
National Cancer Institute  
Bethesda, MD
- 1983-1984 Cancer Expert, Laboratory of Molecular Immunoregulation  
Biological Response Modifiers Program  
National Cancer Institute  
Frederick, MD
- 1984-1992 Senior Investigator, Head, Lymphokine Section  
Laboratory of Molecular Immunoregulation  
Biological Response Modifiers Program  
National Cancer Institute  
Frederick, MD
- 1992-2002 Chief, Laboratory of Leukocyte Biology  
Division of Basic Sciences  
National Cancer Institute - Frederick Cancer Research  
& Development Center  
Frederick, MD
- 2002-2004 Principal Investigator, Leukocyte Biology Section  
Basic Research Laboratory  
National Cancer Institute - Frederick  
Frederick, MD
- 2004 -2013 Principal Investigator, Leukocyte Biology Section  
Laboratory of Experimental Immunology  
Center for Cancer Research  
National Cancer Institute – Frederick
- 2013-present Founder, Consultant M.A.R.C Inc. (MAR Consulting Inc.), CARLSBAD CA 92008

**Military Service:**

1964-1968 United States Air Force

**Societies:**

American Society for Microbiology  
International Association for Comparative Research on Leukemia and Related Diseases  
Human Retrovirology Association  
International Society for Cytokine and Interferon Research  
International Society for Experimental Hematology  
American Society of Hematology  
American Association for Cancer Research

**Honors & Other Special Scientific Recognition:**

Andrew Mellow Fellowship, 1969-1972  
NIAMDD Consultant in Hematology Research, 1979-1981  
Member, Cell Proliferation Committee of Amer. Soc. of Hematology, 1983-1986  
Editorial Board, Experimental Hematology, 1986-1988  
Adjunct Professor of Biochemistry, George Washington University, 1988-2004  
HHS Distinguished Service Award for Biomedical Research, 1991  
Scientific Advisory Board, Guthrie Institute for Medical Research, 1991-2003  
Editorial Board, Experimental Hematology, 1994-1996  
Editorial Board, J. of Interferon & Cytokine Res., 1994-2000  
Editorial Board, Stem Cells, 1994-Present  
Award for Contribution to Human Retrovirology, Human Retrovirology Assoc., 2005  
Team Science Award Society for Immunotherapy of Cancer 2010  
Health and human services award for contribution to safety of blood supply 2012  
American Association of Immunologists Lifeline of Important Events: Discovery of interleukin 2, 1977

**Research Interests:**

Regulation of growth and differentiation of human leukocytes; biology and etiology of human leukemia; interactions of regulatory factors, chemicals, and oncogenic viruses with hematopoietic cells; tumor and viral mediated immunosuppression.

## BIBLIOGRAPHY

1. Ruscetti, F.W. and Jacobson, L.A.: Accumulation of 70S monoribosome in *Escherichia coli* after energy source shift-down. *J. Bact.* 111: 142-151, 1972.
2. Chervenick, P.A., Ruscetti, F.W., and LoBuglio, A.F.: Monocyte-macrophage stimulation of granulocytic and mononuclear colonies in vitro. In: *Second International Workshop on Hematopoiesis in Culture* (DHEW) Publ. No. 73-804, Robinson, W. A. (Ed), 1973, pp. 117-126.
3. Ruscetti, F.W. and Chervenick, P.A.: Release of colony-stimulating factor from monocytes by endotoxin and polyino-sinic-polycytidylic acid. *J. Lab. Clin. Med.* 83: 64-72, 1974.
4. Ruscetti, F.W. and Chervenick, P.A.: The release of colony-stimulating activity from thymus-derived lymphocytes. *J. Clin. Invest.* 55: 520-527, 1975.
5. Ruscetti, F.W. and Chervenick, P.A.: Regulation of the release of colony- stimulating activity from mitogen stimulated lymphocytes. *J. Immunol.* 114: 1513-1517, 1975.
6. Ruscetti, F., Cypress, R., and Chervenick, P.: Specific release of neutrophil and eosinophil stimulating factors from sensitized lymphocytes. *Blood* 47: 757-765, 1976.
7. Ruscetti, F.W., Boggs, D.R., Torok, B.J., and Boggs, S.S.: Reduced blood and marrow neutrophils and granulocyte colony-forming cells in S1/S1d mice. *Proc. Soc. Exp. Biol. Med.* 152: 398-402, 1976.
8. Morgan, D.A., Ruscetti, F.W., and Gallo, R.C.: Growth of thymus-derived lymphocytes from normal human bone marrow. *Science* 193: 1007-1008, 1976.
9. Wu, A., Ruscetti, F., and Gallo, R.: Cell-factor inter-actions in populations of normal and leukemic blood cells. In: *Experimental Hematology Today*, Baum, S. and Ledney, G. (Eds), Springer-Verlag, New York, 1977, pp. 165-176.
10. Gallo, R., Saxinger, W., Gallagher, R., Gillespie, D., Aulakh, G., Wong-Staal, F., Ruscetti, F., and Reitz, M.: Some ideas on the origin of human leukemia in man and recent evidence for the presence of type-C viral related information. In: *Origins of Human Cancer*, Watson, J.D. and Hiatt, H. (Eds), Cold Spring Harbor Press, Cold Spring Harbor, New York, 1977, pp. 1253-1265.
11. Ruscetti, F.W., Morgan, D.A., and Gallo, R.C.: Functional and morphological characteristics of human thymus-derived lymphocytes continuously growing in vitro. *J. Immunol.* 119: 131-138, 1977.
12. Ruscetti, F.W., Allulunis, J., and Chervenick, P.A.: Mechanism of release of colony stimulating activity from mitogen-stimulated lymphocytes: Effect of cytochalasin B. *Cell. Immunol.* 36: 3348-3392, 1978.
13. Gallagher, R., Ruscetti, F., Collins, S., and Gallo, R.: Growth and differentiation of human myelogenous leukemia cells in conditioned medium from human embryo cultured cells. In: *Advances in Comparative Leukemia Research*, P. Benjelzen and J. Hilgers (Eds), Elsevier Press, Amsterdam, 1977, pp. 303-306.
14. Gallo, R., Gallagher, R., and Ruscetti, F.: Human hematopoietic cells: A search for retrovirus-related information in primary tissues of leukemic cells and development of liquid suspension culture systems for the study of cell growth and differentiation and viral-cell interactions. In: *Differentiation of Normal and Neoplastic Hematopoietic Cells*, Marks, P., Clarkson, B., and Watson J.(Eds), Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York, 1978, pp. 671-694.

15. Gallo, R., Gallagher, R., Wong-Staal, F., Aoki, T., Markham, P., Schetters, H., Ruscetti, F., Varerio, M., O'Keefe, R., Saxinger, W., Smith, R., Gillespie, D., and Reitz, M.: Isolation and tissue distribution of type-C virus and viral components from a gibbon ape (*Hylobates lar*) with lymphocytic leukemia. *Virology* 84: 359-373, 1978.
16. Gillis, S., Baker, P., Ruscetti, F., and Smith, K.: Long-term culture of human antigen specific cytotoxic T-cell lines. *J. Exp. Med.* 148: 1093-1098, 1978.
17. Gallo, R., Ruscetti, F., Collins, S., and Gallagher, R.: Human myeloid leukemia cells: Studies on oncornaviral related information and in vitro growth and differentiation. In: *Hematopoietic Cell Differentiation*, Golde, D., Cline, M., Metcalf, D. and Fox, C. (Eds), ICN-UCLA Symposium on Molecular and Cellular Biology, Vol. X. Academic Press, New York, 1978, pp. 335-353.
18. Gallo, R., Reitz, M., Saxinger, W., Jacquemin, P., and Ruscetti, F.: Studies in human hematopoietic cells: Cellular and viral aspects. In: *Antiviral Mechanisms for the Control of Neoplasia*, Chandra, P. (Ed), Plenum Publishing Co., New York, 1978, pp. 153-175.
19. Collins, S., Ruscetti, F., Gallagher, R., and Gallo, R.: Terminal differentiation of human promyelocytic leukemia cells induced by dimethyl sulfoxide and other polar compounds. *Proc. Natl. Acad. Sci.* 75: 2458-2462, 1978.
20. Metzgar, R., Bertoglio, J., Bonnard, G., and Ruscetti, F.: Detection of HLA-dRw (Ia-like) antigens on human T-lymphocytes grown in tissue culture. *J. Immunol.* 122: 949-953, 1979.
21. Markham, P., Ruscetti, F., Salahuddin, S., Gallagher, R., and Gallo, R.: Enhanced induction of growth of B-lymphocytes from fresh human blood by primate type-C retroviruses. *Int. J. Cancer* 23: 148-156, 1979.
22. Collins, S. J., Ruscetti, F. W., Gallagher, R. E., and Gallo, R. C.: Normal functional characteristics of culture human promyelocytic leukemia cells (HL-60) after induction of differentiation by dimethyl-sulfoxide. *J. Exp. Med.* 149: 969-976, 1979.
23. Gallagher, R., Collins, S., Trujillo, J., McCredie, K., Ahearn, M., Tsai, S., Metzgar, R., Aulakh, G., Ting, R., Ruscetti, F., and Gallo, R. C.: Characterization of the continuous, differentiating myeloid cell line (HL-60) from a patient with acute promyelocytic-leukemia. *Blood* 54: 713-733, 1979.
24. Smith, K., Gillis, S., Baker, P., McKenzie, D., and Ruscetti, F.: T-cell growth factor mediated T-cell proliferation. *Ann. NY Acad. Sci.* 332: 423-428, 1979.
25. Ruscetti, F., Collins, S., Gallagher, R., and Gallo, R.: Normal functional characteristics of cultured human promyelocytic leukemia cells. In: *Adv. in Comparative Leukemia Res.*, Yohn, D., Lapin, B. and Blakeslee, W. (Eds), Elsevier Holland, Amsterdam, 1979, pp. 13-15.
26. Gallo, R., Wong-Staal, F., Markham, P., Ruscetti, F., Kalyanaraman, V., Ceccharini-Nelli, L., Dalla-Favera, R., Joseph, S., Miller, N., and Reitz, M.: Recent studies with infectious primate retroviruses: Hybridization to primate DNA and some biological effects on fresh human blood leucocytes by simian sarcoma virus and Gibbon ape leukemia virus. In: *Viruses in Naturally Occurring Cancers*, Essex, M., Todaro, G., and zur Hansen, H. (Eds), Cold Spring Harbor Laboratories, New York, 1980, pp. 753-773.
27. Boggs, D., Boggs, S., and Ruscetti, F.: The W/W<sup>v</sup> mouse as a model system for the study of aplastic anemia. In: *Aplastic Anemia: A Stem Cell Disease*, Finch, C. and Levine, A. (Eds), (NHLBI) Publ. #79-781, 1980, pp. 323-326.
28. Smith, K.A., Baker, P.E., Gillis, S., and Ruscetti, F.W.: Functional and molecular characteristics of T-cell growth factor. *Mol. Immunol.* 17: 579-589, 1980.
29. Gallo, R. and Ruscetti, F.: New human hematopoietic cell systems for the study of growth, differentiation and involved factors: Some therapeutic implications. In: *Molecular Actions and Targets for Cancer Chemotherapeutic agents*, Lazo, J., Bertino, J. and Sartorelli, J. (Eds), Academic Press, New York, 1981, pp. 555-577.

30. Bradley, E.C. and Ruscetti, F.W.: The effect of interferons on human tumor colony formation in vitro. *Cancer Res.* 41: 244-249, 1980.
31. Poiesz, B.J., Ruscetti, F.W., Mier, J.W., Woods, A.M., and Gallo, R.C.: T-cell lines established from human T-lymphocytic neoplasias by direct response to T-cell growth factor. *Proc. Natl. Acad. Sci. USA* 77: 6815-6819, 1980.
32. Poiesz, B., Ruscetti, F., Gazdar, A., Bunn, P., Minna, J., and Gallo, R.: Isolation of type-C retrovirus particles from cultured and fresh lymphocytes from a patient with cutaneous T-cell lymphoma. *Proc. Natl. Acad. Sci. USA* 77: 7415-7419, 1980.
33. Ruscetti, F.W. and Gallo, R.C.: Human T-lymphocyte growth factor: Regulation of growth and function of T-lymphocytes. *Blood* 57: 379-394, 1980.
34. Ruscetti, F.W., Mier, J.W., and Gallo, R.C.: Human T-cell growth factor: Parameters for production. *J. Supramol. Str.* 13: 229-241, 1980.
35. Ruscetti, F.W. and Gallo, R.C.: Production of T-cell growth factor by cultured human T-lymphocytes. *Behring Inst. Res. Commun.* 67: 240-244, 1980.
36. Reitz, M.S., Poiesz, B.J., Ruscetti, F.W., and Gallo, R.C.: Characterization and distribution of nucleic acid sequences of a novel type-C retrovirus isolated from neoplastic T-lymphocytes. *Proc. Natl. Acad. Sci. USA* 78: 1883-1887, 1981.
37. Gallo, R., Poiesz, B., and Ruscetti, F.: Regulation of human T-cell proliferation: T-cell growth factor and isolation of a new class of type-C retrovirus from T-cells. In: *Modern Trends in Human Leukemia*, Neth, R., Gallo, R., Graf, T., Mannweiler, K., and Winkler, K. (Eds), Springer-Verlag, Vol. IV, Berlin, 1981, pp. 502-514, 1981.
38. Reitz, M., Poiesz, B., Ruscetti, F., and Gallo, R.C.: Characterization by nucleic acid hybridization of HTLV, a novel retrovirus, from neoplastic T-lymphocytes. In: *Modern Trends in Human Leukemia*, Neth, R., Gallo, R., Graf, T., Mannweiler, K., and Winkler, K. (Eds), Springer-Verlag, Berlin, Vol IV, 1981, pp. 515-517.
39. Kalyanaraman, V.S., Sarngadharan, M.G., Poiesz, B.J., Ruscetti, F.W., and Gallo, R.C.: Immunological properties of a type-C retrovirus isolated from cultured human T-lymphoma cells and comparison to other mammalian retroviruses. *J. Virol.* 38: 906-915, 1981.
40. Rho, H.M., Poiesz, B.J., Ruscetti, F.W., and Gallo, R.C.: Characterization of the reverse transcriptase of a new retrovirus (HTLV) produced by a human cutaneous T-cell lymphoma cell line. *Virol.* 112: 355-360, 1981.
41. Ruscetti, F.W., Collins, S.J., Woods, A.M., and Gallo, R.C.: Clonal analysis of the response of human myeloid leukemia cell lines to colony stimulating activity. *Blood* 58: 285-291, 1981.
42. Markham, P., Ruscetti, F., Kalanaraman, V., Ceccherini-Nelli, L., Miller, N., Reitz, M., Salahuddin, S., and Gallo, R.: Restricted expression of retrovirus nucleic acids and proteins in primate type-C virus (Gibbon ag leukemia virus-Simmian sarcoma virus) initiated human B-lymphoblast cultures. *Cancer Res.* 41: 2738-2744, 1981.
43. Rabin, H., Hopkins, R., Ruscetti, F., Neubauer, R., Brown, R., and Kawakami, T.: Spontaneous release of a factor with T-cell growth factor activity from a continuous line of primate tumor T-cells. *J. Immunol.* 127: 1852-1857, 1981.
44. Gallo, R., Popovic, M., Ruscetti, F., Wainberg, M., Royston, I., Reitz, M., Broder, S. and Robert-Guroff, M.: Interaction of T-cell growth factor and a new retrovirus (HTLV) with human T-cells. In: *Differentiation and Function of Hematopoietic Cell Surfaces (ICN-UCLA Symposium on Molecular and Cellular Biology)*, Vol. XIV, Marchesi, V., Gallo, R., Majerus, P., and Fox, C., (Eds), Alan R. Liss, Inc., NY, 1981, pp. 231-245.

45. Robert-Guroff, M., Ruscetti, F.W., Posner, L.E., Poiesz, B.J., and Gallo, R.C.: monoclonal antibody specific for the human T-cell lymphoma (leukemia) virus p19. *J. Exp. Med.* 154: 1957-1964, 1981.
46. Gallo, R., Wong-Staal, F., and Ruscetti, F.: Viruses and adult leukemia-lymphoma of man and relevant animal models. In: *Adult Leukemia*, C. Bloomfield (Ed), Gruen-Stratton, NY, 1982, Vol. 1, pp. 1-41.
47. Posner, L.E., Robert-Guroff, M., Kalyanaraman, V.S., Poiesz, B.J., Ruscetti, F.W., Bunn, P.A., Minna, J.D., and Gallo, R.C.: Natural antibodies to the retrovirus HTLV in patients with cutaneous T-cell lymphomas. *J. Exp. Med.* 154: 333-346, 1981.
48. Salahuddin, S.Z., Markham, P.D., Ruscetti, F.W., and Gallo, R.C.: Long-term suspension cultures of human cord blood myeloid cells. *Blood* 58: 931-938, 1981.
49. Rabin, H., Hopkins, R.F., Yuan, L., Neubauer, R., and Ruscetti, F.W.: Studies on the growth of primate T-cell lines using a primate T-cell growth factor. In: *Advances in Comparative Leukemia Research*, Yohn, D., Strickland, D., and Blakeslee, W. (Eds), Elsevier North Holland, Amsterdam, 1981, pp. 141-144.
50. Ruscetti, F.W., Gootenberg, J., and Gallo, R.C.: Establishment of cell lines from mature human T-cell neoplasias: Role of T-cell growth factor. In: *Advances in Comparative Leukemia Research*, Yohn, D. and Blakeslee, J. (Eds), Elsevier, NY, 1982, pp. 143-144.
51. Poiesz, B.J., Ruscetti, F.W., Reitz, M.S., Kalyanaraman, V.S., and Gallo, R.C.: Isolation of a new type-C retrovirus (HTLV) in primary uncultured cells of a patient with Sezary T-cell leukemia. *Nature* 294: 268-271, 1982.
52. Gootenberg, J.E., Ruscetti, F.W., Mier, J.W., Gazdar, A., and Gallo, R.C.: Human cutaneous T-cell lymphoma cell lines produce and respond to T-cell growth factor. *J. Exp. Med.* 154: 1403-1418, 1982.
53. Ruscetti, F.W., Poiesz, B.J., Tarella, C., and Gallo, R.C.: T-cell growth factor and the establishment of cell lines from human T-cell neoplasias. In: *Progress in Cancer Research and Therapy*, Moore, M. (Ed), Raven Press, NY, 1982, pp. 153-166.
54. Gallo, R.C., Breitman, T.R., and Ruscetti, F.W.: Proliferation and differentiation of human myeloid cell lines in vitro. In: *Progress in Cancer Research and Therapy*, Moore, M.A.S. (Ed), Raven Press, NY, 1982, pp. 96-114.
55. Gallo, R., Robert-Guroff, M., Kalyanaraman, V., Ceccherini-Nelli, L., Ruscetti, F., Broder, S., Sarngadharan, M., Ito, Y., Maeda, M., Wainberg, M., and Reitz, M.: Human T-cell retrovirus and adult T-cell leukemia and lymphoma: Possible factors on viral incidence. In: *Biochemical and Biological Markers in Neoplastic Transformation*, Candra, S. (Ed), Plenum Press, NY, 1982, pp. 191-205.
56. Ruscetti, F.W., Chou, J.Y., and Gallo, R.C.: Human trophoblasts: A cellular source of CSA production in placental tissue. *Blood* 59: 86-90, 1982.
57. Tarella, C., Ferraro, D., Gallo, E., Pagliardi, G.L., and Ruscetti, F.W.: Induction of differentiation of HL-60 cells by dimethylsulfoxide: Evidence for a stochastic model not linked to the cell division cycle. *Cancer Res.* 42: 445-449, 1982.
58. Smith, K.A. and Ruscetti, F.W.: T-cell growth factor and the culture of cloned functional T-cells. *Adv. in Immunol.* 31: 139-172, 1982.
59. Tarella, C., Ruscetti, F.W., Poiesz, B.J., Woods, A.M., and Gallo, R.C.: Factors which affect human hemopoiesis are produced by T-cell growth factor dependent and independent cultured neoplastic T-cells. *Blood* 59: 1330-1337, 1982.
60. Gallo, R., Popovic, M., Ruscetti, F., Kalyanaraman, V. S., Reitz, M., Royston, I., Broder, S., and Robert-Guroff, M.: Effects of human T-cell lymphoma-leukemia virus (HTLV) and T-cell growth factor on human T-cells. In: *Expression of Differentiated Functions in Cancer Cells*, Rossi, G. and Revoltella, R. (Eds), Raven Press, NY, 1982, pp. 191-205.

61. Ceccherini-Nelli, L., Dalla-Favera, R., Markham, P., Ruscetti, F., Wong-Staal, F., Gallo, R.C., and Reitz, M.: Restricted expression of integrated primate type-C virus and proviral A in non-productively infected human B-lymphoblasts. *Virology* 117: 195-206, 1982.
62. Ruscetti, F.W., Mier, J., Gootenberg, J., and Gallo, R.C.: The interaction of human T-cell growth factor with normal and neoplastic T-cells. In: *Progress in Clinical and Biological Responses in Cancer*, Mihich, E. (Ed), Plenum Press, NY, 1982, pp. 121-168.
63. Gootenberg, J.E., Ruscetti, F.W., and Gallo, R.C.: A biochemical variant of T-cell growth factor from a human T-cell lymphoma cell line. *J. Immunol.* 129: 1499-1505, 1982.
64. Eastment, C., Ruscetti, F., Denholm, E. Arnold, E. and T'So, P.: The presence of hematopoietic mixed colony-forming cells in long-term suspension cultures of hamster bone marrow. *Blood* 60: 495-502, 1982.
65. Eastment, C.E. and Ruscetti, F.W.: An evaluation of erythropoiesis in long-term hamster bone marrow cultures: Absence of a need for an adherent monolayer. *Blood* 60: 999-1006, 1982.
66. Gallo, R., Mann, D., Broder, S., Ruscetti, F.W., Maeda, M., Kalyanaraman, V., Robert-Guroff, M., and Reitz, M.: Human T-cell leukemia-lymphoma virus (HTLV) is in T but not B lymphocytes from a patient with cutaneous T-cell lymphoma. *Proc. Natl. Acad. Sci. USA* 79: 5680-5684, 1982.
67. Ferrero, D., Tarella, C., Gallo, E., Ruscetti, F., and Breitman, T.: Terminal differentiation of the human promyelocytic leukemia cell line, HL-60, in the absence of cell proliferation. *Cancer Res.* 42: 4421-4426, 1982.
68. Ruscetti, F.: Biology of Interleukin-2. In: *Surv. Immunol. Res.*, Vol. 3, Schwartz, L. (Ed), Karger, Basel, Switzerland, 1982, pp 122-126.
69. Ruscetti, F. and Smith, K.: Glucocorticoid hormone suppression of T-cell growth factor dependent growth of leukemic T-cells. In: *Leukemia Rev. Internatl.*, Rich, M. (Ed), Marcel Dekker, NY, 1983, pp. 217-218.
70. Ruscetti, F.W.: The role of T-cell growth factor in the development of allergic reactivity. *Proc. New Engl. Soc. Allergy* 4: 79-85, 1983.
71. Leverand, C., Harrison, D., Ruscetti, F., and Nebert, D.: Bone marrow toxicity induced by oral benzopyrene: Protection resides at the level of the intestine and liver. *Toxicol. Appl. Pharmacol.* 20: 90-401, 1983.
72. Bradley, E., Ruscetti, F., Steinberg, H., Paradise, C., and Blaine, K.: Inhibition of differentiation and proliferation of colony-stimulating factor-induced clonal growth of normal human marrow cells in vitro by retinoic acid. *J. Natl. Cancer Inst.* 71: 1189-1192, 1983.
73. Gootenberg, J., Ruscetti, F., and Gallo, R.: A biochemical variant of human T-cell growth factor produced by a cutaneous T-cell lymphoma cell line. In: *Interleukins, Lymphokines and Cytokines*, Cohen, S. and Oppenheim, J. (Eds), Academic Press, NY, 1983, pp. 3-10.
74. Ruscetti, F.W., Robert-Guroff, M., Ceccherini-Nelli, L., Minowada, J., and Gallo, R.C.: Persistent in vitro infection by human T-cell leukemia-lymphoma (HTLV) of normal human T-lymphocytes from blood relatives of patients with HTLV associated mature T-cell neoplasias. *Int. J. Cancer* 31: 171-180, 1983.
75. Zamkoff, K.W., Poiesz, B.J., Ruscetti, F.W., Moore, J.L., Davey, F.R., Planas, A.T., and Lamberson, H.: Functional diversity within the suppressor phenotype as defined by monoclonal antibody in T-cell polylymphocytic leukemia. *Am. J. Hematol.* 16: 409-417, 1984.
76. Eastment, C.E. and Ruscetti, F.W.: Evaluation of hematopoiesis in long-term bone marrow culture: Comparison of species differences. In: *Long-Term Bone Marrow Cultures*, Greenberger, J. and Wright, D. (Eds), Alan R. Liss, Inc., NY, 1984, pp. 97-118.

77. Eastment, C. and Ruscetti, F.: Regulation of erythropoiesis in long-term hamster marrow cultures: Role of bone marrow adherent cells. *Blood* 65: 736-743, 1985.
78. Poiesz, B., Moore, J., Merl, S., Tomar, R., Zamkoff, K.W., Davey, F., Planas, A., Ehrlich, G., Ruscetti, F., Han, T., Cabradilla, C., and Comis, R.: Biology and epidemiology of HTLV. In: *Cancer Cells #3, Human T-Cell Leukemia Virus.*, Gallo, R. and Essex, M. (Eds), Cold Spring Harbor Laboratory Press, Cold Spring Harbor, NY, 1984, pp. 237-245.
79. Oppenheim, J., Ruscetti, F., and Steeg, P.: In Funderberg, H., Stiles, D., Caldwell, J., Wells, J. (Eds.): *Basic and Clinical Immunology 5th Edition. Interleukins and Interferons.* Lange Medical Pub., Los Altos, CA, 1984, pp. 89-103.
80. Ruscetti, F.W.: T-cell colony formation: absolute requirement for T-cell growth factor. *Natural Immunity Cell Growth Reg.* 3: 102-112, 1984.
81. Owens, G., Jen-Jacobson, L., Ruscetti, F., and Jacobson, L.: Functional and chemical modification of initiation factor 2 during translational control of protein synthesis in *E. Coli*. *J. Bacteriol.* 125: 451-458, 1985.
82. Eastment, C.E. and Ruscetti, F.W.: The development of factor-producing and factor-dependent clones from hamster long-term marrow in suspension cultures. *Exp. Hematol.* 13: 525-531, 1985.
83. Reeves, W., Zamkoff, K.W., Poiesz, B.J., Paolozzi, F.P., Tomar, R.H., Moore, J.L., and Ruscetti, F.W.: T-cell growth factor required for optimal induction of T-cell growth factor expression in PHA stimulated T-cells. *J. Biol. Response Modifiers* 4: 83-85, 1985.
84. Brown, R.L., Griffith, R. L., and Ruscetti, F.W.: Modulation of interleukin 2 release from a primate lymphoid cell line in serum-free and serum-containing media. *Cell Immunol.* 92: 14-21, 1985.
85. Foon, K., Rossio, J., Schroff, R., Wahl, S., Ruscetti, F., Abrams, P., Rager, H., Pickeral, S., and Fidler, I.: Generation of stable human T-cell hybridomas which constitutively produce interleukin 2 and chemotactic factor. *Hybridoma* 4: 211-222, 1985.
86. Oh, S-K., Farrar, W., and Ruscetti, F.: Modulation of E-receptor expression on activated T-cells. *Clin. Exp. Immunol.* 38: 55-67, 1985.
87. Farrar, W.L., Ruscetti, F.W., and Young, H.A.: 5-Azacytidine treatment of a murine cytotoxic T-cell line alters gamma interferon gene induction by interleukin-2. *J. Immunol.* 135: 1551-1554, 1985.
88. Hoffman, P., Festoff, B., Giron, L., Hollenbeck, L., Garruto, R., and Ruscetti, F.: Isolation of LAV/HTLV-III from a patient with amyotrophic lateral sclerosis. *New Eng. J. Med.* 325: 324, 1985.
89. Ruscetti, F.: 1985 year of the interleukin-2 receptor. In: *Surv. Immunol. Res.*, Schwartz, L. (Ed), Karger, Basel, Switzerland, 1985, Vol. 4, pp. 106-111.
90. Rossio, J.L., Ruscetti, F.W., and Farrar, W.: Calcium mobilization by specific recombinant ligands in IL-2 and IL-3-dependent cell lines. *Lymphokine Res.* 5: 163-172, 1986.
91. Ruscetti, F.W.: Immunopathology associated with human T-cell-tropic retroviruses. *Surv. Syn. Pathol. Res.* 4: 216-226, 1985.
92. Thurman, G., Maluish, A., Rossio, J., Scholick, E., Onozaki, K., Talmadge, J., Procopio, A., Ortaldo, J., Ruscetti, F., Stevenson, H., Cannon, G., Iyar, S., and Herberman, R.: Comparative evaluation of multiple lymphoid and recombinant human IL-2 preparations. *J. Biol. Res. Mod.* 5: 85-107, 1985.
93. Farrar, W.L. and Ruscetti, F.W.: Association of protein kinase C activation with IL-2 receptor expression. *J. Immunol.* 136:1266-273, 1986.



94. Farrar, W., Evans, S., Ruscetti, F., Bonvini, E., Young, H., and Birchnell-Sparks, M. C.: Biochemical mechanism(s) of interleukin-2 regulation of lymphocyte growth. In: Role of Leucocytes in Host Defense, Oppenheim, J. and Jacobs, D. (Eds), Alan R. Liss, Inc., NY, 1986, pp. 125-130.
95. Ruscetti, F., Kalyanaraman, V., Overton, R., Mikovits, J., Stevenson, H., Stromberg, K., Herberman, R., Farrar, W., and Ortaldo, J.: Analysis of effector mechanisms against HTLV-I and HTLV-III/LAV infected lymphoid cells. *J. Immunol.* 136: 3619-3624, 1986.
96. Lee, J., Rebar, L., Young, P., Ruscetti, F., Hanna, N., and Poste, G.: Identification and characterization of a human T-cell line-derived lymphokine with Maf-like activity distinct from interferon-gamma. *J. Immunol.* 136: 1322-1328, 1986.
97. Schlick, E. and Ruscetti, F.: In vivo induction of terminal differentiation of malignant myelopoietic progenitor cells by CSF-inducing biological response modifiers. *Blood* 67: 980-987, 1986.
98. Ruscetti, F.W., Farrar, W.L., Hill, J.M., and Pert, C.: Visualization of the human helper T-lymphocyte related antigen (T4) in primate brain: Implications for HTLV-III/LAV infection. *Peptide* 9: 97-104, 1986.
99. Faltynek, C., Princler, G., Rossio, J., Ruscetti, F., Maluish, A., Abrams, P., and Foon, K.: Relationship of the clinical response and binding of recombinant interferon alpha in patients with lympho-proliferative diseases. *Blood* 67: 1077-1082, 1986.
100. Abe, H., Rossio, J. L., Ruscetti, F. W., Matsushima, K., and Oppenheim, J. J.: Establishment of a human B-cell line that proliferates in response to B-cell growth factor. *J. Immunol. Meth.* 90: 111-123, 1986.
101. Farrar, W. and Ruscetti, F.: Developments concerning the biochemical and molecular basis of IL 2 mediated T-cell growth. In: *Surv. Immunol. Res.*, Cruse, J. (Ed), Karger, Basel, Switz., 1986, Vol. 5, pp. 3043-3047.
102. Sparks, M., Farrar, W., Rennick, D., and Ruscetti, F.: Interleukin 3 regulates expression of IL-2 receptors on IL-3 dependent cells by increased transcription of the IL-2 receptor gene. *Science* 233: 455-458, 1986.
103. Bettens, F., Schlick, E., Farrar, W., and Ruscetti, F.: 1,2,5 Dihydroxychole-calciferol-induced differentiation of myelomonocytic leukemic cells unresponsive to colony-stimulating factors and phorbol esters. *J. Cell. Physiol.* 129: 295-302, 1986
104. Pert, C., Hill, J., Ruff, M., Berman, R., Robey, W., Arthur L., Ruscetti, F., and Farrar, W.: Octapeptides deduced from the neuropeptide receptor-like pattern of antigen T4 in potently inhibit human immunodeficiency viral envelope receptor binding and human T-cell infectivity. *Proc. Natl. Acad. Sci. USA* 83: 9254-9258, 1986.
105. Ferrero, D., Pregno, P., Tarella, C., Ruscetti, F., Pileri, A., and Gallo, E.: Improved culture conditions for in vitro growth of acute myeloid leukemia clonogenic cells. *Cancer Res.* 47: 6413-6417, 1987.
106. Yamada, S., Ruscetti, F., Overton, W.R., Herberman, R., Birchenall-Sparks, M. C., and Ortaldo, J.R.: Regulation of human large granular lymphocyte and T-cell growth and function by recombinant interleukin 2: Induction of interleukin 2 receptors and promotion of growth of cells with enhanced cytotoxicity. *J. Leucocyte Biol.* 41: 505-517, 1987.
107. Holbrook, N.J., Guliano, A., and Ruscetti, F.W.: Cis-acting transcriptional regulatory sequences in the Gibbon ape leukemia virus (GALV) long terminal repeat. *Virology* 157: 211-219, 1987.
108. Starkebaum, G., Kalyanaraman, V., Kidd, P., Loughran, T., Kadin, M., Singer, J., and Ruscetti, F.: Serum reactivity to human T-cell leukemia virus type I in patients with large granular lymphocytic leukemia. *Lancet* 1: 596-598, 1987.

109. Bonvini, E., Ruscetti, F., Ponzoni, M., Hoffman, T., and Farrar, W.: Interleukin 2 rapidly stimulates synthesis and breakdown of polyphosphosites in interleukin 2 dependent, murine T-cell lines. *J. Biol. Chem.* 262: 4160-4164, 1987.
110. Faltynek, C., Princler, G., Ruscetti, F., and Birchenall-Sparks, M.: Lectins modulate the internalization of recombinant interferon  $\gamma$  and the induction of 2'5'-Oligo (A) synthetase. *J. Biol. Chem.* 263: 7112-7117, 1988.
111. Keller, J., Mantel, C., Sing, G., Ellingsworth, L., Ruscetti, S., and Ruscetti, F.: Transforming growth factor-beta $\beta$  selectively inhibits early murine hematopoietic progenitor cells and the growth of IL-3 dependent myeloid leukemic cell lines. *J. Exp. Med.* 168: 737-750, 1988.
112. Young, H., Birchenall-Sparks, M., and Ruscetti, F.: Characterization of interleukin 2 and phorbol myristate acetate augmentation of transfected human (interferon genomic DNA. *J. Interferon Res.* 8: 527-538, 1988.
113. Sing, G., Keller, J., Ellingsworth, L., and Ruscetti, F.: Transforming growth factor-beta selectively inhibits normal and leukemic human bone marrow cells in vitro. *Blood* 72: 1504-1511, 1988.
114. Loughran, T., Starkebaum, G., and Ruscetti, F.: Similar rearrangements of T-cell receptor  $\beta$  gene in cell lines and uncultured cells from patients with large granular leukemia. *Blood* 72: 613-615, 1988.
115. Brownell, E., Ruscetti, F., Smith, R.G., and Rice, N.: Expression of c-rel mRNA in human lymphoid populations. *Oncogene* 3: 93-98, 1988.
116. Takacs, L., Ruscetti, F., Kovacs, E., Rocha, B., Brocke S., Diamantstein, T., and Mathieson, B.: Immature double negative (CD4-, CD8-) rat thymocytes do not express IL-2 receptors. *J. Immunol.* 141: 3810-3818, 1988.
117. Ruscetti, F., Sing, G., Ellingsworth, L., Ruscetti, S., and Keller, J.: Transforming growth factor-beta $\beta$  a selective growth inhibitor for hematopoietic progenitor cells. In: *Monokines and Other Cytokines*, Oppenheim, J. (Ed), Alan R. Liss, Inc., NY, 1988, pp 307-312.
118. Pert, C. B., Ruff, J., Ruscetti, F., Farrar, W., and Hill, J. M.: HIV receptor in brain and deduced peptides that block viral infectivity. In: *Psychological, Neuro-Psychiatric and Substance Abuse Aspects of AIDS*, Bridge, T.B., et al. (Eds), Raven Press, NY, 1988, pp 73-83.
119. Ruscetti, F., Sing, G., Ellingsworth, L., and Keller, J.: Transforming growth factor a negative regulator of normal and leukemic hematopoietic progenitor cell growth. In: *Experimental Hematology Today*, Baum, S. J., Dicke, K. A., Lotzova, E., and Pluznik, D. (Eds), Springer-Verlag, Berlin, 1988, pp. 119-124.
120. Papsidero, L., Sheu, M., and Ruscetti, F.: Human immunodeficiency virus type 1 neutralizing monoclonal antibodies which react with p17 core protein: Characterization and epitope mapping. *J. Virol.* 63: 267-272, 1989.
121. Ruscetti, F. W. and Mikovits, J. A.: Differential regulation of the two IL-2 binding proteins. In: *Year in Immunology - 1988*, Cruise, J. and Lewis, R. (Eds), Basel, Karger, 1989, pp. 38-45.
122. Birchenall-Roberts, M., Engelmann, G.L., Keller, J.R., Lohrey, N., and Ruscetti, F.: Retroviral v-myc infection of primary fetal liver cells: Transformation of monocytes in vivo. *Oncogene* 4: 731-735, 1989.
123. Talmadge, J. E., Schneider, M., Keller, J., Ruscetti, F., Longo, D., Pennington, R., Bowersox, O., and Tribble, H.: Myelostimulatory activity of recombinant human interleukin 2 in mice. *Blood* 73: 1458-1467, 1989.
124. Keller, J., Sing, G., Ellingsworth, L., and Ruscetti, F.: Transforming growth factor-beta $\beta$ : Possible roles in the regulation of normal and leukemic hematopoietic cell growth. *J. Cell. Biochem.* 39: 175-184, 1989.

125. Sing, G., Keller, J., Ellingsworth, L., and Ruscetti, F.: Transforming growth factor-beta synergies with tumor necrosis factor and interferon in inhibiting hematopoietic cell growth. *J. Cell. Biochem.* 39: 117-128, 1989.
126. Goey, H., Keller, J., Back, T., Longo, D. L., Ruscetti, F., and Wiltrot, R.: Inhibition of early hematopoietic progenitor cell proliferation with in vivo locoregional administration of transforming growth factor-beta. *J. Immunol.* 143: 877-880, 1989.
127. Ruscetti, F., Sing, G., Burke, P., Schlick, E., Ruscetti, S., and Keller, J.: Biological response modifiers in the growth and differentiation of myeloid leukemic cells. In: *Current Topics in Microbiol & Immunol.* Vol. 149, Shen-Ong, G., Potter, M., and Copeland, N. (Eds), Springer-Verlag, Berlin, 1989, pp 165-172.
128. Ruscetti, S. and Ruscetti, F.: Apparent Epo-independence of SFFV-infected erythroid cells is not due to Epo production or change in Epo receptors. *Leukemia* 3: 703-707, 1989.
129. Steis, R., Clark, J., Longo, D.L., Smith, J., Miller, R., Ruscetti, F., Hursey, J., and Urba, W.: A phase 1b evaluation of human granulocyte-macrophage colony-stimulating factor. In: *Cancer Therapy*, Bergeret, H. et al. (Eds), Springer-Verlag, Berlin, 1989, pp 103-111.
130. Ruscetti, F.W.: Interleukin-2. In: *Immunophysiology*, Oppenheim, J. and Shevach, E. (Eds), Oxford Press, Oxford, 1989, pp 49-73.
131. Rossio, J.L. and Ruscetti, F.W.: Immunomodulation of neoplasia by interleukin-2. In Cruise, J. and Lewis, R. (Eds.): *Prog. Tumor. Res.* 32: 174-186, 1989.
132. Keller, J.R., Ellingsworth, L.R., McNiece, I.K., Quesenberry, P.J., Sing, G.K., and Ruscetti, F.W.: Transforming growth factor-beta directly regulates primitive murine hematopoietic cell proliferation. *Blood* 75: 596-602, 1990.
133. De Benedetti, F., Ruscetti, F., Ellingsworth, L., and Faltynek, C.: Synergy between transforming growth factor-beta and tumor necrosis factor- $\alpha$  in the induction of monocytic differentiation of human leukemic cell lines. *Blood* 75: 626-632, 1990.
134. Loughran, Jr., T.P., Aprile, J.A., Strakebaum, G., and Ruscetti, F.W.: Cellular and molecular analyses of activation of leukemic large granular lymphocytes by anti-CD3 monoclonal antibody. *Blood* 75: 936-940, 1990.
135. Twardzik, D., Mikovits, J., Ranchalis, J., Purchio, A., Ellingsworth, L., and Ruscetti, F.: ( Interferon induced activation of latent transforming growth factor  $\beta$  by human monocytes. In: *Transforming Growth Factor  $\beta$ s: Chemistry, Biology and Therapeutics*, Piez, K.A., and Sporn, M.B. (Eds). *Ann. NY Acad. Sci.* 593: 237-248, 1990.
136. Keller, J., Sing, G., Ellingsworth, L., Ruscetti, S., and Ruscetti, F.: Two forms of transforming growth factor  $\beta$  (TGF- $\beta$ 1 and TGF- $\beta$ 2) are equally potent selective growth inhibitors of early murine hematopoiesis. In: *Transforming Growth Factor  $\beta$ s: Chemistry, Biology and Therapeutics*, Piez, K.A. and Sporn, M.B. (Eds). *Ann. NY Acad. Sci.* 593: 172-180, 1990.
137. Falk, L., DeBenedetti, F., Faltynek, C., and Ruscetti, F.: Effect of retinoic acid on TGF  $\beta$ 1 receptor expression in HL-60 cells. In: *Transforming Growth Factor  $\beta$ s: Chemistry, Biology and Therapeutics*, Piez, K. and Sporn, M. (Eds). *Ann. NY Acad. Sci.* 593: 310-312, 1990.
138. Falk, L.A. and Ruscetti, F.W.: Differential TGF-beta1 receptor expression on quiescent and activated murine macrophages. In: *Molecular and Cellular Biology of Cytokines*, Powanda, M., Oppenheim, J., Kluger, M., and Dinarello, C. (Eds), Alan R. Liss, Inc, NY, 1990, pp. 137-142.
139. Oppenheim, J., Dubois, C., Ruscetti, F., and Keller, J.: Regulation of production and receptor expression for Interleukin-1 and tumor necrosis factor. In: *Cytokines and Lipocortins in Inflammation and*

Differentiation, Powanda, M., Oppenheim, J., Kluger, M., and Dinarello, C. (Eds), Alan R. Liss, NY, 1990, pp. 178-184.

140. Sing, G.K. and Ruscetti, F.W.: Preferential suppression of myelopoiesis in normal human bone marrow cells following in vitro challenge with human cytomegalovirus. *Blood* 75: 1965-1973, 1990.

141. Keller, J. R., Ruscetti, S. K., and Ruscetti, F. W.: Introduction of the v-abl oncogene induces monocytic differentiation of an IL-3 dependent myeloid progenitor cell line. *Oncogene* 5: 549-555, 1990.

142. Steis, R., VanderMolen, L. Lawrence, J., Sing, G., Ruscetti, F., Smith, J., Urba, W., Clark, J., and Longo, D.: Erythrocytosis in Hairy Cell Leukemia following treatment with interferon- $\alpha$ . *Brit. J. Hematol.* 75: 133-135, 1990.

143. Mikovits, J. A., Raziuddin, Gonda, M., Ruta, M., Lohrey, N., Kung, H-F., and Ruscetti, F.: Negative regulation of HIV replication in monocytes: Distinctions between restricted and latent expression in THP-1 cells. *J. Exp. Med.* 171: 1705-1720, 1990.

144. Dubois, C., Ruscetti, F., Palazynski, E., Falk, L., Oppenheim, J., and Keller, J.: Transforming growth factor-beta is a potent inhibitor of interleukin 1 (IL-1) receptor expression: proposed mechanism of inhibition of IL-1 action. *J. Exp. Med.* 172: 737-744, 1990.

145. Birchenall-Roberts, M., Ferrer, C., Falk, L., and Ruscetti, F.: Inhibition of murine monocyte proliferation by a CSF-1 antisense oligodeoxy-nucleotides: Evidence for autocrine regulation. *J. Immunol.* 145: 3290-3296, 1990.

146. Sing, G., Ruscetti, F., Beckwith, M., Keller, J., Ellingsworth, L., Urba, W., and Longo, D.L.: Growth inhibition of human lymphoma cell lines: Induction of a TGF-beta-mediated autocrine negative loop by phorbol myristate. *Growth and Cell Diff.* 1: 549-557, 1990.

147. Bristol, L., Ruscetti, F., Brody, D., and Durum, S.: Interleukin 1 induces expression of active TGF-beta in non-proliferating T-cells via a post-transcriptional mechanism. *J. Immunol.* 145: 4108-4114, 1990.

148. Birchenall-Roberts, M., Ruscetti, F., Kasper, J., Lee, H-D., Friedman, R., Drew, A., Sporn, M., Roberts, A., and Kim, S-J.: Transcriptional regulation of the TGF-beta-1 promoter by v-src gene products is mediated through the AP-1 complex. *Mol. Cell. Biol.*, 10: 4978-4983, 1990.

149. Latham, P., Lewis, A., Varesio, L., Pavalakis, G., Felber, B., Ruscetti, F., and Young, H.: The effect of cytokines on the expression of human immuno-deficiency virus long terminal repeat in the human promonocyte cell line, U937. *Cell. Immunol.* 129: 513-518, 1990.

150. Steis, R., VanderMolen, L., Longo, D.L., Clark, J., Smith, J., Kopp, W., Ruscetti, F., Creekmore, S., Elwood, L., Hursey, J., and Urba, W.: Recombinant human granulocyte-macrophage colony-stimulating factor in patients with advanced malignancy: a phase 1b trial. *J. Natl. Cancer Inst.* 82: 697-703, 1990.

151. Futami, H., Jansen, R., Keller, J., McCormick, K., Longo, D.L., Oppenheim, J., Ruscetti, F., and Wiltrott, R.: Chemoprotective effects of rh-IL-1 in normal and tumor-bearing mice: Protection from acute toxicity, hematologic effects, development of late toxicity and enhanced therapeutics. *J. Immunol.* 145: 4121-4130, 1990.

152. Ruscetti, F., Dubois, C., Falk, L., Jacobsen, S.E.W., Sing, G., Longo, D. L., Wiltrott, R., and Keller, J.: In vivo and in vitro effects of TGF-beta on normal and leukemic hematopoiesis. In: *Proceedings of the Meeting Clinical Applications of TGF-beta*, Brock, G. and Marsh, J. (Eds), Chichester Ciba Foundation Symposium, 1991, pp. 212-132.

153. Jacobsen, S.E., Ruscetti, F., Dubois, C., and Keller, J.: Transforming growth factor-beta modulates the expression of GM-CSF and G-CSF receptors on murine hematopoietic progenitor cell lines. *Blood* 77: 1706-1716, 1991.

154. De Benedetti, F., Falk, L., Ruscetti, F.W., Colburn, N.H., Faltynek, C.R., and Oppenheim, J.J.: Inhibition of PMA-induced transformation of JB6 by transforming growth factor-beta: Synergy between TGF-beta and retinoic acid. *Cancer Res.* 51: 1158-1164, 1991.
155. Falk, L., De Benedetti, F., Lohrey, N., Birchenall-Roberts, M., Ellingsworth, L., Faltynek, C., and Ruscetti, F.: Induction of TGF beta-1 receptor expression and TGF-beta-1 protein production in retinoic acid-treated HL-60 cells: Possible TGF-beta-1-mediated autocrine production. *Blood* 77: 1246-1255, 1991.
156. Altioek, A., Bejarno, M., Ruscetti, F., Altioek, E., Klein, G., and Klein, E.: Effects of transforming growth factor beta-1 and beta-2 on the proliferation of burkitt and lymphoblastoid cell lines. *Growth Factors* 4: 117-128, 1991.
157. Birchenall-Roberts, M., Falk, L., Kasper, J., Keller, J., Faltynek, C., and Ruscetti, F.: Differential modulation of TGF-beta-1 receptors in murine myeloid cell lines: Correlation with differential growth inhibition by TGF-beta-1. *J. Biol. Chem.* 266: 9617-9621, 1991.
158. Ruscetti, F., Jacobsen, S.E.W., Birchenall-Roberts, M., Broxmeyer, H., Engelmann, G., Dubois, C., and Keller, J.: Role of TGF-beta-1 in the regulation of hematopoiesis. In: *Negative Regulators of Hematopoiesis*, Anagnostou, A., et al. (Eds), *Ann. NY Acad. Sci.*, 628: 31-44, 1991.
159. Hestdal, K., Ruscetti, F., Jacobsen, S.E.W., Dubois, C. M., Kopp, W., Longo, D.L., and Keller, J.: Characterization and regulation of 8C5 (GR-1) antigen expression on murine bone marrow cells. *J. Immunol.* 147: 22-28, 1991.
160. Keller, J., Jacobsen, S.E.W., Sill, K., Ellingsworth, L., and Ruscetti, F.: Stimulation of granulopoiesis by transforming growth factor-beta: *Proc. Natl. Acad. Sci.* 88: 7190-7194, 1991.
161. Geller, R., Strobl, S., Bach, F., Ruscetti, F., Longo, D.L., and Ochoa, A.C.: Generation of lymphokine activated killer activity in T cells: Possible regulatory circuits. *J. Immunol.* 146: 3280-3288, 1991.
162. Ortaldo, J., Mason, A., O'Shea, J., Smyth, M., Falk, L., Kennedy, I., Longo, D.L., and Ruscetti, F.: Mechanisms of TGF- inhibition of IL-2 dependent activation of CD3- LGL functions: Regulation of IL-2R (p75) signal transduction. *J. Immunol.* 146: 3791-3798, 1991.
163. Oppenheim, J., Dubois, C., Neta, R., Keller, J., Falk, L., and Ruscetti, F.: Suppressive effects of transforming growth factor-beta on the expression of interleukin 1 receptors (IL-1R). In: *Japanese Society of Reproductive Immunology*, Hojo, K. and Kasakura, S. (Eds), 1991, pp. 33-38.
164. Migdalska, A., Molineux, G., Demuynck, H., Evans, G. S., Ruscetti, F., and Dexter, M.: Growth inhibitory effects of transforming growth factor-beta-1 in vivo. *Growth Factors* 4: 239-245, 1991.
165. Jacobsen, S.E.W., Ruscetti, F.W., Longo, D.L., and Keller, J.R.: The antineoplastic dolastatins are potent inhibitors of hematopoietic progenitor cells. *J. Natl. Cancer Inst.* 83: 1672-1677.
166. Starkebaum, G., Loughran, T.P., Jr., Waters, C., and Ruscetti, F.W.: Establishment of an IL 2-independent, human T-cell line possessing only the chain of the IL-2 receptor. *Int'l. J. Cancer* 49: 246-253, 1991.
167. Raziuddin, Mikovits, J., Clavert, I., Ghosh, S., Kung H-F., and Ruscetti, F.: Negative regulation of HIV-1 expression in monocytes: Role of the 65+50 kD NF kappa B heterodimer. *Proc. Natl. Acad. Sci.* 88: 9426-9430, 1991.
168. Jansen, R., Damia, G., Keller, J., Futami, H., Goey, H., Back, T., Longo, D.L., Ruscetti, F., and Wiltout R.: Effect of recombinant transforming growth factor-beta-1 (rTGF-beta-1) on hematopoietic recovery following treatment of mice with 5-fluorouracil. *J. Immunol.* 147: 3342-3347, 1991.

169. Dubois, C., Ruscetti, F., Keller, J., Oppenheim, J., Hestdal, K., Chizzonite, R., and Neta, R.: In vivo IL-1 administration indirectly promotes Type II IL-1 receptor expression on hematopoietic progenitor cells: Novel mechanism for the hematopoietic effects of IL-1. *Blood* 78: 2841-2848, 1991.
170. Jacobsen, S.E.W., Keller, J., Ruscetti, F., Roberts, A., and Falk, L.: Bidirectional effects of TGF-beta on CSF-stimulated human myelopoiesis: Differential effects of TGF-beta isoforms. *Blood* 78: 2239-2247, 1991.
171. Broxmeyer, H.E., Sherry, B., Cooper, S., Ruscetti, F.W., Williams, D.E., Arosio, P., Kwon, B.S., and Cerami, T.: Influence of recombinant murine macrophage inhibitory proteins (MIP)-beta-1 on myeloid progenitor cell suppression by MIP-beta-1 and comparison with H-ferritin inhibitory activity. *J. Immunol.* 147: 2586-2594, 1991.
172. Baylor, N.W., Fu, T., Yan, Y-D, and Ruscetti, F.W.: In vitro inhibition of human T-cell leukemia virus (HTLV-I) replication by baicalin, a purified flavonoid compound. *J. Inf. Dis.* 165: 433-437, 1992
173. Johnston, P., Connaughton, G., Sullivan, F., Ruscetti, F., and Longo, D.: Transient reversal of bone marrow aplasia associated with lymphocyte depleted Hodgkin's disease after combination chemotherapy. *Amer. J. Hematol.* 38: 54-60, 1991.
174. Keller, J.R. and Ruscetti, F.W.: Transforming growth factor beta (TGF-beta) and its role in hematopoiesis. *Intl. J. Cell Cloning* 10: 2-11, 1992
175. Ruscetti, F.W. and Palladino, M.A.: TGF-beta in the immune response. *Prog. in Growth Factor Res.* 3: 159-175, 1991.
176. Mikovits, J., Lohrey, N., Schuloff, R., Courtless, J., and Ruscetti, F.: Immune activation of HIV expression from latently infected monocytes from asymptomatic seropositive patients. *J. Clin. Invest.* 90: 1486-1491, 1992
177. Wiltrout, R., Damia, G., MacPhee, M., Futami, H., Faltynek, C., Ruscetti, F., and Komschilies, K.: Cytokine-based combined modality approaches to the treatment of murine renal cancer. In: *Cancer Treatment: New Therapeutic Approaches*, Goldstein, A. (Ed), Plenum Press, NY, 1992, pp. 269-274.
178. Ruscetti, F., Dubois, C., Jacobsen, S. E., and Keller, J.: Transforming growth factor-beta and interleukin 1: A paradigm for opposing regulation of hematopoiesis. In: *Growth Factors in Haemopoiesis* Bailliere's Clinical Hematology, Lord, B. and Dexter, T. (Eds), W.B. Saunders Company, London, 1992, 703-721.
179. Damia G., Komschilies, K., Faltynek, C., Ruscetti, F., and Wiltrout R.: Administration of recombinant human interleukin 7 alters the pattern of myeloid progenitor differentiation in mice. *Blood* 79: 1121-1129, 1992.
180. McNiece, I., Bertoncetto, I., Keller, J., Ruscetti, F., Hartley, C., and Zsebo, K.: Transforming growth factor-beta inhibits the action of stem cell factor on mouse and human hematopoietic progenitors. *Intl. J. Cell Cloning*, 10: 80-86, 1992.
181. Jacobsen, S. E. W., Ruscetti, F., Dubois, C., Wine, J., and Keller, J.R.: Induction of CSF receptor expression on hematopoietic progenitor cells: Proposed mechanism for growth factor synergism. *Blood* 80: 678-687, 1992.
182. Jacobsen, S.E., Ruscetti F., Dubois, C., and Keller, J.: Tumor necrosis factor alpha is a bidirectional modulator of CSF receptor expression on hematopoietic progenitor cells: Proposed mechanisms of action for its multifunctional effects in hematopoiesis. *J. Exp. Med.* 175: 1759-1772, 1992.
183. Dubois, C., Ruscetti, F., Jacobsen S. E., Oppenheim, J., and Keller, J.: Hematopoietic growth factors upregulate the p65 type II IL-1 receptor on bone marrow progenitor cells in vitro. *Blood* 80: 600-608, 1992.

184. Damia, G., Komschlies, K., Futami, H., Back, T., Gruys, E., Longo, D.L., Ruscetti, F., and Wiltrout, R.: Prevention of acute chemotherapy-induced death in mice by rhIL-1: Protection from hematological and non-hematological toxicities. *Cancer Res.* 52: 4082-4089, 1992.
185. Engelmann, G., Boehm, K., Sparks, M., and Ruscetti, F.: Transforming growth factor- $\beta$ 1 in the developing neo-natal heart of spontaneously hypertensive and normotensive rats. *Mech. of Develop.* 38: 85-98, 1992.
186. Loughran, T., Coyle T., Sherman, M., Starkebaum, G., Ehrlich, G., Ruscetti, F., and Poiesz, B.: Human T-cell leukemia/lymphoma virus, type II in a patient with LGL Leukemia. *Blood* 80: 1116-1119, 1992.
187. Hestdal, K., Jacobsen, S.E., Ruscetti, F., Dubois, C., Longo, D.L., Chizzonite, R., Oppenheim, J., and Keller, J.: In vivo effect of IL- $\alpha$ 1 on hematopoiesis: Role of colony stimulating factor receptor modulation. *Blood* 80: 2486-2494, 1992.
188. Hoffman, P., Dhib-Jalbut, S., Mikovits, J., Robbins, D., Wolf, A., Bergey, G., Lohrey, N., Weislow, O., and Ruscetti, F.: HTLV-1 infection of monocytes and microglial cells in primary human cultures. *Proc. Natl. Acad. Sci.* 89: 11784-11788, 1992.
189. Engelmann, G., Birchenall-Roberts, M., Ruscetti, F., and Samarel, A.: Formation of fetal rat cardiac cell clones by retroviral transformation: retention of select myocyte characteristics. *J. Mol. & Cell. Cardiol.* 25: 197-213, 1993.
190. West, M., Mikovits, J., Princler, G., Liu, Y-L., Ruscetti, F., Kung, H-F., and Raziuddin.: Characterization and purification of a novel transcriptional repressor from Hela Cell nuclear extracts recognizing the negative regulatory element of HIV-1 Long Terminal Repeat. *J. Biol. Chem.* 267: 24948-24952, 1992.
191. Dubois, C.M., Neta, R., Keller, J.R., Jacobsen, S.E.W., Oppenheim, J.J., and Ruscetti, F.W.: Hematopoietic growth factors and glucocorticoids synergize to promote hematopoiesis in vivo partly through induction of IL-1 receptor expression on bone marrow cells. *Exp. Hematol.* 21: 303-310, 1993.
192. Hestdal, K., Jacobsen, S.E.W., Ruscetti, F., Longo, D.L., Oppenheim, J., and Keller, J.: Increased granulopoiesis after sequential administration of transforming growth factor  $\beta$ 1 and granulocyte-macrophage colony stimulating factor. *Exp. Hematol.* 21: 799-805, 1993.
193. Jacobsen, S.E., Ruscetti F.W., and Keller, J.R.: Transforming growth factor- $\beta$  is a bidirectional modulator of colony stimulating factor receptor expression on murine bone marrow progenitor cells. *J. Immunol.* 151: 4534-4544, 1993.
194. Ruscetti, F.W., Varesio, L., Ochoa, A., and Ortaldo, J.: Pleiotropic effects of transforming growth factor- $\beta$  on cells of the immune system. *NY Acad. Sci.* 685: 488-500, 1993.
195. Li, C-C., Ruscetti, F., Rice, N., Chen, E., Mikovits, J., Yang, N-S., and Longo, D. L.: Differential Expression of Rel family members in HTLV-1 infected cells: Transcriptional activation of c-rel by tax protein. *J. Virol.* 67: 4205-4213, 1993.
196. Ruscetti, F.W., Jacobsen, S.E.W., Dubois, C. M., Hestdal, K., and Keller, J: Hematopoietic cell growth is regulated by balance between positive and negative regulators: Potential role for receptor modulation. In: *Negative regulation of hematopoiesis*, Guigon, M., et al. (Eds), Colloque INSERM/John Libbey Eurotext Ltd., Montrouge France, 229: 23-30, 1993.
197. Li, B-Q., Tao, F., Yan, Y-D., Baylor, N., Ruscetti, F., and Kung, H-F.: Inhibition of HIV infection by Baicalin-A Flavonoid compound purified from Chinese herbal medicine. *Cellular and Molecular Res.* 39: 119-124, 1993.
198. Loughran, T., Sherman, M., Ruscetti, F.W., Frey, S., Coyle, T., Montagna, R., Jones, B., Starkebaum, G., and Poiesz, B.: Prototypical HTLVII is rare in LGL Leukemia. *Leukemia Res.* 18: 423-429, 1994.

199. Grzegorzewski, K., Komschlies, K.L., Mori, M., Kaneda, K., Usui, N., Faltynek, C.R., Keller, J.R., Ruscetti, F.W., and Wiltrout, R.H.: Administration of recombinant human interleukin-7 to mice induces the exportation of myeloid progenitor cells from the bone marrow to peripheral sites. *Blood* 83: 377-385, 1994.
200. Hestdal, K., Welte, K., Lie, S., Keller, J., Ruscetti, F.W., and Abrahamsen, T.G.: Severe congenital neutropenia: Abnormal growth and differentiation of myeloid progenitors to G-CSF but normal response to G-CSF plus SCF. *Blood* 82: 2991-2997, 1993.
201. Dhib-Jalbut, S., Hoffman, P.M., Yamabe, T., Sun, D., Xia, J., Eisenberg, H., Bergey, G., and Ruscetti, F.W.: Extracellular HTLV-I tax-protein induces cytokine production in adult human microglial cells. *Ann. of Neurol.* 36: 787-790, 1994.
202. Aiello, F.B., Gusella, L., Longo, D.L., Birchenall-Roberts, M., Takacs, L., Takei, F., Ruscetti, F., Musiani, P., and Durum, S.K.: Inducible accessory function of a macrophage cell line. *Immunopharmacol Immunotoxicol* 15: 327-353, 1993.
203. de Jong, R., van Lier, R., Ruscetti, F., Schmitt, C., Debre, P., and Mossalayi, M. J.: Differential effect of transforming growth factor- $\beta$ 1 on activation of human naive and memory CD4+ T lymphocytes. *Int'l. Immunol.* 6: 631-638, 1994.
204. Dubois, C., Ruscetti, F., Stankova, J., and Keller, J.: Transforming growth factor-beta regulates c-kit message stability and cell-surface expression in hematopoietic progenitors. *Blood* 83: 3138-3145, 1994.
205. Hestdal, K., Ruscetti, F., Chizzonite, R., Ortiz, M., Gooya, J., Longo, D.L., and Keller, J.: Interleukin-1 directly and indirectly promotes hematopoietic cell growth through type I Interleukin-1 receptor. *Blood* 84: 125-132, 1994.
206. Sing, G. and Ruscetti, F.: Cytomegalovirus: Effects on hematopoiesis. In: *Viruses as Agents of Haematological Disease*, Young, N. (Ed), Bailliere's Clinical Hematology, W.B. Saunders Company, London, Vol 8, 1995, pp. 149-164.
207. Jacobsen, S.E., Ruscetti, F., Okkenhaug, C., Lien, E., Ortiz, M., Smeland, E., Veiby, O., and Keller, J.: Distinct and direct effects of IL-1 and IL-6 on colony stimulating factor and stem cell factor induced proliferation and differentiation of primitive murine bone marrow progenitors in vitro. *Exp. Hematol.* 22: 1064-1069, 1994.
208. Urba, W., Ruscetti, F., and Clark, J.: Adult T-cell lymphoma/leukemia. In: *Clinical Oncology*, Abeloff, M., Armitage, J., Lichter, A., Niederhuber, J. (Eds), Churchill Livingstone International, NY, 1995, pp. 2173-2190.
209. Jacobsen, S.E., Ruscetti, F., Ortiz, M., Gooya, J., and Keller, J.: Growth response of hematopoietic progenitors to cytokines is determined by the balance between the synergy of multiple stimulators and negative cooperation of multiple inhibitors. *Exp. Hematol.* 22: 985-989, 1994.
210. Ruscetti, F.: The hematopoietic effects of interleukin-1 and interleukin-6. In: Dale, D. and Adamson, J. (Eds): *Current Opinion in Hematol.* 1: 210-215, 1994.
211. Tiberghien, P., Reynolds, C., Keller, J., Spence, S., Murphy, W., Lyons, R., Chiang, W., Longo, D.L., and Ruscetti, F.W.: Ganciclovir treatment of herpes simplex thymidine kinase-transduced primary T lymphocytes: An approach for specific in vivo donor T-cell depletion after bone marrow transplantation. *Blood* 84: 1333-1341, 1994.
212. Mikovits, J.A., Meyers, A.M., Ortaldo, J. R., and Ruscetti, F.W.: IL-4 and IL-13 have overlapping but distinct effects on HIV production in monocytes. *J. Leukoc. Biol.* 56: 340-346, 1994.
213. Espinoza-Delgado, I., Bosco, M.C., Musso, T., Mood, K., Ruscetti, F.W., Longo, D.L., and Varesio, L.: Inhibitory circuits involving transforming growth factor- $\beta$ , interferon, and interleukin-2 in human monocyte activation. *Blood* 83: 3332-3338, 1994.



214. Keller, J., Bartelmez, S., Sitnicka, E., Ruscetti, F., Ortiz, M., Gooya, J., and Jacobsen, S.E.W.: Distinct and overlapping direct effects of macrophage inflammatory protein-1 and transforming growth factor- $\beta$  on hematopoietic progenitor/stem cell growth. *Blood* 84: 2175-2181, 1994.
215. Grzegorzewski, K., Ruscetti, F., Usui, N., Damia, G., Longo, D.L., Carlino, J., Keller, J., and Wiltrout, R.: Recombinant transforming growth factor- $\beta$ 1 and  $\beta$ 2 protect mice from acutely lethal doses of 5-fluorouracil and doxorubicin. *J. Exp. Med.* 180: 1047-1057, 1994.
216. Wong, P.M. C., Han, X-D., Ruscetti, F.W., and Chung, S-W.: Immortalized hemopoietic cells with stem cell properties. *Immunity* 1: 571-583, 1994.
217. Grzegorzewski, K., Komschlies, K., Jacobsen, S., Ruscetti, F., Keller, J., and Wiltrout, R.: Mobilization of long term reconstituting hematopoietic stem cells in mice by hIL-7. *J. Exp. Med.* 181: 369-374, 1995.
218. Jacobsen, F., Keller, J., Ruscetti, F., and Jacobsen, S.E.W.: Interleukin-4 and interleukin-11: Direct and pure synergistic effects on primitive hematopoietic progenitor cells. *Exp. Hematol.* 23: 990-995, 1995.
219. Derse, D., Mikovits, J., Polianova, M., Felber, B., and Ruscetti, F.: Virions released from cells transfected with a molecular clone of HTLV-1 give rise to primary and secondary infections of T-cells. *J. Virol.* 69: 1907-1912, 1995.
220. Spence, S., Keller, J. Ruscetti, F., Taylor, K., Gooya, J., Funakoshi, S., Longo, D.L., and Murphy, W.: Engraftment of SCID mice by human bone marrow hematopoietic cells cultured in vitro: An in vivo model for human gene transfer. *Leukemia*, 9 suppl, 1: 543-547, 1995.
222. Muszynski, K.W., Ruscetti, F.W., Heidecker, G., Rapp, U., Troppmair, J., Gooya, J.M., and Keller, J.: Raf-1 protein is required for growth factor-induced growth of hematopoietic cells. *J. Exp. Med.* 181: 2189-2199, 1995.
223. Beckwith, M., Ruscetti, F., Sing, G., Urba, W., and Longo, D.L.: Anti-IGM induces TGF- $\beta$  sensitivity in a human B-lymphoma cell line: Inhibition of growth is associated with a down-regulation of mutant p53. *Blood* 85: 2461-2470, 1995.
224. Fong, S., Pallansch, L., Mikovits, J., Lackman-Smith, C., Ruscetti, F., and Gonda, M.: cis-acting regulatory elements in the bovine immuno-deficiency virus long terminal repeat. *Virol.* 209: 604-614, 1995.
225. Mossalayi, M. D., Mentz, F., Ouaz, F., Dalloul, A. H., Blanc, C., Debre, P., and Ruscetti, F.W.: Early human thymocyte proliferation is regulated by an externally controlled autocrine transforming growth factor- $\beta$ 1 mechanism. *Blood* 85: 3594-3601, 1995.
226. Turley, J., Fuankoshi, S., Ruscetti, F., Kasper J., Murphy W., Longo, D., and Birchenall-Roberts, M.: Growth inhibition and apoptosis of RL human B lymphoma cells by vitamin E succinate and retinoic acid: Role for transforming growth factor- $\beta$ . *Cell Growth & Diff.* 6: 655-663, 1995.
227. Keller, J.R., Ortiz, M., and Ruscetti, F.W.: Steel factor (c-kit ligand) promotes the survival of hematopoietic progenitor/stem cells in the absence of cell division. *Blood* 86: 1757-1764, 1995.
228. Murphy, W., Funakoshi, S., Beckwith, M., Rushing, S., Conley D., Armitage, R., Fanslow, W., Rager, H., Taub, D., Ruscetti, F., and Longo, D.L.: Antibodies to CD40 inhibit Epstein-Barr Virus-mediated human B-cell lymphomagenesis in huPBL-SCID mice. *Blood* 86: 1946-1953, 1995.
229. Birchenall-Roberts, M., Ruscetti, F.W., Kasper, J., Bertolette, D.C., Yoo, Y.D., Roberts, M.S., Ferris, D.K., and Kim S-J.: Nuclear Localization of v-Abl leads to complex formation with CREB and transactivates via CRE motifs. *Mol. Cell. Biol.* 15: 6088-6099, 1995.
230. Ouaz, F., Ruscetti, F., Dugas, B., Mikovits, J., Agut, H., Debré, P., and Mossalayi M. D: Effects of IgE immune complexes on HIV-1 replication and cell death in infected U1 monocytes: Involvement of CD23/Fc RII mediated nitric oxide and cyclin AMP pathways. *Mol. Med.* 2: 38-49, 1996.

231. Bang O., Ruscetti F., Lee, M., Kim S-J., and Birchenall-Roberts, M.: Transforming growth factor- $\beta$ 1 modulates p107 function in myeloid cells. *J. Biol. Chem.* 271: 7811-7819, 1996.
232. Keller J., Ruscetti F., Heidecker G., Linnekin D., Rapp U., Troppmain J., Gooya J., and Muszynski K.: The effect of c-raf antisense oligonucleotides on growth factor-induced proliferation of hematopoietic cells. *Current Topics in Microbiol. & Immunol.* 211: 43-54, 1996.
233. Mikovits, J., Hoffman, P., Rethwilm, A., and Ruscetti, F.: In vitro infection of primary and retroviral infected human leukocytes by human foamy virus. *J. Virol.* 70: 2774-2779, 1996.
234. Schwarzenberger, P., Spence, S., Lohrey, N., Kmiecik, T., Longo, D.L., Murphy, W., Ruscetti, F., and Keller, J.: Gene transfer of multidrug resistance into a factor dependent human hematopoietic progenitor cell line: In vivo model for genetically transferred chemoprotection. *Blood* 87: 2723-2731, 1996.
235. Schwarzenberger, P., Spence, S., Lohrey, N., Kmiecik, T., Longo, D.L., Murphy, W., Ruscetti, F., and Keller, J.: Targeted gene transfer to human hematopoietic progenitor cell lines through the c-kit receptor. *Blood* 87: 472-478, 1996.
236. Linnekin, D., Weiler, S., Mou, S., DeBerry, C., Keller, J., Ruscetti, F., Ferris, D., and Longo, D.L.: JAK2 is constitutively associated with c-kit and is phosphorylated in response to stem cell factor. *Blood* 87: 3688-3693, 1996.
237. Keller, J., Gooya, J., and Ruscetti, F.: The direct synergistic effects of leukemia inhibitory factor on hematopoietic progenitor cell growth: Comparison with other hematopoietins that utilize the gp130 receptor subunit. *Blood* 88: 863-869, 1996.
238. Derse, D., Mikovits, J., Waters, D., Brining S., and Ruscetti, F.: Examining the molecular genetics of HTLV-1 with an infectious molecular clone and permissive cell culture systems. *J. AIDS and Human Retrovirol.* 12: 1-5, 1996.
239. Sitnicka, E., Ruscetti, F., Priestley, G, Wolf, N., and Bartelmez, S: Transforming Growth Factor- $\beta$  directly and reversibly inhibits the initial cell divisions of long-term repopulating hematopoietic stem cells. *Blood* 88: 82-88, 1996.
240. Keller, J., Muszynski, K., Gooya, J., Roppmair, J., Rapp, U., Linnekin D., Heidecker, G., and Ruscetti, F.: The effect of c-raf antisense oligonucleotides on growth factor induced proliferation of hematopoietic cells. *Curr. Top. Microbiol. Immunol.* 211: 43-53, 1996.
241. Birchenall-Roberts, M.C., Kim, S-J., Bertolette, D.C., Turley, J.M., Fu, T., Bang, O-S., Kasper, J.J., Yoo, Y.D., and Ruscetti, F. W.: p120-v-Abl expression overcomes TGF- $\beta$ 1 negative regulation of c-myc transcription but not cell growth. *Oncogene* 13: 1499-1509, 1996.
242. Turley, J.M., Falk, L.A., Ruscetti, F.W., Kasper, J.J., Francomano, T., Fu, T., Bang, O-S., and Birchenall-Roberts, M. C.: TGF- $\beta$ 1 drives monocytic differentiation of hematopoietic cells. *Cell Growth and Diff.* 7: 1535-1544, 1996.
243. Funakoshi, S., Taub, D.D., Asai, O., Hirano, A., Ruscetti, F.W., Longo, D.L., and Murphy, W.J.: Effects of CD40 stimulation in the prevention of human EBV-lymphomagenesis. *Leukemia and Lymphoma* 24: 187-199, 1997.
244. Birchenall-Roberts, M.C., Yoo, Y.D., Bertolette, D.C., Lee, K-H., Turley, J.M., Bang, O-S., Ruscetti, F.W., and Kim, S-J: The p120-v-Abl protein interacts with E2F-1 and regulates E2F-1 transcriptional activity. *J. Biol. Chem.* 272: 8905-8911, 1997.
245. Grgurevich, S., Linnekin, D., Musso, T., Zhang, X., Modi, W., Varesio, L., Ruscetti, F.W., Ortaldo, J.R., and McVicar, D.W.: The Csk-like proteins Lsk, Hyl, and MatK represent the same CSK homologous kinase (ChK) and are regulated by stem cell factor in the megakaryoblastic cell line, Mo7e. *Growth Factors* 14: 103-115, 1997.

246. Linnekin, D., DeBerry, C.S., Weiler, S.R., Keller, J.R., Ruscetti, F.W., and Longo, D.L.: Stem cell factor, the JAK-STAT pathway and signal transduction. *Leuk. Lymphoma* 27: 439-444, 1997.
247. Turley, J., Fu, T., Ruscetti, F., Mikovits, J., Bertolette, D., and Birchenall-Roberts, M.: Vitamin E succinate induces Fas-mediated apoptosis in estrogen receptor negative human breast cancer cells. *Cancer Res.* 57: 881-890, 1997.
248. Turley, J., Ruscetti, F., Kim, S-J., Fu, T., Gou, V., and Birchenall-Roberts, M.: Vitamin E succinate inhibits proliferation of BT-20 human breast cancer cells: increased binding of cyclin A negatively regulates E2F transcriptional activity. *Cancer Res.* 57: 2688-2675, 1997.
249. Muszynski, K.W., Ruscetti, F.W., Gooya, J.M., Linnekin, D.M., and Keller, J.R.: C-raf antisense oligonucleotides inhibit growth factor-induced synergistic responses in hematopoietic progenitor cells. *Stem Cells* 15: 63-72, 1997.
250. Derse, D., Mikovits, J., and Ruscetti, F.: X-I and X-II open reading frames of HTLV-I are not required for virus replication or for immortalization of primary T-cells in vitro. *Virology* 237: 123-128, 1997.
251. Keller, J., Ruscetti, F., Grzegorzewski, K., Wiltrot, R., Bartelmez, S., Sitnicka, E., and Jacobsen, S. E. W.: Transforming growth factor- $\beta$ , tumor necrosis factor- $\alpha$  and macrophage inflammatory protein-1 $\alpha$  are bidirectional modulators of hematopoietic cell growth. In: *Colony Stimulating Factors, Molecular and Cellular Biology*, 2nd Ed, Garland, J., Quesenberry, P. and Hilton, W. (Eds), Marcel Dekker Inc., New York, NY, 1998, pp 445-466.
252. Ruscetti, F., Birchenall-Roberts, M., McPherson, J., and Wiltrot, R: Transforming Growth Factor- $\beta$ . In: *Cytokines*, Sluis, A. (Ed), Academic Press., New York, NY, 1998, pp. 415-432.
253. Spence, S., Keller, J., Ruscetti, F., McCauslin, C., Gooya, J., Funakoshi, S., Longo, D. L., and Murphy, W.: Engraftment of ex vivo expanded and cycling human cord blood hematopoietic progenitor cells in SCID mice. *Exp. Hematol.* 26: 507-514, 1998.
254. Asai, O., Longo, D.L., Tian, Z-G., Hornung, R., Taub, D.D., Ruscetti, F.W., and Murphy, W.: Suppression of graft-versus-host disease and amplification of graft-versus-tumor effects by activated NK cells after allogeneic bone marrow transplantation. *J. Clin Invest.* 101: 1835-1842, 1998.
255. Mikovits, J., Taub, D., Turcovski-Corrales, S., and Ruscetti, F.: Similar levels of HIV-I replication in human TH1 and TH2 clones. *J. Virol.* 72: 5231-5238, 1998.
256. Mikovits, J., Young, H., Vertino, P., Pitha, P., Taub, D., Turcovski-Corrales S., Petrow, C., Baylin, S., and Ruscetti, F.: HIV-I infection upregulates DNA methyltransferase resulting in de novo methylation of the IFN- $\gamma$  promoter and subsequent downregulation of IFN- production. *Mol. Cell. Biol.* 18: 5166-5177, 1998.
257. Wang, J-M., Ueda, H., Howard, O.M.Z., Grimm, M.C., Chertov, O., Gong, X., Gong, W., Resau, J., Broder, C., Evans, G., Arthur, L.O., Ruscetti, F., and Oppenheim, J.: HIV-I envelope gp120 inhibits monocyte responses to chemokines through CD4 signal-dependent chemokine receptor down-regulation. *J. Immunol.* 161: 4309-4317, 1998.
258. Ueda, H., Howard, O.M.Z., Grimm, M.C., Su, S., Gong, W., Evans, G., Ruscetti, F., Oppenheim, J., and Wang, J-M.: HIV-I envelope gp41 is a potent inhibitor of chemoattractant receptor expression and function in monocytes. *J. Clin. Invest.* 102: 504-412, 1998.
259. Heidecker, G., Munoz, H., Lloyd, P., Hodge, D., Brehm, K., Ruscetti, F., Kuller, L., Firpo, P., Hu, S-L., Morton, W., and Beneveniste R.: Sequence Diversity of SIV Mne Nef in vivo and in vitro. *J. Med. Primatol.* 27: 73-80, 1998.
260. Heidecker, G., Munoz, H., Lloyd, P., Hodge, D., Ruscetti, F., Morton, W., Hu, S-L., and Beneveniste, R.: Macaque infected with cloned simian immunodeficiency virus show recurring nef gene alterations. *Virology* 249: 260-274, 1998.

261. Ortiz, M., Wine, J.W., Lohrey, N., Ruscetti, F.W., Spence, S.E., and Keller, J.R.: Functional characterization of a novel hematopoietic stem cell and its place in the c-kit maturation pathway in bone marrow cell development. *Immunity* 10: 173-182, 1999.
262. Zeller, J.C., Panoskaltis-Mortari, A., Murphy, W.J., Ruscetti, F.W., Narula, S., Roncarolo, M.G., and Blazer, B.R.: Induction of CD4+ T cell alloantigen-specific hyporesponsiveness by IL-10 and TGF-beta. *J. Immunol.* 163: 3684-3691, 1999.
263. Su, S.B., Ueda, H., Howard, O.M.Z., Grimm, M.C., Gong, W., Ruscetti, F.W., Oppenheim, J.J., and Wang, J.M.: Inhibition of the expression and function of chemokine receptors on human CD4+ leukocytes by HIV-1 envelope protein gp120. *Chem. Immunol.* 72: 141-160, 1999.
264. Kopp, W., Reynolds, C., and Ruscetti, F.: Immunoassay of cytokines and growth factors in biological fluids. In: *Characterization and Assay of Cytokines and Growth Factors. Developments in Biological Standardization*, Brown F., and Mire-Sluis AR (Eds), Basel, Karger, Vol 97, 1999, pp. 29-37.
265. Haga, S.B., Fu, S., Karp, J.E., Ross, D.D., Williams, D.M., Hankins, W.D., Behm, F., Ruscetti, F.W., Chang, M., Becton, D., Raimondi, S.C., and Berg, P.E.: BP1, a new homeobox gene is frequently expressed in acute leukemias. *Leuk.* 14: 1867-1875, 2000.
266. Welniak, L.A., Tian, A.G., Sun, R., Keller, J.R., Richards, S., Ruscetti, F.W., and Murphy, W.J.: Effects of growth hormone and prolactin on hematopoiesis. *Leuk. Lymphoma* 38: 435-445, 2000.
267. Akiyama, Y., Watanabe, M., Maruyama, K., Ruscetti, F.W., Wiltrot, R.H., and Yamaguchi, K.: Enhancement of antitumor immunity against B16 melanoma tumor using genetically modified dendritic cells to produce cytokines. *Gene Ther.* 7: 2113-2121, 2000.
268. Li, B.Q., Fu, T., Dongyan, Y., Mikovits, J.A., Ruscetti, F.W., and Wang, J.M.: Flavonoid baicalin inhibits HIV-1 infection at the level of viral entry. *Biochem. Biophys. Res. Commun.* 276: 534-538, 2000.
269. Park, S.H., Birchenall-Roberts, M.C., Yi, Y., Lee, B.I., Lee, D.G., Bertolette, D.C., Fu, T., Ruscetti, F., and Kim, S-J.: Mechanism of induction of TGF-beta type II receptor gene expression by v-Src in murine myeloid cells. *Cell Growth & Differ.* 12: 9-18, 2001.
270. Li, B-Q., Wetzel, M.A., Mikovits, J.A., Henderson, E.E., Rogers, T.J., Gong, W., Le, Y., Ruscetti, F.W., and Wang, J-M.: The synthetic peptide WKYVMv attenuates the function of the chemokine receptors CCR5 and CSCR4 through activation of the formyl peptide receptor like 1. *Blood* 97: 2941-2947, 2001.
271. Welniak, L.A., Khaled, A.R., Anver, M.R., Komschlies, K.L., Wiltrot, R.H., Durum, S., Ruscetti, F.R., Blazer, B.R., and Murphy, W.J.: Gastrointestinal cells of IL-7 receptor null mice exhibit increased sensitivity to irradiation. *J. Immunol.* 166: 2924-2928, 2001.
272. Poiesz, B.J., Papsidero, L.D., Ehrlich G., Sherman, M., Dube, S., Poiesz, M., Dillon, K., Ruscetti, F.W., Slamon, D., Fang, C., Williams, A., Duggan, D., Glaser, J., Gottlieb, A., Goldberg, J., Ratner, L., Phillips, P., Han, T., Friedman-Kien A., Siegal, F., Rai, K., Sawitsky A., Sheremata, L.W.A., Dosik, H., Cunningham, C., and Montagna, R.: Prevalence of HTLV-1 associated T-cell lymphoma. *Am. J. Hemat.* 66: 32-38, 2001.
273. Fang, J-Y, Mikovits, J.A., Bagni, R., Petrow-Sadowski, C.L., and Ruscetti, F.W.: Infection of lymphoid cells by replication-defective HIV-1 increases de novo methylation. *J. Virol.* 75: 9753-9761, 2001.
274. Mikovits, J., Ruscetti, F., Zhu, W., Bagni, R., Dorjsuren, D., and Shoemaker, R.: Potential cellular signatures of viral infections in human hematopoietic cells. *Disease Markers* 17: 173-178, 2001.
275. Ruscetti, F.W. and Bartelmez, S.H.: Transforming growth factor beta, pleiotropic regulator of hematopoietic stem cells: potential physiological and clinical relevance. *Int. J. Hematol.* 74: 18-25, 2001.

276. Ruff, M.R., Melendez-Guerrero, L.M., Yang, Q., Ho, W., Mikovits, J.A., Pert, C.B., and Ruscetti, F.W.: Peptide T inhibits HIV-1 infection mediated by the chemokine receptor-5 (CCR5). *Antiviral Res.* 52: 63-75, 2001.
277. Lee, J.K., Back, T.C., Komschlies, K.L., Ruscetti, F.W., Young, H.A., and Wiltrout, R.H.: Hematopoietic switch from lymphoid to granulocytic development in 3LL tumor-bearing mice. *In Vivo* 15: 255-263, 2001.
278. Oppenheim, J. J. and Ruscetti, F. W.: Cytokines. In: *Medical Immunology*, Parslow, T., Stites, D., Terr, A., and Imboden, J. (Eds), Lange Press, San Francisco, CA, 2001, pp 148-166.
279. Jones, K.S., Nath, M., Petrow-Sadowski, C., Baines, A.C. Dambach, M., Huang, Y., and Ruscetti, F.W.: Similar regulation of cell surface human T-cell leukemia virus type 1 (HTLV-1) surface binding proteins in cell highly and poorly transduced by HTLV-1 pseudotyped virions. *J. Virol.* 76: 12723-12734, 2002.
280. Viard, M., Parolini, I., Sargiacomo, M., Fecchi, K., Ramoni, C., Ablan, S., Ruscetti, F.W., Wang, J.M., and Blumenthal, R.: Role of cholesterol in human immunodeficiency virus type 1 envelope protein-mediated fusion with host cells. *J. Virol.* 76: 11584-11595, 2002.
281. Cao, Z., Flanders, K.C., Bertolette, D., Lyakh, A., Wurthner, J.U., Parks, W.T., Letterio, J.J., Ruscetti, F.W., and Roberts, A.: Levels of phospho-Smad2/3 are sensors of the interplay between effects of TGF-beta and retinoic acid on monocytic and granulocytic differentiation of HL-60 cells. *Blood* 101: 498-507, 2003.
282. Nath, M.D., Ruscetti F.W., Petrow-Sadowski, C., and Jones, K.S.: Regulation of the cell surface expression of an HTLV-1-binding protein in human T cells during immune activation. *Blood* 101: 3085-3092, 2003.
283. Ruff, M.R., Polianova, M., Yang, Q.E., Leoung, G.S., Ruscetti, F.W., and Pert, C.B.: Update on D-Ala-Peptide T-Amide (DAPTA): A viral entry inhibitor that blocks CCR5 chemokine receptors. *Curr. HIV Res.* 51-67, 2003.
284. Muegge, K., Young, H., Ruscetti, F., and Mikovits, J.: Epigenetic control during lymphoid development and immune responses: aberrant regulation, viruses, and cancer. *Ann. NY Acad. Sci.* 983: 55-70, 2003.
285. Akel, S., Petrow-Sadowski, C., Laughlin, M.J., and Ruscetti, F.W.: Neutralization of autocrine transforming growth factor- $\beta$ 1 in human cord blood CD34+CD 38-Lin cells promotes stem cell factor-mediated erythropoietin independent early erythroid progenitor development and reduces terminal differentiation. *Stem Cells* 21: 557-567, 2003.
286. Polianova, M.T., Ruscetti, F.W., Pert, C.B., Tractenberg, R.E., Leoung, G., Strong, S., and Ruff, M.R.: Antiviral and immunological benefits in HIV patients receiving intranasal peptide T (DAPTA). *Peptides* 24: 1093-1098, 2003.
287. Puri, A., Rawat, S.S., Lin, H.M., Finnegan, C.M., Mikovits, J., Ruscetti, F.W., and Blumenthal, R.: *AIDS* 18: 849-858, 2004.
288. Birchenall-Roberts, M.C., Fu, T., Bang, O.S., Dambach, M., Resau, J.H., Sadowski, C.L., Bertolette, D.C., Lee, H.J., Kim, S.J., and Ruscetti, F.W.: Tuberous sclerosis complex 2 gene product interacts with human SMAD proteins: A molecular link of two tumor suppressor pathways. *J. Biol. Chem.* 279: 25605-25613, 2004.
289. Finnegan, C.M., Rawat, S.S., Puri, A., Wang, J-M., Ruscetti, F.W., and Blumenthal. R: Ceramide, a target for antiviral therapy. *Proc. Natl. Acad. Sci. (USA)* 101: 15452-15457, 2004.
290. Taub, D.D., Mikovits, J.A., Nilsson, G., Schaffer, E.M., Key, M.L., Petrow-Sadowski, C., and Ruscetti, F.W. Alterations in mast cell functions and survival following in vitro infection of human immunodeficiency virus through CXCR4. *Cell. Immunol.* 230: 65-80, 2004.

291. Ruscetti, F.W. and Bartelmez S.H.: Cell Cycle Control and Check Points in Hematopoietic Stem Cells. In: Handbook of Stem Cells, Lanza R, Balu H, Melton D, Moore, M.A.S., Verfallie, C, Weissman, I. and West, M. (Eds), Academic Press, Vol 2, pp. 115-126, 2004.
292. Wielgosz, M., Rauch, D.A., Jones, K.S., Ruscetti, F.R., and Ratner, L.: Cholesterol dependence of HTLV-1 infection. *AIDS Res. Human Retroviruses* 21: 43-50, 2005.
293. Jones, K.S., Akel, S., Petrow-Sadowski, C., Huang, Y., Bertolette, D., and Ruscetti F.W. Induction of human T-cell leukemia type 1 (HTLV-1) receptors on quiescent naive T lymphocytes by TGF-beta. *J. Immunol.* 174: 4262-4270, 2005.
294. Polianova, M., Ruscetti, F.W., Pert, C.B., Brener, J., and Ruff, M.R.: CCR5 is the receptor for the HIV entry inhibitor peptide T (DAPTA). *Antiviral Res.* 67: 83-92, 2005.
295. Ruscetti, F., Akel, S., and Bartelmez S.H.: Autocrine transforming growth factor-beta Regulation of hematopoiesis: Many outcomes that depend on the context. *Oncogene* 24: 5751-5763, 2005
296. Jones, K.S., Petrow-Sadowski, C., Huang Y., Bertolette, D., and Ruscetti F.W.: Heparan sulfate proteoglycans mediate the attachment and entry of human T-cell leukemia virus type 1 (HTLV-1) virions into CD4+ T cells. *J. Virol.* 79: 12692-12702, 2005.
297. Jones, K.S., Petrow-Sadowski, C., Bertolette, D., Huang, Y., and Ruscetti, F.W.: Human T-cell leukemia virus type 1 (HTLV-1) and HTLV-2 use different receptor complexes to enter T cells. *J. Virol.*, 80: 8291-302, 2006.
298. Birchenall-Roberts, M.C., Fu, T., Kim, S-G, Huang, Y.K., Dambach, H.M., Resau, J.H., and Ruscetti, F.W.: K-Ras4B proteins are expressed in the nucleolus: Interaction with nucleolin. *Biochem. Biophys. Res. Commun.* 348: 540-549, 2006.
299. Ruscetti, F.W., Morgan, D.A., and Gallo, R.C.: Functional and morphologic characterization of human T cells continuously grown in vitro. *J. Immunol.* 179: 1415-1422, 2007.
300. Takenouchi, N., Jones, K.S., Lisinski, I., Fugo, K., Yao, K., Cushman, S.W., Ruscetti, F.W., and Jacobson, S.: GLUT1 is not the primary binding receptor but is associated with cell-cell transmission of HTLV-1. *J. Virol.* 81: 1506-1510, 2007.
301. Letterio, J.J., and Ruscetti, F.W.: Role of TGF- $\beta$  in myeloid and lymphoid homeostatis. In: TGF- $\beta$  Biology, Derynck, R. (Ed), Cold Spring Harbor Press, Cold Spring Harbor, NY, pp 789-818, 2007.
302. Ortaldo, J.R., Mason, A., Willette-Brown, J., Ruscetti, F.W., Wine, J., Back, T., Stull, T., Bere, E.W., Feigenbaum, L., Winkler-Pickett, R., and Young, H.A.: Modulation of lymphocyte function with inhibitory CD2: Loss of NK and NKT cells. *Cellular Immunol.*, 249: 8-19, 2007.
303. Akel, S., Bertolette, D., Petrow-Sadowski, C., and Ruscetti, F.W.: Levels of Smad7 regulate the signaling of Smad2/3 and mitogen activated kinases (MAPKs) and control erythroid and megakaryocytic differentiation of erythroleukemia cells. *Platelets* 18: 566-578, 2008.
304. Ruscetti, F., Akel, S., Birchenall-Roberts, M., Cao, Z., and Roberts A. B. : Smad signaling In leukemic growth and differentiation: Crosstalk between Smad and multiple pathways through activation of the TGF- $\beta$  type 1 receptor. From Cancer Drug Discovery and Development: TGF- $\beta$  in Cancer Therapy Vol II: Cancer Treatment and Therapy Edited by Sonia Jakowlew, Humana Press, pp 247-261, 2008.
305. Jones, K.S., Petrow-Sadowski, C., Huang, Y.K., Bertolette, D.C., and Ruscetti, F.W. Cell-free HTLV-1 infects dendritic cells leading to transmission and transformation of CD4+T cells. *Nature Med* 14: 429-436, 2008.
306. Jones, K.S., Huang, Y.K., Chevalier ,S.A., Afonso, P.V., Petrow-Sadowski, C., Bertolette, D.C., Gessain, A., Ruscetti, F.W., and Mahieux, R. The receptor complex associated with human T-cell

lymphotropic virus type 3 (HTLV-3) Env-mediated binding and entry is distinct from, but overlaps with, the receptor complexes of HTLV-1 and HTLV-2. *J Virol* 83: 5244-5255, 2009.

307. Lambert, S., Bouttier, M., Vassy, R., Seigneuret, M., Petrow-Sadowski, C., Janvier, S., Heveker, N., Ruscetti, F., Perret, G., Jones, K. and Pique, C. HTLV-1 uses HSPGs and neuropilin-1 for entry by molecular mimicry of VEGF-165. *Blood* 113: 5176-5185, 2009.

308. Lombardi, V.C., Ruscetti, F.W., Das Gupta, J., Pfof, M.A., Hagen, K.S., Peterson, D.L., Ruscetti, S.K., Bagni, R.K., Petrow-Sadowski, C., Gold, B., Dean, M., Silverman, R.H., and Mikovits, J.A. Detection of an infectious retrovirus, XMRV, in blood cells of patients with chronic fatigue syndrome. *Science* 326: 585-589, 2009.

309. Gordon, S.N., Weissman, A.R., Cecchinato, V., Fenizia, C., Ma, Z.M., Lee, T.H., Zaffiri, L., Andresen, V., Parks, R.W., Jones, K.S., Heraud, J.M., Ferrani, M.G., Chung, H.K., Venzon, D., Mahieux, R., Murphy, E.L., Jacobson, S., Miller, C.J., Ruscetti, R.W., and Franchini, G. Preexisting infection with human T-cell lymphotropic virus type 2 neither exacerbates nor attenuates simian immunodeficiency virus SIVmac251 infection in macaques. *J Virol* 84: 3043-3058, 2010.

310. Bhatwadekar AD, Guerin EP, Jarajapu YP, Caballero S, Sheridan C, Kent D, Kennedy L, Lansang MC, Ruscetti FW, Pepine CJ, Higgins PJ, Bartelmez SH, Grant MB. Transient inhibition of transforming growth factor-beta1 in human diabetic CD34+ cells enhances vascular reparative functions. *Diabetes*. 2010 Aug;59(8):2010-9. doi: 10.2337/db10-0287. Epub 2010 May 11. PubMed PMID: 20460428; PubMed Central PMCID: PMC2911069.

311. Mikovits JA, Lombardi VC, Pfof MA, Hagen KS, Ruscetti FW. Detection of an infectious retrovirus, XMRV, in blood cells of patients with chronic fatigue syndrome. *Virulence*. 2010 Sep-Oct;1(5):386-90. doi: 10.4161/viru.1.5.12486. PubMed PMID: 21178474; PubMed Central PMCID: PMC3073172.

312. Mikovits, JA., and Ruscetti, FW.. Xenotropic Murine Leukemia Virus Related Virus (XMRV): Current Research, Disease Associations, Therapeutic Opportunities. *Future Med Thera Biomarkers*, 2010.

313. Valeri VW, Hryniewicz A, Andresen V, Jones K, Fenizia C, Bialuk I, Chung HK, Fukumoto R, Parks RW, Ferrari MG, Nicot C, Cecchinato V, Ruscetti F, Franchini G. Requirement of the human T-cell leukemia virus p12 and p30 products for infectivity of human dendritic cells and macaques but not rabbits. *Blood*. 2010 Nov 11;116(19):3809-17. doi: 10.1182/blood-2010-05-284141. Epub 2010 Jul 20. PubMed PMID: 20647569; PubMed Central PMCID: PMC2981536.

314. Mikovits JA, Huang Y, Pfof MA, Lombardi VC, Bertolette DC, Hagen KS, Ruscetti FW. Distribution of xenotropic murine leukemia virus-related virus (XMRV) infection in chronic fatigue syndrome and prostate cancer. *AIDS Rev*. 2010 ul-Sep;12(3):149-52. Review. PubMed PMID: 20842203.

315. Van Prooyen N, Gold H, Andresen V, Schwartz O, Jones K, Ruscetti F, Lockett S, Gudla P, Venzon D, Franchini G. Human T-cell leukemia virus type 1 p8 protein increases cellular conduits and virus transmission. *Proc Natl Acad Sci U S A*. 2010 Nov 30;107(48):20738-43. doi: 10.1073/pnas.1009635107. Epub 2010 Nov 12. PubMed PMID: 21076035; PubMed Central PMCID: PMC2996430.

316. Simmons G, Glynn SA, Komaroff AL, Mikovits JA, Tobler LH, Hackett J Jr, Tang N, Switzer WM, Heneine W, Hewlett IK, Zhao J, Lo SC, Alter HJ, Linnen JM, Gao K, Coffin JM, Kearney MF, Ruscetti FW, Pfof MA, Bethel J, Kleinman S, Holmberg JA, Busch MP; Blood XMRV Scientific Research Working Group (SRWG). Failure to confirm XMRV/MLVs in the blood of patients with chronic fatigue syndrome: a multi-laboratory study. *Science*. 2011 Nov 11;334(6057):814-7. doi: 10.1126/science.1213841. Epub 2011 Sep 22. PubMed PMID: 21940862; PubMed Central PMCID: PMC3299483.

317. Jones KS, Lambert S, Bouttier M, Bénit L, Ruscetti FW, Hermine O, Pique C. Molecular aspects of HTLV-1 entry: functional domains of the HTLV-1 surface subunit (SU) and their relationships to the entry receptors. *Viruses*. 2011 Jun;3(6):794-810. doi: 10.3390/v3060794. Epub 2011 Jun 15. Review. PubMed PMID: 21994754; PubMed Central PMCID: PMC3185769.

318. Silverman RH, Das Gupta J, Lombardi VC, Ruscetti FW, Pfof MA, Hagen KS, Peterson DL, Ruscetti SK, Bagni RK, Petrow-Sadowski C, Gold B, Dean M, Mikovits JA. Partial retraction. Detection of an infectious retrovirus, XMRV, in blood cells of patients with chronic fatigue syndrome. *Science*. 2011 Oct 14;334(6053):176. doi: 10.1126/science.334.6053.176-a. PubMed PMID: 21998366.
319. Kearney MF, Spindler J, Wiegand A, Shao W, Anderson EM, Maldarelli F, Ruscetti FW, Mellors JW, Hughes SH, Le Grice SF, Coffin JM. Multiple sources of contamination in samples from patients reported to have XMRV infection. *PLoS One*. 2012;7 (2):e30889. doi: 10.1371/journal.pone.0030889. Epub 2012 Feb 20. PubMed PMID: 22363509; PubMed Central PMCID: PMC3282701.
320. Alter HJ, Mikovits JA, Switzer WM, Ruscetti FW, Lo SC, Klimas N, Komaroff AL, Montoya JG, Bateman L, Levine S, Peterson D, Levin B, Hanson MR, Genfi A, Bhat M, Zheng H, Wang R, Li B, Hung GC, Lee LL, Sameroff S, Heneine W, Coffin J, Hornig M, Lipkin WI. A multicenter blinded analysis indicates no association between chronic fatigue syndrome/myalgic encephalomyelitis and either xenotropic murine leukemia virus-related virus or polytropic murine leukemia virus. *MBio*. 2012 Sep 8;3(5). pii: e00266-12. doi: 10.1128/mBio.00266-12. Print 2012. PubMed PMID: 22991430; PubMed Central PMCID: PMC3448165.
321. Akel S, Bertolette, D and Ruscetti F: Crosstalk between the Smad and the Mitogen- Activated Protein Kinase Pathways is Essential for Erythroid Differentiation of Erythroleukemia Cells Induced by TGF- $\beta$ , Activin, Hydroxyurea and Butyrate J. *Leukemia*, NIHMS520869.
322. Fenizia C, Fiocchi M, Jones K, Parks RW, Ceribelli M, Chevalier SA, Edwards D, Ruscetti F, Pise-Masison CA, Franchini G. Human T-Cell Leukemia/Lymphoma Virus Type 1 p30, but Not p12/p8, Counteracts Toll-Like Receptor 3 (TLR3) and TLR4 Signaling in Human Monocytes and Dendritic Cells. *J Virol*. 2014 Jan;88(1):393-402. doi: 10.1128/JVI.01788-13. Epub 2013 Oct 23. PubMed PMID: 24155397.
323. Jensen SM, Ruscetti FW, Rein A, Bertolette DC, Saucedo CJ, O'Keefe BR, Jones KS. Differential Inhibitory Effects of Cyanovirin-N, Griffithsin and Scytovirin on Entry Mediated by Envelopes of Gammaretroviruses and Deltaretroviruses. *J Virol*. 2013 Nov 27. [Epub ahead of print] PubMed PMID: 24284326.
324. Goetz D.L.S., Mikovits J.A., Deckoff-Jones J. And F.W. Ruscetti. Innate Immune Changes in Peripheral Blood of Chronic Fatigue Syndrome Patients: Risk Factors for Disease and Management. Chapter 6 In book: *Chronic Fatigue Syndrome*. 2014 Nova Science Publishers. Editor: Connor Hudson ISBN 978-1-63321-961-8.