CURRICULUM VITAE

I. PERSONAL DATA

Name: Fatih M. Uckun

Birthdate: June 12, 1958

Place of Birth: Istanbul

Nationality: U.S. Citizen (Naturalized)

Social Security Number:

Minnesota Board of Medical Practice,
Medicine and Surgery License Number: 36852

Present Address: Wayne Hughes Institute
2665 Long Lake Road
St. Paul, MN 55113

Phone: (612) 697-9228 ext. 637
Facsimile: (612) 697-1042

Field of Specialization: Research: Immunobiology, Signal Transduction, Experimental Therapeutics, Cancer Research, AIDS Research. Clinical: Pediatrics, Pediatric Hematology/Oncology/Bone Marrow Transplantation, Biotherapy

II. EDUCATION

Abitur, German College of Science, Istanbul, 1977 (honors)

M.D., University Heidelberg Medical School, 1983 (honors)

Dissertation in Experimental Medicine, University of Heidelberg Medical School, 1983

Specialty Training in Pediatrics Residency Program, University of Minnesota, 1986 - 1990.

Subspecialty Training in Pediatric Hematology-Oncology Fellowship Program, University of Minnesota, 1990 - 1992.

III. PROFESSIONAL EXPERIENCE AND APPOINTMENTS

1978-1982 Trainee in Experimental Hematology and Immunology, Department of Medicine, Section of Hematology, University of Istanbul, Chairman: Professor Dr. M. Aksoy. **Field of Research**: Cellular Immunology, Tumor Immunology, Cell Cloning, Production of Monoclonal Antibodies.

1981-1983 Dissertation in Experimental Medicine, Department of Medicine, University of Heidelberg, Chairman: Professor Dr. h.c.mult. G. Schettler.

1982-1984 Research Associate in Adult Bone Marrow Transplantation Program, Tumor Center Heidelberg, University of Heidelberg Hospital, Chairman: Professor Dr. W.

Hunstein. **Field of Research**: Tumor Immunology, Leukemia Biology, Transplantation Biology.

1982-1984 Internal Medicine Resident, University of Heidelberg, Germany.

1986-1990 Pediatric Resident, University of Minnesota.

1990-1992 Pediatric Hematology-Oncology-BMT Fellow, University of Minnesota.

1984-1986 Postdoctoral Associate in Pediatric Bone Marrow Transplantation Program, University of Minnesota, Director of Program: Professor J. H. Kersey; Supervisor: Professor D.A. Vallera. **Field of Research**: Tumor Immunology, Leukemic Biology, Transplantation Biology, Immunoconjugates.

1986-1990 Assistant Professor. Departments of Therapeutic Radiology - Radiation Oncology and the Pediatric Bone Marrow Transplantation Program, University of Minnesota, Chairman: Professor S. H. Levitt. **Field of Research**: Tumor Immunology, Leukemia Biology, Growth Factors, Immunotoxins, Radiobiology.

1987-1997 Member, University of Minnesota Graduate School Faculty

1990-1993 Director, Section of Cancer and Leukemia Biology, Department of Therapeutic Radiology-Radiation Oncology.

1990-1993 Associate Professor (with tenure). Departments of Therapeutic Radiology - Radiation Oncology and the Pediatric Bone Marrow Transplantation Program, University of Minnesota, Chairman: Professor S. H. Levitt. **Field of Research**: Tumor Immunology, Leukemia Biology, Growth Factors, Immunotoxins, Radiobiology, AIDS.

1992-1993 Associate Professor of Pharmacology (joint appointment), University of Minnesota, Chairman : Professor Horace Loh.

1992-1997 Attending Physician, Departments of Therapeutic Radiology-Radiation Oncology and Pediatrics, University of Minnesota.

1992-1997 Director, Children's Cancer Group ALL Biology Reference Laboratory at the University of Minnesota.

1992-1997 Director, Children's Cancer Group Centralized Immunotoxin Resource Laboratory at the University of Minnesota.

1993-1997 Full Professor, Departments of Therapeutic Radiology-Radiation Oncology (with tenure), Pediatrics, and Pharmacology, University of Minnesota.

1993-1997 Director and Attending Physician, Biotherapy Program.

1994-1996 Attending Physician, Pediatric Bone Marrow Transplantation Program, University of Minnesota.

1993-present Member, New Agents Committee of the Children's Cancer Group.

1993-present Member of the ALL Strategy Group, ALL Steering Committee, New Agents Steering Committee, Biology Research Steering Committee of the Children's Cancer Group.

1995-1997 Director, Biotherapy Institute, University of Minnesota Academic Health Center.

1996-present Senior Scientist, National Childhood Cancer Foundation, Inc.

1996-present Director, Biotherapy Program of Children's Cancer Group.

1997-present Director, ALL Biology Reference Lab, Wayne Hughes Institute, St. Paul, Minnesota.

1997-present President and Director, Wayne Hughes Institute, St. Paul, Minnesota.

IV. HONORS AND SPECIAL RECOGNITION

Deutscher Akademischer Austauschdienst Scholar as Medical Student at the University of Heidelberg, 1977-1983.

Dissertation, University of Heidelberg, summa cum laude, 1983.

Outstanding Graduate, University of Heidelberg Medical School, 1983

Recipient of a Training Award from Tumor Center Heidelberg, 1983

Young Investigator Award, Turkish National Academy of Basic Sciences (TUBITAK), 1985.

Outstanding Representative of the Nation Award, Turkish Foreign Ministry, 1985

New Investigator Award, NIH, 1986.

Leukemia Society of America Special Fellowship Award, 1986.

Sedat Simavi Foundation, Outstanding Scientist Award, 1986.

Medal for Distinction in Medical Sciences, Turkish Military Medical Academy, 1987

NATO Research Award, 1989.

Leukemia Society of America Scholar Award, 1989.

Stohlman Scholar Award of the Leukemia Society of America, 1992.

The Third Pierce Immunotoxin Award, 1992.

Research Award of the Radiation Research Society, 1994.

Science Award of TUBITAK, the Turkish National Academy of Basic Sciences, 1995.

Outstanding Achievement in the Sciences Award of the Assembly of Turkish-American Associations, 1995.

Election to American Society for Clinical Investigation, 1996.

The first holder of the "Hughes Chair in Biotherapy", University of Minnesota Academic Health Center, 1996.

The first holder of the "Hughes Chair in Oncology", Wayne Hughes Institute, 1997.

V. RESEARCH SUPPORT

Current Federal Support:

1. **NIH-R01-ES-07175**. "Protein Tyrosine Kinases and Electromagnetic Fields". 7/1/95-6/30/98. Fatih M. Uckun, Principal Investigator.

2. **NIH U01-CA-72157.** "Cancer Therapy with Biotherapeutics Containing Genistein". 8/1/96 - 7/31/01.. Fatih M. Uckun, Principal Investigator.

3. **DOD-RP951361**. "Biotherapy of Breast Cancer with EGF-Genistein". 12/1/95 - 11/30/99. Fatih M. Uckun, Principal Investigator.

4. **NIH-CCG Chairman's Grant CA-13539**. "ALL Biology Reference Laboratory Investigations". 12/1/93-11/30/99. Fatih M. Uckun, Principal Investigator.

5. **NIH-CCG Chairman's Grant CA-13539**. " Immunotoxin Therapy of Relapsed ALL". 12/1/93-11/30/99. Fatih M. Uckun, Principal Investigator.

Other Grant Support:

1. **Parker Hughes Trust -Grant #1**. "Biotherapy of Childhood Leukemia". 8/1/96 - 7/31/98. Fatih M. Uckun, Principal Investigator.

2. **Parker Hughes Trust -Grant #2**. "Cell Type Specific Radiation Sensitizers". 8/1/96 - 7/31/98. Fatih M. Uckun, Principal Investigator.

3. **Parker Hughes Trust -Grant #3.** "Recombinant Pokeweed Antiviral Protein in Cancer Therapy". 8/1/96 - 7/31/98. Fatih M. Uckun, Principal Investigator.

VI. PATENTS

United States Patent: "EGF Genistein Conjugates for the Treatment of Cancer." Inventor: Fatih M. Uckun. Filing date: February 26, 1998.

United States Patent Application Serial No. Pending. "Vanadium (IV) Metallocene Complexes Having Spermicidal Activity." Inventors: Fatih M. Uckun, Osmond J. D'Cruz and Phalguni Ghosh. M&G: 12152.9-US-01. Filed: January 20, 1998.

United States Patent Application Serial No. Pending. "Novel Intermediates for Annonaceous Acetogenins." Inventors: Fatih M. Uckun and Keqiang Li. M&G: 12152.10-US-01. Filed: January 20, 1998.

United States Patent Application Serial No. Pending. "TXU-7-PAP Immunotoxin for the Treatment of Cancer and AIDS." Inventor: Fatih M. Uckun. Docket: 600.428US1. Filed: January 27, 1998.

United States Patent: "Biotherapy of Cancer by Targeting TP-3/P80." Inventors: Fatih M. Uckun and Peter Anderson. Patent Number: 5,690,935. Date of Patent: November 25, 1997.

United States Provisional Patent Application Serial No. 60/056,569. "Modulation of Cell Response to Radiation." Inventor: Fatih M. Uckun. M&G: 600.356-US-P1. Filed: August 21, 1997.

International Application No. PCT/US97/00476. "Immunoconjugate for the Treatment of AIDS." Inventor: Fatih M. Uckun. Filed: January 10, 1997.

United States Patent Application Serial No. 08/584,966. "TXU-5/B53-PAP Antiviral Biotherapeutic Agent for the Treatment of AIDS." Inventor: Fatih M. Uckun. Docket: 600.351US1. Pending.

European Patent Application No. 96 916 466.4. "Immunoconjugates Comprising Single-Chain Variable Region Fragments of Anti-CD-19 Antibodies." Inventors: Fatih M. Uckun, John H Kersey, Jr., Bruce E. Bejcek, Duo Wang. M&G: 600.354-EP-WO. Filed: May 15, 1996.

European Patent: "Pokeweed Antiviral Protein - Monoclonal Antibody Conjugates." Inventors: Fatih M. Uckun, Joyce Mintzer Zarling. International publications number: WO 91/01145 (07.02.1991 Gazette 1991/04). Date of Patent: May 1, 1996.

United States Patent Application Serial No. 08/517,282. "Combination Immunotoxin/Antineoplastic Agent Therapy of B-Lineage Cancer." Inventor: Fatih M. Uckun. M&G: 600.324-US-01. Filed: August 21, 1995.

United States Patent: "Monoclonal Antibody Specific for Human B-Cells." Inventor: Fatih M. Uckun, Patent Number: 4,831,117. Date of Patent: May 16, 1989

Greek Patent Application No. 900100550. "A method for inhibiting virus replication in mammalian cells using pokeweed antiviral protein-monoclonal antibody conjugates". Inventor: Fatih M. Uckun. Greek Patent No. 1,002,180.

United States Patent Application Serial Number 08/293,731. "Immunoconjugates Comprising Tyrosine Kinase Inhibitors". Inventor: Fatih M. Uckun. Docket: 600.298US1. Date of Patent: December 24, 1996.

United States Patent Application Serial Number 08/909,976. "Biotherapy of Cancer by Targeting TP-3/p80". Inventors: Fatih M. Uckun and Peter Anderson. Patent Number: 5,690,935. Date of Patent: November 25, 1997.

United States Patent Application Serial Number pending "Biotherapeutic agents comprising recombinant PAP and PAP mutants". Inventor: Fatih M. Uckun and Nilgun Tumer. Docket: 600.337US01. Filed in July 11, 1995.

United States Patent Application Serial Number 08/602,186. "EGF-Genistein conjugates for the treatment of cancer". Inventor: Fatih M. Uckun. Docket: 600.319USI1. Filed in February, 1997. PCT Patent Application No. PCT/US97/02325.

VII. PARTICIPATION IN NATIONAL ACADEMIC REVIEW BODIES

Regular Member of Radiation Study Section, National Cancer Institute, 1991-1995.

Member, Special Advisory Committee on Immunology, American Cancer Society, 1994-present.

Translational Research Review Subcommittee for the Leukemia Society of America 1995-1996.

Member of the National Institutes of Health reviewers Reserve (NRR) 1995-1999. Participated in the Program Project/Cancer Center site visits to Dana Farber Cancer Institute, City of Hope Cancer Center, Georgetown University, Phase I Clinical Trials/U01 Grants Review Committee/NCI.

Tumor Immunologic Science Subcommittee of the American Society for Bone Marrow Transplantation (ASBMT), 1995.

Member, Childhood Leukemia Foundation Advisory Board, 1995-present.

Associate Editor, International Journal Radiation•Oncology•Biology•Physics, 1995-present.

Editor, Leukemia and Lymphoma, 1991 - present

Editorial Board Member, Blood, 1992 - 1997

Editorial Board Member, Experimental Hematology, 1992 - 1995

Editorial Board Member, Radiation Oncology Investigations, 1992-present

Ad Hoc Reviewer for the Journals: Nature, Science, Proc. Natl. Acad. Sci. USA , Blood, Cancer Research, Leukemia, Leukemia and Lymphoma, , Int. J. Radiat. Biol., Int. J. Cancer, Eur. J. Hematol., Bone Marrow Transplantation, Experimental Hematology, J. Immunology.

VIII. PROFESSIONAL MEMBERSHIPS

Children's Cancer Group Very High Risk ALL Task Force 1997.

American Society for Clinical Investigation 1996 - present

Radiation Research Society membership committee 1996-1999.

Radiation Research Society (RRS) 1992 - present

American Society for Therapeutic Radiology and Oncology (ASTRO) 1990 - present

Transplantation Society 1986 - present

American Society of Hematology (ASH) 1989 - present

American Association for Cancer Research (AACR) 1989 - present

American Association for the Advancement of Science (AAAS) 1990 - present

International Society of Experimental Hematology (ISEH) 1986 - present

American Association of Immunologists (AAI) 1990 - present

IX. TEACHING ACTIVITIES

Postdoctoral Fellows/Graduate Students

1. Jizhong Jin - Jin is a Ph.D. candidate in the Biophysical Sciences Graduate Program. He received his medical degree at Nanjin Medical College in China and began his studies under Dr. Uckun in 1993. He is currently studying the regulatory role of tyrosine phosphotases in lymphocyte precursors and childhood lymphomas.

2. Zhiwen Yang - Zhiwen is a Ph.D. candidate in the Biophysical Sciences Graduate Program. After receiving a master's degree in radiobiology from the Peking Cancer

Research Institute in China, she began her studies with Dr. Uckun in 1994. She is currently studying the role of tyrosine kinases in lymphocyte precursors and AT.

3. Tamer Zeren - Tamer is a Ph.D. candidate in the Biophysical Sciences Graduate Program. He finished his degree from Celal Bayar University in Ankara, Turkey and began his studies with Dr. Uckun in 1993. He is currently studying the efficacy of immunoconjugates containing genistein against breast and prostate cancer as well as childhood leukemias.

4. Onur Ek - Onur is a Ph.D. candidate in the Biophysical Sciences Graduate Program. He finished his degree from Adnan Menteres University in Ankara, Turkey and began his studies with Dr. Uckun in 1993. He is currently studying the efficacy of TP3-PAP immunotoxin against childhood bone cancer.

5. Daiva Kristupaitis - Daiva is a Ph.D. candidate in the Biophysical Sciences Graduate Program. She received her degree from Sriechkus Polytechnic Institute in Kaunas, Lithuania and began her studies with Dr. Uckun in 1995. She is currently studying the potential role of electromagnetic fields in the development of childhood leukemia.

6. Pearse Ward - Pearse is a Ph.D. candidate in the Biophysical Sciences Graduate Program. He received his B.S. from the University of British Columbia in 1984 and began his studies with Dr. Uckun in 1995. He is currently studying the survival mechanisms in childhood bone cancer cells.

7. Lisa Engen - Lisa is a Ph.D. candidate in the Biophysical Sciences Graduate Program. She will specialize on the biology of childhood brain tumors.

Postgraduate Trainees and Fellows:

There are currently two postdoctoral fellows (Nian-Cherng Chia and Hoshnuwar Kerawalla) in Dr. Uckun's laboratory.

Previous Postgraduate Trainees and Fellows:

1. Postdoctoral Fellows

Name	Year of Training	Current Position
Dorothea Myers, Ph.D.	1987 - 1993	Assistant Professor, U of MN until 1/96, now Vice President of a Pharmaceutical Company
Xiao Jun, M.D.	1991 - 1993	Assistant Professor, U of MN
Ilker Dibirdik, Ph.D.	1989 - 1992	Assistant Professor, U of MN
Vedat Obuz, M.D.	1989 - 1992	Medical Fellow Specialist, U of PA
Woo Sun Min, M.D.	1989 - 1991	Assoc. Professor, Katholic Univ. Medical School, Korea
Kevin Waddick, Ph.D	1993 - 1995	Assistant Professor, U of MN
Yoav Messinger, M.D.	1994 - 1996	Assistant Professor, U of MN

2. Ph.D. Students

Kevin Waddick, M.S.	1988 - 1993	Assistant Professor, U of MN

Heonjoo Park Chae, M.D.	1990 - 1993	Assistant Professor, Katholic Univ. Medical College, Korea

X. SERVICE CONTRIBUTIONS

1992-1997 - Attending Physician, Department of Therapeutic Radiology-Radiation Oncology, University of Minnesota.

1993-1997 - Attending Physician, Biotherapy Service, University of Minnesota.

1994-1996 - Attending Physician, Bone Marrow Transplantation Program, University of Minnesota

XI. ROLE IN NATIONAL TRIALS

Dr. Uckun has established a new clinical trials consortium known as the Parker Hughes Consortium. This Consortium included initially The University of Minnesota Hospital, Childrens Hospital Los Angeles, and the Children's National Medical Center in Washington, DC. Subsequently, Duke University Medical Center, Dana Farber Cancer Institute, Johns Hopkins Oncology Center, Memorial Sloan Kettering Cancer Center and 5 other academic institutions have become active participants. This group represents the coming together of leading regional medical centers to offer new therapies and new hope in the treatment of childhood cancers. Funding has been obtained from federal and private sources to initiate clinical trials with the most promising new biotherapeutic agents.

The Parker Hughes Biotherapy Consortium will provide an efficient mechanism for testing the new biotherapy agents developed at the University of Minnesota for the first time in pediatric cancer patients. The interactions between the Parker-Hughes Biotherapy Consortium and the Phase 1 Consortium of the Children's Cancer Group provides a unique collaborative opportunity for the evaluation of novel agents in the treatment of refractory pediatric cancers, specifically, the development of combination therapies.
These initial studies will make it possible to select the most promising and well tolerated of these agents for nationwide studies in the two cooperative pediatric cancer clinical trials groups, the Childrens Cancer Group (CCG) and the Pediatric Oncology Group (POG).

The ability to combine biotherapeutic agents, including immunotoxins with drugs with more conventional cytotoxic mechanisms of action will hopefully result in unique combination trials during the next year. In addition to potential novel combination trials, the development of trials evaluating alternative schedules or routes of administration will be considered as well.

Dr. Uckun plays a very active role in the leukemia-related efforts of the Children's Cancer Group, as reflected by his publications on behalf of the Children's Cancer Group, his funding from the National Childhood Cancer Foundation (i.e., the fund-raising arm of the Children's Cancer Group) and his previously listed leadership positions in the Children's Cancer Group.

Dr. Uckun is affiliated with the following protocols:

PHBC-08 "A Phase III Pretransplant B43-PAP Immunotoxin Therapy in Children with Poor Prognosis B-lineage Acute Lymphoblastic Leukemia Undergoing Bone Marrow Transplantation" (Last edition: 5/97)

PHBC-09 "A Phase I Study of B43-Genestine Immunoconjugate in Recurrent B-lineage Acute Lymphoblastic Leukemia and Non-Hodgkin's Lymphoma" (Last edition: 4/97)

PHBC-11 "A Phase I Sudy of B43-Genestine Immunoconjugate in Recurrent B-lineage Acute Lymphoblastic Leukemia and Non-Hodgkin's Lymphoma" (Hurvitz 3 days) (Last edition: 10/97)

PHBC-12 "Phase I Study of Extended Maintenance Treatment of Therapy Refractory Acute Lymphoblastic Leukemia with anti CD-19 Immunotoxin Containing Pokeweed Anti-viral Protein (B43-PAP)" (Last edition: 8/97)

PHBC-13 "Anti-CD7 Pokeweed Anti-viral Protein (PAP) in the Treatment of Patients with HIV Infection: A Phase I Study" (Last edition 6/5/97)

PHBC-14 "Treatment of Recurrent CD7 Antigen Positive Leukemia with TXU (anti-CD7)-Pokeweed Anti-viral Protein (PAP) Immunotoxin" (Last edition: 5/97)

XII. PUBLICATIONS

Research Reports In Press and Published in Refereed Scientific Journals (Abstracts not included):

Uckun FM, Herman-Hatten K, Crotty ML, Sensel MG, Sather HN, Tuel-AhIgren L, Sarquis MB, Bostrom B, Nachman JB, Steinherz PG, Gaynon PS, Heerema N. Clinical Significance of MLL-AF4 Fusion Transcript Expression in the Absence of a Cytogenetically Detectable t(4;11)(q21;q23) Chromosomal Translocation. *Blood*, in press, 1998.

Ek O, Yanishevski Y, Waurzyniak B, Myers DE, Evans W, **Uckun FM**. Antitumor Activity of TP3(anti-p80)-PAP Immunotoxin in Hamster Cheek Pouch and SCID Mouse Xenograft Models of Human Osteosarcoma. *Clinical Cancer Research*, in press, 1998.

Uckun FM, Nachman JB, Sather HN, Sensel MG, Theil K, Kraft P, Steinherz PG, Lange B, Hutchinson R, Reaman GH, Gaynon PS, Heerema NA. Clinical Significance of Philadelphia Chromosome-Positive Pediatric Acute Lymphoblastic Leukemia in the Context of Contemporary Intensive Therapies: A Report from the Children's Cancer Group. *Cancer,* in press, 1998.

Vig R, Mao C, Venkatachalam TK, Tuel-Ahlgren L, Sudbeck EA, **Uckun FM**. Rational Design and Synthesis of Phenethyl-5-bromopyridyl Thiourea Derivatives as Potent Non-Nucleoside Inhibitors of HIV Reverse Transcriptase. *Bioorganic & Medicinal Chemistry*, in press, 1998.

Narla RK, Liu XP, Myers DE, **Uckun FM**. 4-(3'-Bromo-4' hydroxylphenyl)-amino-6,7-dimethoxyquinazoline (WHI-P154): A novel quinazoline derivative with potent cytotoxic activity against human glioblastoma cells. *Clinical Cancer Research*, in press, 1998.

Williams MD, Rostovtsev A, Narla RK, **Uckun FM**. Production of Recombinant DT_{cr}GMCSF Fusion Toxin in a Baculovirus Expression Vector System for Biotherapy of GMCSF-Receptor Positive Hematologic Malignancies. *Protein Expression and Purification*, in press, 1998.

Vig R, Mao C, Venkatachalam TK, Tuel-Ahlgren L, Sudbeck EA, **Uckun FM.** 5-Alkyl-2-[(methylthiomethyl)thio]-6-(benzyl)-pyridmidin-4-(1H)-Ones as Potent Non-Nucleoside

Reverse Transcriptase Inhibitors of S-DABO Series. *Bioorganic & Medicinal Chemistry Letters*, in press, 1998.

Waurzyniak BJ, Heerema N, Sensel MG, Gaynon PS, Kraft P, Sather HN, Chelstrom L, Reaman GH, **Uckun FM**. Distinct In Vivo Engraftment and Growth Patterns of $t(1;19)^+$/E2A-$PBX1^+$ and $t(9;22)^+$/BCR-ABL^+ Human Leukemia Cells in SCID Mice. *Leukemia and Lymphoma*, in press, 1998.

Goodman PA, Niehoff LB, **Uckun FM**. Role of Tyrosine Kinases in Induction of *C-Jun* Protooncogene in Irradiated B-lineage Lymphoid Cells. *J. of Biol. Chem.*, in press, 1998.

Witthuhn BA, Williams MD, Kerawalla H, **Uckun FM**. Differential Substrate Recognition Capabilities of Janus Family Protein Tyrosine Kinases Within the Interleukin 2 Receptor (IL2R) System: JAK3 as a Potential Molecular Target for Treatment of Leukemias with a Hyperactive JAK-STAT Signaling Machinery. *Leukemia and Lymphoma*, in press, 1998.

Reaman GH, Sposto R, Sensel MG, Lange BJ, Feusner J, Heerema NA, Leonard M, Holmes E, Sather HN, Pendergrass T, Johnstone H, O'Brien R, Steinherz P, Zeltzer P, Gaynon P, Trigg M, **Uckun FM**. Treatment Outcome and Prognostic Factors for Infants with Acute Lymphoblastic Leukemia Treated on Consecutive Trials of the Children's Cancer Group. *Journal of Clinical Oncology*, in press, 1998.

D'Cruz OJ, Ghosh P, **Uckun, FM**. Spermicidal Activity of Chelate Complexes of Bis (cyclopentadienyl) Vanadium (IV). *Molecular Human Reproduction*, in press, 1998.

Vig R, Mao C, Sudbeck EA, Zhu Z, Venkatachalam TK and **Uckun FM**. Structure-Based Design and Synthesis of Analogues of 1-[2-Hydroxyethoxy)Methyl]-6-(Phenylthio)Thymine (HEPT) as Nonnucleoside Inhibitors of Human Immunodeficiency Virus (HIV) Reverse Transcriptase. *Journal of Medicinal Chemistry,*in press, 1998.

D'Cruz OJ, Venkatachalam TK, Zhu Z, Shih M, **Uckun FM**. Bromo-Methoxy and Aryl Phosphate Derivatives of Azidothymidine are Dual Function Spermicides with Potent anti-HIV Activity. *Biology of Reproduction*, in press, 1998.

Nachman JB, Sather HN, Sensel MG, Trigg ME, Cherlow JM, Lukens JN, Wolff L, **Uckun FM**, and Gaynon PS. Improved Outcome with Augmented Post-Induction Therapy for Children With High Risk Acute Lymphoblastic Leukemia Who Show a Slow Early Response to Induction Therapy: A Children's Cancer Group Study. *New England Journal of Medicine* , in press, 1998.

Uckun FM, Waurzyniak BJ, Sather HN, Sensel MG, Chelstrom L, Nachman J, Gaynon PS, Bostrom B, Ek O, Sarquis M, Steinherz PG, Reaman GH. Prognostic Significance of T-Lineage Leukemic Cell Growth in SCID Mice: A Children's Cancer Group Study. *Leukemia and Lymphoma*, in press, 1998.

Waddick KG, **Uckun FM**. Innovative Treatment Programs Against Cancer: NF-kB As A Molecular Target. *Biochemical Pharmacology*, in press, 1998.

Waddick KG, **Uckun FM**. Innovative Treatment Programs Against Cancer: RAS Oncoprotein As A Molecular Target. *Biochemical Pharmacology*, in press, 1998.

D'Cruz O, Ghosh P and **Uckun FM**. Spermicidal Activity of Metallocene Complexes Containing Vanadium (IV)[1]. *Biology of Reproduction*, in press, 1998.

Uckun FM. Bruton's Tyrosine Kinase (BTK) as a Dual-Function Regulator of Apoptosis (Commentary). *Biochemical Pharmacology*, in press, 1998.

Uckun FM, Narla R, Zeren T, Yanishevski Y, Myers DE, Waurzyniak B, Ek O, Schneider E, Messinger Y, Chelstrom LM, Gunther R, Evans W. In Vivo Toxicity, Pharmacokinetics, and Anti-Cancer Activity of Genistein Conjugated to Human Epidermal Growth Factor. *Clinical Cancer Research,* in press, 1998.

Heerema NA, Sather HN, Sensel MG, Kraft P, Nachman JB, Steinherz PG, Lange BJ, Hutchinson RS, Reaman GH, Trigg ME, Arthur DC, Gaynon PS, and **Uckun FM**. Frequency and Clinical Significance of Cytogenetic Abnormalities in Pediatric T-Lineage Acute Lymphoblastic Leukemia: A Report from the Children's Cancer Group. *Journal of Clinical Oncology,* in press, 1998.

Ek O, Yanishevski Y, Zeren T, Waurzyniak B, Gunther R, Chelstrom L, Chandan-Langlie M, Schneider E, Myers DE, Evans W, **Uckun FM**. In Vivo Toxicity and Pharmacokinetic Features of B43(Anti-CD19)-Genistein Immunoconjugate. *Leukemia and Lymphoma*, in press, 1998.

Ek O, Gaynon P, Zeren T, Chelstrom L, **Uckun FM.** Treatment of human B-cell precursor leukemia in SCID mice by using a combination of the anti-CD19 immunotoxin B43-PAP with the standard chemotherapeutic drugs vincristine, methylprednisolone, and L-asparaginase. *Leukemia and Lymphoma,* in press, 1998.

Uckun FM, Sather HN, Waurzyniak BJ, Sensel MG, Chelstrom L, Ek O, Sarquis M, Nachman J, Bostrom B, Reaman GH, Gaynon PS. Prognostic Significance of B-Lineage Leukemic Cell Growth in SCID Mice: A Children's Cancer Group Study. *Leukemia and Lymphoma*, in press, 1998.

Uckun FM, Waurzyniak B, Sensel MG, Chelstrom L, Crotty M-L, Gaynon P, Reaman G. Primary Blasts from Infants with Acute Lymphoblastic Leukemia Cause Overt Leukemia in SCID Mice. *Leukemia and Lymphoma* , in press, 1998.

Myers DE, Sicheneder A, Clementson D, Dvorak N, Venkatachalam T, Rostovsev A, Chandan-Langlie M, **Uckun FM**. Large Scale Manufacturing of B43(Anti-CD19) -Genistein for Clinical Trials in Leukemia and Lymphoma. *Leukemia & Lymphoma*, in press, 1998.

Gaynon PS, Bostrom B, Reaman G, Sather H, Trigg ME, Tubergen DG, **Uckun FM**. Childrens Cancer Group (CCG) initiatives in childhood acute lymphoblastic leukemia (ALL). *International Journal of Pediatric Hematology/Oncology*, in press, 1998.

Trigg ME, Sather HN, Reaman GH, Tubergen DG, Steinherz PG, Gaynon PS, Neerhout RC, **Uckun FM**, Hammond GD. Overall Improvement in Outcome of Children With Acute Lymphoblastic Leukemia: Report From the Children's Cancer Group on the 100-Series From 1983-1989. *Cancer*, in press, 1998.

Ek O, Reaman GH, Crankshaw DL, Chelstrom LM, Myers DE, **Uckun FM**. Combined Therapeutic Efficacy of the Thymidylate Synthase Inhibitor ZD1694 (Tomudex) and the Immunotoxin B43(Anti-CD19)-PAP in a SCID Mouse Model of Human B-Lineage Acute Lymphoblastic Leukemia. *Leukemia & Lymphoma* , 28:509-514, 1998.

Uckun FM, Jun X, Narla RK, Zeren T, Venkatachalam T, Waddick K, Rostostev A, Myers DE. Cytotoxic Activity of EGF-Genistein Against Human Breast Cancer Cells. *Clinical Cancer Research,* 4:901-912, 1998.

Kristupaitis D, Dibirdik I, Vassilev A, Mahajan S, Kurosaki T, Chu A, Tuel-Ahlgren L, Tuong D, Pond D, Luben R, **Uckun FM**. Electromagnetic Field-Induced Stimulation of Bruton's Tyrosine Kinase (BTK). *The Journal of Biological Chemistry*, 273 (20): 12397-12401, 1998.

Li K, Vig S, **Uckun FM**. Stereocontrolled Synthesis of the Tetrahydrofuran Unit of Annonaceous Acetogenins. *Tetrahedron Letters,* 39(15), 2063-2066, 1998.

Uckun FM, Sensel MG, Sather HN, Gaynon PS, Arthur DC, Lange BJ, Steinherz PG, Kraft P, Hutchinson R, Nachman JB, Reaman GH, Heerema NA. Clinical Significance of Translocation t(1;19) in Childhood Acute Lymphoblastic Leukemia in the Context of Contemporary Therapies: A Report From The Children's Cancer Group. *J. Clin. Oncol.*, 16(2): 527-535, 1998.

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XIII. ABSTRACTS

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XIV. CITATIONS

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Biographical Citation in the Third Edition of "Who's Who Among Rising Young Americans."

Biographical Citation in the Seventh Edition of "Who's Who in Technology."

Biographical Citation in the Third Edition of "Who's Who in Science and Engineering."

Biographical Citation in the Silver Twenty-fifth Edition of "Who's Who in the Midwest."

"Backtracking leukemia to birth," Nature Medicine, Volume 4, Number 2, February, 1998.

"New drug attacks against resistant breast cancer cells," Health Care News, February 18, 1998.

"Electromagnetic fields may trigger enzymes," Science News, Volume 153, February 21, 1998.

XV. INVITED SEMINARS AND LECTURES OUTSIDE THE UNIVERSITY

1984 - Invited Speaker, Annual Symposium of the German Society of Hematology, Ulm, West Germany.

1984 - Plenary Speaker, Second International Conference on Malignant Lymphomas, Lugano, Switzerland.

1984 - University of Kansas Immunohematology Research Seminar, Lawrence, KS.

1985 - Cetus Corporation Immunotoxin Research Conference, Emeryville, CA.

1985 - Invited Speaker, First International Symposium on Autologous Bone Marrow Transplantation, Houston, TX.

1986 - Invited Speaker, UCLA Symposium on Membrane-Mediated Cytotoxicity, Park City, UT.

1986 - Invited Speaker, UCLA Symposium on Recent Advances in Bone Marrow Transplantation, Keystone, CO.

1986 - Invited Speaker, Second International Symposium on Autologous Bone Marrow Transplantation, Houston, TX.

1986 - Cetus Corporation Immunobiology Research Seminar, Emeryville, CA.

1986 - Becton-Dickinson Corporation Research Conference, Mountain View, CA.

1986 - National Institute of Allergy and Infectious Diseases.

1987 - John Hopkins Bone Marrow Transplant Center Research Seminar, Baltimore, MD.

1987 - St. Judes Hospital Research Seminar, Memphis, TN.

1987 - Genetics Institute Research Conference, Boston, MA.

1987 - Cetus Corporation Immunotoxin Research Seminar, Emeryville, CA.

1987 - National Institutes of Health Leukemia Research Seminar, Bethesda, MD.

1987 - Indiana University Hematology/Oncology Seminar Series, Indianapolis, IN.

1987 - Endotronics Corporation Research Seminar, Coon Rapids, MN.

1987 - University of Istanbul Visiting Scientist Lecture Series, Istanbul, Turkey.

1987 - University of Ankara Visiting Scientist Lecture Series, Ankara, Turkey.

1988 - Invited Speaker, International Conference on Monoclonal Antibody Immunoconjugates for Cancer, San Diego, CA.

1988 - Invited Speaker, Fourth National Symposium of the Leukemia Society of America, New Orleans, LA.

1988 - Plenary Speaker, UCLA Symposium on Tumor Specific Antigens, Keystone, CO.

1988 - Plenary Speaker, International Symposium on Immunotoxins, Duke University Medical Center, Durham, NC.

1988 - Southwest Texas State University Immunotoxin Research Seminar, San Marcos, TX.

1988 - Helix Biocore Corporation Research Conference, Plymouth, MN.

1988 - Emory University School of Medicine Hematology Research Seminar.

1988 - Oncogen Corporation Research Conference, Seattle, WA.

1988 - Plenary Speaker, The Fourth International Symposium on Autologous Bone Marrow Transplantation, Houston, TX.

1988 - Invited Chairman, The 17th Annual Meeting of the International Society for Experimental Hematology, Houston, TX.

1989 - Oncogen Corporation Research Conference, Seattle, WA.

1990 - UCLA Symposium New Strategies in Bone Marrow Transplantation, Keystone, CO.

1990 - Invited Chairman and Speaker, International Symposium on "New Trends in Medicine," Istanbul, Turkey.

1991 - Invited Speaker, European Network of Immunology Institutes (ENII) 1991, L'Ile des Embrez, France.

1991 - Invited Chairman and Speaker, FASEB Meeting, Atlanta, GA.

1992 - Invited Speaker, Third International Symposium on Immunotoxins, Orlando, FL.

1992 - Invited Research Seminar, St. Jude Children's Research Hospital, Memphis, TN: "Biochemical Signals Induced by Ionizing Radiation".

1992 - Invited Speaker, St. Jude Children's Research Hospital, Memphis, TN, Hematology Grand Rounds.

1992 - Invited Speaker, ASTRO Panel Sessions, San Diego, CA: "Biological Response Modifiers: Cytokine and Growth Factors.

1992 - Invited Research Seminar, Fred Hutchinson Cancer Center, Seattle WA: "Immunotoxin Therapy of Lymphoid Malignancies".

1993 - Invited Speaker, Radiation Research Society, Dallas, TX: "Role of Tyrosine Kinases in Radiation Induced Apoptosis".

1993 - Invited Wednesday Seminar Speaker for the Department of Radiation Oncology, University of Pennsylvania, Philadelphia, PA: "Tyrosine Kinases and Radiation Biology".

1993 - Department of Radiation Oncology, Medical College of Virginia, Richmond, VA.

1993 - Organizer and Speaker for The XVI Symposium of the International Association for Comparative Research on Leukemia and Related Diseases, Montreal, Canada: "New Approaches in Targeted Immunotherapy of Leukemias and Lymphomas".

1993 - Invited Speaker, The Fourth International Symposium on Bone Marrow Purging and Processing, Orlando, FL: "Immunotoxin Therapy".

1993 - Invited Speaker, The Eighty-Fourth Annual Meeting of the American Association for Cancer Research, Orlando, FL: "Targeted Biotherapy in Childhood Leukemias".

1993 - Invited Workshop Participant and Presenter, ALL Risk Criteria Workshop, Rockville, MD.

1993 - Invited Speaker, Phase I Meeting for the Cancer Therapy Evaluation Program, Bethesda, MD.

1993 - Invited Workshop Participant, Vascular Leak Syndrome Workshop.

1994 - Invited Speaker, Meeting on Gene Induction and Adaptive Processes in Irradiated Cells: Mechanisms and Clinical Implications, Montreal, Canada.

1994 - M.D. Anderson Cancer Center Grand Rounds: Biotherapy of Cancer and Immunologic Disorders. Houston, TX.

1994 - CHOC Grand Rounds: Biotherapy of Hematologic Malignancies. Orange, CA.

1994 - Meeting of the Board of Trustees of the National Childhood Cancer Foundation. Scientific Presentation: Advances in the Biotherapy of Cancer. Arcadia, CA.

1994 - Plenary Speaker at the Children's Cancer Group Meeting in Dallas. "Biotherapy and Future Challenges". Dallas, TX.

1995 - Chairman of Symposium entitled "Radiation Effects on Signal Transduction" at the joint meeting of the North American Hyperthermia Society and the Radiation Research Society.

1995 - "Targeted Biotherapy of Leukemias" Marrow Transplantation in Children: Current Results and Controversies, Hilton Head Island, SC.

1995 - Session Chair and Invited Speaker, Fourth International Symposium on Immunotoxins, Myrtle Beach, SC.

1995 - Grand Rounds, Los Angeles Children's Hospital, Los Angeles, CA.

1995 - Guest Lecturer, Parke Davis.

1995 - Invited Speaker, Elkin Distinguished Investigators Cancer Lectureship, Winship Cancer Center, Emory University School of Medicine, Atlanta, GA.

1995 - Guest Lecturer, Biotechnology in the cGMP Environment, cGMP Training Course, Earl Brown Conference Center, St. Paul, MN.

1995 - Invited Participant, CaPCURE, National Cancer Summit, Washington, DC.

1995 - Oncology Grand Rounds, Memorial Sloan-Kettering, "Biotherapy of Cancer", New York, NY.

1995 - Anderson, PM and **Uckun, FM**. "Internalization of TP-3 antibody-pokeweed antiviral protein (PAP) conjugate efficiently kills osteosarcoma". Presented at the 4th Scandinavian Symposium on radiolabeled antibodies in the diagnosis and treatment of cancer, Lillehammer, Norway.

1995 - Anderson, PM and **Uckun, FM**. "TP-3 Antibody-Pokeweed Antiviral Protein (TP-3-PAP) Conjugate Efficiently Kills Osteosarcoma." Fifth International Conference of Anti-cancer Research, Corfu, Greece.

1996 - Plenary Speaker , 8th International Symposium on Autologous Marrow and Blood Transplantation, Title of Speech: "New Approaches to Ex Vivo Immunological Purging in ALL." Arlington, TX.

1996 - Plenary Speaker, 2nd Annual Scientific Meeting of the American Society for Blood and Marrow Transplantation (ASBMT), Title of Speech: "Tyrosine Kinases as New Targets for Cancer Therapy", San Diego, CA.

1996 - Plenary Speaker, Acute Leukemia Forum '96, Biology and Therapy of ALL in Adults: Bone Marrow Transplantation and Other Approaches, Title of Speech: "Is There a Role for Purging in ALL?" Tempe, AZ.

1996 - Plenary Speaker, Annual Leadership Conference of the Leukemia Society of America, La Jolla, CA. Title of presentation: "Biotherapy of Lymphocytic Malignancies".

1996 - Guest Lecturer, Chiron Corporation. Title of presentation: "Biotherapeutics".

1997 - Plenary Speaker, Marrow Transplantation in Children: Current Results and Controversies, Title of Speech: " In Vitro and In Vivo Treatment of Minimal Residual Leukemia in the Context of BMT", Fort Lauderdale, FL.

1997 - Keynote Speaker, National Cancer Institute of Canada/Dalhouise Medical Research Foundation's Cancer Workshop on Immune Cell Signaling in Leukemias and Select Cancers, Halifax, Nova Scotia.

1997 - Plenary Lecturer at the EMF Workshop/The Royal Society in London, The EMF Biological Research Trust. Title of presentation: "EMF induced BTK activation".

1997 - Plenary Speaker, Annual Meeting of the Radiation Research Society, Providence, Rhode Island. "Molecular Mechanisms of Radiation Induced Apoptosis".

1997 - Guest Lecturer, University of Illinois, "Biotherapy of Cancer".

1997 - Plenary Speaker, Gordon Conference on Apoptosis. New Hampshire.

1997 - Plenary Speaker, 29th Annual Meeting of the International Society of Pediatric Oncology, Istanbul, Turkey.

1997- Plenary Speaker, Children's Cancer Group Meeting in LaJolla, CA.

1997- 39th Annual Meeting & Exposition of The American Society of Hematology, San Diego, CA.

1998 - Invited Speaker, Citizens Forum of Northern Ramsey County, Roseville, MN, February 20.

1998 - Plenary Speaker, Children's Cancer Group Meeting in Houston, TX.

1998 - Plenary Speaker, RRS/NAHS Annual Meeting in Louisville, KY.