

**Name:****MICHAEL A. CALIGIURI, M.D.**Office Address:  
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E mailA458 Starling Loving Hall, 320 W 10<sup>th</sup> Ave, Columbus, OH 43210  
614-293-7521 (Fax 293-7522)  
caligiuri-1@medctr.osu.edu**Education:**

1978 B.A.	S.U.N.Y. at Buffalo (Summa Cum Laude)
1981 M.A.	Stanford University (Physiology)
1983 M.D.	Stanford University School of Medicine

**Postdoctoral Training:**

1983-1989	Clinical Fellow in Medicine, Harvard Medical School, Boston, MA
1983-1986	Internship and Residency in Internal Medicine, Brigham and Women's Hospital, Harvard Medical School, Boston, MA
1986-1989	Fellowship in Medical Oncology, Bone Marrow Transplantation, & Immunology, Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA

**Licensure and Certification:**

1997- 2001	Ohio State License Registration No. 72689
1989	New York License Registration No. 179974
1989	ABIM/Subspecialty Board of Medical Oncology No. 109397
1986-1990	Massachusetts License Registration No. 55903
1986	American Board of Internal Medicine No. 109397
1983	Diplomat of the National Board of Medical Examiners

**Academic Appointments:**

1997-	The John L. Marakas Nationwide Insurance Enterprise Foundation Chair in Cancer Research Professor, Department of Internal Medicine Professor, Department of Molecular Virology, Immunology, Medical Genetics Ohio State University School of Medicine and Public Health
1997-	Co-Director, Division of Hematology and Oncology Department of Internal Medicine Ohio State University School of Medicine and Public Health
1997-	Associate Director for Cancer Research The Arthur G. James Cancer Hospital and Richard J. Solove Research Institute Ohio State University School of Medicine and Public Health

**Academic Appointments con't**

1997-	Cancer Genetics Scholar Division of Human Cancer Genetics Ohio State University School of Medicine and Public Health
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1997	Professor Department of Medicine Department of Microbiology/Immunology Roswell Park Cancer Institute and State University of New York at Buffalo School of Medicine
1994-1997	Associate Professor (with tenure) Department of Medicine Department of Microbiology/Immunology Roswell Park Cancer Institute and State University of New York at Buffalo School of Medicine
1990-1994	Assistant Professor Roswell Park Cancer Institute Department of Medicine State University of New York at Buffalo School of Medicine
1989	Instructor in Medicine Department of Medicine Dana Farber Cancer Institute Harvard Medical School

**Grant Support (Current):**

07/01/99-03/31/03	1) NIH R01 CA65670-04 Title: Devising Therapy for AIDS Central Nervous System Lymphoma P.I. Michael A. Caligiuri, M.D. \$1,066,999 (total direct)
10/01/98-9/30/00	2) NIH R21 CA81542-01 Title: Natural Killer Cell Development and Function in HIV-1 P.I. Michael A. Caligiuri, M.D. \$328,000
09/16/99-07/31/04	3) NIH 7 UO1 CA70079-02 Title: Biologic Response Modifiers in AIDS Malignancies P.I. Michael A. Caligiuri, M.D. \$691,069
05/01/00-04/30/05	4) NIH 7 R01CA68458-03 Title: IL-15: Characterization through Experimental Immunology P.I. Michael A. Caligiuri, M.D. \$905,563

**Grant Support (Current) con't:**

- 07/01/99-06/30/04                    5) NIH T32 CA09338-20  
Title: Oncology Training Grant  
P.I. Michael A. Caligiuri, M.D.  
Funding: \$1,474,258
- 07/01/00-06/30/03                    7) American Cancer Society  
P.I. Michael A. Caligiuri, M.D.  
Title: Institutional Research Grant  
Funding: \$225,000
- 04/01/00-03/31/01                    8) U10 CA31946  
P.I. Richard L. Schilsky - Michael A. Caligiuri, M.D.(Chairman)  
Title: Cancer and Leukemia Group B Correlative Sciences  
      In Leukemia and Lymphoma  
Funding: \$ 373,579 (subcontract)
- 1998-2000                                9) Bristol Myers Squibb Oncology  
Unrestricted Educational Grant  
Funding: \$50,000
- 2000-2002                                10) Genentech, Inc  
P.I. Michael A. Caligiuri, MD  
Title: Elucidating The Mechanism of Humanized Monoclonal Antibodies  
      for the Treatment of Human Cancer.

**Grant Support (Terminated):**

- 08/01/99-07/31/00                    1) Howard Hughes Medical Institute  
Medical Student Fellowship  
Title: Characterization of NK Cell Function in AIDS  
PI: Megan Cooper (OSU School of Medicine)  
Participation: Major Professor/Mentor
- 12/01/97-11/30/00                    2) NIH 1R01 CA 71599-01  
P.I. Elizabeth Repasky, Ph.D.  
Title: Whole body hyperthermia & the anti-tumor immune response  
Role: Co-Investigator  
Section Funding: \$56,071
- 07/01/95-06/30/00                    3) NIH K11 Physician Scientist Award  
P.I. William E. Carson, III, MD  
Title: Interleukin 15 and Natural Killer Cell Immunity  
Role: Mentor
- 07/01/95-06/30/98                    4) Leukemia Society of America  
Title: ALL1 Self Fusion: Targeting a Novel Molecular Mechanism  
of Leukemogenesis for Diagnosis, Prognosis, and Treatment  
P.I. Michael A. Caligiuri, M.D.
- 09/30/94-09/29/97                    5) NIH R01 CA65670-01  
Title: The Role of Cytokines in Lymphomagenesis of AIDS  
P.I. Michael A. Caligiuri, M.D.

**Grant Support (Terminated) con't**

- 09/30/95-09/29/97                    6) NIH R01 CA65670-02 - Minority Supplement  
Title: The Role of Cytokines and Lymphomagenesis of AIDS  
P.I. Michael A. Caligiuri, M.D.
- 08/01/96-07/31/97                    7) Howard Hughes Medical Institute  
Medical Student Fellowship  
Title: Characterization of NK Cell Function in AIDS Malignancies  
PI: Todd Fehniger (SUNY at Buffalo School of Medicine)  
Participation: Major Professor/Mentor
- 01/01/96-12/31/96                    8) U01A127658-09  
University of Rochester Sub-agreement  
Title: Establishment of an AIDS Treatment Evaluation Unit  
P.I. Robert Reichman, M.D.  
Participation: Co-Principal Investigator
- 08/01/92-07/31/96                    9) NIH 1R01 CA57974-01  
Title: EBV-Vaccination Assessed in SCID/Human Chimeras  
P.I. Richard Bankert, Ph.D., D.V. M.  
Participation: Co-Principal Investigator  
Section Title: Cellular and Molecular Characterization of the  
SCID-hu EBV-induced B Cell Lymphoproliferative Disorder
- 04/01/95-03/31/96                    10) 7U10CA31964-14  
Title: Cooperative Group AIDS Malignancy Research  
P.I. Richard Schilsky, M.D.  
Participation: Section Principal Investigator
- 07/01/92-06/30/95                    11) NIH HD 17013  
Title: Studies of Maternal and Neonatal Immunity  
P.I. Thomas B. Tomasi, M.D., Ph.D.  
Participation: Co-Investigator  
Section Title: The Role of TGF- $\beta$  in Preventing Graft Versus Host Disease
- 07/01/90-06/30/95                    12) NIH K11-CA01572 Physician Scientist Award  
Title: Characterization of Thymic Derived Natural Killer Cells  
P.I. Michael A. Caligiuri, M.D.  
Terminated 9/94 when R01 was awarded
- 06/15/91-07/31/93                    13) The Dr. Louis Sklarow Memorial Fund Award  
Title: Functional Characterization of a Novel Population  
of Human Lymphocytes  
P.I. Michael A. Caligiuri, M.D.
- 11/01/92-09/30/93                    14) Cancer and Leukemia Group B/Chairman's Development Fund  
National Cancer Institute Award # CA31946-11, Co-P.I.  
Title: The Leukemia Storage Facility

**Grant Support (Terminated) con't**

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|-------------------|---|
| 07/01/90-06/30/93 | 15) Life Sciences Technologies, Inc.<br>Title: Laboratory Assessment of Human Hematopoietic Stem Cell survival<br>P.I. Michael A. Caligiuri, M.D. |
| 07/01/91-06/30/92 | 16) Immunogen, Inc.<br>Title: Infusion of MY-9 blocked ricin in refractory AML<br>P.I. Michael A. Caligiuri, M.D.                                 |
| 07/01/90-06/30/91 | 17) Buffalo Medical Foundation Grant  |
| 07/01/90-06/30/91 | 18) American Cancer Society Institutional Grant   |

**Awards and Honors:**  
**National**

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|------|---|
| 1998 | Emil J. Freireich Award in Clinical Cancer Research, MD Anderson Cancer Center, Houston, TX |
| 1998 | Election to the American Society for Clinical Investigation                                 |
| 1998 | Election as Fellow, American College of Physicians  |

**Institutional**

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|------|--|
| 1995 | Commendation for Excellence in Teaching. S.U.N.Y at Buffalo School of Medicine   |
| 1991 | Charles E. Culpepper Foundation Award  |
| 1988 | Recipient of the Clare Adams Barr Investigatorship in Cancer Research, Dana Farber Cancer Institute & Harvard Medical School |
| 1981 | Paul Davis Scholarship for Research Achievements in Medicine, Stanford University School of Medicine                         |
| 1980 | Medical Alumni Scholars Program, Stanford University School of Medicine  |
| 1978 | Summa cum Laude  |
| 1977 | Phi Beta Kappa   |
| 1976 | Undergraduate Research Grant from S.U.N.Y. at Buffalo  |
| 1974 | National Science Foundation, Summer Research Fellowship, RPMI  |
| 1974 | Sidney Farber Award for Outstanding Achievement in Research, RPMI  |

**Clinical Responsibilities:**

1994-	Director, CALGB Leukemia Tissue Bank
1993-1997	Clinical Co-Director, Laboratory of Molecular Diagnosis Department of Pathology, RPCI
1992-1997	Director, Normal Donor Bone Marrow Program, RPCI
1990-1997	Director, Leukemia Procurement Laboratory, RPCI
1990-1997	Attending Physician Hematologic Malignancy Service, RPCI

**Institutional and NCI-Sponsored Cooperative Group Protocols:**

2000	Stem Cell Factor and Interleukin 2 in AIDS and AIDS malignancy (Chair)
2000	Rituximab and interleukin 2 in relapsed/refractory CD20+ malignancies (Chair)
1997	CALGB 9720: Phase III study of MDR modulation with PSC-833 followed by immunotherapy with rIL-2 vs no further therapy in previously untreated patients with AML >60 years. Study Co-Chairperson
1996	CALGB 9665: CALGB Leukemia Tissue Bank Study Chairperson
1996	CALGB 9550: Low Dose IL-2 Therapy in AIDS Lymphoma Study Chairperson (CALGB and AIDS Malignancy Consortium)
1996	CALGB 9661: A Pilot Study of Low-Dose IL-2 Plus Recombinant Human Anti-Her2 Monoclonal Antibody in Solid Tumors Study Co-Chairperson
1994	CALGB 9420: Phase I Evaluation of Modulation of MDR with PSC-833 in patients with AML $\geq$ 60 years followed by RIL-2, post-completion of chemotherapy Study Co-Chairperson
1993-1997	Intermediate Dose Subcutaneous Pulse IL-2 Therapy: A Phase I Study in Patients Receiving Low Dose Subcutaneous IL-2 Study Co-Chairperson
1992-1997	Procurement of Normal Human Bone Marrow Study Chairperson
1992-1997	Extended Low Dose Interleukin 2 Therapy: A Phase I Study of Subcutaneous Administration Study Chairperson
1991-1997	Extended Low Dose Interleukin 2 Therapy Following First Remission In Acute Myelogenous Leukemia Study Chairperson

**Contributions to National/International Professional Organizations:**

## Advisory Boards

2000-	Cure For Lymphoma Foundation (Co-Chair, Scientific Advisory Board)
1999-	iMEDD, Inc.
1999-	Immunex Corporation
1996-	University of Pittsburgh Research Program in Immunotherapeutics
1995-97	Association for Research of Childhood Cancer

## American Association of Cancer Research

1999	Chair Subcommittee B, Immunology (Program Committee)
1998	Member, Rosenthal Foundation Award Committee
1998	Chair, Membership Committee
1997-1998	Membership Committee
1996-99	Program Committee
1996	Chairperson, Clinical Molecular Oncology Section
1996	Organizer and Chair, Scientific Symposium on Cytokines in Tumor Immunobiology

## American Cancer Society

2000	Member, Public Issues
1999	Member, Nominating Committee
1998	Board of Trustees (Ohio)
1994	Ad hoc reviewer, Committee on Immunology (1/24/94)

## American Society of Clinical Oncology

1998	Subcommittee Chair/Immunobiologic and Biologic Therapy
1997-2000	Education Committee
1996-2001	Publications Committee
1994	Program Committee
1994	Cancer Biology/Immunology Committee

## National Institute of Allergy and Infectious Disease

1999	Ad hoc reviewer, Committee Human Immunology Ctr of Excellence
1991	Ad hoc reviewer, Committee on Chronic Fatigue Syndrome

## Transplantation Society

1996-1997	Organizing Committee-Basic Sciences Symposium
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## National Cancer Institute

2000-	Member, Experimental Immunology Study Section (starting October, 2000)
1999	Member, Review Committee RFA AI-98-001, Human Immunology Centers of Excellence
1998	Member, National Comprehensive Cancer Network, Lymphoma Panel 1996 Invited Speaker, Developmental Diagnostics Working Group Meeting on the Development of Clinical Resources
1996	Ad hoc reviewer, Committee for RFA CA-96-009, Immunobiology
of AIDS Lymphoma	
1995	Ad hoc reviewer, Committee for Breast Cancer Research. (3/1/95)
1994	NIH Site Review Committee, Memorial Sloan Kettering, Cancer Chemotherapy Program Project (June 6-8, 1994)
1993	Ad hoc reviewer, Committee for RFA CA-92-98, Clinical Trials of Cancer Therapy with BRMs

## Leukemia Society of America

2000-	Medical and Scientific Affairs Committee
2001-	Member, Young Investigator Award Review Committee

**Contributions to National/International Professional Organizations, con't**

## United States of America President's Cancer Panel

1994	Invited speaker, AIDS Malignancy
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## USA National Cancer Institute-Sponsored Cooperative Oncology Group

	Cancer and Leukemia Group B (CALGB)
1998-	Chair, Correlative Sciences for Leukemia & Lymphoma
1996-1999	Chair, AIDS Malignancy Working Group (CALGB)
1996-1999	Member, Correlative Sciences, Leukemia and Lymphoma Committee
1994 -1996	Vice Chair, Cancer and Leukemia Group B Pharmacology and Experimental Therapeutics (PET) Committee
1994	Head, Biologics Subcommittee

**New York State:**

1992-1997	Member, New York State Stem Cell Committee
1991-1997	Member, Governor's Council on Transplantation

**University Service:****Ohio State University**

2000-	Member, Biomedical Engineering Faculty Search Committee, OSU
1999-	Member, Practice Plan Committee, Dept. Internal Med, OSU
1999-	Member, Promotion & Tenure Advisory Comm, Dept. Internal Med, OSU
1999	Ad hoc Presidential Committee for Study of Medical School Practice Plan
1998-	Member, Biomedical Science Human Subject Committee IRB, OSU
1998-	Member, Appointment, Promotion & Tenure Advisory Committee, OSU
1998-	Member, Internship Recruitment Committee, OSU
1998-	Academic Enrichment Proposal Reviewer, OSU
1998-	Member, Institutional Post-M.D. Internal Review Committee, OSU
1998-	Member, Search Committee for Psychiatry Chair, OSU
1997-	Member, Search Committee for Anatomic Pathology Director, OSU
1997-0	Member, Faculty Committee on Patents and Copyrights, OSU
1997-	Member, Medical Scientist Training Program (MSTP), OSU
1997-	Member, Dept of Medicine Finance Committee

**State University of New York at Buffalo**

1995-97	Member, Committee for Appointment and Promotion to Research Ranks, S.U.N.Y./Buffalo School of Medicine
1993	Member, Ad Hoc Planning Committee for Faculty Development and Enhancement, Dept. of Medicine, S.U.N.Y./Buffalo School of Medicine
1992	Member, Medical School Faculty Council Committee's Affiliated Institutions, Clinical Affairs and Graduate Medical Education Committee, S.U.N.Y./Buffalo School of Medicine
1991-1997	Member, S.U.N.Y./Buffalo School of Medicine Medical Scientist Training Program (MSTP) Steering Committee
1990-1997	Member, S.U.N.Y./Buffalo School of Medicine Student Research Committee Evaluation and Sponsorship of Medical Student Research

**OSU Comprehensive Cancer Center (OSUCCC) or Division of Hematology/Oncology, OSU**

1997-	Director, Immunology Program, OSUCCC
1998-1999	Interim Co-Director, Experimental Therapeutics Program, OSUCCC
1998-	Member, Clinical Scientific Review Committee, OSUCCC
1998-	Co-Chair, Space Committee, OSUCCC
1997-	Head, Finance Committee, Division of Hematology/Oncology
1997-	Director, Fellowship Program, Division of Hematology/Oncology

**OSU Comprehensive Cancer Center (OSUCCC) or Division of Hematology/Oncology, OSU (cont)**

1997- Member, Executive Committee, OSUCCC  
 1997- Member, Research & Planning Committee, OSU  
 1997- Member, PA/PCRM/NP, OSU

**Institutional (RPCI):**

1996-1997 President, Medical Staff, RPCI  
 1996-1997 Member, Scientific Staff Cost Containment Committee, RPCI  
 1996-1997 Elected Representative, Counsel of the Association of Scientists, RPCI  
 1996-1997 Member, Sponsored Program Committee, RPCI  
 1993-1996 Vice President, Medical Staff, RPCI  
 1993-1997 Member, Quality Assurance Committee, RPCI  
 1991-1997 Member, BRSG Grant Review Committee, RPCI  
 1991-1997 Member, American Cancer Society Inst. Research Grant Committee  
 1991-1997 Member, Cytokine Development Committee, RPCI  
 1990-1997 Member, Farber Award Committee for the College and High School  
 National Science Foundation Summer Research Award Recipients, RPCI  
 1990-1997 Member, Infectious Disease Search Committee, RPCI  
 1990-1997 Member, Bone Marrow Transplant Unit Building Committee, RPCI  
 1984-1986 Member, Free Care Committee, Brigham and Women's Hospital  
 1983-1984 Member, Internship Selection Committee, Brigham and Women's Hospital  
 1980-1982 Member, Stanford University Medical School Admissions Committee

**Community Participation:**

1999 Invited Speaker for ACS/Babe Zaharias Classic Golf Banquet  
 1999 Invited Keynote Speaker for OSU/ACS Relay for Life Fundraiser  
 1998 Invited Speaker for American Cancer Society's Holiday Reception  
 1997 Invited Keynote Speaker for Science in the Cinema "Acute Leukemia"  
 1997- Faculty member, Catholic Medical Student Association, OSU  
 1996 Invited Keynote Speaker for Roswell Park's Cancer Survivor Day  
 1996 Invited Speaker for WNY Chapter of Leukemia Society of America  
 Board of Trustees Meeting  
 1994,'96, '97 Speaker at Telethon, Leukemia Society of America  
 1990-1997 Member Catholic Physicians Guild of Buffalo  
 1987-1988 Member, American Cancer Society/Brookline Division

**Editorial Boards:**

2000- Biomedical Microdevices: BioMEMS and Biomedical Nanotechnology  
 2000- Journal of Leukocyte Biology (Associate Editor)  
 1996- Journal of Clinical Immunology  
 1996-99 Cancer Immunology & Immunotherapy  
 1996- Clinical Cancer Research

**Professional Memberships:**

1998- Fellow, American College of Physicians  
 1998- Member, American Society for Clinical Investigation  
 1997- Member, The Transplantation Society  
 1997- Member, The American Association of Immunologists  
 1992- Member, The Society for Natural Immunity  
 1992- Member, International Society of Experimental Hematology  
 1991- Member, American Society of Clinical Oncology  
 1990- Member, American College of Physicians  
 1990- Member, American Society of Hematology  
 1990- Member, American Association for Cancer Research

**Journal Referee:**

Nature	European Journal Human Molecular Genetics
Nature Medicine	BioTechniques
Journal of Experimental Medicine	Journal of Infectious Diseases
Proceedings of the National Academy of Science	Immunology Letters
New England Journal of Medicine	Cancer
Cancer Research	American Journal of Hematology
Journal of Clinical Investigation	Leukemia
Blood	Journal of Leukocyte Biology (Section Editor)
Journal of Clinical Oncology	Cancer Immunology & Immunotherapy
Journal of Immunology	International Journal of Cancer
Journal of Experimental Hematology	International Journal of Immunology
Clinical & Diagnostic Laboratory Immunology	Biochemica et Biophysicia Acta

**Teaching (See also: Lectures at the Ohio State University):****Teaching Responsibilities:**

1998	Physical Exam Preceptorship, OSU
1997-	Coordinator, CCC Medical Grand Rounds, OSU
1997-	Coordinator, Hematology/Oncology Fellowship Course, OSU
11/8/96	Examination Chairman for Doctoral Defense, University of South Florida, Tampa Florida
1993-97	Coordinator, Medical Grand Rounds, RPCI
1991-94	Course Coordinator: S.U.N.Y. at Buffalo School of Medicine Third Year Teaching Selective in Medical Oncology

**Current Laboratory Students:** (\* indicates M.A. Caligiuri as principal mentor for degree)

NAME	TYPE OF STUDENT	FIELD OF STUDY
Charles Eisenbeins, MD, Ph.D.	Postdoctoral	Lymphomagenesis
Jackie Ward, MD, Ph.D.	Postdoctoral	Lymphomagenesis
Robert Baiocchi, M.D., Ph.D.	Postdoctoral	Lymphomagenesis
Matthew P. Strout, Ph.D.	Postdoctoral	Molecular Biology of Leukemia
Susan Whitman, Ph.D.	Postdoctoral	Leukemia
Peter Kourlas, M.D.	Postdoctoral	Leukemia
Lester Carrodeguas, M.D.	Postdoctoral	Lymphomagenesis
Todd Fehniger	Doctoral*	NK Cell Biology
Jeff Vandeusen	Doctoral*	NK Biology
Laura Rush	Doctoral*	Leukemia
Sameek Roychowdry	Doctoral*	Lymphomagenesis
Maggie O'Brien, DVM	Doctoral*	Lymphogenesis
Megan Cooper	Doctoral*	NK Cell Biology
Brian Becknell	Doctoral*	Leukemia
Ronnie Freud	Doctoral*	NK Cell Biology
Anand Ponnappan	M.D.	NK Cell Biology
Brian Carlson	B.S.	NK Cell Biology

**Student Awards to Members of the Caligiuri Laboratory:**

Aderotimi Ajayi	1997-1998 Arthur Alfonso Schomburg Graduate Fellowship Award
	1995-1997 Recipient of R01 Minority Supplement Award
Michael Ament	1997 Third Honors at SUNY/Buffalo School of Medicine Student Research Forum
Robert Baiocchi, Ph.D.	1998 Recipient ASH Medical Student Scholarship Award
	1998 Landacre Day Student Research Forum Oral Abstract Presentation, OSU
	1998 Recipient ASH Travel Award, OSU
	1996 American Society of Hematology Summer Medical Student Scholar Award

**Student Awards (cont):**

Eric Bluman	1995 Recipient of The Rockefeller Univ. Award Eastern Research Forum 1994 First Honors at SUNY/Buffalo School of Medicine Student Research Forum
William Carson, M.D.	1998 Recipient of the V Foundation Scholar Award 1995 Recipient of the ASCO Young Investigator Award 1995 Recipient of NIH K-11 Physician Scientist Training Grant
Megan Cooper	1999 Recipient ASH Travel Award, OSU 1998 Recipient of Howard Hughes Medical Student Fellowship Award 1999 Landacre Day Student Research Forum Oral Abstract Presentation, OSU 1998 Recipient of Bertha Bouroncle Fellowship Award (Student Honors)
Todd Fehniger	2000 Recipient of the Huang Award from Amer. Association of Immunology 2000 First Honors, Research Year 4 MVIMG Graduate Research Forum 2000 American Society of Hematology Summer Medical Student Scholar Award 2000 Landacre Day Student Research Forum Oral Presentation, OSU 1999 Recipient ASH Travel Award, OSU 1999 Landacre Day Student Research Forum Poster Abstract Presentation, OSU 1996 Recipient of Howard Hughes Medical Student Fellowship Award 1995 First Honors at SUNY/Buffalo School of Medicine Student Research Forum
Vijay Khatri, M.D.	1998 Best Research Paper, Oncology Fellowship Programs 1997 Best Research Paper, Oncology Fellowship Programs 1996 Best Research Paper, Oncology Fellowship Programs
Peter Kourlas, M.D.	2000 - James V. Warren Award - Most Outstanding Research Fellow Dept.of Int. Med. 1998-1999 National Cancer Institute Oncology Training Grant (T-32)
Patricia Lugar	1997 Third Honors at SUNY/Buffalo School of Medicine Student Research Forum
Guido Marcucci, M.D.	1998 Recipient of American Cancer Society Cancer Research Fellowship 1997 National Cancer Institute Oncology Training Grant (T-32)
Adam Oberkircher	1994 Roswell Park Graduate Research Forum Award
Mary E. Ross, Ph.D.	1997 First Honors SUNY/Buffalo School of Medicine Student Research Forum 1994-1995 Roswell Park Graduate Research Forum Award 1994 American Women in Science Graduate Student Award 1994 American Society of Clinical Oncology Merit Award
Gregory L. Seidensticker	1998 Recipient of Samuel J. Roessler Memorial Scholarship Fund, OSU
Matthew P. Strout	1999 Recipient of ASH Medical Student Scholarship Award, OSU 1998 Recipient of Samuel J. Roessler Memorial Scholarship Fund, OSU 1997 Recipient of ASH Travel Award, OSU 1995&6 Recipient of Lady Tata Memorial Trust Resrch Intern. Award in Leukemia
Matthew Turner	1998 Recipient of the Undergraduate Research Scholarship, OSU
Jeff Vandeusen	2000 Landacre Day Student Research Forum Poster Abstract Presentation, OSU
Modi Wetzler	1998 Recipient of the Barry Goldwater Scholarship
Jackie Ward, MD, Ph.D.	2000 National Cancer Institute Oncology Training Grant (T-32)
Susan Whitman, Ph.D.	1998 Recipient of the Ladies Auxiliary to the Veterans of Foreign Wars 1999 National Cancer Institute Oncology Training Grant (T-32)
Renuka Yeldandi	1999 Recipient of Samuel J. Roessler Memorial Scholarship Fund, OSU

**Former Caligiuri Laboratory Students:** (\* indicates M.A. Caligiuri as principal mentor for degree)

<b>Name</b>	<b>Position</b>	<b>Years</b>	<b>Subsequent Position</b>
Ruoqi Peng, M.D.	Postdoctoral	97-00	Merck Pharmaceuticals (Research Associate)
Haixin Yu, M.D.	Postdoctoral	94-99	Schering Plough (Research Associate)
Kazuhiro Suzuki, M.D.	Postdoctoral	97-99	Asst. Prof of Surgery, Japan
Manisha Shah, M.D.	Postdoctoral	95-98	O.S.U. Internal Medicine (Clinical Asst. Prof)
Guido Marcucci, M.D.	Postdoctoral	95-98	O.S.U. Internal Medicine (Asst Prof)
Li Yu, M.D., Ph.D.	Postdoctoral	96-98	General Hospital of PLA, Beijing (Assoc. Prof)
Vijay Khatri, M.D.	Postdoctoral	96-97	Surgical Oncology UC/Davis (Asst Prof)
Feng Hua, M.D.	Postdoctoral	96-97	S.U.N.Y. at Buffalo, Res. in Neurology Prog.
Feng Yu, M.D.	Postdoctoral	96-97	Eli Lilly, Co.

William Carson, M.D.	Postdoctoral	'93-95	O.S.U. Surgical Oncology, (Asst Prof)
<b>Former Caligiuri Laboratory Students (cont):</b> (* indicates M.A. Caligiuri as principal mentor for degree)			
Jesper Jurlander, M.D.	Postdoctoral	'94-96	Univ.of Copenhagen, (Asst Prof)
Ewa Mrozek, M.D.	Postdoctoral	'94-96	OSU Dept of Medicine (Clin Asst Prof)
Gregory Schnier, M.D.	Postdoctoral	'93-94	Univ. of Kentucky (Surgery Resident)
Mary Beth Ross	Ph.D.*	1996	Fellow, St. Judes Cancer Hospital
Eric Bluman	Ph.D.*	1996	Orthopedics Resident, Brown University
Robert Baiocchi	Ph.D.*	1995	O.S.U. School of Medicine
Matthew Strout	Ph.D.*	1997	O.S.U. School of Medicine
John Spindler	M.S.*	1997	Physician Asst. Program Applicant
Daryl Schiller	M.S.*	1997	Physician Asst. Program Applicant
Grace Barresi	M.S.*	1996	Physician Asst. MD Anderson Cancer Ctr
Patricia Lugar	M.S.*	1996	S.U.N.Y./Buffalo School of Medicine
Shilpi Tanden	M.S.*	1996	Roswell Park Cancer Institute
Adam Oberkircher	M.S.*	1996	Daemen College, Physician Asst. Program
Melanie Marien	M.S.*	1996	Daemen, Physician Asst. Program
Matthew P. Strout	M.S.*	1996	OSU School of Medicine
Michelle Porter	M.S.*	1995	Yale Univ., Physician Asst. Program
Joseph Loftus	M.S.*	1994	St. George School of Medicine
Florian Penetrante	M.S.*	1993	N.Y. School of Osteopathic Medicine
Robert Baiocchi	M.S.*	1993	OSU School of Medicine
Cheryl Russo	Honors Program	1996	S.U.N.Y./Syracuse School of Medicine
Matthew Turner	B.S.	1999	Univ of Cincinnati School of Medicine (MD/Ph.D)
Renuka Yeldandi	B.S.	1999	Ohio State University
Gregory L. Seidensticker	B.S.	1998	Ohio State University
Brian Ruiz de Luzuriaga	B.S.	1998	Duke University Medical School
Elizabeth Stover	B.S.	1998	Harvard Medical School (MD/Ph.D)
Ronnie Freud	B.S.	1998	University of Wisconsin
Adertomi Ajayi	B.S.	1997	Meharry Medical College
Joyce Anderson	Independent Study		S.U.N.Y./Buffalo School of Medicine
Heena Sultan	Independent Study		S.U.N.Y./School of Medicine
Thomas Caprio	Independent Study		S.U.N.Y./Buffalo School of Medicine
Anthony Caprio	Independent Study		S.U.N.Y./Buffalo School of Medicine
Lawrence Jacobs	Independent Study		Georgetown School of Medicine
Ravi Srivastava	Independent Study		Vanderbilt School of Medicine
Michael Matos	Independent Study		Johns Hopkins Medical School
Edward Trabulsi	Independent Study		S.U.N.Y./Buffalo School of Medicine
Mauritis Boon	Independent Study		S.U.N.Y./Buffalo School of Medicine
Gregory Nagel	Independent Study		S.U.N.Y./Buffalo School of Medicine
Joseph Marine	Independent Study		U.C.S.F. School of Medicine
Julie Beudet	Independent Study		Univ. of Montreal School of Medicine
Teresa Caligiuri	Independent Study		S.U.N.Y./Buffalo School of Medicine
Kenneth Eckhardt	Independent Study		Newfoundland School of Medicine

### Publications

#### Original Reports

1. **Caligiuri MA**, Robin ED, Hance AJ, Robin DA, Lewiston N, Theodore J: Prolonged diving and recovery in the freshwater turtle, *Pseudemys Scripta*: II. Magnitude of depression of O<sub>2</sub> requirements and the relation to body O<sub>2</sub> stores. **Comp. Biochem. Physiol.** 70A: 365-369, 1981.
2. Lewiston N, Robin ED, Hance AJ, Simon LM, **Caligiuri MA**, Robin DA, Theodore J: Prolonged diving and recovery in the freshwater turtle, *Pseudemys Scripta*: III. The effect of acidosis on lactate generation and O<sub>2</sub> consumption in brain slices. **Comp. Biochem. Physiol.**70A:371-373, 1981.

**Original Reports, con't:**

3. Robin ED, Robin A, Ackerman R, Lewiston N, Hance AJ, **Caligiuri MA**, Theodore J: Prolonged diving and recovery in the freshwater turtle, *Pseudemys Scripta*. I. Lung and blood gases, pH, lactate concentrations and the "cation" gap. **Comp. Biochem. Physiol.** 70A:359-364, 1981.
4. Hance AJ, Robin ED, Halter JB, Lewiston N, Robin DA, Cornell L, **Caligiuri MA**, Theodore J: Hormonal changes and enforced diving in the harbor seal *Phoca Vitulina*. II: Plasma catecholamines. **Am. J. Physiol.** 242 (Regulative Integrative Comp. Physiol. II): R528-R532, 1982.
5. **Caligiuri MA**, Early AP, Marinello MJ, Preisler HD: Acute nonlymphocytic leukemia in a glue sniffer. **Am. J. Hematol.** 20:89-90, 1985.
6. **Caligiuri MA**, Murray C, Buchwald D, Levine H, Cheney P, Peterson D, Komaroff AL, Ritz J: Phenotypic and functional deficiency of natural killer cells in patients with Chronic Fatigue Syndrome. **J. Immunol.** 139:3306-3313, 1987.
7. Michon JM, **Caligiuri MA**, Hazanow SM, Levine L, Schlossman SF, Ritz, J: Induction of natural killer effectors from human thymus with recombinant IL-2. **J. Immunol.** 140:3660-3667, 1988.
8. Anderson PA, **Caligiuri MA**, Ritz J, Schlossman SF: CD3-negative natural killer cells express TCR- $\zeta$  as part of a novel molecular complex. **Nature** 341:159-162, 1989.
9. **Caligiuri MA**, Murray C, Longtine JA, Levine H, Ritz J: Clonal evidence for the induction of NK1 antigen on activated human thymocytes. **Eur. J. Immunol.** 19:1735-1739, 1989.
10. Soiffer RJ, **Caligiuri MA**, Tondini C, Canellos GP: High dose ara-C salvage for refractory and relapsed non-Hodgkin's lymphoma: pretreatment variables predicting a response. **Cancer** 64:2014-2018, 1989.
11. **Caligiuri MA**, Zmuidzinas A, Manley T, Levine H, Smith KA, Ritz J: Functional consequences of IL-2 receptor expression on resting human lymphocytes: Identification of a novel NK cell subset. **J. Exp. Med.** 171:1509-1526, 1990.
12. Anderson P, **Caligiuri MA**, O'Brien C, Manley T, Ritz J, Schlossman SF: Fc $\gamma$ RIII (CD16) is included in the  $\zeta$  NK receptor complex expressed by human natural killer cells. **Proc. Natl. Acad. Sci. USA.** 87:2274-2278, 1990.
13. Robertson MJ, **Caligiuri MA**, Manley TJ, Levine H, Ritz J: Human natural killer cell adhesion molecules: differential expression after activation and participation in cytolysis. **J. Immunol.** 145: 3194-3209, 1990.
14. Baume DM, **Caligiuri MA**, Manley TJ, Daley JF, Ritz J: Differential expression of CD8 and CD8B associated with MHC restricted and non-MHC restricted cytolytic effector cells. **Cellular Immunol.** 131:352-365, 1990.
15. Klumpp TR, **Caligiuri MA**, Rabinowe SN, Soiffer RJ, Murray C, Ritz J: Autoimmune pancytopenia following allogeneic bone marrow transplantation. **Bone Marrow Transplantation** 6:445-447, 1990.
16. Buchwald D, Freedman A, Ablashi D, Sullivan J, **Caligiuri MA**, Weinberg D, Hall C, Ashley R, Saxinger C, Balachandran N, Ritz J, Nadler L, Komaroff A: "postinfectious" fatigue syndrome associated with benign lymphoproliferation, B cell proliferation and active replication of human Herpes virus-6. **J Clin Immunol.** 10:335-344, 1991.
17. **Caligiuri MA**, Murray C, Soiffer RJ, Klumpp TR, Seiden M, Cochran K, Cameron C, Ish C, Buchanan L, Perillo D, Smith K, Ritz J: Extended continuous infusion of low dose recombinant IL-2 in advanced cancer: prolonged immune modulation without significant toxicity. **J. Clin. Oncol.** 9:2110-2119, 1991.

**Original Reports, con't:**

18. Klumpp TR, Block CC, **Caligiuri MA**, Rabinowe SN, Soiffer RJ, Ritz J. Immune mediated cytopenia following bone marrow transplantation: 3 cases and review of the literature. **Medicine** 71:73-83, 1992.
19. Baer MB, Frankel SR, Christiansen NP, **Caligiuri MA**, Bernstein SH, Mrozek K, Bloomfield CD, Herzig GP: High dose cytosine arabinoside, idarubicin and G-CSF therapy for De Novo and secondary adult acute myeloid leukemia. **Leukemia and Lymphoma** 7 (Suppl. 2):8-10, 1992.
20. **Caligiuri MA**, Murray C, Robertson MJ, Wang E, Cochran K, Cameron C, Schwa P, Ross ME, Klumpp TR, Soiffer RJ, Smith KA, Ritz J: Selective immune modulation of NK cells following prolonged infusions of low dose recombinant IL-2. **J. Clin. Invest.** 91:123-132, 1993.
21. Matos M, Schnier G, Beeches MS, Ashcan L, Williams D, **Caligiuri MA**: Expression of functional c-Kit receptor on subset of human natural killer cells. **J. Exp. Med.** 178: 1079-1084, 1993.
22. **Caligiuri MA**, Stickman S, Strout M, Mrozek K, Baer MA, Frankel SR, Herzig GP, Crook CM, Bloomfield CD: Molecular rearrangement of the *ALL-1* gene in acute myeloid leukemia without cytogenetic evidence of 11q23 chromosomal translocations. **Cancer Research** 54: 370-373, 1994.
23. Lapidot T, Sired C, Vermeer J, Murdoch B, Hoang T, Caceres-Cortes J, Minden M, Paterson B, **Caligiuri MA**, Dick JE: A cell initiating human acute myeloid leukemia after transplantation into SCID mice. **Nature** 367:645-648, 1994.
24. Beecher MS, Baiocchi RA, Linette ML, Krajewski CA, **Caligiuri MA**: Expression of the zeta ( $\zeta$ ) protein subunit in CD3- NK effectors derived from human thymus. **Cell. Immunol.** 155:508-516, 1994.
25. Baiocchi RA, **Caligiuri MA**: Low dose IL-2 prevents the development of Epstein-Barr virus-associated lymphoproliferative disease in the SCID/SCID mice reconstituted I.P. with EBV-seropositive human peripheral blood lymphocyte. **Proc. Natl. Acad. Sci. USA** 91:5577-5581, 1994.
26. Schichman SA, **Caligiuri MA**, Gu Y, Strout MP, Canaani E, Bloomfield CD, Croce CM: *ALL-1* partial duplication in acute leukemia. **Proc. Natl. Acad. Sci. USA** 91:6236-6239, 1994.
27. Carson WE, Haldar S, Baiocchi RA, Croce CM, **Caligiuri MA**: The c-kit ligand suppresses apoptosis of human natural killer cells through the upregulation of Bcl-2. **Proc. Natl. Acad. Sci. USA** 91:7553-7557, 1994.
28. Schichman SA, **Caligiuri MA**, Strout MP, Carter SL, Gu Y, Canaani E, Bloomfield CD, Croce CM: *ALL-1* tandem duplication in acute myeloid leukemia with normal karyotype involves homologous recombination between *ALU* elements. **Cancer Research** 54:4277-4280, 1994.
29. Carson WE, Giri JG, Lindeman MJ, Linette ML, Ahdieh M, Anderson D, Eisenmann J, Grabstein K, **Caligiuri MA**: Interleukin-15 is a novel cytokine which activates human natural killer cells via components of the interleukin-2 receptor. **J. Exp. Med.** 180:1395-1403, 1994.
30. Gruss HJ, Hirschstein D, Wright B, Ulrich D, **Caligiuri MA**, Barcos M, Strockbine L, Armitage RJ, Dower SK: Expression and function of CD40 on Hodgkin and Reed-Sternberg Cells and the possible relevance for Hodgkin's disease. **Blood** 84: 2305-2314, 1994.
31. Baiocchi RA, Ross ME, Tan JC, Chou CC, Sullivan L, Haldar S, Monne M, Seiden MV, Narula SK, Sklar J, Croce CM, **Caligiuri MA**: Lymphomagenesis in the SCID-human mouse involves abundant production of human interleukin-10. **Blood** 85: 1063-1074, 1995.

**Original Reports, con't:**

32. Carson WE, Lindemann MJ, Baiocchi R, Linett M, Tan J, Chou CC, Narula S, **Caligiuri MA:** The functional characterization of IL-10 receptor expression on human natural killer cells. **Blood** 85:3577-3585, 1995.
33. Oberkircher AR, Strout MP, Herzig GP, Fritz PD, **Caligiuri MA:** Description of an efficient and highly informative method for the evaluation of hemopoietic chimerism following allogeneic bone marrow transplantation. **Bone Marrow Transplantation:** 16: 695-702, 1995.
34. Bernstein Z, Porter M, Gould M, Lipman B, Bluman E, Stewart C, Hewitt RG, Fyfe G, Poiesz B, **Caligiuri MA:** Prolonged administration of low dose interleukin 2 in HIV-associated malignancy results in selective expansion of innate immuno effectors without significant clinical toxicity. **Blood** 86: 3287-3294, 1995. RAPID COMMUNICATION.
35. Carson WE, Ross ME, Baiocchi RA, Marien MJ, Boiani N, Grabstein K, **Caligiuri MA:** Endogenous production of interleukin 15 by activated human monocytes is critical for optimal production of interferon- $\gamma$  by natural killer cells in vitro. **J. Clin. Invest.** 96: 2578-2582, 1995.
36. Meropol NJ, Porter M, Blumenson LE, Lindemann MJ, Perez RP, Vaickus L, Lowen GM, Creaven PJ, Wilkes KA, Giedlin MA, **Caligiuri MA:** Daily subcutaneous injection of low-dose interleukin 2 expands natural killer cells *in vivo* without significant toxicity. **Clinical Cancer Research** 2: 669-677, 1996.
37. Mrozek E, Anderson P, **Caligiuri, MA:** The role of interleukin 15 in the development of human CD56+ natural killer cells from CD34+ hematopoietic progenitor cells. **Blood** 87: 2632-2640, 1996. RAPID COMMUNICATION.
38. **Caligiuri MA,** Strout MP, Schichman SA, Mrozek K, Arthur DC, Herzig GP, Baer MR, Schiffer CA, Heinonen K, Knuutila S, Nousiainen T, Ruutu T, Block AW, Schulman P, Pedersen-Bjergarrd J, Croce CM, Bloomfield CD: Partial tandem duplication of *ALL1* as a recurrent molecular defect in acute myeloid leukemia with trisomy 11. **Cancer Research** 56: 1418-1425, 1996.
39. Bullrich F, Veronese ML, Kitada S, Jurlander J, **Caligiuri MA,** Reed JC, Croce CM: Minimal region of loss at 13q14 in B-cell chronic lymphocytic leukemia. **Blood** 88: 3109-3115, 1996.
40. Lai C-F, Ripperger J, Morella KK, Jurlander J, Hawley TS, Carson WE, Kordula T, **Caligiuri MA,** Hawley RG, Fey GH, Baumann H: Receptors for IL-10 and IL-6-type cytokines use similar signaling mechanisms for inducing transcription through IL-6 response elements. **J. Biol. Chem.** 271: 13968-13975, 1996.
41. Bluman EM, Bartynski KJ, Avalos BR, **Caligiuri MA:** Human natural killer cells produce abundant macrophage inflammatory protein-1 alpha in response to monocyte-derived cytokines. **J. Clin. Invest.** 97: 2722-2727, 1996.
42. Jurlander JJ, **Caligiuri MA,** Ruutu T, Baer MR, Strout MP, Oberkircher A, Hoffmann L, Ball ED, Frei-Lahr DA, Christiansen NP, Block AM, Knuutila S, Herzig GP, Bloomfield CD: Persistence of the AML 1/ETO fusion transcript in patients treated with allogeneic bone marrow transplantation for t(8;21) leukemia. **Blood** 88: 2183-2191, 1996.
43. Bluman EM, Schnier G, Avalos BR, Strout MP, Sultan H, Jacobson FW, Williams DE, Carson WE, **Caligiuri MA:** The c-kit ligand potentiates the allogeneic mixed lymphocyte reaction. **Blood** 88: 3387-3393, 1996.
44. Soni N, Meropol NJ, Porter M, **Caligiuri MA:** Diabetes mellitus induced by low-dose interleukin-2. **Cancer Immunol Immunother** 43: 59-62, 1996.

**Original Reports, con't:**

45. Ross ME, **Caligiuri MA**: Cytokine-induced apoptosis of human natural killer cells identifies a novel mechanism to regulate the innate immune response. **Blood** 89: 910-918, 1997.
46. Carson WE, Fehniger TA, Haldar S, Eckhert K, Lindemann MJ, Lai CF, Croce CM, Baumann H, and **Caligiuri MA**: A potential role for interleukin-15 in the regulation of human natural killer cell survival. **J. Clin Invest** 99: 937-943, 1997.
47. Carson WE, Fehniger TA, **Caligiuri MA**: CD56<sup>bright</sup> natural killer cell subsets: characterization of distinct functional responses to interleukin-2 and the c-kit ligand. **Eur. J. Immunol** 27: 354-360, 1997.
48. Jurlander J, Chun-Fai L, Tan J, Chuan-Chu C, Geisler CH, Schriber J, Blumenson LE, Narula SK, Baumann H, **Caligiuri MA**: Characterization of interleukin-10 receptor expression on B-cell chronic lymphocytic leukemia cells. **Blood** 89: 4146-4152, 1997.
49. **Caligiuri MA**, Strout MP, Oberkircher AR, Yu F, de la Chapelle A, Bloomfield CD: The partial tandem duplication of *ALL1* in acute myeloid leukemia with normal cytogenetics of trisomy 11 is restricted to one chromosome. **Proc Natl Acad Sci USA**. 94:3899-3902, 1997.
50. Baiocchi RA, Khatri VP, Lindemann MJ, Ross ME, Papoff G, Caprio AJ, Caprio TV, Fenstermaker R, Ruberti G, Bernstein ZP, **Caligiuri MA**: Phenotypic and functional analysis of fas (CD95) expression in primary central nervous system lymphoma of patients with acquired immune deficiency syndrome. **Blood** 90: 1737-1746, 1997. RAPID COMMUNICATION.
51. Plass C, Weichenhan D, Catanese J, Costello J, Yu F, Yu L, Smiraglia D, Cavenee W, **Caligiuri MA**, deJong P, and Held W: An arrayed human Not IEcoRV library as a tool for RLGS spot analysis. **DNA Res** 4, 253-255, 1997.
52. Fehniger TA, Carson WE, Mrozek E, **Caligiuri MA**: Stem cell factor enhances interleukin-2-mediated expansion of murine natural killer cells in vivo. **Blood** 90: 3647-3653, 1997.
53. **Caligiuri MA**, Strout MP, Lawrence D, Arthur DC, Baer MR, Yu F, Knuutila S, Mrozek, K, Oberkircher AR, Marcucci G, de la Chapelle A, Elonen E, Block AMW, Rao PN, Herzig GP, Powell BL, Ruutu T, Schiffer CA, Bloomfield CD: Rearrangement of *ALL1* in acute myeloid leukemia with normal cytogenetics. **Cancer Research** 58: 55-59, 1998.
54. Marcucci G, Strout MP, Bloomfield CD, **Caligiuri MA**: Detection of unique *ALL1* (*MLL*) fusion transcripts in normal human bone marrow and blood: distinct origin of normal versus leukemic *ALL1* fusion transcripts. **Cancer Research** 58: 790-793, 1998.
55. Khatri VP, Fehniger TA, Baiocchi RA, Yu F, Shah MH, Schiller DS, Gould M, Gazzinelli RT, Bernstein ZP, **Caligiuri MA**: Ultra low dose interleukin-2 therapy promotes a type 1 cytokine profile in vivo in patients with AIDS and AIDS-associated malignancies. **Journal of Clin Invest** 6: 1373-1378, 1998.
56. Strout MP, Marcucci G, Bloomfield CD, **Caligiuri MA**: The partial tandem duplication of *ALL1* (*MLL*) is consistently generated by *ALU*-mediated homologous recombination in acute myeloid leukemia. **Proc Natl Acad Sci USA**. 95: 2390-2395, 1998.
57. Burd R, Dziedzic TS, Xu Y, **Caligiuri MA**, Subject JR, Repasky EA: Tumor cell apoptosis, lymphocyte recruitment and tumor vascular changes are induced by low temperature, long duration whole body hyperthermia. **Journal of Cell. Physiol.** 177:137-147, 1998

**Original Reports, con't:**

58. Frey M, Packianathan NB, Fehniger TA, Ross ME, Wang WC, **Caligiuri MA**, Evans SS: Differential expression and function of L-selection on CD56<sup>bright</sup> and CD56<sup>dim</sup> natural killer cell subsets. **J. Immunol.** 161: 400-8, 1998.
59. Marcucci G, Livak KJ, Bi WL, Strout MP, Bloomfield CD, **Caligiuri MA**: Detection of minimal residual disease in patients with *AML1/ETO*-associated acute myeloid leukemia using a novel quantitative reverse transcription polymerase chain reaction assay. **Leukemia.** .12: 1482-1489, 1998
60. Yu H, Fehniger TA, Fuchshuber P, Thiel KS, Vivier E, Carson WE, **Caligiuri MA**: Flt3 Ligand Promotes the Generation of a Distinct Human Natural Killer Cell Progenitor That Responds to IL-15. **Blood.** 92:3647-3657, 1998
61. Meropol NJ, Barresi GM, Fehniger TA, Hitt J, Franklin M, **Caligiuri MA**: Evaluation of natural killer cell expansion and activation in vivo with daily subcutaneous low-dose interleukin-2 plus periodic intermediate-dose pulsing. **Cancer Immunol Immunother.** 48:318-326, 1998
- 62.** Fehniger TA, Herbein G, Yu H, Para MI, Bernstein ZP, O'Brien WA, **Caligiuri MA**: Natural killer cells from HIV-1<sup>+</sup> Patients Produce C-C chemokines and inhibit HIV-1 Infection. **J Immunol.** 161:6433-6438, 1998
63. Plass C, Feng Y, Yu L, Strout M, El-Rifai W, Elonen E, Knuutila S, Marcucci G, Young D, Held W, Bloomfield CD, **Caligiuri MA**. Restriction landmark genome scanning for aberrant methylation in primary refractory and relapsed acute myeloid leukemia; involvement of the WIT-1 gene. **Oncogene.** 18: 3159-3165 1999.
64. Carson WE, Yu H, Pfeffer K, Bouhard P, Clark R, Durbin J, Baldwin AS, Peshon, J, Johnson P, Baumann H, **Caligiuri MA**. A model of cytokine-induced shock mediated by natural killer cells. **J. Immunol.** 162: 4943-4951, 1999.
65. Fehniger TA, Shah MH, Turner MJ, VanDeusen JB, Whitman SP, Cooper MA, Suzuki K, Wechsler M, Goodsaid F, **Caligiuri MA**. Differential cytokine and chemokine gene expression by human natural killer cells following activation with IL-18 or IL-15 in combination with IL-12: implications for the innate immune response. **J. Immunol.** 162: 4511-4520, 1999.
66. Khatri VP, Baiocchi RA, Peng R, Oberkircher AR, Dolce JM, Ward PM, Herzig GP, **Caligiuri MA**. Endogenous CD8<sup>+</sup> T-Cell expansion during regression of monoclonal Epstein-Barr Virus-Associated Post-transplant lymphoproliferative disorder. **J. Immunol.** 163: 500-506, 1999.
67. Golub TR, Slonim DK, Tamayo P, Huard C, Gaasenbeek M, Mesirov JP, Coller H, Loh ML, Downing JR, **Caligiuri MA**, Bloomfield CD, Lander ES. Molecular classification of cancer: class discovery and class prediction by gene expression monitoring **Science** 286:531-537, 1999.
68. Lee EJ, George SL, **Caligiuri MA**, Szatrowski TP, Powell BL, Lemke S, Dodge RK, Smith R, Baer M, Schiffer CA. Parallel Phase I studies of daunorubicin given with cytarabine and etoposide with or without the multidrug resistance modulator PSC-833 in previously untreated patients 60 years of age or older with acute myeloid leukemia: results of Cancer and Leukemia Group B Study 9420. **J Clin Oncol.** 17:2831-9, 1999.
69. Kourlas PJ, Strout MP, Becknell B, Veronese ML, Croce CM, Theil KS, Krahe R, Ruutu T, Knuutila S, Bloomfield CD, **Caligiuri MA** Identification of a new gene at 11q23 encoding a guanine nucleotide exchange factor: Evidence for its rearrangement with MLL in acute myeloid leukemia. **Proc. Natl. Acad. Sci.** 97:2145-50, 2000

**Original Reports, con't:**

70. Fehniger TA, Yu H, Cooper MA, Suzuki K, Shah MH, **Caligiuri MA**. IL-15 costimulates the generalized Shwartzman reaction and innate immune IFN-gamma production in vivo. **J. Immunol.**, CUTTING EDGE 164: 1643-47, 2000
71. Costello JF, Fruhwald MC, Smiraglia DJ, Rush LJ, Robertson GP, Gao X, Wright FA, Feramisco JD, Peltomaki P, Lang JC, Schuller DE, Yu L, Bloomfield CD, **Caligiuri MA**, Yates A, Nishikawa R, Su Huang JF, Petrelli NJ, Zhang X, O'Dorisio MS, Held WA, Cavenee WK, Plass C. Aberrant CpG-island methylation has non-random and tumour-type-specific patterns. **Nature Genetics** 25:132-138, 2000
72. Carson WE, Dierksheide JE, Jabbour S, Anghelina M, Bouchard P, Ku G, Yu H, Baumann H, Shah MH, Cooper MA, Durbin J, **Caligiuri MA**. Co-administration of Interleukin-18 and Interleukin-12 induces a fatal inflammatory response in mice: Critical role of natural killer cell interferon- $\gamma$  production and STAT-mediated signal transduction. **Blood** 2000 *in press*
73. Fehniger TA, Bluman EM, Porter MM, Mrozek E, Cooper MA, VanDeusen JB, Frankel SR, Stock W, **Caligiuri MA**. Potential mechanisms of human natural killer cell expansion in vivo during low-dose IL-2 therapy. **J. Clin. Invest.** *in press*

**Letters to the Editor/Editorials:**

1. Jurlander J, **Caligiuri MA**, Bloomfield CD: Detection of AML1/ETO fusion transcripts in patients with t(8;21) acute myeloid leukemia after allogeneic bone marrow transplantation or peripheral blood progenitor cell transplantation. **Blood** 90: 3230-3236, 1997.
2. Bloomfield CD, Herzig GP, **Caligiuri MA** (Guest Editors): Acute Leukemias: recent advances. **Seminars in Oncology** 24: 1-2, 1997.
3. Marcucci G, **Caligiuri MA**, Bloomfield CD: Defining the "absence of the CBF $\beta$ /MYH11 fusion transcript in patients with acute myeloid leukemia and inversion of chromosome 16 to predict long term complete remission. A call for definitions. **Blood** 90: 5022-5024, 1997.
4. Shah MH, Hackshaw KV, **Caligiuri MA**: Rheumatoid arthritis and the role of interleukin-15. Letter to Editor. **Nature Medicine** 4: 6, 1998.

**Reviews:**

1. **Caligiuri MA**, Mayer RJ: Pregnancy and Leukemia. **Seminars in Oncology** 16:338-396, 1989.
2. **Caligiuri MA**, Ritz J: Immunology. In: **Leukemia**. Henderson, ES, and Lister TA, eds. W B Saunders, 105-115, 1989.
3. **Caligiuri MA**, Manley TJ, Wang ES, Levine H, Smith KA, and Ritz J: Constitutive expression of the high affinity IL-2 receptor in a subpopulation of resting peripheral blood NK cells. In **Natural Killer Cells: Biology and Clinical Application**, Schmidt, RE, ed. Karger, New York. 166-171, 1990.
4. **Caligiuri MA**: Cancer and Pregnancy. In: **Medical Oncology. Basic Principles and Clinical Management of Cancer**. Calabresi P & Schein PS, eds. Macmillan Publishing Co., New York. Chapter 58: 1203-1218, 1993.
5. **Caligiuri MA**: Leukemia and Pregnancy. **Advances in Oncology**. 8:10-17, 1992.
6. **Caligiuri MA**: Low dose IL-2 therapy: rationale and clinical approaches. **Seminars in Oncology**. 20:3-10, Suppl 6, 1993.

Reviews, cont:

7. Carson WE, **Caligiuri, MA**: Cellular adoptive immunotherapy with natural killer Cells. In **Cell Therapy**. Morstyn G, Sheridan B, eds. Cambridge University Press. Chapter 25: 451-474, 1996.
8. Baiocchi RA, Bernstein ZP, **Caligiuri MA**: Lymphomagenesis in the HU-PBL-SCID mouse model: clues towards the pathogenesis and treatment of AIDS lymphoma. **Sangre** 40: 245-252, 1995.
9. Carson WE and **Caligiuri MA**: Natural Killer Cell Subsets and Development. In **Methods: A Companion to Methods in Enzymology**. Academic Press: 9: 327-343, 1996.
10. Carson WE and **Caligiuri MA**: Interleukin 15: A potential player during the innate immune response to infection. **Experimental Parasitology**: 84: 291-294, 1996.
11. Daley JP, **Caligiuri MA**, Biddle WC: *Ex vivo* expansion of human hematopoietic progenitor cells in serum-free stem pro<sup>m</sup>-34 medium. **Focus** 15: 62-67, 1996.
12. Khatri VJ, Baiocchi RA, Bernstein ZP, **Caligiuri MA**: Lymphomagenesis in the severe combined immune deficient mouse engrafted with human lymphocytes: clues towards the pathogenesis and treatment of AIDS lymphoma. **International Journal of Oncology** 4: 241-246, 1997.
13. **Caligiuri, MA**, Strout MP, Gilliland DG: Molecular Biology of Acute Myeloid Leukemia. **Seminars in Oncology** 24: 32-44, 1997.
14. Strout MP and **Caligiuri MA**: Developments in Cytogenetics and Oncogenes in Acute Leukemia. **Current Opinion in Oncology** 9: 8-17, 1997.
15. Carson WE and **Caligiuri MA**: Interleukin 15: In: **Cytokines, Health and Disease** 15: 209-221, 1997.
16. Khatri VP, Baiocchi RA, Bernstein ZP and **Caligiuri MA**: Immunotherapy with low-dose interleukin 2: rationale for prevention of immune-deficiency-associated cancer. **The Cancer Journal From Scientific American** 3: 128-136, 1997.
17. Carson WE and **Caligiuri MA**: Interleukin-15 as a potential regulator of the innate immune response. **Brazilian Journal of Medical and Biological Research** 31: 1-9, 1998.
18. Marcucci G, Strout MP, **Caligiuri MA**, Bloomfield CD: Core Binding Factor (CBF) and *ALL1 (MLL)*-associated adult primary acute myeloid leukemia. Biology and Clinical Implications of Two major genetic subtypes. ASCO Educational Book, Chestnut Hill, MA. 36-47, 1998.
19. Khatri VP and **Caligiuri MA**: Interleukin 10 and its receptor: In: **Encyclopedia of Immunology**. 1997.
20. Baiocchi RA, Khatri VP and **Caligiuri MA**: Immunotherapy strategies for immunodeficiency associated lymphomas. In: Classification, Biology and Treatment of Lymphoma (Armitage JO and Lister TA, Eds) **International Proceedings Journal**. Volume V:11-33, 1998
21. Khatri VP and **Caligiuri MA**: A review of the association between interleukin-10 and human malignancies. **Cancer Immunol and Immunother**. 46:239-244, 1998
22. Strout MP, **Caligiuri MA**: Developments in cytogenetics and oncogenes in acute leukemia. **Current Opinion in Oncology**. 9:8-17, 1998.
23. Baiocchi RA, **Caligiuri MA**. Cytokines in the evolution and treatment of AIDS-lymphoma. **Current Opinion in Oncology** 11:516-521, 1999.

**Reviews, cont:**

24. Strout MP, **Caligiuri MA**, Bloomfield CD. Recent advances in the biology and management of primary acute myeloid leukemia with rearrangements of the MLL gene. **Medscape Oncology** (in press)
25. Marcucci G, **Caligiuri MA**, Bloomfield CD. Core binding factor (CBF) primary acute myeloid leukemia: biology and clinical implications. **Medscape Oncology** (in press)
26. Marcucci G, **Caligiuri MA**, Bloomfield CD. Molecular and clinical advances in core binding factor (CBF) primary acute myeloid leukemia: a paradigm for translational research in malignant hematology. **Cancer Investigation** (in press)
27. Marcucci G, **Caligiuri MA**, Dohner K, Maghraby E, Bloomfield CD, Dohner H. Quantitation of minimal residual disease by real time RT-PCR in patients with CBF/MYH11 acute myeloid leukemia. **Cancer Investigation** (in press)
28. Porcu P and **Caligiuri MA**. AIDS-related lymphomas: Future Directions. **Seminars in Oncology** (in press)
29. **Caligiuri MA**, Bloomfield: The Molecular Biology of Leukemia. In: **Cancer: Principles and Practice of Oncology**. DeVita VT Jr, Hellman S, Rosenberg SA, eds. J.B. Lippincott Co, Philadelphia, (in press).
30. Marcucci G and **Caligiuri MA** Antisense and Gene Transfer Strategies in Leukemia. In **Leukemia**. Henderson, ES, and Lister TA, eds. W B Saunders, (in press).

**Presented Abstracts (since 1990):**

1. Anderson P, **Caligiuri MA**, O'Brien C, Manley T, Ritz J, Schlossman SF: FcγRIII (CD16) is included in the NK receptor complex expressed by human natural killer cells. **The FASEB Journal** 4:A2028, Abstr # 1935, 1990.
2. **Caligiuri MA**, Zmuidzinas A, Manley T, Levine H, Smith KA, Ritz J Identification of a novel subset of lymphocytes with constitutive expression of a functional high affinity IL-2 receptor in resting human peripheral blood. **American Association for Cancer Research** 31:246, Abstr # 1456, 1990.
3. Soiffer R, Murray C, **Caligiuri MA**, Ritz J: Selective expansion of NK cells following bone marrow transplantation. **The VIIth International Workshop on Natural Killer Cells**, June 4-7, Stockholm, Sweden. **Nat. Immun. Cell Growth Regul.** 10:171, 1991.
4. **Caligiuri MA**, Murray C, Soiffer RJ, Klumpp TR, Seiden M, Cochran K, Cameron C, Ish C, Buchanan L, Perillo D, Smith K, Ritz J: Phase 1 study of a 3 month low dose continuous infusion of IL-2 in advanced cancer: Significant immune modulation without toxicity. **American Association for Cancer Research**: 32:1463, 1991.
5. **Caligiuri MA**, Manley T, Delage R, Ritz, J: The alternate (CD2) pathway of activation mediates selective depletion of non MHC restricted thymocytes. **The VIIth International Workshop on Natural Killer Cells**, June 4-7, 1991. Stockholm, Sweden. **Nat. Immun.**
6. **Caligiuri MA**, Beecher MS, Anderson PA: Expression of TCR-ζ in CD3-negative effectors derived from human thymus. **The VIIIth International Workshop on Natural Killer Cells**, June 4-7, 1991. Stockholm, Sweden. (Poster and Presentation). **Nat. Immun. Cell Growth Regul.** 10:173, 1991.
7. Matos ME, Schnier GS, Beecher MS, Ashman LK, Williams DE, **Caligiuri MA**: c-Kit ligand (Mast Cell Growth Factor) differentially augments effects of IL-2 on human natural killer cells. **American Society of Hematology. Blood** 80:729, Suppl 1, 1992.

**Presented Abstracts (since 1990), con't**

8. Oberkircher A, Strout M, Herzig GP, **Caligiuri, MA**: PCR amplification of minisatellites for the evaluation of hematopoietic chimerism following allogeneic BMT: description of an efficient and highly informative method. American Society of Hematology. Blood 82:1694, Suppl. 1, 1993.
9. Baiocchi RA, **Caligiuri MA**: Low dose IL-2 prevents the development of Epstein-Barr Virus-associated lymphoproliferative disorder in the human-SCID mouse. American Society of He
10. Biddle W, Wysocki M, Pancook J, **Caligiuri MA**: Selective in vitro expansion and differentiation of an isolated CD34<sup>+</sup> fraction into early myeloid progenitor cells under serum-free culture conditions. American Association of Cancer Research 34:216, 1993.
11. Frankel SR, Nagel GS, **Caligiuri MA**: Low-dose IL-2: A novel strategy for immunotherapy. Cancer Invest. 11:26, Suppl 1, 1993.
12. Laughlin MJ, Loftus J, Herzig GP, Nagel G, Caligiuri T, **Caligiuri, MA**: Natural killer cell activity following dose intensive chemotherapy. American Society of Hematology. Blood. 82:953, Suppl 1, 1993.
13. Baiocchi R, Haldar S, Sullivan L, Tan J, Seiden M, Sklar J, Narula S, **Caligiuri MA**: Human IL-10 and BCL-2 are aberrantly expressed in severe combined immune deficient mouse/human chimeras with Epstein-Barr virus lymphoproliferative disease. American Association for Cancer Research 35:2817, 1994.
14. Carson WE, Haldar S, Baiocchi RA, **Caligiuri, MA**: The c-kit ligand suppresses apoptosis of human natural killer cells in serum-free media through the upregulation of BCL-2. American Association for Cancer Research 35:15, 1994.
15. Carson WE, Lindemann MJ, Sullivan L, Narula S, **Caligiuri MA**: Interleukin-10 activates human natural killer cells. American Association for Cancer Research 35:2855, 1994. Carson WE, Schnier G, Jacobsen R, Martin FH, **Caligiuri MA**: c-Kit ligand potentiates the mixed lymphocyte reaction. American Association for Cancer Research 35:2944, 1994.
16. Frankel SR, Pixlie L, Porter M, Herzig GP, **Caligiuri, MA**: Low dose IL-2 in first remission acute myeloid leukemia. American Association for Cancer Research 35:1344, 1994.
17. Baiocchi R, Sullivan L, Tan J, Narula S, **Caligiuri MA**: Epstein-Barr virus associated lymphoproliferative disease (EBV-LPD) in the severe combined immune deficient human/mouse model: prevention with low dose interleukin-2 suppresses production of human interleukin-6 and interleukin-10. Proc. ASCO 13:969, 1994.
18. Krajewski CA, Mrozek E, **Caligiuri MA**: Generation and expansion of CD3-CD56<sup>+</sup> non-MHC-restricted cytotoxic effectors from human hematopoietic precursors: requirement for c-kit ligand and interleukin 2. Proc. ASCO 13:954, 1994.
19. Meropol NJ, Porter MM, Perez RP, Vaickus L, Loewen GM, Creaven PJ, Wilkes KA, **Caligiuri MA**: Low dose interleukin-2 (IL-2): daily subcutaneous injection results in selective in vivo expansion of natural killer (NK) cells with minimal toxicity. Proc. ASCO 13:965, 1994.
20. Carson WE, Grabstein K, Giri JG, Lindemann MJ, Linett ML, **Caligiuri MA**: Interleukin-15 is a novel cytokine which activates human natural killer cells using components of the interleukin-2 receptor. Proc. ASCO 13:962, 1994.

**Presented Abstracts (since 1990), con't**

21. Strout MP, Oberkircher AR, Herzig GP, Fritz PD, Baer MR, Frankel SR, Christiansen NP, **Caligiuri MA**: Molecular evaluation of engraftment following non-T cell depleted allogeneic bone marrow transplantation (BMT): evidence for mixed chimerism in specific leukocyte subpopulations. Proc. ASCO 13:999, 1994.
22. Ross ME, Tomasi TB, **Caligiuri MA**: Immunomodulation of human natural killer cells by transforming growth factor beta 2. Proc ASCO 13:970, 1994.
23. Bluman EM, Lindemann MJ, Porter MM, Pixley L, Frankel SR, **Caligiuri MA**: Low dose interleukin-2 (IL-2) expands natural killer (NK) cell populations *in vivo* by selective prevention of apoptosis. Blood. (Suppl 1): 84:288A, 1994.
24. Bernstein ZP, Porter M, Grimes P, Gould M, Poiesz B, Fyfe G, **Caligiuri MA**: Phase I study of daily subcutaneous (SQ) low dose interleukin-2 (IL-2) in HIV-associated malignancies. Blood. 84:10:483A, 1994.
25. Ross ME, Kono Y, Carson WE, Tomasi TB, **Caligiuri MA**: Transforming growth factor-B (TGF-B) suppresses IFN production by IL12 & IL15 activated natural killer (NK) cells. Proceedings of the American Association of Cancer Research. Volume 36: 2795, 1995.
26. Carson WE, Fehniger TA, Penetrante FB, **Caligiuri MA**: Characterization of a high affinity interleukin-2 receptor on a CD16+ natural killer cell subset. Proceedings of the American Association of Cancer Research. Volume 36: 2789, 1995.
27. Jurlander J, **Caligiuri MA**, Strout MP, Ball ED, Frei-Lahr DA, Hoffmann L, Oberkircher AR, Christiansen NP, Block AW, Herzig GP, Bloomfield CD: Persistence of the t(8;21) fusion transcript following allogeneic (Allo) bone marrow transplantation (BMT) for acute myeloid leukemia (AML). Blood (Suppl 1). 86: 2262, 1995.
28. Jurlander J, Lai CF, Tan J, Chou CC, Geisler CH, Narula SK, Baumann H, **Caligiuri MA**: Interleukin-10 (IL-10) is a survival factor for B cell chronic lymphocytic leukemia (B-CLL). Blood (Suppl 1) 86: 1371, 1995.
29. Strout MP, **Caligiuri MA**, Schichman SA, Mrozek K, Herzig GP, Arthur DC, Heinonen AK, Knuutila S, Nousiainen T, Ruutu T, Block AW, Croce CM, Bloomfield CD: The partial tandem duplication of *ALL1* is a recurrent novel molecular defect in acute myeloid leukemia (AML) with trisomy 11. Blood (Suppl 1) 86: 1702, 1995.
30. Carson WE, Ross ME, Baiocchi RA, Marien MJ, Boiani N, Grabstein K, **Caligiuri MA**: Endogenous production of interleukin 15 by activated monocytes is critical for optimal production of interferon-gamma by human natural killer cells in vitro. Third International Workshop of the Society for Natural Immunity, Oxnard, CA, December, 1995. Natural Immunity 14:79.
31. Mrózek E, Wetzler M, Anderson P, **Caligiuri MA**: Interleukin 15 induces CD56+ large granular lymphocytes from CD34+ progenitor cells. American Association for Cancer Research 37: 3098, 1996.
32. Bluman EM, **Caligiuri MA**: Human natural killer cells are potent producers of macrophage inflammatory protein-1 $\alpha$ . American Association for Cancer Research 37: 3110, 1996.
33. Strout MP, Bloomfield CD, Oberkircher AR, Herzig GP, **Caligiuri MA**: The partial tandem duplication of *ALL1* or normal cytogenetics involves only one allele of chromosome 11. American Association for Cancer Research 37: 3910, 1996.

**Presented Abstracts (since 1990), con't**

34. **Caligiuri MA**, Strout MP, Arthur DC, Baer MR, Shah MH, Block AW, Mrozek K, Yu F, Oberkircher A, Lawrence D, Knuutila S, Ruutu T, Herzig GP, Schiffer CA, Bloomfield CD: Rearrangement of *ALL1* is a recurrent molecular defect in adult acute myeloid leukemia (AML) with normal cytogenetics that predicts a short complete remission (CR) duration. Proc. ASCO 15: 1060, 1996.
35. Baiocchi RA, Khatri V, Lindemann ML, Ross ME, Caprio AI, Caprio TV, Fenstermaker R, Bernstein ZP, **Caligiuri MA**: Analysis of FAS/CD95 expression and function in Epstein-Barr virus (EBV)-associated human B cell tumors. Blood (Supp 1) 88: 1509, 1996.
36. Khatri VP, Baiocchi RA, Herzig GP, Oberkircher A, Dolce J, Ward P, **Caligiuri MA**: A successful endogenous immune response to Epstein-Barr virus-associated monoclonal B-cell lymphoma. Annual Society of Surgical Oncology Meeting, 1997.
37. Khatri VP, Baiocchi RA, Herzig GP, Oberkircher A, Dolce J, Ward P, **Caligiuri MA**: A successful endogenous immune response to Epstein-Barr virus-associated monoclonal B-cell lymphoma. The National AIDS Malignancy Conference, 1997.
38. Khatri VP, Yu F, Baiocchi RA, Shah MH, Zwerling BH, Gould M, Bernstein ZP, **Caligiuri MA**: Analysis of T<sub>H</sub>1 T<sub>H</sub>2 cytokine gene profile during low dose IL-2 therapy in patients with AIDS or AIDS lymphoma. The National AIDS Malignancy Conference, 1997.
39. Yu H, Carson WE and **Caligiuri MA**: The Flt3 ligand combines with interleukin-15 for natural killer cell expansion from CD34+ progenitor cells: evidence for redundancy with c-kit ligand. IV International Workshop of the Society for Natural Immunity. Helsinki, Finland. Natural Immunity 15, 170-171, 1997.
40. Khatri VP, Yu F, Baiocchi RA, Shah MH, Zwerling BH, Gould M, Bernstein ZP, **Caligiuri MA**: Low-dose IL-2 therapy enhances the innate immunity and restores the protective TH1 cytokine profile in patients with AIDS/AIDS lymphoma. IV International Workshop of the Society for Natural Immunity. Helsinki, Finland. Natural Immunity 15, 203-204, 1997.
41. Khatri VP, Yu F, Baiocchi RA, Shah MH, Zwerling BH, Gould M, Bernstein ZP, **Caligiuri MA**: Low dose IL-2 therapy enhances the innate immunity and restores the protective TH1 cytokine profile in patients with AIDS/ AIDS lymphoma. Natural Immunity, Vol 5 (4), 203, 1997.
42. Khatri VP, Yu F, Baiocchi RA, Shah MH, Zwerling BH, Gould M, Bernstein ZP, **Caligiuri MA**: Analysis of Th1/Th2 cytokine gene expression profile during low dose IL-2 therapy in patients with AIDS or AIDS lymphoma. Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology: Vol 14 (4), Abstract #99, A41, 1997.
43. Khatri VP, Baiocchi RA, Herzig GP, Oberkircher AM, Dolce JM, Ward PM, **Caligiuri MA**: A successful endogenous human immune response to transplantation associated monoclonal lymphoma. Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology, Vol 14 (4), Abstract #122, A47, 1997.
44. Bernstein ZP, Khatri VP, Barresi G, Gould M, Jacobs S, Poiesz B, **Caligiuri MA**: A Phase II study of daily subcutaneous (SQ) low dose interleukin-2 (IL-2) in HIV-associated malignancies. Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology, Vol 14 (4), Abstract #96, A40, 1997.
45. Burd R, Dziedzic TS, Xu Y, **Caligiuri MA**, Subjeck JR, Repasky EA: Tumor cell apoptosis, NK cell recruitment and tumor vascular changes are induced by low temperature, long duration whole body hyperthermia. Society of Biological Therapy. Pasadena, CA. October 23, 1997.

**Presented Abstracts (since 1990), con't**

46. Strout MP, Marcucci G, Bloomfield CD, **Caligiuri MA**: ALU-mediated homologous recombination in somatic cells is a consistent mechanism responsible for the partial tandem duplication of *ALL1* in acute myeloid leukemia (AML). *Blood*. (Suppl 1) 90: 317, 1997.
47. Marcucci G, Livak KJ, Bi WL, Strout MP, Bloomfield CD, **Caligiuri MA**: Detection of *AML1/ETO* Transcript in patients (pts) with t(8;21) associated AML using a novel "real time" quantitative RT-PCR assay. *Blood*. (Suppl 1) 90: 390, 1997.
48. Marcucci G, Strout MP, Bloomfield CD, **Caligiuri MA**: Detection of unique *ALL1* (MLL) fusion transcripts in normal human bone marrow and blood: distinct origin of normal versus leukemia *ALL1* fusion transcripts. *Blood*. (Suppl 1) 90: 317, 1997.
49. Marcucci G, **Caligiuri MA**, Oberkircher AR, Bloomfield CD: Absence of minimal residual disease (MRD) by reverse transcription polymerase chain reaction (RT-PCR) in *CBF $\beta$ /MYH11*-associated acute myeloid leukemia. *Blood*. (Suppl 1) 90: 62, 1997.
49. Plass C, Yu F, Yu L, Strout MP, Held WA, **Caligiuri MA**: Genomic scanning for aberrant methylation in acute myeloid leukemia: involvement of WIT-1 methylation at relapse. *Blood*. (Suppl 1) 90: 254, 1997.
50. Baiocchi RA, Lindemann MJ, Nordone P, **Caligiuri MA**: Combination cytokine therapy prevents human EBV-associated lymphoproliferative disease in the human-PBL-SCID mouse model: critical role of human natural killer cells. *Blood*. (Suppl 1) 90: 512, 1997.
51. Lee E, George S, **Caligiuri MA**, Dodge R, Smith R, Szatrowski T, Schiffer C: A phase I study of induction chemotherapy for older patients with acute myeloid leukemia using Ara-C, daunorubicin, and etoposide with and without the MDR modulator PSC-8333: Cancer and Leukemia Group B study 9420. *Blood*. (Suppl 1) 90: 506, 1997.
52. Fehniger TA, Carson WE, **Caligiuri MA**: The CD56 bright NK cell subset is the most potent producer of macrophage activating factors. *Proceedings of the American Association for Cancer Research* 38: 32, 212, 1997.
53. Whitman SP, Strout MP, Freud RG, Mrozek K, Theil K, Kees UR, Bloomfield CD, **Caligiuri MA**. A novel, partial, non-tandem duplication of *MLL* in a B-acute lymphoblastic leukemia (B-ALL) cell line. *Blood*. (Suppl 1) 92, 287, 1998
54. Mrozek K, Prior TW, Edwards C, Snyder PJ, Carroll AJ, Koduru PRK, Pettenati MJ, Archer KJ, **Caligiuri MA**, Koltz J, Larson RA, Bloomfield CD. A comparison of cytogenetic and molecular genetic *de novo* acute myeloid leukemia (AML) : A Cancer and Leukemia Group B (CALGB) study. *Blood*. (Suppl 1) 92, 313, 1998
55. Stock W., Sher D., Dodge R, Muriano E, **Caligiuri M**, Frankel S, Larson RA, Bloomfield CD. High level of wilms tumor gene (*WT1*) expression is detected in the majority of newly diagnosed acute lymphoblastic leukemia (ALL) of adults: Implications for prognosis and monitoring of minimal residual disease (MRD). *Blood*. (Suppl 1) 92, 915, 1998
56. Fehniger TA, Shah MH, Turner MJ, VanDeusen J, **Caligiuri MA**. Human natural killer (NK) cells show differential cytokine and chemokine production following activation by IL-18 and/or IL-15 in combination with IL-12. *Blood*. (Suppl 1) 92, 1398, 1998
57. Yu H, Fehniger TA, Fuchshuber P, Theil KS, Viver E, Carson WE, **Caligiuri MA**. FLT3 ligand promotes the generation of a distinct CD34<sup>+</sup> human natural killer cell progenitor that responds to IL-15. *Blood*. (Suppl 1) 92, 1511, 1998.

**Presented Abstracts (since 1990), con't**

58. Fehniger TA, Herbein G, Yu H, Para MI, Bernstein ZP, O'Brien WA, **Caligiuri MA**. Natural killer cells from HIV-1<sup>+</sup> patients produce C-C chemokines and inhibit HIV-1 infection. *Blood*. (Suppl 1) 92, 2237, 1998.
59. Shah MH, Yu H, Stover EH, VanDeusen J, **Caligiuri MA**. Simultaneous quantification of cytokine gene expression in multiple organs during endotoxic shock. *Blood*. (Suppl 1) 92, 2238, 1998
60. Baer MR, Pixley LA, Schriber JR, Frankel SR, Fehniger TA, Herzig GP, **Caligiuri MA**. Prolonged administration of low-dose interleukin-2 (IL-2) to patients (PTS) with acute myeloid leukemia (AML) in remission (CR) expands natural killer (NK) cells without significant clinical toxicity. *Blood*. (Suppl 1) 92, 2534, 1998
61. Bernstein ZP, Khatri V, Poiesz B, Gould M, Jacob S, Kunkel LA, **Caligiuri MA**. Phase I/II study of daily subcutaneous (SC) low dose interleukin-2 (IL-2) in AIDS-associated lymphomas (AIDS-NHL). *Blood*. (Suppl 1) 92, 2576, 1998
62. Schriber JR, Wetzler M, Herzig GP, Slack JL, Alvarnas JC, Abramowski C, Tucker GM, Fay JW, Fehniger TA, **Caligiuri MA**. Outpatient interleukin 2 (IL-2) following stem cell transplantation (SCT) increases NK cell number and cytotoxicity. *Blood*. (Suppl 1) 92, 2700, 1998
63. Tanner SM, Virtaneva K, Rush L, Bloomfield CD, Plass C, Krahe R, de la Chapelle A, **Caligiuri MA**. Gene expression in acute myeloid leukemia with trisomy 8. *European Journal of Human Genetics*. Vol. 7(Suppl 1)92, 300, 1999
64. Ruoqi P, Baiocchi R, Schmalbrock P, Moeschberger M, Yang W, Barth RF, **Caligiuri MA**. Combination antiviral therapy for treatment of primary central nervous system lymphoma associated with the Epstein-Barr virus: In vivo evaluation in an animal model. *Journal of Acquired Immune Deficiency Syndrome and Human Retrovirology*. 1999
65. Tanner SM, Virtaneva K, Rush L, **Caligiuri MA**, Bloomfield CD, Mrózek K, Plass C, Krahe R, de la Chapelle. A novel genes in acute myeloid leukemia with trisomy 8. Poster presentation: ASHG meeting, San Francisco, USA, October, 1999. *American Journal of Human Genetics* 1999; 65(4): Suppl: A325 (1834).
66. Fehniger TA, Cooper MA, Cella M, Ponnappan A, Carson WE, **Caligiuri MA**. T Cell-Derived IL-2 Costimulates CD56<sup>bright</sup> Human Natural Killer (NK) Cell Interferon Gamma (IFN- $\gamma$ ) Production: In Vitro Evidence That Antigen-Specific Immune Response. Poster Presentation: ASH 41<sup>st</sup> Annual Meeting, New Orleans, USA, December 1999. *Blood (Suppl 1)* 94, 7a, 1999.
67. Cooper MA, Fehniger TA, Ghaheri BA, Ponnappan A, Chen K, **Caligiuri MA**. IL-1 $\beta$  Costimulates Cytokine Production By CD56<sup>bright</sup> Human Natural Killer (NK) Cells. Annual Meeting, New Orleans, USA, December 1999. *Blood (Suppl 1)* 94, 8a, 1999.
68. Kourlas PJ, Strout MP, Becknell B, Veronese ML, Croce CM, Theil KS, Krahe R, Knuutila S, Bloomfield CD, **Caligiuri MA**. Identification Of A New Gene At 11q23 Encoding A Guanine Nucleotide Exchange In Factor: Evidence For Its Rearrangement In Acute Myeloid Leukemia (AML). Annual Meeting, New Orleans, USA, December 1999. *Blood (Suppl 1)* 94, 52a, 1999.
69. Whitman SP, Strout MP, Maghraby EA, Marcucci G, Bloomfield CD, **Caligiuri MA**. Partial Tandem Duplication Of *MLL* (*MLL* PTD): Quantitative Assessment Of Transcript Copy Number In Acute Myeloid Leukemia (AML) With And Without Evidence Of *MLL* Gene Rearrangement. Annual Meeting, New Orleans, USA, December 1999. *Blood (Suppl 1)* 94, 53a, 1999.

**Presented Abstracts (since 1990), con't**

70. **Caligiuri MA**, Lee EJ, Baer MR, Dodge R, Cooke K, Szatrowski T, Schiffer CA, Bloomfield CD, Larson RA. Daily Low Dose Interleukin 2 (IL-2) Therapy With Or Without Intermediate Dose Pulsing in Acute Myeloid Leukemia (AML) Patients (PTS) > 60 Years Old In First Complete Remission (CRI): A Feasibility Study (CALGB 9420). Annual Meeting, New Orleans, USA, December 1999. *Blood (Suppl 1)* 94, 76a, 1999.
71. Stock W, Sher D, Dodge R, **Caligiuri MA**, Frankel S, Larson RA, Bloomfield CD. Quantitative Molecular Monitoring Of *BCR/ABL* Transcripts In Adult Acute Lymphoblastic Leukemia (ALL) Using A Real-Time PCR Assay: Pilot Study From The Cancer And Leukemia Group B (CALGB 8762). Annual Meeting, New Orleans, USA, December 1999. *Blood (Suppl 1)* 94, 287a, 1999.
72. Willhauck M, Marcucci G, Döhner K, Schlenk RF, Lichter P, Bloomfield CD, **Caligiuri MA**, Döhner H. Quantitative Detection Of *AML1/ETO* Transcripts In Patients With t(8;21) Associated AML By Real Time RT-PCR. Annual Meeting, New Orleans, USA, December 1999. *Blood (Suppl 1)* 94, 287a, 1999
73. Baer MR, George SL, Dodge RK, Cooke K, **Caligiuri MA**, Powell BL, Kolitz JE, Schiffer CA, Larson RA. Phase III Study Of PSC-833 Modulation Of Multidrug Resistance (MDR) In Previously Untreated Acute Myeloid Leukemia (AML) Patients (PTS) 60 Years (CALGB 9720). Annual Meeting, New Orleans, USA, December 1999. *Blood (Suppl 1)* 94, 383a, 1999.
74. Kolitz JE, George SL, Hurd D, Hoke E, Dodge RK, Velez-Garcia E, Powell BL, Moore J, **Caligiuri MA**, Vardiman JW, Bloomfield CD, Larson RA. Parallel Phase I Trials Of Multi-Drug Resistance (MDR) Modulation With PSC-833 (PSC) In Untreated Patients (PTS) With Acute Myeloid Leukemia (AML) < 60 Years Old Preliminary Results Of CALGB 9621. Annual Meeting, New Orleans, USA, December 1999. *Blood (Suppl 1)* 94, 384a, 1999.
75. Yang J, Flinn I, Ma H, **Caligiuri MA**, Ambinder R. Dramatic Fall In Epstein-Barr Virus (EBV) Load In Lymphoproliferative Disease In Organ Transplant Recipients Does Not Correlate With Response to Rituximab. Annual Meeting, New Orleans, USA, December 1999. *Blood (Suppl 1)* 94, 524a, 1999.
76. Kolitz JE, George SL, Hurd D, Hoke E, Dodge RK, **Caligiuri MA**, Velez-Garcia E, Powell BL, Moore J, Vardiman JW, Bloomfield CD, Larson RA. Cytogenetic Risk-Adapted Intensification Followed By Immunotherapy With Recombinant Interleukin-2 (rIL-2) In Patients (PTS) < 60 Years Old With Acute Myeloid Leukemia (AML) In First Complete Remission (CR): Preliminary Results OF CALGB 9621. Annual Meeting, New Orleans, USA, December 1999. *Blood (Suppl 1)* 94, 579a, 1999.
77. Marcucci G, **Caligiuri MA**, Maghraby EA, Archer KJ, Döhner K, Schlenk RF, Döhner H, Bloomfield CD. Quantification Of *CBF $\alpha$ /MYH11* Transcripts In inv(16) Acute Myeloid Leukemia (AML) By Real Time RT-PCR. Annual Meeting, New Orleans, USA, December 1999. *Blood (Suppl 1)* 94, 625a, 1999.
78. Golub TR, Slonim D, Tamayo P, Huard C, Gaasenbeek M, Mesirov J, Coller H, Loh M, Downing JR, **Caligiuri MA**, Bloomfield CD, Lander ES. Gene Expression Pattern Recognition For Cancer Classification. Annual Meeting, New Orleans, USA, December 1999. *Blood (Suppl 1)* 94, 656a, 1999.
79. Fleming GF, Meropol NJ, Hollis DR, Rosner GL, Fracasso PM, Sosman JA, Tkaczuk L, Levine EG, Rhoades C, **Caligiuri MA**, Carson WE, Ratain MJ. Phase I trial of recombinant human anti-Her2

monoclonal antibody (H) plus low-dose interleukin-2 (IL-2) in patients with solid tumors.  
*Proceedings ASCO* 18:710, 1999.

**Presented Abstracts (since 1990), con't**

80. Peng R, Baiocchi RA, Carrodeguas L, Grecula J, Gupta N, Barth R, Chan K, Schmalbrock P, Moeschberger M, Caligiuri MA. Combination Therapy with Antiviral Agents (GCV + AZT) plus Radiation Prolongs Survival in an Animal Model of EBV+ Primary Central Nervous System Lymphoma Associated with the Epstein-Barr Virus. AACR 2000.

**Invited Lectures:**

**National/International:**

1. International Congress of Chemotherapy, Taormina, Italy. The use of monoclonal antibodies in autologous bone marrow transplantation. May 1988.
2. Medical Grand Rounds, Roswell Park Cancer Institute, Buffalo, NY. The use of anti-CD6 monoclonal antibody for the prevention of GVHD in allogeneic bone marrow transplantation. March, 1989.
3. Puerto Rican Society of Hematology, Puerto Rico. Hematopoietic growth factors: Biology and clinical significance. Oct. 12-13, 1990.
4. NIH/National Institute of Allergy and Infectious Disease. Research workshop on chronic fatigue syndrome. The role of NK cells in viral infection. March 18, 1991.
5. National Cancer Institute-INSERM Workshop on the use of interleukin-2 in hematologic malignancies. September 12-13, 1991 (Invited Participant).
6. Chiron Corporation. Low dose IL-2: Clinical trial and basic observations. September 9, 1992.
7. The CALGB Leukemia Core Meeting. The use of low dose IL-2 for AML. Baltimore, MD. October 17, 1992.
8. Chemotherapy Foundation Symposium X. Innovative cancer chemotherapy for tomorrow. The Page and William Black Post-Graduate School of the Mount Sinai School of Medicine. Ezra M. Greenspan, M.D., Chairman. Low Dose IL-2: A Novel Strategy for Immunotherapy. November 12, 1992.
9. The University of Rochester Medical Center. Hematology Research Seminar. IL-2/IL-2R: Novel clinical approaches from a basic observation. November 24, 1992.
10. The Egypt International Hospital Corp. Cairo, Egypt. International symposium on advances in the diagnosis and treatment of lymphoma, leukemia and breast cancer: Laboratory and clinical advances. (1) Recent advances in the treatment of acute myelogenous leukemia and, (2) Bone marrow transplantation. Cairo, Egypt. January 13-15, 1993.
11. Cancer Therapy Evaluation Program of the NCI on Intergroup Trial of Autologous Marrow Transplant with IL-2 in AML. IL-2 therapy for first remission AML. February 9, 1993.
12. The Princess Margaret Hospital & and the University of Toronto. Medical Grand Rounds. Low dose IL-2 therapy: clinical approaches from basic observations. June 16, 1993.
13. The Proleukin User's Registry Meeting. Colorado Springs, CO. Clinical applications of interleukin 2. June 30, 1993.
14. Clinical Research Education Series Seminar. Amgen Inc. The role of SCF in NK cell biology. September 3, 1993.

15. The CALGB Leukemia Core Meeting. The use of low dose IL-2 for AML. Raleigh-Durham, NC. October 2, 1993.
16. The CALGB National Meeting. Low dose IL-2 therapy for HIV-associated lymphoma. Chicago, IL. November 4, 1993.
17. Chemotherapy Foundation Symposium XI. Innovative Cancer Chemotherapy for Tomorrow. The Page and William Black Post-Graduate School of the Mount Sinai School of Medicine. Ezra M. Greenspan, M.D., Chairman. Low dose IL-2 in ambulatory treatment of AML and solid tumors. November 10, 1993.
18. New York Hospital/Cornell Medical School. IL-2 therapy for first remission AML. November 23, 1993.
19. Memorial Sloan Kettering Cancer Center. IL-2 therapy for first remission AML. November 23, 1993.
20. National Cancer Institute, Task Force on AIDS Malignancies. Invited Speaker. Low dose IL-2 in AIDS lymphoma: Murine model and early clinical results. December 8, 1993.
21. Schering-Plough Research Institute. Human IL-10 in the SCID-hu chimeric mouse. February 16, 1994.
22. M.D. Anderson Cancer Center. Low Dose IL-2 therapy: rationale and potential clinical applications. February 17, 1994.
23. Georgetown University. The Lombardi Cancer Center. Hematology Research Conference. Cytokine therapies in the SCID-human chimeric mouse model. March 11, 1994.
24. Upstate Medical Center. Medical Oncology Grand Rounds: Immune strategies in AIDS lymphoma. March 25, 1994.
25. The CALGB National Meeting. Molecular rearrangement of the *ALL-1* gene in acute myeloid leukemia without cytogenetic evidence of 11q23 chromosomal translocations. Washington, DC. April 28, 1994.
26. Task Force on AIDS Malignancies (NCI). Invited Speaker. Update of recent IL-2 results in preclinical mode, preliminary data on clinical trial, and discussion of potential clinical trial in AIDS lymphoma. Dallas TX. May 14, 1994.
27. The Pezcoller Foundation Symposia. Invited Speaker. Normal and malignant hematopoiesis: new advances. Co-Chairperson, Session V, Molecular Approaches to Therapeutics. Roverto Italy. June 30-July 1, 1994.
28. The H. Lee Moffitt Cancer Center. Medical Grand Rounds. The use of cytokine therapy in AIDS lymphoma. Tampa, FL. July 15, 1994.
29. The Austrian and German Society of Hematology and Oncology. Interleukin 15. Vienna, Austria. October 12, 1994.
30. National Cancer Institute. AIDS Malignancy Working Group (Host: J. Karp, MD). Invited Speaker. Lymphomagenesis in SCID-human mouse. Potential insight into AIDS lymphoma. Bethesda, Maryland. October 24, 1994.
31. The University of Miami School of Medicine. Medical Grand Rounds. Clues to the pathogenesis and treatment of AIDS lymphoma. November 3, 1994.
32. The CALGB National Meeting. Molecular rearrangement of the *ALL-1* gene in acute myeloid leukemia without cytogenetic evidence of 11q23 chromosomal translocations. Update on IL-2 in AIDS Lymphoma. Atlanta, GA. November 6, 1994.

33. Wayne State University Medical School. Medical Grand Rounds. Low dose IL-2 in AIDS related lymphoma. Detroit, Michigan. December 7, 1994.
34. Hoffmann-LaRoche, Inc. Functional effects of IL-15 on human NK cells. Nutley, New Jersey. January 11, 1995.
35. Chiron Therapeutics. Clues to understanding pathogenesis and treatment of AIDS lymphoma. Emeryville, California. January 24, 1995.
36. National Cancer Institute. Workshop on Secondary Leukemia. Invited Speaker. 11q23 as a target for gene directed interventions. Bethesda, Maryland. January 29, 1995.
37. University of Pittsburgh. Lymphomagenesis in the SCID - human mouse model: Role of cytokines and clinical implications. Pittsburgh, Pennsylvania. February 8, 1995.
38. University of Pittsburgh. The Role of the c-kit ligand in human natural killer cell biology. Pittsburgh, Pennsylvania. February 9, 1995.
39. City of Hope. Lymphoma in AIDS: Clues to pathogenesis and treatment. Medical Grand Rounds. Los Angeles, California. March 30, 1995.
40. Lenox Hill Hospital. AIDS Lymphoma: A role for cytokine therapy. New York, New York. April 25, 1995.
41. Cancer and Leukemia Group B. New biologics (potential applications in lymphoma trials). Providence, Rhode Island. May 4, 1995.
42. Cancer and Leukemia Group B. Interleukin 15: A promising new cytokine. Providence, Rhode Island. May 5, 1995.
43. Christiana Hospital. Clues to understanding pathogenesis and treatment of AIDS lymphoma. Newark, Delaware. May 17, 1995.
44. Graduate Hospital. The University of Pennsylvania at Philadelphia. Lymphoma in AIDS: Clues to pathogenesis and treatment. Philadelphia, Pennsylvania. May 24, 1995.
45. American Society for Microbiology. Immunotherapy with IL-2 in hematologic malignancies. Washington, D.C. May 25, 1995.
46. University of Arkansas. AIDS and lymphoma. Little Rock, Arkansas. June 5, 1995.
47. National Cancer Institute. President's Cancer Panel on AIDS Neoplasms. Lymphoma. Bethesda, Maryland. June 6, 1995.
48. Albany Medical Center. AIDS Clinical Research Conference. AIDS lymphoma: Clues to pathogenesis. Albany, New York. June 22, 1995.
49. Albany Medical Center. Medical Grand Rounds. Cytokine imbalance - lymphoma. Albany, New York. June 22, 1995.
50. Medical Center of Delaware Cancer Center. 1995 Annual Hematology/Oncology Conference. HIV associated lymphomas. Wilmington, Delaware. September 21, 1995.
51. M. D. Anderson Cancer Center. Lymphoma...the next questions. Rationale and results of adjuvant IL-2 in AIDS lymphomas. San Antonio, Texas. October 21, 1995.

52. Hospital Universitario De Salamanca. Spanish Society of Hematology Annual Symposium. The role of interleukins in the pathogenesis and treatment of AIDS lymphoma. Zaragoza, Spain. November 14, 1995.
53. St. Michael's Hospital. Clues to understanding pathogenesis and treatment of AIDS lymphoma. Newark, New Jersey. December 15, 1995.
54. CTRC Burton & Mariam Grossman Cancer Center. Clues to understanding the pathogenesis and treatment of AIDS lymphoma. San Antonio, Texas. February 20, 1996.
55. New Jersey School of Medicine and Dentistry: Tumor Board Conference. Rationale for the use of IL-2 in the treatment of AIDS. Newark, New Jersey. March 11, 1996.
56. Bowman-Gray School of Medicine: Cancer Center Grand Rounds. Immunomodulation in Cancer Therapy. Winston-Salem, North Carolina. March 15, 1996.
57. Cancer and Leukemia Group B Spring Meeting. Invited Speaker for the Pharmacy Committee Meeting. Cytokines, the great communicator. Miami, Florida. May 5, 1996.
58. University of Palermo: Minicourse in Immunology. Invited instructor and speaker. Erice, Italy. May 21-27, 1996.
59. University of North Carolina at Chapel Hill: Clues to the pathogenesis and treatment of AIDS lymphoma. Chapel Hill, North Carolina. June 18, 1996.
60. Medical College of Wisconsin. Clues to the pathogenesis and treatment of AIDS lymphoma. Milwaukee, Wisconsin. September 11, 1996.
61. Leukemia Society of America's Translational Research Program. Update on the partial tandem duplication of *ALL1*. Molecular Session. Washington, D.C. October 3-4, 1996.
62. ASBMT/AACR Meeting. Novel approaches in blood and marrow transplantation. The partial tandem duplication of *ALL1*-a common molecular defect in AML. San Diego, California. October 5, 1996.
63. Berlex Oncology Foundation. Clinical Pharmacology of Anticancer Drugs Course. Growth factors and cytokines. Lansdowne, Virginia. October 7, 1996.
64. Hematology Board Review. The George Washington University Medical Center. I. Chromosomal abnormalities and oncogenes in hematologic malignancies. II. Acute leukemia's of adults. Washington, D.C. October 11, 1996.
65. Baylor College of Medicine. Medical Grand Rounds. AIDS-related lymphoma. Houston, Texas. October 16, 1996.
66. CALGB Fall Group Meeting. Invited Speaker at the Clinical Research Associates Meeting. The CALGB Leukemia Tissue Bank. Pittsburgh, PA. November 2, 1996.
67. Brown University. Guest Immunology Seminar. The role of IL-15 in innate immunity. Providence, RI. November 14, 1996.
68. 4th International Conference on Clinical Applications of Growth Factors and Cytokines in Hematology and Oncology. The role of cytokines in the pathogenesis of EBV lymphoma. Atlanta, GA. November 15, 1996.
69. The Brazilian Society of Immunology. The International Meeting on Cytokines. IL-15: a new regulator of IFN- $\gamma$ . Angra dos Reis, Brazil. November 25, 1996.

70. The American Society of Hematology Meeting. The development of new immunotherapeutic agents. Orlando, FL. December 5, 1996.
71. Genetics Institute. Co-stimulation of human natural killer cells and regulation of the innate immune response. Andover, MA. January 23, 1997.
72. The New York Hospital-Cornell University of Medicine Medical Grand Rounds. Clues to the pathogenesis and treatment of AIDS lymphomas. New York, NY. February 20, 1997.
73. SCF/AIDS Preclinical Meeting. IL-2 and SCF trials in patients with AIDS cancer. Los Angeles, CA. March 4, 1997.
74. Biology of AIDS Lymphoma Workshop. Cytokine gene expression during in vivo therapy with IL-2. Washington, D. C. March 9, 1997.
75. American Association of Cancer Research. Demystifying the role of cytokines in tumor immunobiology: status and future utility. San Diego, CA. April 14, 1997.
76. Comprehensive Cancer Center - Arthur G. James Cancer Hospital and Research Institute. Keynote Speaker for the Second Annual Cancer Research Day. Advances in understanding the molecular basis of cancer. Columbus, Ohio. April 23, 1997.
77. University of Maryland Director's Conference. Clues to the pathogenesis and treatment of AIDS Lymphoma. Baltimore, MD. April 29, 1997.
78. The Paulo Foundation X11 International Symposium-IV Meeting of the Society of Natural Immunity. Low dose IL-2 in AIDS-associated malignancies: rationale and results. Helsinki, Finland. May 30, 1997.
79. Cancer and Leukemia Group B Spring Meeting. Leukemia Tissue Bank. Molecular Biology of AML. AIDS Lymphoma protocols. Montreal, Canada. June 21, 1997
80. First Proleukin International Congress. Immunomodulation mediated by low-dose rIL-2: applications in immunodeficiency-related malignances. San Francisco, CA. July 12, 1997.
81. Third Pan-Pacific Lymphoma Conference. Treatment of HIV Associated Lymphomas. Lanai, Hawaii. July 16, 1997.
82. 10<sup>th</sup> Annual Brazilian Congress on Clinical Oncology. Cytogenetics in Leukemia. ALL Treatment. Sao Paulo, Brazil. August 16-17, 1997.
83. Fifth Basic Sciences Symposium of the Transplantation Society. Co-stimulation is required for effective NK cell interferon gamma secretion. Chautauqua, New York. September 7, 1997.
84. The Cleveland Clinic/Ohio State University Symposium. Co-stimulatory signals are required for natural killer cell gamma interferon production. Columbus, Ohio. October 3, 1997.
85. Berlex Oncology Foundation. Growth Factors and Cytokines. Leesburg, Virginia. October 6, 1997.
86. Roswell Park Cancer Institute Seminar on Cell Cycle: Molecular targets for diagnosis and therapy, tumor suppressor genes and cell cycle progression. Bcl-2/Bax in drug induced apoptosis: role of cytokines. Buffalo, New York. November 8, 1997.
87. University of Minnesota Cancer Center. Acute myeloid leukemia: molecular mechanisms and clinical implications. Minneapolis, Minnesota. November 11, 1997.

88. CALGB Fall Group Meeting. Invited Speaker at the Oncology Nurses Meeting. IL-2 in hematologic malignancies. Orlando, Florida. November 21, 1997.
89. University of California, San Diego Hematology/Oncology Seminar. Clues to the pathogenesis and treatment of immunodeficiency related lymphoma. San Diego, CA. January 12, 1998.
90. City of Hope National Medical Center. The molecular biology of acute myeloid leukemia: a novel defect and its clinical significance. La Jolla, CA. January 13, 1998.
91. Dana Farber Cancer Institute. Acute myeloid leukemia: a novel defect and its clinical significance. Boston, MA. January 27, 1998.
92. Regional Cancer Center Consortium for Biological Therapy of Cancer. Cytokine Immunotherapy in Post-Implant EBV Lymphoma. Buffalo, NY. February 21, 1998.
93. The Cleveland Clinic Foundation, The Lerner Research Institute, Department of Cancer Biology. Acute myeloid leukemia: molecular mechanisms and their clinical significance. Cleveland, OH. March 24, 1998.
94. Annual scientific meeting of the American Society for Blood and Marrow Transplantation. Molecular biology of AML. Miami, FL. March 27, 1998.
95. Genzyme Corp., EBV Lymphoma, Framington, MA. August 11, 1998
96. International Union Against Cancer Conference, New Cytokines. Rio de Janeiro, Brazil. August 26, 1998
97. Amgen Lecturing Faculty Update Meeting. The Role of Stem Cell Factor in Human Natural Killer Cell Development and Expansion. Phoenix, AZ. August 28, 1998.
98. Berlex Oncology Foundation. Growth Factors and Cytokines. Leesburg, Virginia. October 5, 1998.
99. Case Western Reserve University – Blood Club Seminar. Pathogenesis and treatment strategies for immunodeficiency-related lymphoma. Cleveland, OH. March 19, 1999.
100. MD Anderson Cancer Center – 2<sup>nd</sup> Foundations of Clinical Cancer Research Symposium. 1) EBV-Associated Lymphoma Following BMT: Molecular Biology and Mother Nature Solve the Case. 2) Clues to the Pathogenesis and Treatment of Lymphoma Associated with Immunodeficiency. Houston, TX. March 26, 1999
101. American Association for Cancer Research Scientist Survivor Program. Guest Speaker; Workshop for Immunology/Biological Therapy and Ask the Experts Session. Philadelphia, PA. April 10, 1999
102. International Symposium on HIV, Leukemia, and Opportunistic Cancers. Variations in the Partial Duplication of MLL in Acute Leukemia. Marrakech, Morocco. May 24, 1999
103. VII International Conference on Malignant Lymphoma. Biology of CNS Lymphoma. Lugano, Switzerland. June 4, 1999
104. Proleukin 2<sup>nd</sup> International Congress. Cytokine Replacement Therapy in Patients with HIV Non-Hodgkins Lymphoma: The Rationale for Low Dose IL-2 Therapy. San Francisco, CA. July 29, 1999
105. Rituxan Investigator's Meeting. Presentation of Posttransplant Lymphoproliferative Disorder. Seattle, WA. August 6, 1999

106. Collegium Oto-Rhino-Laryngologicum Amicitiae Sacrum (ORLAS). New Strategies for Immunotherapy. Lyon, France. August 24, 1999
107. Acute Leukaemia Forum. Vaccines: Where are they? Toronto, Canada. August 28, 1999
108. Cleveland Clinic Cancer Center. AIDS Related Malignancies – Lymphomas. Cleveland, OH. September 24, 1999
109. Berlex Oncology Foundation Clinical Pharmacology of Anticancer Drugs. Growth Factors and Cytokines. Lansdowne, VA. October 4, 1999
110. 14<sup>th</sup> Annual Scientific Meeting of the Society for Biological Therapy. Combination Humanized-Monoclonal Antibody and Cytokine Therapy for Treatment of Human Malignancy. Boston, MA October 28, 1999.
111. Lymphoma Research Foundation of America and The Wellness Community of Columbus, Ohio. Ask the Doctor about Lymphoma. November 6, 1999.
112. Cancer Center Grand Rounds Karmanos Cancer Center, Wayne State University: Cancer and Immune Deficiency: laboratory and clinical investigations. December 16, 1999
113. University of California Irvine Chao Family Comprehensive Cancer Center Grand Rounds. Irvine, CA. Clues to the pathogenesis and treatment of cancer in association with immune deficiency; Development and function of human natural killer cells; and Molecular mechanisms of leukemia and it's impact on clinical management. January 24, 2000.
114. McGill University, University de Montreal, Canada. Clues to the pathogenesis and treatment of immune deficiency lymphoma. Acute myeloid leukemia-molecular mechanisms and clinical impact. March 9, 2000.
115. Case Western University Grand Rounds, Cleveland, OH. Clues to the pathogenesis and treatment of viral-associated malignancies. June 13, 2000

**Local-Central Ohio:**

1. Central Ohio Society of Clinical Oncology. Cancer and Immunity: What does one have to do with the other? Worthington, OH. September 16, 1997.
2. Interviewed for National Public Radio "Living on Earth". Columbus, OH. November 14, 1997.
3. Interviewed for the Marion Star. Forms of leukemia and their prevalence. Columbus, OH. November 26, 1997.
4. Interviewed for the Columbus Dispatch. Discovery of genetic marker in AML patients. Columbus, OH. January 6, 1998.
5. Interviewed by WBNS-10TV. Discovery of genetic marker in AML patients. Columbus, OH. February 19, 1998.
6. Park Medical Center Grand Rounds: Clinical Research: CALGB, Phase II Research Consortium and other 1998 initiatives. Columbus, OH. March 6, 1998.
7. Upper Arlington High School: Science in the Cinema "Marvin's Room". Portrayal of scientific/medical information of cancer and leukemia with a movie and discussion. Columbus, OH. July 22, 1998

**Lectures-The Ohio State University:**

1. Transplant Seminar. The Hu-PBL-SCID as a model for human EBV lymphoproliferative disease. September 24, 1997.
2. Immunobiology 701. Hematopoietic cell differentiation. September 30, 1997.
3. Comprehensive Cancer Center Grand Rounds. Acute Leukemia. Molecular mechanisms and clinical outcome. October 3, 1997.
4. Tumor Registry Seminar Series. Immunotherapy of AIDS lymphoma. October 29, 1997.
5. Departmental Seminars in Pathology Program. Insights into the pathogenesis of immunodeficiency related lymphomas. November 3, 1997.
6. Division of Hematology/Oncology Fellow Lecture Series. Basics of Molecular Biology. November 10, 1997.
7. Division of Immunology Seminar Series. Clues to the pathogenesis and treatment of AIDS lymphoma. November 24, 1997.
8. Medical Scientist Student Organization. Careers for Medical Scientists. December 12, 1997.
9. Division of Allergy/Immunology/Rheumatology Conference. IL-15, a potential player in the innate immunity response. December 19, 1997.
10. The Ohio State University Winter College. Invited Guest. Sarasota, Florida. March 5,6, 1998.
11. The Ohio State University in California. Invited Guest. Los Angeles, California. March 10-13, 1998.
12. Division of Veterinary Biosciences Research Seminar. Clues to the pathogenesis and treatment of immunodeficiency lymphomas. April 21, 1998.
13. Division of Surgery Medical Grand Rounds. Clues toward the pathogenesis and treatment of posttransplant lymphoproliferative disease (PTLD). April 30, 1998.
14. Clinical Cancer Genetics Honors Program. The genetics of leukemia/lymphoma. May 20, 1998.
15. Department of Medical Biochemistry. The innate immune response-cytokines and signaling. June 3, 1998.
16. Division of Surgery Medical Grand Rounds. Acute leukemia. June 12, 1998
17. Department of Medicine: Medical Grand Rounds. Immunodeficiency and cancer: Lessons learned from mother nature. June 25, 1998
18. Immunobiology 701. Hematopoietic cell differentiation. September 25, 1998
19. Department of Transplant. Experimental and Clinical PTLD. September 30, 1998
20. Department of Transplant. Experimental and Clinical PTLD. January 27, 1999

**Lectures-The Ohio State University:**

21. Department of Medicine. Morning Report. April 22, 1999
22. Department of Pathology: Immunology Series. Role of IL-15 and NK Cell Development. May 18, 1999
23. Department of Medicine. Housestaff Lecture. Acute leukemia. July 7, 1999
24. Heart & Lung Institute. The biology of interleukin 15. September 8, 1999
25. Immunobiology 701. Hematopoietic cell differentiation. September 27, 1999
26. Department of Medicine: Noon Conference. Bridging The Gap. November 5, 1999
27. Division of Hematology/Oncology Fellow Lecture Series. Basics of Molecular Biology. November 22, 1999

**Local-Western New York:**

1. Medical Grand Rounds. WCA Hospital, Jamestown NY. Bone marrow transplantation. June 8, 1990.
2. Medical Grand Rounds. Sisters of Charity Hospital, Buffalo, NY. Bone marrow transplantation. September 18, 1990.
3. Medical Grand Rounds. S.U.N.Y. at Buffalo School of Medicine, Buffalo, NY. Hematopoietic growth factors & bone marrow transplantation. October 6, 1990.
4. Central New York Academy of Medicine. The Tenth Biannual Lemuel Bowden Cancer Teaching Day. Bone Marrow Transplants in Leukemias and Lymphoma. May 16, 1991.
5. Mercy Hospital of Buffalo, NY. Medical Staff Seminar. Bone marrow transplant: an update. May 23, 1991.
6. Children's Hospital/Department of Allergy and Immunology Seminar. Biotherapy of cancer. April 12, 1993.
7. Medical Grand Rounds. Sisters Hospital. Biotherapy and cancer. February 15, 1994.
8. Medical Grand Rounds. S.U.N.Y. at Buffalo School of Medicine, Buffalo, NY. Department of Medicine. Pathogenesis and treatment of AIDS lymphoma. September 1994.
9. Core Lecture Series and Immunology Reviews. The Children's Hospital of Buffalo. Clues to pathogenesis & treatment of AIDS lymphoma-SCID mouse model. January 22, 1996.
10. Interviewed for Leukemia Society Cure 2000 Telethon. WBEN TV, Buffalo, NY. March 11, 1996.
11. Leukemia Society of America. Update on Research. June 20, 1996.
12. The Third Annual Cancer Survivor Day. Recent breakthroughs in cancer research. September 30, 1996.

Lectures at RPCI and S.U.N.Y./Buffalo:

1990-	University of Buffalo Medical School. Microbiology 600 (Immunology) Medical School Course. Bone Marrow Transplantation.
1990-	Natural Sciences Seminar, Roswell Park Graduate School. Bone Marrow Transplantation.
1990-	Oncology for Scientists, Roswell Park Graduate School. Biologic Response Modifiers.
1990-	Microbiology and Immunology Course 501: Natural Killer Cells and the Immune Response.
1990-	Microbiology and Immunology Course 502: 1) Hematopoiesis 2) Cytokines 3) Clinical Applications of Cytokines.
1990-1994	Gannon University Physician Assistant Program: Introduction to Oncology.
1991-	Surgical Grand Rounds, RPCI. Cancer and Immunotherapy.
1992-	Biochemistry 551. Biochemistry of Hormones. Hematopoietic Growth Hormones.
1992-	Pharmacology 551. Principles of Cancer Chemotherapy. Clinical Applications of Immunotherapy.
1994-	Millard Fillmore Medical Housestaff Teaching Rounds: Bone Marrow Transplantation.
1995 -	Medical Technology 540. Immune Modulation by Cytokines.
11/21/96	Cancer Chemotherapy Program: Principles of Chemotherapy
2/7/96	Division of Medicine Staff Conference: Clues Toward Understanding the Pathogenesis and Treatment of EBV-Associated Lymphoma.
2/5/96	Research Conference of the Department of Medicine, SUNY-Buffalo. Interleukin 15 and the Innate Immune Response.
1/29/96	Nurse Orientation Roswell Park Cancer Institute: Chemotherapy.
1/24/96	Interdisciplinary Vascular & Metabolic Research Group, SUNY-Buffalo. The Rationale for the use of IL-2 in the Treatment of AIDS Lymphoma.
7/29/95	MD/PhD Research Day: Choice of Residency.
11/28/95	Seminar Series of the Departments of Molecular Immunology and Molecular Medicine: The Role of IL 15 in the Genesis of Human NK Cells.
5/15/95	Third Year Selective Overview of Clinical Oncology: Translational Research.
1990, 1993	Millard Fillmore Medical Housestaff Teaching Rounds: Oncogenes and The Hematopoietic Growth Factors; Bone Marrow Transplantation.
10/4/93	Nurse Orientation: Immunotherapy.

**Lectures at RPCI and S.U.N.Y./Buffalo:**

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| 1/8/93     | Nurse Orientation: Hematopoietic Growth Factors.   |
| 1/11/93    | Nurse Orientation: The Cell Cycle and Classes of Chemotherapy Agents.                              |
| 9/14/92    | Nurse Orientation: The HLA System.   |
| 2/22/94    | Nurse Orientation: The Leukemias.  |
| 9/14/92    | Nurse Orientation: Hematopoietic Growth Factors.   |
| 5/6/92     | Nurse Recognition Week: Management of Hodgkin's Disease.   |
| 5/30-31/91 | Oncology Nursing Update on BMT: RPCI. Growth Factors and GVHD in BMT                               |
| 5/28/91    | S.U.N.Y. Dermatology Grand Rounds. Swift Auditorium, Buffalo General Hospital. Oncogenes, Part II. |
| 10/23/90   | S.U.N.Y. Dermatology Grand Rounds. Swift Auditorium, Buffalo General Hospital. Oncogenes, Part I.  |
| 10/22/90   | Biophysics Seminar, Roswell Park Cancer Institute. The IL-2 Receptor: Biophysical Considerations.  |
| 1990       | Co-Chairperson, Oncology Seminar Series, RPCI. BMT: An Update.                                     |