

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Richard Ambinder	POSITION TITLE Professor of Oncology		
eRA COMMONS USER NAME (credential, e.g., agency login) rambind1			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
Harvard College, Cambridge, MA	B.A.	05/1975	Biochemistry
Johns Hopkins, Baltimore, MD	M.D.	05/1979	Medicine
Johns Hopkins, Baltimore, MD	Ph.D.	05/1989	Pharmacology

A. Personal Statement

I lead the Division of Hematologic Malignancies at Johns Hopkins. My special clinical interests are lymphoma and Kaposi's sarcoma. I have been involved with single institution and cooperative group studies of the treatment of AIDS lymphoma and Kaposi's sarcoma for more than 20 years. My laboratory investigation is focused on EBV and KSHV and associated malignancies. Early in my career my work focused on defining the viral association of Hodgkin's lymphoma and AIDS primary central nervous system lymphoma. Studies defining patterns of viral gene expression in these malignancies followed. Recently, we have developed a novel approach to the imaging and treatment of EBV associated malignancies. Research Component 2 is focused on developing that approach to treat Kaposi's sarcoma. The approach grew out of investigation of the effects of pharmacologic agents on viral gene expression. With Marty Pomper, we developed an imaging and therapeutic approach. In Research Component 2, I will oversee the development and implementation of the clinical protocols and the associated correlative laboratory investigations.

B. Positions and Honors

Positions and Employment

1979-81	Resident, Medicine, The Johns Hopkins Hospital
1981-82	Fellow, Medicine, The Johns Hopkins Hospital
1982-84	Fellow, Oncology, The Johns Hopkins University School of Medicine
1985-90	Physician Scientist Award (NIH K11)
1989-93	Assistant Professor of Oncology, The Johns Hopkins University School of Medicine
1993-98	Associate Professor of Oncology, The Johns Hopkins University School of Medicine
1994-99	Scholar, Leukemia Society of America
1995	Chair, AIDS Malignancy Consortium Laboratory Committee
1998-99	Stohlman Scholar, Leukemia Society of America
1997	Visiting Professor, Chinese University of Hong Kong
1999	Professor, Oncology, Johns Hopkins School of Medicine
1999	Eastern Cooperative Oncology Group (ECOG) Lymphoma Core Committee
2000	Division Director, Hematologic Malignancies, Department of Oncology
2001	Basic Sciences Teaching Award, Johns Hopkins Oncology Center
2001	James B. Murphy Professorship of Oncology
2002	Director Johns Hopkins Lymphoma SPORE
2002	Fellow of the American Association for the Advancement of Science
2007	NCCN Hodgkin's Committee
2009	Clinical Sciences Teaching Award, Johns Hopkins Oncology Center

C. Selected Peer-reviewed Publications

Most relevant to the current application

1. Wu T-C, Mann RB, Charache P, Hayward SD, Staal S, Lambe BC, and Ambinder RF. Detection of EBV Gene Expression in Reed-Sternberg Cells of Hodgkin's Disease. *Int J Cancer* 1990;46:801-804.

2. MacMahon EME, Glass JD, Hayward SD, Mann RB, Becker PS, Charache P, McArthur JC, and Ambinder RF. Epstein-Barr Virus in AIDS-Related Primary Central Nervous System Lymphoma. *Lancet* 1991, 338:969-973.
3. Yang J, Lemas VM, Flinn IW, Krone C, Ambinder RF. Application of the ELISPOT Assay to the Characterization of CD8+ Responses to Epstein-Barr Virus Antigens. *Blood* 2000;95:241-248.
4. Cannon JS, Ciuffo D, Hawkins AL, Griffin CA, Borowitz MJ, Hayward GS and Ambinder RF. A New Primary Effusion Lymphoma - Derived Cell Line Yields Highly Infectious Kaposi's Sarcoma Herpesvirus Supernatant. *J Virol*, 2000;74:10187-10193.
5. Yang J, Tao Q, Flinn IW, Murray PG, Post LE, Ma H, Piantadosi S, Caligiuri MA, Ambinder RF. Characterization of Epstein Barr Virus-infected B Cells in Patients with Posttransplantation Lymphoproliferative Disease: Disappearance after Rituximab Therapy does not Predict Clinical Response. *Blood*, 2000;96:4055-4063.
6. Moore SM, Cannon JS, Tanhehco YC, Hamzeh FM, Ambinder RF. Induction of Epstein-Barr Virus Kinases to Sensitize Tumor Cells to Nucleoside Analogues. *Antimicrob Agents Chemother.* 2001; 45:2082-2091.
7. Glaser SL, Clarke CA, Gulley ML, Craig FE, DiGiuseppe JA, Dorfman RF, Mann RB, Ambinder RF. Population-Based Patterns of Human Immunodeficiency Virus-Related Hodgkin Lymphoma in the Greater San Francisco Bay Area. *Cancer*, 2003;98:300-309.
8. Chan AT, Tao Q, Robertson KD, Flinn IW, Mann RB, Klencke B, Kwan WH, Leung TW, Johnson PJ, Ambinder RF. Azacitidine Induces Demethylation of the Epstein-Barr Virus Genome in Tumors in Patients. *J Clin Oncol*: 2004;22:1373-81.
9. Glaser SL, Keegan THM, Clarke CA, Trinh M, Dorfman RF, Mann RB, DiGiuseppe JA, Ambinder RF. Exposure to Childhood Infections and Risk of Epstein-Barr Virus-Defined Hodgkin's Lymphoma in Women. *Int J Cancer* 2005;115:599-605.
10. Keegan TH, Glaser SL, Clarke CA, Gulley ML, Craig FE, DiGiuseppe JA, Dorfman RF, Mann RB, Ambinder RF. Epstein-Barr Virus as a Marker of Survival after Hodgkin's Lymphoma: a Population-Based Study. *J Clin Oncol*. 2005; 23:7604-13.
11. Fu D X, Tanhehco YC, Chen J, Foss CA, Fox JJ, Lemas V, Chong JM, Ambinder R F, Pomper MG. Virus-Associated Tumor Imaging by Induction of Viral Gene Expression. *Clin Cancer Res*. 2007;13:1453-8.
12. Glaser SL, Gully ML, Clarke CA, Keegan TH, Chang ET, Shema SJ, Craig FE, DiGiuseppe JA, Dorfman RF, Mann RB, Culver HA, Coszen W, Ambinder, RF. Racial/Ethnic Variation in EBV-Positive Classical Hodgkin Lymphoma in California Populations. *Int J Cancer*. 2008;123:1499-1507. PMID2775059.
13. Fu D, Tanhehco Y, Chen J, Foss CA, Fos JF, Chong J, Hobbs RF, Fukayama M, Sgouros G, Kowalski J, Pomper MG, Ambinder RF. Bortezomib-Induced Enzyme-Targeted Radiotherapy in Herpesvirus-Associated Tumors. *Nat Med*. 2008;14:1118-22 PMID2709824.
14. Jones RJ, Gocke CD, Kasamon YL, Miller CB, Perkins B, Barber JP, Vala MS, Gerber JM, Gellert LL, Siedner M, Lemas MV, Brennan S, Ambinder RF, Matsui W. Circulating Clonotypic B Cells in Classical Hodgkin's Lymphoma. *Blood* . 2009; 113:5920-6. PMID2700327.
15. Lin L, Lee JY, Kaplan LD, Dezube BJ, Noy A, Krown SE, Levine AM, Yu Y, Hayward GS, Ambinder RF. Effects of Chemotherapy in AIDS-Associated Non-Hodgkin's Lymphoma on KSHV DNA in Blood. *J Clin Oncol*. 2009; 27:2496-502. PMID2684854.

D. Research Support

Ongoing Research Projects

2P50CA103175 (Bhujwalla) 09/22/11-07/31/16
 NIH/NCI
 JHU ICMIC Program - Project 2 – BETR Theranostics for AIDS Kaposi's Sarcoma

U01CA121947 (Mitsuyasu) 08/01/07–08/31/15
 AIDS Malignancy Consortium
 EMMES Corporation
 NCI funded cooperative trials group that studies the treatment of AIDS malignancies.

R01CA138636 (Pomper, Ambinder) 04/01/10-02/28/14
NCI
Bortezomib-Induced Enzyme Targeted Radiation Therapy
The goal of this project is to develop enzyme targeted radiation therapy for lymphoma.

P01CA15396 (Jones) 12/01/95-02/28/13
NCI
Bone Marrow Transplantation in Human Disease. Project 3 – Hodgkin's Lymphoma Stem Cells
The major goal of this project is to characterize Hodgkin's Stem Cells and target for therapy.

P01CA015396-34S1 09/30/09-09/29/12
NCI
Bone Marrow Transplantation in Human Disease. Supplement to Project 3
The major goal of this project is to evaluate a novel imaging method for EBV-associated tumors.

90043597 06/15/10-06/14/12
NMDP
A Multi-Center, Phase II trial Evaluating High Dose Chemotherapy in HIV patients.

R01 CA138636 (Pomper/Ambinder) 04/01/10-02/28/14
NIH/NCI
BETR Therapy for Herpesvirus-associated Tumors
Investigation in a clinical trial of bortezomib-activated therapy in EBV lymphoma.

Completed Projects Within Last Three Years

P01CA1539627 (Jones) 04/01/07-03/31/12
NCI
Bone Marrow Transplantation in Human Disease
Project 3 – Hodgkin's Lymphoma Stem Cells
The major goal of this project is to characterize Hodgkin's Stem Cells and target for therapy.

P30CA006973 (Nelson) 05/07/97-04/30/12
NCI
Core grant for Johns Hopkins Oncology Center

P01 CA113239 (Hayward) 04/03/06-01/31/11
NCI
The Role of KSHV in AIDS Malignancies
This is a program project focused on KSHV associated malignancies.

U01CA121947-AIDS Malignancy Consortium (Mitsuysu) 08/01/07-07/31/11
NCI
Cooperative trials group that studies the treatment of AIDS malignancies

P30CA006973 (Nelson) 05/07/97-04/30/11
NCI
Core grant for Johns Hopkins Oncology Center

RC2CA148402 (Hayward/Desai) 09/30/09-08/31/11
NCI
Generation and Evaluation of KSHV VLPs as Vaccines
This project is to both develop a DNA-free VLP-based preventative vaccine for KSHV/KS, and to develop a revolutionizing high-throughput global proteome approach to measuring viral antibody and neutralization

responses in KSHV-positive patients with and without KS, as well as the responses induced by VLP vaccination.

P01CA015396-34S1 (Jones)

09/30/09-09/29/11

NCI

Bone Marrow Transplantation in Human Disease. Supplement to Project 3

The major goal of this project is to image EBV-associated tumors.

P50CA96888 (Ambinder)

09/20/02-06/30/10

NCI

Johns Hopkins SPORE in Lymphoma

Project 1: EBV and Hodgkin's Disease (Ambinder)

This project is focused on the use of immunotherapy for the treatment of Hodgkin's disease.

Role: Basic science PI

Project 2: Epidemiology of Lymphoma in HIV-infected Populations (Martinez-Mazza/Ambinder)

This project is focused on characterizing risk factors for and preventing B cell lymphoma in HIV patients.