

CURRICULUM VITAE

I. General Information

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Name: Margaret A. Shipp
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Place of Birth: Houston, Texas

Education:

1975 B.A. Southern Methodist University, Dallas, Texas
1979 M.D. Washington University School of Medicine, St. Louis, Missouri

Postdoctoral Training:

Internship and Residency:

1979 – 80 Intern in Medicine, Barnes Hospital, St. Louis, Missouri
1980 – 81 Junior Assistant Resident, Internal Medicine, Barnes Hospital
1981 – 82 Senior Assistant Resident, Internal Medicine, Barnes Hospital

Research and Clinical Fellowships:

1982 – 83 Research Fellow in Immunology,
Washington University School of Medicine
1983 – 86 Clinical Fellow in Medicine, Harvard Medical School, Boston
1983 – 86 Fellow in Medical Oncology, Dana-Farber Cancer Institute, Boston
1983 – 86 Clinical Fellow in Medicine, Brigham and Women's Hospital, Boston

Licensure and Certification:

1981 Missouri Board of Medicine License Registration
1983 Massachusetts Board of Medicine License Registration
1983 American Board of Internal Medicine Certificate
1986 American Board of Internal Medicine, Medical Oncology Certificate

Academic Appointments:

1986 – 88 Instructor in Medicine, Harvard Medical School
1988 – 94 Assistant Professor of Medicine, Harvard Medical School
1994 – 2006 Associate Professor of Medicine, Harvard Medical School
2007 – Professor of Medicine, Harvard Medical School
2013 – Associate Member, Broad Institute

Hospital Appointments:

1986 – 88	Clinical Associate in Medicine, Dana-Farber Cancer Institute
1986 –	Associate Physician, Brigham and Women's Hospital
1988 – 92	Assistant Physician, Dana-Farber Cancer Institute
1992 – 94	Assistant Professor of Medicine, Dana-Farber Cancer Institute
1994 – 2006	Associate Professor of Medicine, Dana-Farber Cancer Institute
2007 –	Professor of Medicine, Dana-Farber Cancer Institute

Hospital and Health Care Organization Service Responsibilities:

1988 –	Attending Physician, Dana-Farber Cancer Institute
1996 – 98	Chairperson, Lymphoma Subcommittee, Hematologic Oncology Program, DFCI/Partners Cancer Care
1997 –	Attending Physician, Bone Marrow Transplant Service, Dana-Farber/Brigham and Women's Hospital
1999 – 2005	Director, Lymphoma Program, Dana-Farber/Harvard Comprehensive Cancer Center
2005 –	Director, Lymphoma and Myeloma Program, Dana-Farber/Harvard Comprehensive Center
2010 –	Chief, Division of Hematologic Neoplasia, Department of Medical Oncology

Major Committee Assignments:

Dana-Farber Cancer Institute (DFCI):

1987 – 97	Scientific Review Committee, Member, DFCI
1989 – 95	Medical Oncology Fellowship Selection Committee, Member, DFCI
1989 – 90	Biomedical Research Study Grant Committee, Ad Hoc Member, DFCI
1990 – 94	Biomedical Research Study Grant Committee, Member, DFCI
1993 – 96	Scientific Advisory Committee, Women's Cancer Initiative, Member, DFCI
1994 – 95	Clinical Council, Member, DFCI
1995 – 97	Thoracic Oncology Program Steering Committee, Member, DFCI
1995 – 96	JCAHO (Joint Commission on Accreditation of Healthcare Organizations) Steering Committee, Chairperson, DFCI
1999 – 2005	Faculty Research Council, Member, DFCI
2003 – 04	Search Committee for Lymphoma/Myeloma Junior Faculty Recruit, Hematologic Neoplasia Division, Co-chairperson, DFCI
2006 –	Center for Molecular Pathology Oversight Committee, Member, DFCI
2006 –	Center for Cancer Genome Discovery Oversight Committee, Member, DFCI
2006 – 08	Committee on the Status of Women Faculty, Member, DFCI
2007	Dana-Farber Leadership Institute
2008 – 09	Search Committee for Chairman, Department of Biostatistics, Member, DFCI
2008 – 12	Committee on Women Faculty, Member, DFCI
2011 –	Promotions Committee, Member, DFCI
2012 – 13	Search Committee for new faculty member, Hematologic Neoplasia Division, Chairman, DFCI
2012 – 13	Search Committee for new faculty member, Molecular and Cellular Oncology, Member, DFCI
2013 – 14	Search Committee for new Senior Vice President of Research, Member, DFCI
2013 –	Executive Committee for Clinical Research, Member, DFCI
2013 –	Joint Center for Cancer Precision Medicine, Member of leadership team, DFCI/BWH/Children's Hospital
2013 –	Center for Cancer Computational Biology Oversight Committee, Chairman, DFCI
2013 – 14	Search Committee for Chief of Radiation Oncology, Brigham and Women's Hospital and DFCI, Member, DFCI
2013 – 14	Search Committee for new faculty member, Hematologic Neoplasia Division, Chairman, DFCI
2013 – 15	Search Committee for Nancy Lurie Marks Professor of Imaging, Member, DFCI

2014 Search Committee for Chief of Psychosocial Oncology, Brigham and Women's Hospital and DFCI, Member, DFCI
 2014 – Executive Committee for Research, Member, DFCI
 2015 – 16 Search Committee for Chair of Pediatric Oncology, Dana-Farber Cancer Institute, Member, DFCI
 2016 – Search Committee for Chief Research Business Development Officer, Dana-Farber Cancer Institute, Member, DFCI

Harvard Medical School:

1995 – 2000 Hematology/Oncology Fellowship Selection Committee, Member, DFCI/Partners Cancer Care
 1996 Hematology/Oncology Fellowship Mentoring Advisory Committee, Member, DFCI/Partners Cancer Care
 1996 – 98 Lymphoma Subcommittee, Hematologic Malignancies Steering Committee, Chairperson, DFCI/Partners Cancer Care
 1999 – Lymphoma Program, Director, Dana-Farber/Harvard Comprehensive Cancer Center
 1999 – 03 50th Anniversary Fellowship Selection Committee, Member, Harvard Medical School
 2000 – 04 Women's Faculty Mentoring Program, Member, Harvard Medical School
 2006 SPORE (Specialized Program of Research Excellence) Review Committee, Dana-Farber Harvard Comprehensive Cancer Center
 2007 – 11 Standing Committee on Promotions, Reappointment and Appointments, Harvard Medical School
 2009 – 10 Task Force on Faculty Development and Diversity, Harvard Medical School
 2011 – 15 Steering Committee, Clinical Investigator Training Program (Harvard)
 2012 – 13 Search Committee for Division Chief, Hematologic Malignancies, Massachusetts General Hospital, Member
 2012 – 15 Search Committee for Division Chief, Medical Oncology, Beth Israel-Deaconess Medical Center, Member
 2015 – Cancer Immunology Program, Member, Dana-Farber/Harvard Comprehensive Cancer Center

National:

1992 – 94 Hematology Subcommittee, Medical Knowledge Self-Assessment Program, Member, American College of Physicians
 1993 – 99 Lymphoma Core Committee, Member, Cancer and Leukemia Group B
 1993 – 96 Awards Selection Committee, Member, American Society of Clinical Oncology (ASCO)
 1995 – 96 Lymphoma Subcommittee, Program Committee, Member, ASCO
 1995 – 98 Finance Committee, Member, American Association for Cancer Research (AACR)
 1995 – 98 Clinical Cancer Research Committee, Member, AACR
 1996 – 97 Lymphoma Subcommittee, Program Committee, Chairperson, ASCO
 1996 – 99 Lymphoma Committee, Chairperson, National Cancer Center Network (NCCN)
 1997 – 98 Program Committee, Chairperson, ASCO
 1998 Rosenthal Award Selection Committee, Member, AACR
 1998 – 2000 Pathology B Study Section, Ad Hoc Reviewer, National Institutes of Health
 1999 – 2001 Leukemia and Lymphoma Correlative Sciences Committee, Member, Cancer and Leukemia Group B
 1999 Burchenal AACR Clinical Research Award Selection Committee, Chairperson, AACR
 1999 – 2010 Medical and Scientific Affairs Committee, Member, Leukemia and Lymphoma Society of America
 2000 Leukemia, Lymphoma and Myeloma Progress Review Group (PRG), Member, National Cancer Institute
 2000 – 01 Pathology B Study Section, Member, National Institutes of Health
 2001 – 02 Scientific Advisory Board, Member, Cure For Lymphoma
 2001 – 07 Scientific Advisory Board, Member, Lymphoma Research Foundation

2001 – 05 National Committee, Trustee, Leukemia and Lymphoma Society of America
 2001 – 04 Scientific Committee on Lymphocyte Biology, Member, American Society of Hematology (ASH)
 2002 – 05 Translational Research Award Study Section, Member, Leukemia and Lymphoma Society of America
 2004 External Advisory Board for the Hematologic Malignancies Division of the Sidney Kimmel Cancer Center, Member, Johns Hopkins Medical School
 2004 – External Advisory Board for the Lymphoma Division, Member, University of Texas MD Anderson Cancer Center
 2004 Scientific Committee on Lymphocyte Biology, Chairperson, ASH
 2004 – 07 Education Committee, Member, ASCO
 2006 – 2010 The Leukemia and Lymphoma Society Research Foundation, Foundation Medical Advisor, The Leukemia and Lymphoma Society
 2007 – 2010 Medical and Scientific Affairs Committee, Vice-Chair, The Leukemia and Lymphoma Society
 2007 ASH/AACR Think Tank on Hematologic Malignancies, Member, ASH and AACR
 2008 – 2011 Board of Directors, Member, American Association for Cancer Research (AACR)
 2008 – 09 Langdon AACR Translational Research Award Selection Committee, Chairperson, AACR
 2008 – 12 Awards Committee, Member, ASH
 2012 – Councilor and Executive Committee member, ASH
 2014 – The Lymphoma Research Foundation Scientific Advisory Board, Member
 2014 – Nominations Committee, Member, ASH
 2014 – Grant Oversight Committee, LRF

International:

1991 – 93 International NHL Prognostic Factors Project, Co-chairperson
 1992 – 93 B-cell Subcommittee, Member, Leukocyte Differentiation Antigen Workshop
 1996 Clinical Advisory Committee, Member, World Health Organization Hematologic Malignancies Classification Project
 1998 International Consensus Conference on High Dose Therapy with Hematopoietic Stem Cell Transplantation in Diffuse Large Cell Lymphoma, President of Jury, hosted by the Group for the Study of Aggressive Lymphomas (GELA, Lyon, France)
 1998 – 2011 Advisory Committee, Member, International Follicular Lymphoma Prognostic Factors Project
 1997 Advisory Committee, Member, Non-Hodgkin's Lymphomas II: International Symposium (hosted by the German Aggressive Lymphoma Study Group)
 1999 – Scientific Advisory Committee, Member, International Conference on Malignant Lymphoma, Lugano, Switzerland
 2004-2008 Advisory Committee, Member, The Lunenberg Lymphoma Biomarker Consortium
 2007 Clinical Advisory Committee for the WHO Classification of Lymphoid Neoplasms, Member, World Health Organization
 2009 – Steering Committee of the 8th International Symposium on Hodgkin Lymphoma, Member, hosted by the German Hodgkin Study Group

Memberships in Professional Societies:

1991 – American Society of Hematology (ASH), Member
 1991 – American Society of Clinical Oncology (ASCO), Member
 1993 – American Association for Cancer Research (AACR), Member
 1996 – American Society for Clinical Investigation (ASCI), Member
 2005 – Association of American Physicians (AAP), Member
 2008 – Interurban Clinical Club
 2015- Society for Immunotherapy of Cancer (SITC), Member

Editorial Boards:

1993 – 97	Guest Editor for Cancer Biology, Journal of Clinical Investigation
1993 – 98	Consulting Editor, Journal of Clinical Investigation
1998 – 2001	Editorial Board, Annals of Internal Medicine
1998 – 2003	Editorial Board, Clinical Cancer Research
2002 – 2012	Editorial Board, Blood
2011–	Editorial Board, Cancer Discovery

Awards and Honors:

1979	Alpha Omega Alpha
1985	Clinical Investigator Award, National Institutes of Health
1991	American Cancer Society, Junior Faculty Award
1995	Leukemia Society of America - Scholar
1996	American Society of Clinical Investigation (ASCI)
2000	Leukemia Society of America - Stohlman Scholar
2001	Doris Duke Distinguished Clinical Scientist Award
2005	Association of American Physicians (AAP)
2007	Distinguished Woman in Medicine and Science, Northwestern University School of Medicine
2007	Honorary Master of Arts degree, Harvard University
2007	Distinguished Medal, XXII Congress of the Polish Society of Hematology and Transfusion Medicine
2008	Interurban Clinical Club
2010	Leloir Prize of International Cooperation in Science, Technology and Innovation, Nacional de Relaciones Internacionales, Argentina
2011	Claire W. and Richard P. Morse Research Award, Dana-Farber Cancer Institute
2014	Institute of Medicine (IOM)

Part II: Research, Teaching, and Clinical Contributions

A. Narrative report:

Our clinical and basic research group focuses on the pathogenesis and treatment of aggressive B-cell lymphomas, particularly the most common lymphoid malignancy, diffuse large B-cell lymphoma (DLBCL). Eighteen years ago, our group was one of the first to use clinical criteria to identify patients with DLBCL who were unlikely to be cured with current therapy. Thereafter, I led an international effort to identify highly reproducible clinical prognostic factors in patients with aggressive lymphoma (primarily DLBCL) and develop a model to predict patient outcome. Investigators from 16 major centers in the United States, Canada and Europe contributed data on over 3,000 patients to the International Prognostic Factors project and the subsequent development of the International Prognostic Index (IPI). The IPI is now used worldwide to assess the probability that a DLBCL patient will be cured with standard therapy or require more intensive, investigational treatment. In fact, most recent studies of risk-related therapy in DLBCL are based on IPI-defined patient subgroups. The IPI has also been widely applied to other lymphoid neoplasms.

Although the IPI has been extremely useful for the identification of high-risk patients with DLBCL, the model is based on clinical features that are likely surrogate markers for intrinsic cellular and molecular heterogeneity in this disease. For this reason, our laboratory is also characterizing molecular bases for the recognized clinical heterogeneity in DLBCL. Earlier studies focused on specific genes and pathways implicated in biology of normal and malignant lymphoid progenitors. For example, our group cloned and characterized one of the first lymphoid differentiation antigens associated with germinal center B-cells and a “good risk” subtype of DLBCL, CD10. We demonstrated that CD10 was a neutral endopeptide that regulated peptide-mediated signaling, stromal cell dependent lymphopoiesis and B-cell reconstitution and maturation *in vivo*.

Our group has identified and characterized additional novel risk-related genes and proteins in DLBCL, including the B-cell protein tyrosine phosphatase, PTPROt, which regulates spleen tyrosine kinase (SYK) activity, and the macro domain-containing protein, BAL, and its partner E3 ligase, BBAP. In addition, we have developed genome-wide approaches to define the unique molecular signatures of specific DLBCL subtypes and more rational therapeutic targets. Our pilot studies identified several signaling pathways associated with resistance to standard therapy and defined 2

pathway members, PKC β and PDE4B/cAMP, as candidate rational therapeutic targets in DLBCL. We performed a multicenter phase II trial of a PKC β inhibitor in relapsed/refractory DLBCL and demonstrated promising activity of the agent, including several long-term disease-free survivors.

We have comprehensively analyzed genetic abnormalities and transcriptional profiles of newly diagnosed large B-cell lymphomas (DLBCLs and primary mediastinal large B-cell lymphomas [MLBCLs]) to identify previously unrecognized subtypes of these tumors. The unique molecular signature of MLBCL, an unusual disease primarily affecting young women, revealed unanticipated links between MLBCL and classical Hodgkin lymphoma, including a shared survival pathway (NF κ B) and recurrent genetic alteration, 9p24 amplification with associated upregulation of the PD1 ligands and JAK2. The identification of genetically driven PD1 immune evasion and increased JAK/STAT activity led to the development of multicenter clinical trials of PD-1 blockade in MLBCL and classical Hodgkin lymphoma (cHL).

We recently reported the results of pilot study of PD-1 blockade (with nivolumab) in patients with multiply relapsed/refractory cHL. There was an 87% response rate and many responses were longlasting. These data led the FDA to confer breakthrough status for nivolumab in relapsed/refractory Hodgkin lymphoma. We have been instrumental in the development of the subsequent national /international registration trial and multiple additional trials of PD-1 blockade at earlier points in the therapy of cHL and a promising pilot study and subsequent national/international phase II trial of PD-1 blockade in relapsed/refractory MLBCL.

The shared molecular features of MLBCL and classical Hodgkin lymphoma (cHL) prompted us to further characterize additional immune evasion mechanisms in cHL in which small numbers of malignant Reed-Sternberg (RS) cells reside within an extensive inflammatory infiltrate. We found that HL cell lines and primary HLs overexpress galectin-1 (Gal1), a carbohydrate-binding lectin that selectively induces the apoptosis of cytotoxic T cells and Th1 cells, skews the balance toward a Th2-type cytokine profile and favors the expansion/retention of T_{reg} cells. These studies directly implicated RS cell Gal1 in the development and maintenance of immunosuppressive Th2/T_{reg}-skewed microenvironment in cHL. In recent collaborative studies, we also defined a role for Gal1 in VEGF-dependent tumor angiogenesis. Because Gal1 represents a novel therapeutic target for restoring immune surveillance in cHL and additional Gal1+ malignancies, we developed neutralizing Gal1 monoclonal antibodies that are slated for clinical development.

We previously utilized a large series of newly diagnosed DLBCLs, whole genome arrays, multiple clustering methods and gene set enrichment analysis to identify three discrete subsets of DLBCLs – “Oxidative Phosphorylation (OxPhos)”, B-cell Receptor/Proliferation (BCR)” and “Host Response” (HR). HR tumors, which were largely defined by their inflammatory/immune cell infiltrate, included DLBCLs defined as T-cell/histiocyte-rich large B-cell lymphomas (WHO Classification). Thereafter, we characterized pathogenetic mechanisms and associated rational therapeutic targets in the BCR and OxPhos DLBCLs. We found that BCR-type DLBCLs are reliant upon B-cell receptor signaling and uniquely sensitive to targeted inhibition of critical BCR survival pathway components such as spleen tyrosine kinase (SYK). These preclinical observations led to a multicenter phase I/II clinical trial of an oral SYK inhibitor in relapsed/refractory DLBCL and multiple additional studies of targeted inhibition of BCR signaling in DLBCL. In additional collaborative studies, we defined unique fuel utilization pathways in BCR DLBCLs, which primarily rely on aerobic glycolysis, and OxPhos DLBCLs, which largely depend upon fatty acid oxidation. OxPhos DLBCLs are selectively sensitive to targeted inhibition of fatty acid oxidation suggesting that the recently defined subtype-specific metabolic dependencies may lead to targeted approaches to treatment.

In more recent genetic analyses of DLBCL, we have comprehensively defined recurrent copy number alterations and the associated driver genes and identified an outcome-associated and targetable pattern of p53 and cell cycle deregulation in addition to recurrent somatic mutations.

B. Funding Information:

Previous:

1991 – 1994	American Cancer Society, ACS National Junior Faculty Research Award, “Neutral Proteases” (Research)	PI
1991 – 1995	National Institutes of Health, 5 R01 CA55095-03 “Neutral Proteases” (Research)	PI

1995 – 2000	Leukemia Society of America Scholar Award, LSA-1314-95 “Understanding and Exploiting the Biological Heterogeneity of Aggressive Non-Hodgkin's Lymphoma”(Research and clinical applications)	PI
1997 – 2000	Leukemia Society of America Translational Research Award, “Identification and Characterization of A Novel Protein Tyrosine Phosphatase in Diffuse Large B-cell Lymphomas” (Research and clinical applications)	PI
1996 – 2001	National Institutes of Health 1 PO1 CA66996-01A1 "Novel Therapeutic Strategies in Leukemia and Lymphoma", Project 6 “Understanding and Exploiting the Biological Heterogeneity of Aggressive Non-Hodgkin's Lymphoma” (Research and clinical applications)	Proj. Leader
1998 – 2003	National Institutes of Health 1 RO1 CA76286-01A1 "The Role of Stromelysin-3 in The Tumor Microenvironment" (Research)	PI
2000 – 2003	Leukemia and Lymphoma Society Translational Research Award, “Characterization of a Novel Risk-Related Protein in Diffuse Large B-cell Lymphoma” (Research and clinical applications)	PI
2001 – 2006	Doris Duke Distinguished Clinical Scientist Award “Development of Rational Risk-Related Therapy for Diffuse Large B-cell Lymphoma (Research and clinical applications)	PI
2001 – 2011	National Institutes of Health 1 PO1 CA092625-01 “Molecular Targets of Germinal Center B-cell Lymphomas”	PI
	Project 4, “Molecular Signatures of Outcome in Germinal Center B-cell Lymphomas”	Proj. Leader
	Administrative Core	Core Dir.
2007 – 2010	The Leukemia and Lymphoma Society Translational Research Award “Galectin1 as a Rational Treatment Target in Hodgkin Lymphoma”	PI
2011 – 2013	Merck Research Agreement “Targeted Inhibition of Spleen Tyrosine Kinase (SYK)”	PI
2011 – 2013	Nesvig Foundation/City of Hope collaboration “Mechanisms of Immune Escape”	Proj. Leader
2011 – 2013	Sanofi Aventis Research Agreement “Targeted JAK2 Inhibition in Classical Hodgkin Lymphoma and Primary Mediastinal Large B-cell Lymphoma”	PI
2011 – 2013	DFCI Accelerator Fund “Galectin 1 Blockade – Translation to the Clinic”	PI

2014 – 2015	Bayer Pharma AG “Preclinical Analysis of the PI3K inhibitor, Copanlisib, in Diffuse Large B-cell Lymphomas”	PI
Current:		
2000 – 2016	Dana-Farber/Harvard Comprehensive Cancer Center Grant, Lymphoma and Myeloma Program (Research, education and clinical applications)	Prog. Leader
2006 – 2016	The Leukemia and Lymphoma Society SCOR Grant “Pathogenetic Mechanisms and Therapeutic Targets in B-cell Lymphoma” (Research and clinical Applications)	F. Alt/Leader M. Shipp/Co-leader
	Project 3, “Immune Escape Pathways in Lymphoid Malignancies”	Proj. Leader
2011 – 2021	National Institutes of Health R01 CA161026 “Complementary Signaling Pathways in Hodgkin Lymphoma and Related Malignancies”	PI
2012 – 2016	Leukemia and Lymphoma Society LLS Translational Research Program “Targeting Genetically-driven p53 and Cell Cycle Deregulation in DLBCL”	PI
2013 – 2016	V Foundation Translational Research Award “Fueling DLBCL Proliferation and Survival: A Role for Fatty Acid Metabolism”	N. Daniel and M. Shipp/ Co-PIs
2014 –	Bristol-Myers Squibb Company Correlative Studies for Nivolumab Lymphoma Trials (CA209-039, CA209-139, CA209-140, CA209-205, CA209-32)	PI, S. Rodig Co-PI
2015 –	Broad Institute SPARC (Scientific Projects to Accelerate Research and Collaboration) Program, The Tissue Toolbox: An Analytical Platform for the Quantitative Analysis of the Immune Microenvironment of Classical Hodgkin Lymphoma Using Fixed Biopsy Specimens	PI, S. Rodig, A. Carpenter, D. Logan Co-PIs
Pending:		
	RTFCCR/LLS Patient-focused Immunotherapy Research Grant for Blood Cancer “Targetable Bases of Immune Evasion in Lymphomas of the Primary Central Nervous System and Testes”	PI

C. Report of Current Research Activities:

Laboratory Research:

Characterization of biologically discrete subsets of large B-cell lymphomas and Hodgkin lymphoma and identification of novel rational therapeutic targets using comprehensive molecular profiling and complementary *in vitro* and *in vivo* analyses including assessment of associated genetic abnormalities, PI

Analysis of the features regulating tumor immune escape in aggressive B-cell lymphomas and Hodgkin lymphomas, PI

Characterization of the roles of the BAL macro domain-containing proteins and partner E3 ligase, BBAP, in the DNA damage response and sensitivity to chemotherapy and radiation, PI

Clinical Research:

Development of informative clinical trials in which rational therapeutic targets are inhibited in patients with aggressive B-cell lymphomas

Development of informative clinical trials in modulating immune evasion pathways in aggressive B-cell lymphomas and Hodgkin lymphoma

D. Report of Teaching: (Only local teaching presentations since 2003 and additional invited presentations since 1998 are included here as prior records are unavailable.)

I. Local Contributions:

a. Local invited teaching presentations: 2003-present

2003	Lecturer, Update for DFCI Lymphoma Patients and Families – New Trials and Clinical Initiatives, ≈ 150 patients and families
2003	Lecturer, Brigham and Women’s Hospital Department of Medicine Grand Rounds, ≈ 250 medical students, residents, fellows, faculty
2003	Lecturer, Harvard Bone Marrow Transplant Conference, ≈ 100 fellows and faculty
2004	Lecturer, Massachusetts General Hospital Department of Medicine Clinical Pathology Conference, ≈ 150 medical students, residents, fellows, faculty
2004	Lecturer, Children’s Hospital Pediatric Oncology Rounds, ≈ 150 fellows and faculty
2004	Lecturer, Massachusetts General Hospital Lymphoma Conference, ≈ 30 fellows and faculty
2004	Guest Speaker, Massachusetts General Hospital Internal Medicine Residents Journal Club, ≈ 25 residents
2004	Lecturer, Harvard Bone Marrow Transplant Conference, ≈ 100 fellows and faculty
2005	Guest speaker, Dana-Farber Adult Oncology Fellows lecture series, ≈ 20 fellows
2005	Lecturer, Clinical Champions Series, Pasteur (Patient-associated Science: Training, Education, Understanding and Research) Program, Harvard Medical School, ≈ 40 medical students
2006	Guest speaker, Dana-Farber Adult Oncology Fellows New Patient Conference, ≈ 50 fellows and faculty
2007	Lecturer, Harvard Bone Marrow Transplant Conference, ≈ 100 fellows and faculty

- 2007 Lecturer, Clinical Investigator Training Program, ≈ 30 fellows
- 2007 Lecturer, Brigham and Women’s Hospital Clinical Pathology Conference,
≈ 75 fellows and faculty
- 2010- Lecturer, Harvard Medical School (HMS) MD/PhD Hematology Core Lecture
series, “Lymphoma”, ≈ 30 HMS students
- 2011 Lecturer, Harvard Bone Marrow Transplant Conference, ≈ 100 fellows and faculty
- 2011 Lecturer, Cancer Immunology Workshop, Brigham and Women’s Hospital –
Brigham Research Institute, “Immune Escape Mechanisms in Lymphoma”, ≈ 150
fellows and faculty
- 2011 Lecturer, DF/HCC Cancer Immunology Research Seminar, ≈ 100 fellows and faculty
- 2012 Lecturer, Update on the Management of Lymphomas and CLL, DFCI ≈ 60 community
physicians
- 2013 Lecturer, Harvard Bone Marrow Transplant Conference, ≈ 150 fellows and faculty
- 2013 Lecturer, Beth Israel Deaconess Medical Center, Dana-Farber Harvard Cancer Center
and Rambam Medical Center Co-sponsored Immunotherapy Symposium,
≈ 100 fellows and faculty

b. Continuing medical education:

1999 – 2002 Harvard Cancer Medicine and Hematology Course

1999 – 2001 Lecturer, “The Aggressive non-Hodgkin’s Lymphomas”

2002 Lecturer, “Biology of Lymphoid Malignancies,” ≈ 500 fellows and
local/regional hematologists/oncologists

c. Advisory and supervisory responsibilities:

Clinical:

1986 – 1997 Attending Physician, Medical Oncology service, Dana- Farber Cancer
Institute and Brigham and Women’s Hospital, 1 month/year, ≈ 3 house
officers, 1 fellow, ≈ 185 hours/year

1986 – Attending physician, Hematologic Malignancies Clinic, 1/2 day/week, ≈ 145
hours/year

1997 – Attending Physician, Bone Marrow Transplant Service B 1month/year, ≈ 2-
3 house officers, ≈ 185 hours/year

Laboratory:

1992 – Principal investigator, Hematologic Neoplasia Division, DFCI. Currently
supervise basic and translational research of 2 junior faculty members, 6
postdoctoral fellows, a PhD candidate, a staff research scientist and 2 research
assistants, 35 hours/week

Thesis Advisory Committee

2009 – 14	Suprawee Tepsuporn, Harvard Medical School 10 hours/year
2011– 14	Illana Stanley, Harvard Medical School 10 hours/year
2012	Nicole Cohen, Harvard Medical School 10 hours

Thesis Examination Committee

2011	Julia Carnevale, Harvard Medical School 10 hours
2012	Amar Kishan, Harvard Medical School 10 hours

d. Teaching/leadership role in department/affiliated medical institution:

1999 –	Director, Lymphoma Program, Dana-Farber/Harvard Cancer Center (DF/HCC). Organized the initial Lymphoma Program for the expanded Harvard-wide cancer center. The program includes over 40 investigators with demonstrated expertise in the epidemiology, biology, pathology and experimental therapy of lymphoid malignancies, from 8 Harvard institutions (Children’s Hospital, Beth Israel Deaconess Medical Center, Brigham and Women’s Hospital, Harvard School of Public Health, Dana-Farber Cancer Institute, Center for Blood Research, Harvard Medical School, Massachusetts General Hospital). As program director, I organized the first Harvard-wide PO1 in lymphoid malignancies, “Molecular Targets of Germinal Center B-cell Lymphomas.” PO1 investigators have already developed multiple informative murine models of germinal center lymphomas, characterized the molecular signatures of novel large cell lymphoma subtypes and credentialed several new rational therapeutic targets for clinical investigation. As DF/HCC Lymphoma Program Director, I also worked closely with affiliated hematopathologists, outcomes specialists, and clinical investigators to develop an extensive, annotated lymphoma tumor bank, a comprehensive outcomes database and a Harvard-wide lymphoma clinical trials network.
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e. Names of trainees:

Duration of Training	Name	Current Position
1990 – 1992	Gilles Salles, M.D.	Professor of Medicine Université Lyon Chair, Clinical Hematology Department of the Centre Hospitalier Lyon-Sud Chair, LYSA Cooperative Group Lyon, France
1991 – 1995	Fumihiko Ishimaru, M.D.	Physician Okayama Red Cross Blood Center Okayama, Japan
1992 – 1996	Ramesh Ganju, Ph.D.	Professor

		Scott Endowed Chair and Vice Chair Experimental Pathology The Ohio State University College of Medicine Columbus, OH
1993 – 2000	Ian C. Anderson, M.D.	Physician Medical Oncology St. Joseph Health Annadel Medical Group Santa Rosa, CA
1994 – 1997	Yoshihiro Yakushijin, M.D.	Professor Director of the Cancer Center Ehime University Hospital Ehime, Japan
1995 – 1998	Bernard Mari, Ph.D.	Research Director Centre National de La Recherche Scientifique, Institut de Pharmacologie Moleculaire et Cellulaire Physiological Genomics of the Eucaryote Sophia-Antipolis, France
1997 – 2005	Ricardo C.T. Aguiar, M.D., Ph.D.	Associate Professor of Medicine with tenure Hematology & Medical Oncology University of Texas San Antonio School of Medicine San Antonio, TX
1998 – 2000	Orion M. Howard, M.D.	Medical Director, Oncology Services Dartmouth-Hitchcock Putnam Physicians, Bennington, VT
1998 – 2004	Erxi Wu, Ph.D.	Assistant Professor Department of Pharmaceutical Sciences North Dakota State University Fargo, ND
1999 – 2003	Fengfei Wang, Ph.D.	Research Associate of Pharmaceutical Sciences North Dakota State University Fargo, ND
2000 – 2003	Kunihiko Takeyama, M.D., Ph.D. (see below)	Assistant Professor of Medicine, Division of Blood Transfusion/Transplant Immunology, Fukushima Medicine University, Fukushima, Japan
2000 – 2001	Thomas Lin, M.D.	Strategic Lead, Hematologic Malignancies Medical Affairs Janssen Philadelphia, PA

2001 – 2003	Kerry J. Savage, M.D.	Associate Professor of Medicine University of British Columbia British Columbia Cancer Agency Vancouver, British Columbia, Canada
2001 – 2005	Ann LaCasce, M.D.	Assistant Professor of Medicine Director of the Medical Oncology Fellowship Program Dana-Farber Cancer Institute Harvard Medical School Boston, MA
2002 – 2004	Peter G. Smith, Ph.D.	Vice President Target Biology H3 Biomedicine Cambridge, MA
2002 – 2004	Joydeep Mitra, Ph.D.	Faculty Member Department of Biotechnology West Bengal University of Technology Kolkata, India
2002 – 2005	Friedrich Feuerhake, M.D.	Associate Professor of Neuropathologie Institut für Pathologie Medizinische Hochschule Hannover Hannover, Germany
2003 – 2010	Przemyslaw Juszczynski, MD, PhD	Associate Professor Scientific Director of the Institute of Hematology and Transfusion Medicine Warsaw, Poland
2003 – 2006	Hidenobu Takahashi, M.D.	Attending Physician Sado General Hospital Division of Hematology Niigata University Graduate School of Medicine and Dental Sciences Niiga City, Japan
2004 – 2007	Jeremy Abramson, M.D.	Assistant Professor of Medicine Jo Ann Hagler Chair in Lymphoma Clinical Director, Center for Lymphoma Massachusetts General Hospital Harvard Medical School Boston, MA
2004 – Present	Linfeng Chen, Ph.D.	Research Scientist Dana-Farber Cancer Institute Harvard Medical School Boston, MA
2004 - Present	Qingsheng Yan, Ph.D	Research Associate in Medicine Dana-Farber Cancer Institute Harvard Medical School Boston, MA

2005 – Present	Jing Ouyang, Ph.D.	Research Scientist Dana-Farber Cancer Institute Harvard Medical School Boston, MA
2005 – 2009	Kunihiko Takeyama, M.D., Ph.D.	Vice President Head of Oncology Therapeutic Area Unit for Japan and Asia Takeda Pharmaceuticals Tokyo, Japan
2007 – 2008	Li (Linda) Yang, Ph.D.	Family leave of absence, China
2007 – 2008	Christian Robbel, M.D.	Physician Department of Hematology and Oncology University Hospital Goettingen, Goettingen, Germany
2007 – 2009	Erica Linden, M.D.	Physician Hematology/Oncology, Internal Medicine Mercer Bucks Hematology Oncology Pennington, NJ
2009 – 2011	Michael Green, PhD	Assistant Professor of Medicine Eppley Institute for Research in Cancer and Allied Diseases University of Nebraska Medical School Lincoln, NE
2008 – Present	Bjoern Chapuy, M.D., Ph.D.	Instructor in Medicine Dana-Farber Cancer Institute Harvard Medical School Boston, MA
2008 – Present	Yansheng Hao, Ph.D.	Research Fellow in Medicine Dana-Farber Cancer Institute Harvard Medical School Boston, MA
2012 – Present	Margaretha Roemer	PhD Candidate VU University/Dana-Farber Cancer Institute (joint program) Amsterdam, The Netherlands & Boston, MA
2012 – 2015	Hima Ramachandrareddy, PhD	Research Associate IGlobe Health Institute Norwood, MA
2014 – Present	Fathima Zumla Cader, MD, PhD	Research Fellow in Medicine Dana-Farber Cancer Institute Harvard Medical School Boston, MA
2015 – Present	Kamil Bojarczuk, PhD	Research Fellow in Medicine Dana-Farber Cancer Institute Harvard Medical School

Boston, MA

2016 – Present

Kirsty Wienand, PhD

Research Fellow in Medicine
Dana-Farber Cancer Institute
Harvard Medical School
Boston, MA

2. Regional, national and international contributions (1998 – Present) (Only invited presentations since 1998 are included here as prior records are unavailable.)

a. Invited presentations: 1998 - present

1) Medical or Hematology/Oncology Grand Rounds:

1998	Washington University School of Medicine, Barnes Hospital, St. Louis, MO
1998	National Cancer Institute, Medicine Branch, Bethesda, MD
1998	Lahey Clinic Hematology Oncology Division, Burlington, MA
1999	Yale University Cancer Center, New Haven, CT
1999	Columbia University Cancer Center, New York City, NY
2000	Thomas Jefferson Medical School, Philadelphia, PA
2000	Beth Israel-Deaconess Hospital, Boston, MA
2001	St. Elizabeth's Hospital, Boston, MA
2001	Boston University Medical Center, Boston, MA
2002	University of Chicago, Chicago, IL
2002	Mount Sinai Hospital, New York, NY
2002	Memorial Sloan-Kettering Cancer Center, New York, NY
2003	University of Massachusetts Medical School, Worcester, MA
2003	New York University Medical Center, New York, NY
2006	Sloan Kettering Cancer Center, New York, NY
2007	University of Minnesota Cancer Center, Minneapolis, MN
2010	Tufts Medical Cancer Center, Boston, MA
2012	Boston University Medical Center, Boston, MA
2014	Beth Israel Deaconess Medical Center, Boston, MA
2014	Memorial Sloan-Kettering Cancer Center, New York, NY
2015	Brigham and Women's Hospital, Boston, MA
2016	Beth Israel Deaconess Medical Center, Boston, MA

2016 Northwestern University, Chicago, IL

2) Plenary Presentations and Keynote Lectures:

- 2000 Hematology Annual Meeting, Plenary Session, “Diffuse Large B-cell Lymphoma Outcome Prediction by Gene Expression Profiling”, San Francisco, CA
- 2001 Group for the Study of Aggressive Lymphomas (GELA), Keynote lecture “Highlights of the American Society of Hematology 2000 Meeting”, Paris France
- 2001 Japanese Society for Lymphoreticular Tissue Research, Keynote Lecture, “Diffuse Large B-cell Lymphoma: Translating Clinical Risk Profiles into Molecular Signatures,” Akita, Japan
- 2002 Lecture, Hematology Society of Australia and New Zealand Annual Meeting, “Gene Expression Profiling in Diffuse Large B-cell Lymphoma: New Insights into Molecular Heterogeneity and Rational Treatment Targets”, Adelaide, Australia
- 2002 Joint Japanese Society of Hematology and Japanese Society of Clinical Hematology Annual Meeting, Keynote Lecture, “Outcome Prediction in DLBCL: The Role of Gene Expression Profiling”, Yokohama, Japan
- 2003 European Hematology Association Annual Meeting, Plenary Session, “Gene Expression Profiling: From Theory to Practice in Lymphoma”, Lyon, France
- 2004 American Society of Hematology, Clinical Research Training Institute, Keynote Lecture, “Reflections on a Career in Translational Research”, San Diego, CA
- 2005 American Society of Hematology Annual Meeting, Presidential Symposium, “Large B-cell Lymphomas: Molecular Heterogeneity and Rational Treatment Targets”, Atlanta, GA
- 2006 Third International Conference on Innovative Therapies for Lymphoid Malignancies, Keynote Lecture, “Molecular Heterogeneity and Rational Treatment Targets in Large B-Cell Lymphomas”, Palermo, Italy
- 2006 Tufts-New England Medical Center, Mary Miklos Chupp Lecture in Hematology/Oncology, “Molecular Heterogeneity of Large B-cell Lymphomas: Identification of Rational Treatment Targets”, Boston, MA
- 2007 Northwestern University School of Medicine Distinguished Women in Medicine and Science Lecture, 2007, “Rational Treatment Targets in Aggressive B-cell Lymphomas”, Chicago, IL
- 2007 XXII Congress of the Polish Society of Hematology and Transfusion Medicine, “Molecular Biology and Targeted Therapy in Lymphoma”, Warsaw, Poland
- 2007 Aggressive Lymphoma 2007 Symposium, Keynote Lecture, “Validation of Molecular Classifiers for Diagnosis and Treatment Selection – Study Designs”, Goettingen, Germany
- 2008 International Conference on Malignant Lymphoma 2008 Highlights, Keynote Lecture, “Molecular Heterogeneity, Survival Pathways and Rational Therapeutic Targets in Aggressive B-cell Lymphomas”, Paris, France
- 2009 54th Annual Meeting of the Argentine Society of Clinical Investigation and the 52nd

Meeting of the Argentine Society of Immunology, “Molecular Heterogeneity and Targeted Treatment of Lymphoid Malignancies: B-cell Receptor Signaling and SYK Inhibition in Diffuse Large B-cell Lymphoma”, Mar del Plata, Argentina

- 2010 72nd Annual Meeting of the Japanese Society of Hematology, “Comprehensive Genomic Analyses of Lymphoid Malignancies: Future Clinical Applications”, Yokohama, Japan
- 2012 Baruj Benacerraf Symposium, Cancer Immunology and Immunotherapy, “Immune Escape Mechanisms in Lymphoid Malignancies”, Boston, MA
- 2014 New Directions in Leukemia Research 2014, “Molecular Signatures and Targeted Therapy of Lymphomas”, Noosa, Queensland, Australia
- 2014 American Society of Hematology Annual Meeting, Presidential Symposium, “Molecular Bases of Immune Escape in Lymphoid Malignancies”, San Francisco, CA
- 2015 LYSA (The Lymphoma Study Association) Annual Meeting, Plenary presentation, “Genetic Bases of Immune Escape in Lymphoid Malignancies”, Bordeaux, France
- 2015 12th International Ultmann Chicago Lymphoma Symposium Scientific Keynote, “The Translational Path of PD-1 Therapy in Lymphoma”, Chicago, IL
- 2016 12th “Spring School on Immunology” German Society for Immunology, Keynote lecture, “Genetic Bases of Immune Evasion in Lymphoid Malignancies”, Ettal, Germany

3) Additional Invited Lectures:

- 1998 University of Kentucky meeting on "Emerging Trends in the Treatment of Lymphoma", Lexington, KY
- 1998 Toronto International Lymphoma Conference, “Predicting the Outcome in Lymphoma”, Toronto, Canada
- 1998 Non-Hodgkin's Lymphoma II - International Symposium, “Intensification and PBSCT”, Munich, Germany
- 1998 Lymphoma Think Tank (sponsored by the Lymphoma Research Foundation), Del Mar, CA
- 1998 American Society of Hematology Annual Meeting, Lymphoma Educational Session, Miami, FL
- 1999 Leukemia Society of America 50th Anniversary Celebration, Washington, D.C.
- 1999 International Conference on Malignant Lymphoma, Lugano, Switzerland
- 1999 Rituxan Investigator Meeting, “Update on Mantle Cell Lymphoma”, Seattle, WA
- 1999 Lymphoma Next Questions, “What are the Relevant Biologically-Based Prognostic Factors in Intermediate Grade Lymphoma?”, Palm Springs, CA
- 1999 American Society of Hematology, Meet the Expert: “Aggressive Non- Hodgkin’s Lymphomas: Biology and Therapy”, New Orleans, LA
- 2000 Lymphoma Think Tank, “Novel Risk-Related Genes in Aggressive Non-Hodgkin’s Lymphomas”, Atlanta, GA
- 2000 Cancer and Acute Leukemia Group B (CALGB) Correlative Sciences Core Meeting, “Immunophenotypic Signatures in DLBCL” , Chicago, IL

- 2000 Innovations in Lymphoma Research – Symposium In Honor of Joseph Bertino, Memorial Sloan-Kettering Cancer Center, “Clinical Prognostic Modeling and Dynamic Staging of Aggressive NHLs”, New York, NY
- 2000 Leukemia and Lymphoma Society of America (LLSA) Stohlman Scholar Symposium, “Diffuse Large B-cell Lymphoma – Translating Clinical Risk Profiles into Molecular Signatures”, Indianapolis, Ind.
- 2001 First International Lunenburg Lymphoma Workshop, “New Directions in Diffuse Large B-cell Lymphoma”, Lunenburg, The Netherlands
- 2002 American Association of Cancer Research (AACR) Annual Meeting, Special Symposium, “New Approaches to Molecular Diagnosis and Treatment”, San Francisco, CA
- 2002 American Society of Clinical Oncology (ASCO)/American Society of Hematology (ASH) Symposium (in conjunction with ASCO Annual Meeting), “Redefining the Therapy and Prognosis of Hematologic and Other Malignancies with Gene Array Technology”, Orlando, FL
- 2002 International Congress on Malignant Lymphoma, “Diffuse Large B-cell Lymphomas,” Lugano, Switzerland
- 2002 EMBL/EMBO Symposium, “Gene Expression Profiling in Diffuse Large B-cell Lymphoma: New Insights into Molecular Heterogeneity and Rational Treatment Targets”, Heidelberg, Germany
- 2002 Institute Pasteur and New England Journal of Medicine Joint Symposium – “Pharmacogenomics: The Promise and Reality of Individualized Treatment”, “Gene Expression Profiles in Diffuse Large B-cell Lymphoma”, Paris France
- 2002 American Society of Hematology Annual Meeting, Scientific Subcommittee on Lymphoid Biology, “Gene Expression Profiles in Diffuse Large B-cell Lymphoma”, Philadelphia, PA
- 2002 American Society of Hematology Annual Meeting, Meet the Professor, “Update on Diffuse Large B-cell Lymphoma”, Philadelphia, PA
- 2003 United States and Canadian Academy of Pathology Annual Meeting, Society for Hematopathology, “Clinical and Molecular Heterogeneity of Diffuse Large B-cell Lymphomas”, Washington, D.C.
- 2003 American Society of Clinical Oncology Annual Meeting, Educational Session, “Advances in the Biology of Diffuse Large B-cell Lymphoma”, Chicago, IL
- 2003 FASEB Summer Research Conference – Hematologic Malignancies, “Large B-cell Lymphoma: New Insights into Molecular Heterogeneity and Rational Treatment Targets”, Saxtons River, VT
- 2003 NIH Clinical Center 50th Anniversary Program, “Future Directions in Lymphoma Research: Molecular Targets and Rational Treatment Strategies”, Washington, D.C.
- 2003 American Society of Hematology Annual Meeting, Molecular Diagnostic Educational Session, “Molecular Signatures of Lymphoid Malignancies”, San Diego, CA
- 2004 Harvard Club of Sarasota, Invited Dana-Farber/Harvard Cancer Center (DF/HCC) Speaker, “The Promise of Biomarkers in Combating Cancers”, Sarasota, FL

- 2004 University of Texas MD Anderson Cancer Center 44th Annual Clinical Conference, “Pathology and Classification of Lymphoid Malignancies”, Houston, TX
- 2004 American Association of Cancer Research Annual Meeting, “New Concepts in Organ Site Research – Lymphoma”, Orlando, FL
- 2004 Hematology Oncology Scientific Retreat, American Society of Clinical Oncology, “Aggressive Lymphomas – Current Treatment Strategies and Prognostic Factors,” Kauai, HI
- 2004 Second Annual Therapeutic Advances in the Treatment of Hematologic Malignancies Conference, “Identification of Rational Treatment Targets in Diffuse Large B-cell Lymphoma,” Kauai, HI
- 2004 Sixth International Symposium on Hodgkin’s Lymphoma, “The Role of Gene-Expression Profiling in Grey Zone Lymphomas,” Cologne, Germany
- 2004 Eleventh Annual Hematologic Malignancies: NHL Update, “Prognostic Factors,” Johns Hopkins University, Baltimore, MD
- 2004 XII Meeting of The European Association for Haematopathology, “Gene Expression Profiles of Large B-cell Lymphomas,” Thessaloniki, Greece
- 2005 American Association of Cancer Research Special Conference – Organogenomics 2005: Dissecting Cancer through Genomic Research, “Genomics in Lymphoma: Biology and Clinical Implications,” San Diego, CA
- 2005 American Association of Cancer Research Annual Meeting , New Concepts in Organ Site Research – Lymphoma, “Large Cell Lymphomas – Molecular Heterogeneity and Rational Targets,” Anaheim, CA
- 2005 The Netherlands Cancer Institute, “New Insights into the Biology of Aggressive B-cell Lymphomas,” Amsterdam, The Netherlands
- 2005 European Hematology Association Annual Meeting, Large Cell Lymphoma Education Session, “Molecular Heterogeneity of Large B-cell Lymphoma: An Update,” Stockholm, Sweden
- 2005 European Society of Oncology Advanced Course on Malignant Lymphomas, “Prognostic Factors in Aggressive B-cell Lymphomas,” Ascona, Switzerland
- 2005 International Conference on Malignant Lymphoma, “Molecular Heterogeneity and Rational Therapeutic Targets in the Large B-cell Lymphomas,” Lugano, Switzerland
- 2005 American Society of Hematology Annual Meeting, Introduction to the Plenary Presentation entitled “Pathologic Co-expression and Physical Interaction of cMYC and BCL6 in B-cell Lymphomas,” Atlanta, GA
- 2006 American Society of Hematology special meeting – Highlights of ASH 2005, “Lymphoma: Update on Pathogenesis and Targeted Therapy,” Miami, FL
- 2006 American Association of Cancer Research Annual Meeting, New Concepts in Organ Site Research – Lymphoma, “Analysis and Treatment of Newly Identified Large Cell Lymphoma Subtypes”, Washington, D.C.
- 2006 American Society of Clinical Oncology, Education Session, “Molecular Heterogeneity And Associated Treatment Targets in Large B-cell Lymphomas”, Atlanta, GA

- 2007 National Institutes of Health, National Cancer Institute, Center for Cancer Research Grand Rounds, “Molecular Heterogeneity of Large B-cell Lymphoma: Identification of Rational Treatment Targets”, Bethesda, MD
- 2007 American Association of Cancer Research Annual Meeting, New Concepts in Organ Site Research – Lymphoma, “Rational Treatment Targets in Large B-cell Lymphomas”, Los Angeles, CA
- 2007 WHO Clinical Advisory Committee for the Classification of Lymphoid Neoplasms, “Grey Zone Lymphomas”, Arlington, VA
- 2007 American Society of Clinical Oncology 2007 Novel Therapeutics Development in Lymphoma Workshop, “Heterogeneity of DLBCL – Implications for Novel Therapeutics”, Aspen, CO
- 2007 Aggressive Lymphoma 2007 Workshop, “Genomic Classifiers for Diagnosis and Treatment Integration into Clinical Trials”, Goettingen, Germany
- 2007 7th International Symposium on Hodgkin Lymphoma, “Galectin-1 Mediates Tumor Escape in Hodgkin Lymphoma”, Cologne, Germany
- 2007 American Society of Hematology Annual Meeting, Educational Program, “Molecular Heterogeneity and Associated Rational Treatment Targets in Large B-cell Lymphoma”, Atlanta, GA
- 2008 Henry Kunkel Society Annual Meeting 2008 – Autoimmunity, Inflammation and Lymphoproliferative Diseases, “Clinical Impact of Molecular Classifications of Diffuse Large B-cell Lymphomas”, Santa Margherita, Italy
- 2008 Tenth International Conference on Malignant Lymphoma, “Molecular Heterogeneity and Rational Therapeutic Targets in DLBCL” and “Grey Zone Lymphomas”, Lugano, Switzerland
- 2008 Mouse Models of Human Cancers Consortium (MMHCC) Hematopoietic Malignancies Workshop, “Molecular Signatures Define Rational Treatment Targets in Lymphoma”, Boston, MA
- 2008 Symposium in Honor of George P. Canellos, “Clinical Models to Targeted Therapy of Lymphomas”, Boston, MA
- 2009 Reynolds Memorial Lecture Series, “Aggressive B-cell Non-Hodgkin Lymphomas”, The Reading Hospital and Medical Center, Reading, PA
- 2009 European Hematology Association, Educational Program, “Using Molecular Signatures to Identify Rational Therapeutic Targets in Diffuse Large B-cell Lymphomas”, Berlin, Germany
- 2009 FASEB Hematologic Malignancies, “SYK-dependent Tonic B-cell Receptor Signaling is a Rational Treatment Target in Diffuse Large B-cell Lymphoma”, Saxtons River, VT
- 2009 The Leukemia & Lymphoma Society Investigators Meeting, “Pathogenetic Mechanisms and Therapeutic Targets in B-cell Lymphoma” and “Galectin-1 as a Rational Treatment Target in Hodgkin Lymphoma”, New York, NY
- 2010 8th International Symposium on Hodgkin Lymphoma, “Immune Escape in Hodgkin Lymphoma and PTLN – the Role and Targeting of Galectin-1” and “Integrative Analysis Reveals Selective 9p24.1 Amplification, Increased PD-L1 Ligand Expression and Further

Induction via JAK2 in Nodular Sclerosing Hodgkin Lymphoma and Primary Mediastinal Large B-cell Lymphoma”, Cologne, Germany

- 2010 22nd Annual Cancer Research Symposium, Michigan Cancer Center, “Molecular Signatures Define Immune Escape Pathways in Lymphoid Malignancies”, Ann Arbor, MI
- 2010 Aggressive Lymphomas Workshop, “Molecular Signatures Define New Treatment Strategies”, Bologna, Italy
- 2011 American Association of Cancer Research Annual Meeting, New Concepts in Organ Site Research – Lymphoma, “Immune Escape Mechanisms in Lymphoid Malignancies”, Orlando, FL
- 2011 Eleventh International Conference on Malignant Lymphoma, “Signaling Pathways in Lymphoma”, Lugano, Switzerland
- 2011 NCI Translational Science Meeting 2011, “Molecular Signatures Define Targetable Pathways In Lymphoma”, Washington, D.C.
- 2012 DFCI Chief Scientific Officer’s forum, “Update on Lymphoma”, Boston, MA
- 2012 Ohio State University Cancer Center Special Immunology Seminar, “Immune Escape Mechanisms in Lymphoid Malignancies”, Columbus, OH
- 2012 AACR Special Conference on Tumor Immunology, “Immune Escape Mechanisms in Lymphoid Malignancies”, Miami, FL
- 2013 City of Hope Special Seminar, “Immune Escape Mechanisms in Lymphoid Malignancies”, Los Angeles, CA
- 2013 Expert Forum on B-cell Receptor Signaling, “B-cell Receptor Signaling in Lymphoma – SYK and PKC β ”, Los Angeles, CA
- 2013 Systems Medicine in Cancer, “Genomic instability, p53 deficiency and cell cycle deregulation in large B-cell lymphomas”, Berlin, Germany
- 2013 Twelfth International Conference on Malignant Lymphoma, Workshop on Molecular Heterogeneity and Tailored Treatment of Diffuse Large B-cell Lymphoma, “B-cell receptor signaling and p53/cell cycle deregulation”, Lugano, Switzerland
- 2013 Twelfth International Conference on Malignant Lymphoma “Report of ESO Workshop: Molecular Heterogeneity and Tailored Treatment of Diffuse Large B-cell Lymphoma”, Lugano, Switzerland
- 2013 Ninth International Symposium on Hodgkin Lymphoma, Workshop on prognostic biomarkers, “The Immunomodulatory and Angiogenic Protein Galectin 1 is a Circulating Biomarker in Hodgkin Lymphoma”, Cologne, Germany
- 2013 Ninth International Symposium on Hodgkin Lymphoma, “JAK/STAT Signaling in Hodgkin Lymphoma”, Cologne, Germany
- 2013 American Society of Hematology Annual Meeting, Introduction to Plenary Presentation, “Germinal Centers, BCL6 and EZH2”, New Orleans, LA
- 2013 Beth Israel Deaconess Medical Center, Dana-Farber Harvard Cancer Center and Rambam Medical Center Co-sponsored Symposium, “Advances in Checkpoint Blockade in Lymphoid Malignancies”, Boston, MA

- 2013 American Society of Hematology Meeting on Lymphoma Biology, “Genetic Bases of Immune Escape in Lymphoid Malignancies”, Colorado Springs, CO
- 2014 Oregon Health and Science University Basic and Translational Sciences Seminar, “Molecular Signatures and Targeted Therapy of Lymphomas”, Portland, Oregon
- 2014 Dana-Farber Cancer Institute Cancer Biology Seminar, “Introduction to Lymphoma – Challenges and Opportunities”, Boston, MA
- 2014 Department of Pathology Seminar Series, Boston Children’s Hospital “Genetic Alterations and Associated Targeted Pathways in Lymphoid Malignancies”, Boston, MA
- 2014 American Association for Cancer Research Meeting on Hematological Malignancies, “Genetic Bases of Immune Escape in Lymphoid Malignancies”, Philadelphia, PA
- 2014 Cancer Research Institute Immunotherapy Symposium, “Genetic Bases of Immune Escape in Lymphoid Malignancies”, New York City, NY
- 2014 Japanese Society of Hematology, “Molecular Heterogeneity and Targeted Therapy of Diffuse Large B-cell Lymphoma”, Osaka, Japan
- 2015 Moffitt Cancer Center Experimental Hematology Seminar, “Genetic Bases of Immune Escape in Lymphoid Malignancies”, Tampa FL
- 2015 University of Chicago Cancer Biology Seminar Series, “Genetic Bases of Immune Escape in Lymphoid Malignancies”, Chicago, IL
- 2015 13th International Conference on Malignant Lymphoma, “BCR Signaling and Survival Pathways in Lymphoma”, Lugano, Switzerland
- 2015 Federation of American Societies for Experimental Biology (FASEB) Meeting, “Genetic Bases of Immune Evasion in Lymphoid Malignancies”, Saxtons River, VT
- 2015 Society of Hematologic Oncology (SOHO) Annual Meeting 2015, “Immune Checkpoint Inhibitors in Lymphoma”, Houston, TX
- 2015 Society of Hematologic Oncology (SOHO) Annual Meeting 2015, “BCR Signaling as a Novel Therapeutic Target in Lymphoma”, Houston, TX
- 2015 Program in Cellular and Molecular Medicine (PCMM), Boston Children’s Hospital, Annual Scientific Retreat, “Genetic Signatures and Targetable Pathways in Lymphoid Malignancies”, North Falmouth, MA
- 2015 Lymphoma & Myeloma 2015 - An International Congress on Hematologic Malignancies, “How do lymphoma cells shield themselves from the immune system? Implications for immunotherapy”, New York, NY
- 2015 SITC Society for Immunotherapy of Cancer 30th Anniversary Annual Meeting, “Targetable Immune Escape Mechanisms in Hodgkin Lymphoma” National Harbor, MD
- 2015 CALYM Workshop on Immunomodulatory antibodies for the treatment of lymphoma, “Lymphoma Biology and Microenvironment: Suggested Immunomodulatory Targets” Paris, France
- 2015 Cross-Institutional Harvard/MIT/Broad Institute Tumor Immunity Retreat, “Targetable Bases of Immune Escape in Lymphoma”, Boston, MA
- 2016 5th Annual Symposium hosted by CCGD and Profile on Genomic Approaches Toward

- Precision Cancer Medicine, “Targetable Genetic Bases of Immune Evasion in Lymphoma”, Boston, MA
- 2016 Hematologic Malignancies: from Mechanisms to Therapy Symposium, “Targetable Genetic Bases of Immune Evasion in Lymphoma, Milan, Italy
- 2016 American Association of Cancer Research Annual Meeting, Educational session, “Genetic Bases of Immune Escape and Checkpoint Blockade in Hodgkin Lymphoma”, Philadelphia, PA
- 2016 Association for Molecular Pathology, “Targetable Genetic Bases for Immune Evasion in Lymphomas”, Webinar.
- b. Professional and educational leadership role related to teaching (1998-present)
- 1998 Program Chair, Professional Society Annual Meeting, ASCO
- 1999 Member of international group that developed uniform response criteria for non-Hodgkin's lymphomas (see publication #45), National Cancer Institute
- 1998- 99 Chairperson of the committee that developed the first comprehensive Lymphoma Treatment Guidelines for the US comprehensive cancer centers network (see publication #41), National Comprehensive Cancer Center Network (NCCN)
- 1999 President of the Jury that developed the first International Consensus Conference Report on the Role of High Dose Therapy and Stem Cell Rescue in Aggressive Non-Hodgkin's Lymphomas (see publication #44), Group for the Study of Aggressive Lymphomas (GELA)
- 1999 Chairperson of Special Workshop on Biological Prognostic Factors Aggressive Non-Hodgkin's Lymphoma, International Conference on Malignant Lymphoma, Lugano, Switzerland
- 2000 Chairperson of Special Workshop in Prognostic Factors in Aggressive Non-Hodgkin's Lymphoma, Lymphoma 2000: First International Symposium on the Biology and Treatment of Aggressive Non-Hodgkin's Lymphomas, Saarbruken, Germany
- 2002 Faculty member in course, Leukemias and Lymphomas: Clinical and Molecular Problems, European Society for Molecular Oncology (ESMO), Ascona, Switzerland
- 2005 Faculty member in course, European Society of Oncology Advanced Course on Malignant Lymphoma, Ascona, Switzerland
- 2005 Chairperson of Scientific Committee on Lymphocyte Biology Symposium, “The Germinal Center as a Rational Therapeutic Target,” American Society of Hematology Annual Meeting, Atlanta, GA
- 2007 Chairperson of Educational Program Session, “Rational Therapeutic Targets in Large B-cell and Mantle Cell Lymphomas”, American Society of Hematology Annual Meeting, Atlanta, GA
- 2013 Faculty member in course, ESO-Ulm University, Certificate of Competence in Lymphoma, Module 2 – Principles of Diagnostic Management and Clinical Trials, Ulm, Germany (On-line course)
- 2013 Invited organizer and Chairperson of the Workshop on Molecular Heterogeneity and Tailored Treatment of Diffuse Large B-cell Lymphoma, Twelfth International Conference on Malignant Lymphoma, Lugano Switzerland

4. Major curricular offerings:

Annual nodal point mini-symposia jointly hosted by DF/HCC Lymphoma Program and a selected discipline-based program. Three most recent offerings include:

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| 2001 | Murine Models of Lymphoid Malignancies, hosted by Lymphoma and Cancer Cell Biology |
| 2002 | Viral Pathogenesis of Lymphoid Malignancies, hosted by the Lymphoma and Viral Oncology Programs |
| 2003 | Host Immune Responses in Lymphoma, hosted by the Lymphoma and Cancer Immunology Programs |

Teaching case:

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| 2004 | Case Records of the Massachusetts General Hospital: A Thirty year old woman with fever and mediastinal mass, 1/15/04 (N Engl J Med 2005; 352:1697-704) |
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E. Report of Clinical Activities:

1. Clinical practice

My clinical practice focuses on diagnosis and treatment of patients with lymphoid malignancies and includes frequent formal and informal consultations regarding patients with difficult diagnostic or therapeutic issues.

2. Clinical contributions

I led the development of the International Prognostic Index (IPI), an internationally recognized and utilized prognostic factor model which identifies patients with aggressive lymphomas who have different likelihoods of being cured with best standard therapy. The IPI is currently used to identify “high-risk” patients in virtually all therapeutic trials in aggressive B-cell lymphomas. The IPI has also been utilized more broadly in multiple other lymphoid malignancies. Under auspices of the National Comprehensive Cancer Center Network, I also led the development of the first uniform set of national treatment guidelines for lymphoid malignancies. These treatment guidelines are widely used in cancer centers throughout the United States. More recently, I have been leading our local groups’ efforts to identify and characterize rational treatment targets in diffuse large B-cell lymphoma, related large cell lymphoma subtypes and Hodgkin lymphoma. I also coordinate the clinical research for the DF/HCC Lymphoma Program and mentor junior clinical investigators in lymphoma at DFCL.

BIBLIOGRAPHY

Original Reports:

1. **Shipp MA**, Schwartz BD, Kannapell CC, Griffith RD, Scott MG, Ahmed P, Davie JM, Nahm MH. A unique DR-related B cell differentiation antigen. *J Immunol* 1983; 131:2458-67 PMID: 6415171.
2. **Shipp MA**, Takvorian R, Canellos GP. High dose cytosine arabinoside. Active agent in relapsed lymphoma. *Am J Med* 1984; 77:845-50; PMID: 6496539.
3. **Shipp MA**, Ahmed P, Kannapell CC, Ford JC, McCourt D, Leykam JF, Zacheis M, Bono C, Davie JM, Mustaiin E, Nahm MH, Schwartz BD. A new polymorphic determinant on HLA-DQ molecules. *Human Immunol* 1986; 16:24-37; PMID: 2423485.

4. **Shipp MA**, Harrington DP, Klatt MM, Jochelson MS, Pinkus GS, Marshall JL, Rosenthal DS, Skarin AT, Canellos GP. Long term survival of large cell lymphoma patients treated with m-BACOD or M-BACOD. *Ann Int Med* 1986; 104:757-65; PMID: 2422995.
5. Canellos GP, Skarin AT, Klatt MM, Rosenthal DS, Case DC, Pinkus GS, Jochelson MS, Yeap BY, **Shipp MA**. The m-BACOD combination chemotherapy regimen in the treatment of diffuse large cell lymphoma *Sem Hematol* 1987; 24:2-7; PMID: 2438777.
6. **Shipp MA**, Reinherz EL. Differential expression of nuclear proto-oncogenes in T cells triggered with mitogenic and nonmitogenic T₃ and T₁₁ activation signals. *J Immunol* 1987; 139:2143-8; PMID: 2821108.
7. Tantravahi R, **Shipp MA**, Greeley TA, Pavelka K, Bern MM, Rosenthal DS, Frei E. Four patients with myelodysplastic syndrome with translocation (1;7) (p11;p11) including one with independent clones del(7)(q22) and t(1;7)(q21;q11). *Cancer Gen Cytogen* 1988; 30:83-90; PMID: 3422049.
8. **Shipp MA**, Richardson NE, Sayre PH, Brown NR, Masteller EL, Clayton LK, Ritz J, Reinherz EL. Molecular cloning of the common acute lymphoblastic leukemia antigen (CALLA) identifies a type II integral membrane protein. *Proc Natl Acad Sci USA* 1988; 85:4819-23; PMCID: PMC280527; PMID: 2968607.
9. Ernst T, Gaydor A, Ritz J, **Shipp MA**. Identification of a second transforming gene, *ras*, in a human multiple myeloma line with a rearranged *c-myc* allele. *Blood* 1988; 72:1163-7; PMID: 3048435.
10. **Shipp MA**, Vijayaraghavan J, Schmidt EV, Masteller EL, D'Adamio L, Hersh LB, Reinherz EL. Common acute lymphoblastic leukemia antigen (CALLA) is active neutral endopeptidase 24.11 ("enkephalinase"): direct evidence by gene transfection analysis. *Proc Natl Acad Sci USA* 1989; 86:297-301; PMCID: PMC286451; PMID: 2521388.
11. Barker PE, **Shipp MA**, D'Adamio L, Masteller EL, Reinherz EL. The common acute lymphoblastic leukemia antigen gene maps to chromosomal region 3 (q21-q27). *J Immunol* 1989; 142:283-7; PMID: 2521237.
12. **Shipp MA**, Klatt MM, Yeap B, Jochelson MS, Mauch PM, Rosenthal DS, Skarin AT, Canellos GP. Patterns of relapse in large-cell lymphoma patients with bulk disease: implications for the use of adjuvant radiation therapy. *J Clin Oncol* 1989; 7:613-8; PMID: 2468746.
13. D'Adamio L, **Shipp MA**, Masteller EL, Reinherz EL. Organization of the gene encoding common acute lymphoblastic leukemia antigen (neutral endopeptidase 24.11): multiple miniexons and separate 5' untranslated regions. *Proc Natl Acad Sci USA* 1989; 86:7103-7; PMCID: PMC298003; PMID: 2528730.
14. **Shipp MA**, Yeap BY, Harrington DP, Klatt MM, Pinkus GS, Jochelson MS, Rosenthal DS, Skarin AT, Canellos GP. The m-BACOD combination chemotherapy regimen in large-cell lymphoma: analysis of the completed trial and comparison with the m-BACOD regimen. *J Clin Onc* 1990; 8:84-93; PMID: 1688615.
15. Hughes Jr TK, Smith EM, Chin R, Cadet P, Sinisterra J, Leung MK, **Shipp MA**, Scharrer B, Stefano GB. Interaction of immunoreactive monokines (interleukin 1 and tumor necrosis factor) in the bivalve mollusc *Mytilus edulis*. *Proc Natl Acad Sci USA* 1990; 87:4426-9; PMCID: PMC54127; PMID: 2352927.
16. **Shipp MA**, Stefano GB, D'Adamio L, Switzer SN, Howard FD, Sinisterra J, Scharrer B, Reinherz EL. Down-regulation of enkephalin-mediated inflammatory responses by CD10/neutral endopeptidase 24.11. *Nature* 1990; 347:394-6; PMID: 1699130.
17. Stefano GB, **Shipp MA**, Scharrer B. A possible immunoregulatory function for met-enkephalin-Arg⁶-Phe⁷ involving human and invertebrate granulocytes. *J Neuroimmunol* 1991; 31:97-103; PMID: 1991823.

18. Weeks JC, Yeap BY, Canellos GP, **Shipp MA**. Value of follow-up procedures in patients with large-cell lymphoma who achieve a complete remission. *J Clin Oncol* 1991; 9:1196-1203. (Original article reprinted in ASCO "Classic Papers and Current Comments: Highlights of Clinical Lymphoma Research", 1996; 1:431-9.
19. Shapiro CL, Yeap BY, Godleski J, Jochelson MS, **Shipp MA**, Skarin AT, Canellos GP. Drug-related pulmonary toxicity in non-Hodgkin's lymphoma: Comparative results with the m-BACOD, m-ACOD and CHOP regimens. *Cancer* 1991; 68:699-705; PMID: 1713121.
20. **Shipp MA**, Switzer SN, Stefano GB, Griffin JD, Reinherz EL. CD10 (CALLA)/neutral endopeptidase 24.11 controls inflammatory peptide-mediated changes in neutrophil surface adhesion proteins and is itself regulated by neutrophil activation. *Blood* 1991; 78:1834-41; PMID: 1717072.
21. **Shipp MA**, Tarr GE, Chen C-Y, Switzer SN, Hersh LB, Stein H, Reinherz EL. CD10/ NEP hydrolyzes bombesin-like peptides and regulates the growth of small cell carcinomas of the lung. *Proc Natl Acad Sci USA* 1991; 88:10662-6; PMID: 1660144
22. Chen C-Y, Salles G, Seldin MF, Kister AE, Reinherz EL, **Shipp MA**. Murine common acute lymphoblastic leukemia antigen (CALLA, CD10 neutral endopeptidase 24.11): Molecular characterization, chromosomal localization and modelling of the active site. *J Immunol* 1992; 148:2817-25; PMID: 1374101.
23. Salles G, Chen C-Y, Reinherz EL, **Shipp MA**. CD10/NEP is expressed on Thy-1^{low} B220⁺ murine B cell progenitors and functions to regulate stromal cell dependent lymphopoiesis. *Blood* 1992; 80:2021-9; PMID: 1382716.
24. Heagy W, **Shipp MA**, Finberg RW. Opioid receptors and Ca²⁺ modulation in human B cell lines. *J Immunol* 1992; 149:4074-81; PMID: 1334111.
25. Sunday ME, Hua J, Torday J, Reyes B, **Shipp MA**. CD10/neutralendopeptidase 24.11 in developing human fetal lung: Patterns of expression and modulation of peptide-mediated proliferation. *J Clin Invest* 1992; 90:2517-25; PMID: 1469102.
26. King KA, Drazen JM, Hua J, Graham S, Torday JS, **Shipp MA**, Sunday ME. CD10/neutral endopeptidase 24.11 regulates fetal lung growth and maturation *in utero* by potentiating endogenous bombesin-like peptides. *J Clin Invest* 1993, 91:1969-73; PMID: 8486767.
27. Salles G, Rodewald H-R, Chin BS, Reinherz EL, **Shipp MA**. Inhibition of CD10/neutral endopeptidase 24.11 promotes B cell reconstitution and maturation *in vivo*. *PNAS* 1993, 90:7618-22; PMID: 8356064.
28. **Shipp M**, Harrington D, Chairpersons. Anderson J, Armitage J, Bonadonna G, Brittinger G, Cabanillas F, Canellos G, Coiffier B, Connors J, Cowan R, Crowther D, Engelhard M, Fisher R, Gisselbrecht C, Horning S, Lepage E, Lister A, Neerwaldt J, Montserrat E, Nissen N, Oken M, Peterson B, Tondini C, Velasquez W, Yeap B. A predictive model for aggressive non-Hodgkin's lymphoma: *N Engl J Med* 1993; 329:987-94.
29. Salles G, Zain M. Boussiotis VA, **Shipp MA**. Alternatively spliced CD44 transcripts in diffuse large cell lymphomas: characterization and comparison with normal activated B cells and epithelial malignancies. *Blood* 1993; 82:3539-47; PMID: 7505117.
30. Kim D, Mauch P, Shaffer K, Pinkus G, **Shipp MA**, Kaplan WD, Tung N, Wheeler C, Beard CJ, Canellos GP et al. Large-cell and immunoblastic lymphoma of the mediastinum: prognostic features and treatment outcome in 57 patients. *J Clin Oncol* 1993; 1(7):1336-43; PMID: 8315431.
31. **Shipp MA**, Harrington DP. A predictive model for non-Hodgkin's lymphoma, The Authors' Reply. *N Engl J Med* 1994; 330:574-5.

32. Ganju RK, Tsarwhas DG, Card A, Sunday M, **Shipp MA**. CD10/NEP in non-small cell lung carcinomas. Relationship to cellular proliferation. *J Clin Invest* 1994; 94:1784-91; PMID: PMC294569; PMID: 7962523.
33. Ishimaru F, **Shipp MA**. Analysis of the human CD10/neutral endopeptidase 24.11 promoter region: two separate regulatory elements. *Blood* 1995; 85:3199-3207; PMID: 7756651.
34. Anderson IC, Sugarbaker DJ, Ganju RK, Tsarwhas DG, Richards WG, Sunday M, Kobzik L, **Shipp MA**. Stromelysin-3 is overexpressed by stromal elements in primary non-small cell lung cancers and regulated by retinoic acid in pulmonary fibroblasts. *Cancer Res* 1995; 55:4120-6; PMID: 7664289.
35. **Shipp MA**, Neuberger D, Janicek M, Canellos GP, Shulman LN. High-dose CHOP as initial therapy for patients with poor prognosis aggressive non-Hodgkin's lymphoma: a dose-finding pilot study. *J Clin Oncol* 1995; 13:2916-23; PMID: 8523055.
36. Drazen JM, Evans J, Stevens RL, **Shipp MA**. Inflammatory effector mechanisms in asthma. *Amer J Resp and Critical Care Med* 1995; 152:403-7; PMID: 7599856.
37. Ishimaru F, Potter NS, **Shipp MA**. Phorbol ester-mediated regulation of CD10/neutral endopeptidase transcripts in acute lymphoblastic leukemias. *Exp. Hematol.* 1996; 24:43-8; PMID: 8536791.
38. Ganju RK, Shpektor R, Brenner DG, **Shipp MA**. CD10/neutral endopeptidase 24.11 is phosphorylated by casein kinase II and coassociates with other phosphoproteins including the *lyn src*-related kinase. *Blood* 1996; 88:4159-65; PMID: 8943850.
39. Janicek M, Kaplan W, Neuberger D, Canellos GP, Shulman LN, **Shipp MA**. Early restaging gallium scans predict outcome in poor-prognosis patients with aggressive non-Hodgkin's lymphoma treated with high-dose CHOP chemotherapy. *J Clin Oncol.* 1997; 15:1631-7; PMID: 9193363.
40. Ishimaru F, Mari B, **Shipp MA**. The type 2 CD10/neutral endopeptidase 24.11 promoter: functional characterization and tissue-specific regulation by CBF/NF-Y isoforms. *Blood* 1997; 89:4136-45; PMID: 9166856.
41. **Shipp MA**, Ambinder RF, Appelbaum FR, Cabanillas F, Harris NJ, Herzig GP, Hoppe RT, Horning SJ, Pezner RD, Rodriguez MA, Vose JM, Yahalom J, Zelenetz AD. NCCN Preliminary non-Hodgkin's lymphoma practice guidelines. *Oncol* 1997; 11:281-346.
42. Mari BP, Anderson IC, Mari SE, Ning Y, Lutz Y, Kobzik L, **Shipp MA**. Stromelysin-3 is induced in tumor/stroma cocultures and inactivated via a tumor-specific and basic fibroblast growth factor-dependent mechanism. *J Biol Chem* 1998; 273:618-26; PMID: 9417124.
43. Yakushijin Y, Steckel J, Kharbanda S, Hasserjian R, Neuberger D, Jiang W-m, Anderson I, **Shipp MA**. A directly spliced exon 10-containing CD44 variant promotes the metastasis and homotypic aggregation of aggressive non-Hodgkin's lymphoma. *Blood* 1998; 91:4282-91; PMID: 9596677.
44. **Shipp MA**, Abeloff MD, Antman KH, Carroll G, Hagenbeek A, Loeffler M, Montserrat E, Radford JA, Salles G, Schmitz N, Symann M, Armitage JO, Philip Coiffier B. International Consensus Conference on high-dose therapy with hematopoietic stem cell transplantation in aggressive non-Hodgkin's lymphomas: report of the jury. *J Clin Oncol* 1999; 17:423-9; PMID: 10458261; PMID: 10458261.
45. **Shipp MA**, Abeloff MD, Antman KH, Carroll G, Hagenbeek A, Loeffler M, Montserrat E, Radford JA, Salles G, Schmitz N, Symann M, Armitage JO, Coiffier B, Philip T. International Consensus Conference on high-dose therapy with hematopoietic stem cell transplantation in aggressive non-Hodgkin's lymphomas: report of the jury. *Ann Oncol* 1999;10:13-19. References #44 and #45 published jointly in *J. Clin. Oncol.* and *Ann. Oncol.* by invitation of the editors. (Original article also reprinted in ASCO "Classic Papers and Current Comments: Highlights of Clinical Lymphoma Research", 2001; 586-94.
46. Cheson BD, Horning SJ, Coiffier B, **Shipp MA**, Fisher RI, Connors JM, Lister A, Vose J, Grillo-Lopez A, Hagenbeek A, Cabanillas F, Klippensten D, Hiddemann W, Castellino R, Harris NL, Armitage JO, Carter W, Hoppe R.

Canellos GP. Report of an international workshop to standardize response criteria for non-Hodgkin's lymphomas. *J Clin Oncol* 1999; 17:1244-53.

47. Aguiar RCT, Yakushijin Y, Kharbanda S, Tiwari S, Freeman GJ, **Shipp MA**. PTPROT: an alternatively spliced and developmentally regulated B-lymphoid phosphatase that promotes G0/G1 arrest. *Blood* 1999; 94:2403-13; PMID: 10498613.

48. Anderson IC, Mari SE, Broderick RJ, Mari BP, **Shipp MA**. The angiogenic factor interleukin 8 is induced in non-small cell lung cancer/pulmonary fibroblast cocultures. *Cancer Res* 2000; 17:1244-53.

49. Aguiar RCT, Yakushijin Y, Kharbanda S, Salgia R, Fletcher JA, **Shipp MA**. BAL is a novel risk-related gene in diffuse large B-cell lymphomas that enhances cellular migration. *Blood* 2000; 96:4328-34; PMID: 11110709.

50. Shen R, Sumitomo M, Dai J, Hardy DO, Navarro D, Usmani B, Papandreou, CN, Hersh LB, **Shipp MA**, Freedman LP, Nanus DM. Identification and characterization of two androgen response regions in the human neutral endopeptidase gene. *Mol Cell Endocrinol* 2000; 170:131-42; PMID: 11162897.

51. Wu E, Mari BP, Wang F, Anderson IC, Sunday ME, **Shipp MA**. Stromelysin-3 suppresses tumor cell apoptosis in a murine model. *J. Cell Biochem* 2001; 82:549-55; PMID: 11500932.

52. de Leval L, Ferry J, Falini B, **Shipp M**, Harris NL. Expression of bcl-6 and CD10 in primary mediastinal large B-cell lymphoma. Evidence for derivation from germinal center B-cells? *Am J Surg Pathol*, 2001; 25:1277-82; PMID: 11688462.

53. **Shipp MA**, Ross K, Tamayo P, Angelo M, Reich M, Weng AP, Kutok JL, Pinkus GS, Aguiar RCT, Ray TS, Gaasenbeek M, Neuberg D, Koval MA, Last KW, Norton A, Mesirov J, Lister TA, Lander ES, Aster JC, Golub TR. Diffuse large B-cell lymphoma outcome prediction by gene-expression profiling and supervised machine learning. *Nat Med* 2002; 8:68-74; PMID: 11786909.

54. Howard OM, Gribben JG, Neuberg DS, Kim HH, Poor C, Janicek MJ, **Shipp MA**. Rituximab and CHOP induction therapy for newly diagnosed mantle cell lymphoma: molecular complete responses are not predictive of progression-free survival. *J Clin Oncol* 2002; 20:1288-94; PMID: 11870171.

55. Lin TS, Howard OM, Neuberg, DS, Kim, HH, **Shipp MA**. Seventy-two hour continuous infusion flavopiridol in relapsed and refractory mantle cell lymphoma. *Leuk and Lymph* 2002; 43:793-7; PMID: 12153166.

56. Takeyama K, Aguiar RCT, Gu L, He C, Freeman GJ, Kutok JL, Aster JC, **Shipp MA**. The BAL-binding protein, BBAP, and related Deltex family members exhibit ubiquitin-protein isopeptide ligase activity. *J. Biol Chem.* 2003; 278:21930-7; PMID: 12670957.

57. Fromiguet O, Louis K, Wu E, Behhacene N, Loubat A, **Shipp M**, Auberger P, Mari B. Active stromelysin-3 (MMP-11) increases MCF-7 survival in three-dimensional matrigel culture via activation of P42/P44 MAP-kinase. *International J of Ca.* 2003; 106:355-63; PMID: 12845673.

58. Wilkinson K, Velloso ERP, Lopes LF, Lee C, Aster JC, **Shipp MA**, Aguiar RCT. Cloning of the t(1;5)(q23;q33) in a myeloproliferative disorder associated with eosinophilia: involvement of PDGFRb and response to Imatinib. *Blood* 2003; 102:4187-90; PMID: 12907457.

59. Savage KJ, Monti S, Kutok JL, Cattoretti G, Neuberg D, de Leval L, Kurtin P, Dal Cin P, Ladd C, Feuerhake F, Aguiar RCT, Li S, Salles G, Berger F, Jing W, Pinkus GS, Habermann T, Dalla-Favera R, Harris NL, Aster JC, Golub TR, **Shipp MA**. The molecular signature of mediastinal large B-cell lymphoma differs from that of other diffuse large B-cell lymphomas and shares features with classical Hodgkin lymphoma. *Blood, Plenary paper*, 2003; 102:3871-9; PMID: 12933571.

60. LaCasce A, Howard O, Li S, Fisher D, Weng A, Neuberg D, **Shipp MA**. Modified Magrath regimen for adults with Burkitt and Burkitt-like lymphomas: Preserved efficacy with decreased toxicity. *Leukemia and Lymphoma* 2004; 45: 761-7; PMID: 15160953.

61. Smith PG, Wang F, Wilkinson KN, Savage KJ, Klein U, Neuberg DS, **Shipp MA**, Aguiar, RCT. The phosphodiesterase PDE4B limits c-AMP associated, PI3K-AKT dependent, apoptosis in diffuse large B-cell lymphoma. *Blood*, First Edition online 8/26/04 and 2005; 105:308-16; PMID: 15331441.
62. Rodig SJ, Savage KJ, Pinkus GS, **Shipp MA**, Aster JC, Kutok JL. TRAF-1 expression and c-Rel activation distinguish classical Hodgkin lymphoma from other morphologically or immunophenotypically similar forms of malignant lymphoma. *Am J Surg Path* 2005; 29:196-203; PMID: 15644776.
63. Louis K, Guerineau N, Fromigie O, Defamie V, Collazos A, Anglard P, **Shipp MA**, Auberge P, Joubert D, Mari B. Tumor cell-mediated induction of the stromal factor stromelysin-3 requires heterotypic cell contact-dependent activation of classical and novel PKCs. *J Biol Chem* 2005; 280:1272-83; PMID: 15509588.
64. Monti S, Savage KJ, Kutok JL, Feuerhake F, Kurtin P, Mihm M, Wu B, Pasqualucci L, Neuberg D, Aguiar RCT, Dal Cin P, Ladd C, Pinkus GS, Salles G, Harris NL, Dalla-Favera R, Habermann TM, Aster JC, Golub TR, **Shipp MA**. Molecular profiling of diffuse large B-cell lymphoma identifies robust subtypes including one characterized by host inflammatory response. *Blood*, Plenary Paper, 2005; 105:1851-61; PMID: 15550490.
65. Goffin JR, Anderson IC, Supko JG, Eder JP, Shapiro GI, Lynch TJ, Clinch YW, **Shipp M**, Johnson BE, Skarin AT. Phase I trial of the matrix metalloproteinase inhibitor marimastat combined with carboplatin and paclitaxel in patients with advanced non-small cell lung cancer. *Clin Cancer Res* 2005; 11:3417-24; PMID: 15867243.
66. Feuerhake F, Kutok JL, Monti S, Chen W, LaCasce AS, Cattoretti G, Kurtin P, Pinkus GS, de Leval L, Harris NL, Savage KJ, Neuberg D, Habermann TM, Dalla-Favera R, Golub TR, Aster JC, **Shipp MA**. NFkB activity, function and target-gene signatures in primary mediastinal large B-cell lymphoma and diffuse large B-cell lymphoma subtypes. *Blood* 2005; 106:1392-9; PMID: 15870177.
67. Aguiar RC, Takeyama K, He C, Kreinbrink K, **Shipp M**. B-aggressive lymphoma (BAL) family proteins have unique domains which modulate transcription and exhibit PARP activity. *J Biol Chem* 2005; 280:33756-65; PMID: 16061477.
68. Takahashi H, Feuerhake F, Monti S, Kutok JL, Aster JC, **Shipp MA**. Lack of *Ikb α* coding region mutations in primary mediastinal large B-cell lymphoma and the host response subtype of diffuse large B-cell lymphoma. *Blood* 2006; 107:844-45; PMID: 16401828.
69. Pasqualucci L, Compagno M, Houldsworth J, Monti S, Grunn A, Nandula S, Aster JC, Cattoretti G, Murty V, **Shipp MA**, Dalla-Favera R. In activation of the PRDM1/BLIMP1 gene in non-germinal center type diffuse large B-cell lymphoma. *J Exp Med* 2006; 203:311-7; PMCID: PMC2118216; PMID: 16492805.
70. Chen L, Juszczynski P, Takeyama K, Aguiar RCT, **Shipp MA**. Protein tyrosine phosphatase receptor-type o Truncated (PTPROt) regulates SYK phosphorylation, proximal B-cell receptor signaling and cellular proliferation. *Blood* 2006; 108:3428-33; PMID: 16888096.
71. Rodig SJ, Abramson JS, Pinkus GS, Treon SP, Dorfman DM, Dong HY, **Shipp MA**, Kutok JL. Heterogeneous CD52 expression among hematologic neoplasms: implications for the use of alemtuzumab (CAMPATH-1H). *Clin Cancer Res* 2006; 12:7174-9; PMID: 17145843.
72. Takahashi H, Feuerhake F, Kutok JL, Monti S, Dal Cin P, Neuberg D, Aster JC, **Shipp MA**. FAS death domain deletions and cellular FADD-like interleukin 1 β converting enzyme inhibitory protein (long) overexpression: alternative mechanisms for deregulating the extrinsic apoptotic pathway in diffuse large B-cell lymphoma subtypes. *Clin Cancer Res* 2006; 12(1 P1 1):3265-71; PMID: 16740746.
73. Juszczynski P, Kutok JL, Li C, Mitra J, Aguiar RC, **Shipp MA**. BAL1 and BBAP are regulated by a gamma interferon-responsive bidirectional promoter and are overexpressed in diffuse large B-cell lymphomas with a prominent inflammatory infiltrate. *Mol Cell Biol* 2006; 26(14):5348-59; PMCID: PMC1592708; PMID: 16809771.
74. Rodig SJ, Savage, KJ, LaCasce AS, Weng, AP, Harris, NL, **Shipp MA**, His ED, Gascoyne RD, Kutok JL. Expression of TRAF1 and nuclear c-rel distinguishes primary mediastinal large cell lymphoma from other types of diffuse large B cell lymphoma. *Amer J Surg Path* 2007; 31:106-12; PMID: 17197926.

75. Polo JM, Juszczynski P, Monti S, Cerchiatti L, Ye K, **Shipp M**, Melnick A. A transcriptional signature with differential expression of BCL6 target genes accurately identifies BCL6-dependent diffuse large B-cell lymphomas. *Proc Natl Acad Sci USA* 2007; 104:3207-12; PMID: 17360630.
76. Robertson MJ, Kahl BS, Vose JU, de Vos S, Laughlin M, Flynn P, Rowland K, Cruz J, Goldberg SL, Musib L, Darstein C, Enas N, Kutok JL, Aster JC, Neuberger D, Savage KJ, LaCasce A, Thornton D, Slapak CA, **Shipp MA**. Phase II study of enzastaurin, a protein kinase C beta inhibitor, in patients with relapsed and refractory diffuse large B-cell lymphoma. *J Clin Oncol* 2007; 25:1741-6; PMID: 17389337.
77. Peterson BA, Johnson J, **Shipp MA**, Barcos M, Gockerman JP, Canellos GP. High dose CHOP. A phase II study of initial treatment in aggressive non-Hodgkin's lymphoma: Cancer and Leukemia Group B 9351. *Leukemia and Lymphoma* 2007; 48:870-80; PMID: 17487729.
78. Juszczynski P, Ouyang J, Monti S, Rodig SJ, Takeyama K, Abramson J, Chen W, Kutok JL, Rabinovich GA, **Shipp MA**. The AP1-dependent secretion of Galectin-1 by Reed-Sternberg cells fosters immune privilege in classical Hodgkin lymphoma. *Proc Natl Acad Sci USA* 2007; 104:13134-8.
79. Parekh S, Polo JM, Shaknovich R, Juszczynski P, Lev P, Ranuncolo SM, Yin Y, Klein U, Cattoretti G, Dalla-Favera R, **Shipp MA**, Melnick A. BCL6 programs lymphoma cells for survival and differentiation through distinct biochemical mechanisms. *Blood* 2007; 10:2067-74; PMID: 17545502.
80. Deng J, Carlson N, Takeyama K, Dal Cin P, **Shipp M**, Letai A. BH3 profiling identifies three distinct classes of apoptotic blocks and predicts response to ABT-737 in lymphoma cells. *Cancer Cell* 2007; 12:171-85.
81. Takeyama K, Monti S, Manis JP, Dal Cin P, Getz G, Beroukhi R, Aster JC, Alt FW, Golub TR, **Shipp MA**. Integrative analysis reveals 53BP1 copy loss and decreased expression in a subset of human diffuse large B-cell lymphomas. *Oncogene* 2008; 27:318-22; PMID: 17637749.
82. Chen L, Monti S, Juszczynski P, Chen W, Kutok JL, **Shipp MA**. SYK-dependent tonic B-cell receptor signaling is a rational treatment target in diffuse large B-cell lymphoma. *Blood* 2008; 111:2230-37.
83. Rodig SJ, Ouyang J, Juszczynski P, Currie T, Law K, Neuberger DS, Rabinovich GA, **Shipp MA**, Kutok JL. AP1-dependent galectin-1 expression delineates classical Hodgkin and anaplastic large cell lymphomas from other lymphoid malignancies with shared molecular features. *Clin Cancer Res* 2008; 14:3338-44; PMID: 18519761.
84. Abramson JS, Chen W, Takahashi H, Juszczynski P, Takeyama K, Kutok JL, **Shipp MA**. Heat shock protein 90 inhibition in AKT-dependent diffuse large B-cell lymphomas. *Br J Haematol* 2009; 144:358-66. PMID: 194029164
85. Gobert RP, van den Eijnden M, Szyndraiewicz C, Jorand-Lebrun C, Swinnen D, Chen L, Gillieron C, Pixley F, Juillard P, Gerber P, Johnson-Leger C, Halazy S, Camps M, Bombrun A, **Shipp M**, Vitte PA, Ardisson V, Ferrandi C, Perrin D, Rommel C, Hooft van Huijsduijnen R. GLEPP1/protein tyrosine phosphatase-phi inhibitors block chemotaxis *in vitro* and *in vivo* and improve murine ulcerative colitis. *J Biol Chem* 2009; 284:11385-95. PMID: 194670144
86. Wu D, Lindeman N, Takahashi H, Takeyama K, Harris NL, Pinkus GS, Longtine J, **Shipp M**, Kutok JL. No evidence for the JAK2V617F mutation in primary mediastinal large B-cell lymphoma. *Diagn Mol Pathol* 2009; 18:144-9; PMID: 19704259.
87. Yan Q, Dutt S, Xu R, Manis JP, **Shipp MA**. BBAP monoubiquitinates histone H4 lysine 91 and selectively modulates the DNA damage response. *Mol Cell* 2009; 36:110-20; PMID: 1913878; PMID: 19818714.
88. Juszczynski P, Chen L, O'Donnell E, Polo JM, Ranuncolo SM, Dalla-Favera R, Melnick A, **Shipp MA**. BCL6 modulates tonic BCR signaling in diffuse large B-cell lymphomas by repressing the SYK phosphatase, PTPROT. *Blood* 2009; 114:5315-2; PMID: 1982796136; PMID: 19855081.
89. Friedberg JW, Sharman J, Sweetenham J, Johnston PB, Vose JM, LaCasce A, Schaefer-Cutillo J, De Vos S, Sinha R, Leonard JP, Cripe LD, Gregory SA, Sterba MP, Lowe AM, Levy R, **Shipp MA**. Inhibition of Syk with fostamatinib disodium has significant clinical activity in non-Hodgkin lymphoma and chronic lymphocytic leukemia. *Blood* 2010;

15:2578-85; PMID: 19965662.

90. Juszczynski P, Rodig SJ, Takeyama K, Ouyang J, Krivtsov A, Faber J, Sinha AU, Rabinovich GA, Armstrong S, Kutok JL, **Shipp MA**. MLL-rearranged B lymphoblastic leukemias selectively express the immunoregulatory carbohydrate-binding protein galectin-1. *Clin Cancer Res* 2010; 16: 2122-30; PMID: 20332322.

91. Green MR, Monti S, Rodig SJ, Juszczynski P, Currie T, O'Donnell E, Chapuy B, Takeyama K, Neuberger D, Golub TR, Kutok JL, **Shipp MA**. Integrative analysis reveals selective 9p24.1 amplification, increased PD-1 ligand expression, and further induction via JAK2 in nodular sclerosing Hodgkin lymphoma and primary mediastinal large B-cell lymphoma. *Blood* 2010; 116:3268-77; PMID: 20628145.

92. Rodig SJ, Kutok JL, Paterson JC, Zhang W, **Shipp MA**, Grogan T, Pilen SA, Montes-Moreno S, Johnson NA, Ben-Neriah S, Farinha P, Piris MA, Gascoyne R, Marafioti T. The pre-B-cell receptor associated protein VpreB3 is a useful diagnostic marker for identifying cMYC translocated lymphomas. *Hematologica* 2010; 95:2056-62; PMID: 20823132.

93. Green MR, Monti S, Dalla-Favera R, Pasqualucci L, Walsh NC, Schmidt-Supprian M, Kutok JL, Rodig SJ, Neuberger DS, Rakewsky K, Golub TR, Alt FW, **Shipp MA**, Manis JP. Signatures of murine B-cell development implicate Yy1 as a regulator of the germinal center-specific program. *Proc Natl Acad Sci USA* 2011; 108(7):2873-8; PMID: 21282644.

94. Ouyang J, Juszczynski P, Rodig SJ, Green MR, O'Donnell E, Currie T, Armant M, Takeyama K, Monti S, Rabinovich GA, Ritz J, Kutok JL, **Shipp MA**. Viral induction and targeted inhibition of galectin-1 in EBV+ post-transplant lymphoproliferative disorders. *Blood* 2011; 117:4315-4322; accompanying editorial, *Blood* 2011; 17:4165-4166; cited in *SciBx* 4(9); doi:101038/scibx2011251 2011.

95. Kondratiev S, Duraisamy S, Unitt CL, Green MR, Pinkus G, **Shipp MA**, Kutok JL, Drapkin, RI, Rodig SJ. Aberrant expression of the dendritic cell marker TNFAIP2 by the malignant cells of Hodgkin lymphoma and primary mediastinal large B cell lymphoma distinguishes these tumor types from morphologically and phenotypically similar lymphomas. *Amer J Pathol* 2011; 35:1531-9; PMID: 21921781.

96. Duan S, Cermak L, Pagan J, Rossi M, Martinengo C, Francis di Celle P, Chapuy B, **Shipp M**, Chiarle R, Pagano M. FBXO11 targets BCL6 for degradation and is inactivated in diffuse large B-cell lymphomas. *Nature* 2012; 481:90-3.

97. Green MR, Rodig S, Juszczynski P, Sinha P, Ouyang J, O'Donnell E, Neuberger D, **Shipp MA**. Constitutive AP-1 activity and EBV infection induce PD-L1 in Hodgkin lymphomas and post-transplant lymphoproliferative disorders: Implications for targeted therapy. *Clin Cancer Res* 2012; 18:1611-8; PMID: 22271878.

98. Lohr JG, Stojanov P, Lawrence MS, Auclair D, Chapuy B, Sougnez C, Cruz-Gordillo P, Knoechel B, Ashmann YW, Slager SI, Novak AJ, Dogan A, Ansell SM, Link BK, Zou I, Gould J, Saksena G, Stransky N, Rangel-Escareno C, Fernandez-Lopez JC, Hidalgo-Miranda A, Melendez-Zajgla J, Hernandez-Lemus E, Schwartz A, Imaz I, Ojesina A, Jung J, Pedamallu C, Bhatt AS, Meyerson M, Lander ES, Habermann TM, Cerhan JR, **Shipp M**, Getz G, Golub TR. Discovery and prioritization of somatic mutations in DLBCL by whole exome sequencing. *Proc Natl Acad Sci USA* 2012; 109:3879-84; PMID: 22343534.

99. Kluk MJ, Chapuy B, Sinha P, Roy A, Dal Cin P, Monti S, **Shipp MA**, Rodig SJ. Immunohistochemical detection of MYC-driven diffuse large B-cell lymphomas. *PLoS ONE* 2012;7:e33813; PMID: 22511926.

100. Monti S*, Chapuy B*, Takeyama K, Rodig SJ, Yeda KT, Mermel CH, Curie T, Dogan A, Kutok JL, Beroukim R, Neuberger D, Habermann T, Getz G, Golub TR, **Shipp MA**. Integrative analysis reveals an outcome-associated and targetable pattern of p53 and cell cycle deregulation in diffuse large B-cell lymphoma. *Cancer Cell* 2012; 22:359-372; PMID: 22975378. *Contributed equally.

101. Croci DO, Salatino M, Rubinstein N, Cavallin LE, Leung HJ, Ouyang J, Ilarregui JM, Toscano MA, Cerliani JP, Domaica CI, Croci MC, **Shipp MA**, Mesri EA, Albini A, Rabinovich GA. Disrupting galectin-1 interactions with N-glycans suppresses hypoxia-driven angiogenesis and tumorigenesis in Kaposi's sarcoma. *J Exp Med* 2012; 22:1985-2000; PMID: 23027923.

102. Caro P, Kishan AU, Norberg E, Chapuy B, Stanley I, Tondera D, Gounarides J, Zhang B, Green MR, Chen L, Monti S, **Shipp MA**, Danial NN. Metabolic signatures uncover novel targets in molecular subsets of diffuse large B-cell lymphoma. *Cancer Cell* 2012; 22:547-560. Accompanying editorial, *Cancer Cell* 2012; 22:423-424. *Cancer Discovery Research Watch* citation December 2012; 2:1024 doi:10.1158/2159-8290. CD-RW2012-188.
103. Yan Q, Xu R, Zhu L, Cheng X, Wang Z, Manis J, **Shipp MA**. BAL1 and its partner E3 ligase, BBAP, link Poly(ADP-ribose) activation, ubiquitylation and double-strand DNA repair independent of ATM, MDC1 and RNF8. *Mol Cell Biol* 2013; 33:845-57. PMID: PMC3571337
104. Laderach DJ, Gentilini L, Giribaldi L, Cardenas Delgado V, Nugnes L, Croci DO, Al Nakouzi N, Sacca P, Casas G, Mazza O, **Shipp MA**, Vazquez ES, Chauchereau A, Kutok JL, Rodig SJ, Elola MT, Compagno D, Rabinovich GA. A unique galectin signature in human prostate cancer progression suggests galectin-1 as a key target for treatment of advanced disease. *Cancer Res* 2013; 73:86-96; PMID: 23108139.
105. Ouyang J, Plutschow A, Pogge von Strandman E, Reiners KS, Ponader S, Rabinovich GA, Neuberg D, Engert A, **Shipp MA**. Galectin 1 Serum Levels Reflect Tumor Burden and Adverse Clinical Features in Hodgkin Lymphoma. *Blood* 2013; 121:3431-3433; PMID: 2344403.
106. Chen L, Monti S, Juszczynski P, Ouyang J, Chapuy B, Bogusz AM, Habermann TM, Dogan A, Witzig TE, Kutok JL, Rodig SJ, Golub T, **Shipp MA**. SYK inhibition modulates distinct PI3K/AKT-dependent survival pathways and cholesterol biosynthesis in diffuse large B-cell lymphomas. *Cancer Cell* 2013; 23:826-838. *Cancer Discovery Research Watch* citation Online First June 20, 2013; doi:10.1158/2159-8290. CD-RW2013-130.
107. Chen BJ, Chapuy B, Ouyang J, Sun HH, Roemer MGM, Xu MI, Yu H, Fletcher CDM, Freeman GJ, **Shipp MA**, Rodig SJ. PD-L1 expression is characteristic of a subset of aggressive B-cell lymphomas and virus-associated malignancies. *Clin Cancer Res* 2013; 19:3462-3473.
108. Chapuy B*, McKeown, MR*, Lin C, Monti S, Roemer MGM, Qi J, Rahl PB, Sun H, Yeda KT, Kung AJ, Rodig SJ, Young RA, **Shipp MA**⁺, Bradner JE⁺. Discovery and characterization of super enhancer-associated dependencies in diffuse large B-cell lymphoma. *Cancer Cell* 2013; 24:777-790. * Contributed equally. + Contributed equally.
109. Croci DO, Cerliani JP, Dalotto-Moreno T, Mendez-Huergo SP, Mascanfroni ID, Dergan-Dyon S, Toscano MA, Caramelo JJ, Garcia-Vallejo JJ, Ouyang J, Meseri EA, Junttila MR, Bais C, **Shipp MA**, Salatino M, Rabinovich GA. Glycosylation-dependent lectin-receptor interactions preserve angiogenesis in anti-VEGF refractory tumors. *Cell* 2014; 156:744-758. Accompanying editorial, *Cell* 2014; 156:625-626. *Cancer Discovery Research Watch* citation Online First February 27, 2014 doi:10.11581 2159-8290. *Nature Medicine Research Highlights* citation March 2014; 20(3):250.
110. Hao Y, Chapuy B, Monti S, Sun HH, Rodig SJ, **Shipp MA**. Selective JAK2 inhibition specifically decreases Hodgkin lymphoma and mediastinal large B-cell lymphoma growth *in vitro* and *in vivo*. *Clin Cancer Res* 2014; 20(10):2674-83.
111. Shi M, Roemer MGM, Chapuy B, Liao X, Sun H, Pinkus GS, **Shipp MA**, Freeman GJ, Rodig SJ. Expression of Programmed Cell Death 1 Ligand 2 (PD-L2) is a Distinguishing Feature of Primary Mediastinal (Thymic) Large B-cell Lymphoma and Associated with *PDCD1LG2* Copy Gain. *Am J Surg Pathol* 2014 38(12):1715-23; PMID 25025450.
112. Ansell SM, Lesokhin AM, Borrello I, Halwani A, Scott EC, Gutierrez M, Schuster SJ, Millenson MM, Cattrly D, Freeman GJ, Rodig SJ, Chapuy B, Ligon AH, Zhu L, Grosso JF, Kim SY, Timmerman JM, **Shipp MA***, Armand P*. PD-1 Blockade Using Nivolumab in Relapsed/Refractory Hodgkin Lymphoma. *N Engl J Med* 2015; 372:311-319; PMID 25482239. Epub 2014 Dec 6. Accompanying editorial, *N Engl J Med* 2015; 372:374-375. Doi: 10.1056/NEJMe1413488. * Contributed equally.
113. Carey CD, Gusenleitner D, Chapuy B, Kovach AE, Kluk MJ, Sun HH, Crossland RE, Bacon CM, Rand V, Dal Cin P, Le LP, Neuberg D, Sohani AR, **Shipp MA**, Monti S, Rodig SJ. Molecular Classification of MYC-Driven B-cell Lymphomas by Targeted Gene Expression Profiling of Fixed Biopsy Specimens. *J Mol Diagn* 2015; 17(1):19-30.
114. Karreth FA, Reschke M, Ruocco A, Ng Christopher, Chapuy B, Ala U, Leopold V, Seitzer N, Sjoberg M, Keane TM, Tay Y, Langellotto F, Rodig SJ, **Shipp MA**, Adams DJ, Chiarle R, Pandolfi PP. The BRAF Pseudogene Functions as a Competitive Endogenous RNA and Induces Lymphoma In Vivo. *Cell* 2015; 161(2):319-32.

115. Chapuy B, Roemer MG, Stewart C, Tan Y, Abo RP, Zhang L, Dunford AJ, Meredith DM, Thorner AR, Jordanova ES, Liu G, Feuerhake F, Ducar MD, Illerhaus G, Gusenleitner D, Linden EA, Sun HH, Homer H, Aono M, Pinkus GS, Ligon AH, Ligon KL, Ferry JA, Freeman G, van Hummelen P, Golub TR, Getz G, Rodig SJ, de Jong D, Monti S, **Shipp MA**. Targetable Genetic Features of Primary Testicular and Primary Central Nervous System Lymphomas. *Blood* 2016; 127(7):869-81. Epub 2015 Dec 23.
116. Chapuy B, Cheng H, Watahiki A, Ducar MD, Tan Y, Chen L, Roemer M, Ouyang J, Christie AL, Zhang L, Gusenleitner D, Abo RP, Farinha P, von Bonin F, Thorner AR, Sun HH, Gascoyne RD, Pinkus GS, van Hummelen P, Wulf GG, Aster JC, Weinstock DM, Monti S, Rodig SJ, Wang Y, **Shipp MA**. Diffuse Large B-cell Lymphoma Patient derived Xenograft Models Capture the Molecular and Biologic Heterogeneity of the Disease. *Blood* 2016; Jan. 15. Epub ahead of print.
117. Howitt BE, Sun HH, Roemer MG, Kelley A, Chapuy B, Aviki E, Pak C, Connelly C, Gjini E, Shi Y, Lee L, Viswanathan A, Horowitz N, Neuberg D, Crum CP, Lindeman NL, Kuo F, Ligon AH, Freeman GJ, Hodi FS, **Shipp MA**, Rodig SJ. Genetic Basis for PD-L1 Expression in Squamous Cell Carcinomas of the Cervix and Vulva. *JAMA* 2016; 2(4):518-22.
118. Townsend EC, Murakami MA, Christodoulou A, Christie AL, Koester J, DeSouza TA, Morgan EA, Kallgren SP, Liu H, Wu S-C, Plana O, Montero J, Stevenson KE, Andreeff M, Armand P, Ballen KK, Barzaghi-Rinaudo P, Cahill S, Clark RA, Cooke VG, Davids MS, DeAngelo DJ, Dorman DM, Eaton H, Ebert BL, Etchin J, Firestone B, Fisher DC, Freedman AS, Galinsky IA, Gao H, Garcia JS, Garnache-Ottou F, Graubert TA, Gutierrez A, Halilovic E, Harris MH, Herbert ZT, Horwitz SM, Inghirami G, Intlekofer AM, Ito M, Izraeli S, Jacobsen ED, Jacobson CA, Jeay S, Jeremias I, Kelliher MA, Koch R, Konopleva M, Kopp N, Kornblau SM, Kung AL, Kupper TS, LeBoeuf N, LaCasce AS, Lees E, Li L, Look AT, Murakami M, Muschen M, Neuberg D, Ng SY, Odejide OO, Orkin SH, Paquette RR, Place AE, Roderick JE, Ryan JA, Sallan SE, Shoji B, Silverman LB, Soiffer RJ, Steensma DP, Stegmaier K, Stone RM, Tamburini J, Thorner AR, van Hummelen P, Wadleigh M, Wiesmann M, Weng AP, Wuerthner JU, Williams DA, Wollison BM, Lane AA, Letai A, Bertagnolli M, Ritz J, Brown M, Long H, Aster JC, **Shipp M**, Griffin JD, Weinstock DM. The Public Repository of Xenografts (PRoXe) enables discovery and randomized phase II-like trials in mice. *Cancer Cell* 2016; 29(4):574-86.
119. Roemer M, Advani RH, Ligon AH, Natkunam Y, Redd RA, Homer H, Connelly CF, Sun HH, Daadi SE, Freeman GJ, Armand P, Chapuy B, de Jong D, Hoppe RT, Neuberg DS, Rodig SJ, **Shipp MA**. *PD-L1* and *PD-L2* Genetic Alterations Define Classical Hodgkin Lymphoma and Predict Outcome. *J. Clin. Oncol.* 2016; Apr. 11 Epub ahead of print. Selected as "Rapid Communication" (top 5% of JCO published papers).
120. Yoshihama S, Roszik J, Downs I, Meissner TB, Vijayan S, Chapuy B, Sidiq T, **Shipp MA**, Lizee G, Kobayashi KS. NLRC5/MHC class I transactivator is a target for immune evasion in cancer. *PNAS*. Published ahead of print May 9, 2016, doi:10.1073/pnas.1602069113.
121. Lesokhin AM, Ansell SM, Armand P, Scott EC, Halwani A, Gutierrez M, Millenson MM, Cohen AD, Schuster SJ, Lebovic D, Dhodapkar M, Avigan D, Chapuy B, Ligon AH, Freeman GJ, Rodig SJ, Cattry D, Zhu L, Grosso JF, Garelik MB, **Shipp MA**, Borrello I, Timmerman J. Nivolumab in Patients with Relapsed or Refractory Hematologic Malignancies: Preliminary Results of a Phase 1b Study. 2016 *J. Clin. Oncol.* 2016, in press.
122. Armand A, **Shipp MA**, Ribrag V, Michot J, Zinzani PL, Kuruvilla J, Snyder ES, Ricart AD, Balakumaran A, Rose S, Moskowitz CH. PD-1 blockade with pembrolizumab in patients with classical Hodgkin lymphoma after brentuximab vedotin failure. *J. Clin. Oncol.* 2016, in press.
123. Younes A, Santoro A, **Shipp MA**, Zinzani PL, Timmerman JM, Ansell S, Armand P, Fanale M, Ratanatharathorn V, Kuruvilla J, Cohen J, Collins G, Savage KJ, Trneny M, Kato K, Farsaci B, Parker SM, Rodig S, Roemer M, Ligon AH, Engert A. Nivolumab for classical Hodgkin lymphoma after autologous stem-cell transplantation and brentuximab vedotin failure: a prospective phase 2 multi-cohort study. *Lancet Oncology* 2016, in press.

Proceedings of Meetings:

1. Coiffier B, **Shipp MA**, Cabanillas F, Crowther D, Armitage JO, Canellos GP. Report of the first workshop on prognostic factors in large cell lymphomas, Lugano meeting. *Ann Oncol* 1991; 2:213-7.

2. Rohatiner AZS, Crowther D, **Shipp M**, Coiffier B, Lister TA. Report on a workshop convened to discuss the pathological and staging classification of gastrointestinal tract lymphoma. *Ann Oncol* 1994; 5:397-400.
3. Weinstock DM, Dalla-Favera R, Gascoyne RD, Leondard JP, Levy R, Lossos IS, Melnick AM, Nowakowski GS, Press OW, Savage KJ, **Shipp MA**, Staudt LM. A roadmap for discovery and translation in lymphoma. *Blood* 2015; 125(13):2175-7. PMID: 25814490, PMID: PMC4375113
4. Houot R, Schreiber R, Mellman I, Lambotte O, Coulie P, Fest T, Korman A, Levy R, **Shipp M**, Tarte K, Kohrt H, Marabelle A, Ansell S, Watier H, van Elsas A, Balakumaran A, Vargas FA, Quezada S, Salles G, Olive D. Immunomodulatory antibodies for the treatment of lymphoma: Report on the CALYM Workshop. *OncoImmunology* 2016, in press.

Reviews, Chapters and Editorials:

1. **Shipp MA**, Stefano GB, Scharrer B, Reinherz EL. CD10 (CALLA, common acute lymphoblastic leukemia antigen)/neutral endopeptidase 24.11 (NEP, "enkephalinase"): Molecular structure and role in regulating met-enkephalin mediated inflammatory responses. *Adv in Neuroimmunol* 1991; 1:139-49.
2. **Shipp MA**, Stefano GB, Switzer SN, Griffin JD, Reinherz EL. CD10 (CALLA)/ Neutral endopeptidase 24.11 modulates inflammatory peptide-induced changes in neutrophil morphology, migration, and adhesion proteins and is itself regulated by neutrophil activation. *Blood* 1991; 78:1834-41.
3. **Shipp MA**, Salles GS. Patients with localized non-Hodgkin's lymphoma provide opportunities for further research [Commentary]. *Oncology* 1991; 5:134-7.
4. **Shipp M**. Prognostic factors in non-Hodgkin's lymphoma. *Current Opinion Oncol.* 1992; 4:856-62.
5. **Shipp MA**, Look AT. Hematopoietic differentiation antigens that are membrane-associated enzymes: cutting is the key! *Blood* 1993, 82:1052-70.
6. Salles G, **Shipp MA**, Coiffier B. Chemotherapy of non-Hodgkin's aggressive lymphomas. *Sem. in Hematol* 1994; 31:46-69.
7. **Shipp MA**. Prognostic factors in aggressive non-Hodgkin's lymphoma: Who has "high-risk" disease? *Blood* 1994; 83:1165-73.
8. Drazen JM, Evans J, Stevens RI, **Shipp MA**. Inflammatory effector mechanisms in asthma. *Amer J Resp and Critical Care Med* 1995; 152:403-7.
9. **Shipp MA**, Gascoyne RD, Braziel RM, Grogan TM. Prognostic features in aggressive non-Hodgkin's lymphoma. *Am J Surg Pathol* 1996; 20:371-9.
10. **Shipp MA**. Harris NL, Mauch PM. The non-Hodgkin's lymphomas. In: DeVita VT, Hellman S, Rosenberg SA, eds. *Cancer Principles & Practices of Oncology*. Philadelphia: J.B. Lippincott Company, 1997; 2165-2220.
11. **Shipp MA**. Can we improve upon the International Index? *Ann Oncol* 1997; 8 (Suppl. 1):S43-7.
12. Howard OM, **Shipp MA**. The cellular and molecular heterogeneity of the aggressive non-Hodgkin's lymphomas. *Curr Opin Oncol* 1998; 10:385-91.
13. **Shipp MA**. The non-Hodgkin's lymphomas. In: Goldman L, Schaffer A, eds. *Cecil Textbook of Medicine*. Philadelphia: W.B. Saunders Company, 1999; 962-9.

14. Harris NJL, Jaffe ES, Armitage JO, **Shipp M**. Lymphoma Classification: from R.E.A.L. to W.H.O. and beyond. In: DeVita VT, Helman S, Rosenberg SA, eds. Updates – Cancer Principles and Practice of Oncology, Philadelphia, JP Lippincott Company 1999; 13:1-14.
15. **Shipp MA**. Clinical and biological prognostic factors in diffuse large B cell lymphoma. In: Mason DY, Harris NL, eds. Human Lymphoma: Clinical Implications of the REAL Classification, New York: Springer, 1999; 24:1-7.
16. **Shipp MA**. Can aggressive lymphomas be grouped for treatment? In: Mason DY, Harris NL, eds. Human Lymphoma: Clinical Implications of the REAL Classification, New York, Springer, 1999; 55:1-4.
17. **Shipp MA**. Lymphomas. In: Scharschmidt BF, Benz, eds. Pocket Medicine/Internal Medicine, Philadelphia: Pocket Medicine.com, Inc. (electronic only), 2001.
18. Loeffler M, **Shipp M**, Stein H. Report on the Workshop: “Clinical Consequences of Pathology and Prognostic Factors in Aggressive NHL”. Ann Hematol 2001;80:B8-12
19. **Shipp MA**. Recent advances in the biology of diffuse large B-cell lymphoma. ASCO Educational Book. 2003; 612-14.
20. **Shipp MA**. Molecular signatures of lymphoid Malignancies: Identification of novel disease subtypes and rational therapeutic targets. ASH Educational Book, 2003; 286-87.
21. **Shipp M**, Aquino SL, Harris NL. Case Records of the Massachusetts General Hospital: A thirty year old woman with fever and mediastinal mass. N Engl J Med 2005; 352:1697-704.
22. **Shipp MA**. Molecular heterogeneity of large B-cell lymphoma: an update. European Hematology Association Educational Book 2005; 139-40.
23. Abramson JS, **Shipp MA**. Advances in the biology and therapy of diffuse large B-cell lymphoma—moving towards a molecularly targeted approach. Blood First Edition online 4/26/05 and 2005; 106:1164-74.
24. **Shipp MA**. New concepts in treatment approaches and prognostic factors in aggressive NHL. Clin Advances in Hematol & Oncol 2006; 4:107-9.
25. **Shipp MA** Molecular signatures define new rational treatment targets in large B-cell lymphomas. Hematology Am Soc Hematol Education Program 2007; 265-9.
26. Chapuy B and **Shipp M**. Using molecular signatures to identify rational therapeutic targets in diffuse large B-cell lymphoma. Hematology Education: the education program for the annual congress of the European Hematology Association 2009; 3:112-7.

Clinical Communications:

1. **Shipp MA**, Harrington DP. A predictive model for non-Hodgkin’s lymphoma, The Authors’ Reply. N Engl J Med 1994; 330:574-5.

Patents:

1. DFCI# 596
Shipp, M., Aguiar, R., Yakushijin, Y.
USSN 09/830,762, PCT/US99/25439
Lymphoma Associated Molecules and Uses Therefore (BAL)
Filed 10/29/98, United States Patent 6,870,040 issued 3/22/05; United States Patent 7,858,742 issued 12/28/2010
2. DFCI# 671
Shipp, M., Aguiar, R., Gu, L., Takeyama, K.
USNN 09/957,635, PCT.US01/29370, US Publication #20020120112
Lymphoma Associated Molecules and Uses Therefore (BBAP)

Filed 9/19/00; United States Patent 7,112,420 issued 9/26/2006; United States Patent 7,632,660 issued 12/15/2009

3. DFCI# 757
Golub, T., Lander, E., **Shipp, M.**, Tamayo, P.
USSN 09/989,758, US Publication #20030194701
Diffuse Large Cell Lymphoma Diagnosis and Outcome Prediction by Expression Analysis
Filed 11/20/00.—All the 757 cases were abandoned.
4. DFCI# 1198.03
Shipp, M., Juszczynski, P., Ouyang, J., Kutok, J., Rodig, S., Rabinovich, G.
USSN 12/175,227, US Patent Application No. 60/959.830
Composition, kits, and methods for the modulation of immune responses using Galectin-1
Priority Filing 7/17/07
5. DFCI# 1198.05
Shipp, M., Ouyang, P., Takeyama, K., Kutok, J., Rodig, S., Rabinovich, G., Russo, D., Salatino, M.
USSN 12/175,249, US Patent Application No. 61/003.254
Composition kits and methods for the diagnosis, prognosis, and monitoring of immune disorders using Galectin-1
Priority Filing 11/15/07
6. DFCI# 1316 (DFCI #1493 incorporated into DFCI #1316)
Shipp, M., Ouyang, P., Takeyama, K., Kutok, J., Rodig, S., Rabinovich, G., Russo, D., Salatino, M.
USSN 13/509,466, US Publication #20130011409
EP 10830795.0, CA 2778953
Compositions, kits, and methods for the diagnosis, prognosis, monitoring, treatment and modulation of post-transplant lymphoproliferative disorders and hypoxia associated angiogenesis disorders using galectin-1
Priority Filing 11/13/09
7. DFCI #1549
Shipp, M., Yan, Q., Ouyang, J.
USSN 14/350,166, US Publication #TBD
Compositions and Methods for the Modulation of DNA Damage Responses Using BALI and BBAP
Priority Filing 10/05/11
8. DFCI #1603
Shipp, M., Monti, S., Chapuy, B., Rodig, S., Golub, T.
PCT/US2013/028297
Compositions, Kits, and Methods for the Identification, Assessment, Prevention, and Therapy of Cancer
Priority Filing 2/29/12.
9. DFCI #1764 (DFCI #1812 incorporated into DFCI #1764)
Shipp, M.A., Ouyang, J., Rodig, S.J.
Anti-Galectin-1 Monoclonal Antibodies and Fragments Thereof
Pending USSN #61/857,839 filed 7/24/13; Pending USSN # 61/911,031 filed 12/03/13