\_**CURRICULUM VITAE**

April, 2013

Name: Leonard A. Zwelling, M.D., M.B.A.

Present Title and Affiliation: Professor of Medicine and Pharmacology

 The University of Texas M. D. Anderson Cancer Center

 Houston, TX

 Chancellor’s Fellow in Healthcare Reform and Comparative /Effectiveness for UT Executive Vice Chancellor for Health Affairs

 Graduate Robert Wood Johnson Foundation

 Health Policy Fellow

 Senior Fellow of the Sealy Center on Aging-UTMB

Birth Date and Place: July 22, 1948, New Haven, CT

Citizenship: United States of America

Home Address: 545 College Street, Bellaire, TX 77401

Telephone: (713) 663-6388

Office Address: 1515 Holcombe, Houston, TX 77030

Telephone: Office: (713) 859-8714 FAX: (713) 745-1710

 E-mail: lzwellin@mdanderson.org

 leonard.zwelling@gmail.com

Marital Status: Married, Eugenie Kleinerman, M.D.

 2 children, Richard Alexander, 1980

 Andrew Jon, 1986

Licensures-Active: Texas and Maryland

Education: Sept. 1969, A.B., Duke University

 Nov. 1972, M.D., Duke University

 May 1993, M.B.A., The University of Houston

 June 1996, Leadership Houston, Class XIV

 April 2008, American Leadership Forum, Med Class 2

 April 2008-Certificate student-UT Health Science Center School of Public Health

Postgraduate Training:

1972 – 1973 Fellow, Rheumatology, Duke University

1973 – 1974 Intern, Medicine, Duke University

1974 – 1975 Junior Resident, Medicine, Duke University

1975 – 1978 Clinical Associate, Medicine Branch, Clinical Oncology Program,

 Division of Cancer Treatment, National Cancer Institute, NIH

1978 – 1982 Cancer Expert, Laboratory of Molecular Pharmacology,

 Developmental Therapeutics Program National Cancer Institute, NIH

Specialty Boards:

June, 1976 American Board of Internal Medicine

Nov., 1983 Subspecialty-Medical Oncology

Military or Government Service:

1975 – 1978 U.S. Public Health Service

1982 – 1984 U.S. Public Health Service

Academic and Professional Appointments:

1982 – 1984 Senior Investigator, Laboratory of Molecular Pharmacology,

 Developmental Therapeutics Program, National Cancer Institute

1984 – 1991 Associate Professor of Medicine and Pharmacology,

 Division of Medicine, M.D. Anderson Cancer Center

1991 – Pres. Professor of Medicine and Pharmacology, Division of Cancer Medicine,

 M.D. Anderson Cancer Center

1985 – Pres. Member, Graduate School of Biomedical Sciences, The University

of Texas Health Science Center Interdisciplinary Studies in Cancer

Biology Program

1988 – 1999 University of Texas Medical School at Houston M.D.-Ph.D. Program,

Director of the Cancer Track, Co-Director of the M.D.-Ph.D. Program

1995 – 1998 Associate Vice President for Clinical and Translational Research

1998 – 2000 Associate Vice President for Research Administration

2000 – 2007 Vice President for Research Administration

2007-2008 Special Assistant to the Senior Vice President for Business Affairs

* 1. Robert Wood Johnson Foundation Health Policy Fellow

 United States Senate Committee on Health, Education,

 Labor, and Pensions; Senator Michael B. Enzi (R-WY)

2009-2011 Robert Wood Johnson Foundation Health Policy Fellow

2011 Graduate fellowship program RWJF Foundation

2009-2010 Faculty Administrator for Science Park Research Division, M. D. Anderson

2009-Present Chancellor’s Health Fellow for Dr. Kenneth Shine, Executive Vice Chancellor for Health Affairs, UT System

2009-2012 Institutional Animal Care and Use Committee

2010-2011 Executive Director, Pharmaceutical Development Center

Administrative Responsibilities:

1984 –1985 Research Seminar Committee - M.D. Anderson

1985 – Pres. Utilization Subcommittee of the Executive Committee of the Medical

 Staff - M.D. Anderson

1985 – Pres. Investigational Drug Subcommittee of the Executive Committee of the

 Medical Staff-M.D. Anderson

1986 – 1987 Organizer, Chemotherapy Research Seminar Series

1986 – 1989 Medical Practice Subcommittee of Executive Committee of the Medical

 Staff - M.D. Anderson

1986 – 1989 Institutional Research Grant Committee-M.D. Anderson,

 Vice Chairman, 1987-1988 / Chairman, 1988-1989

1986 – 1989 Research Committee-M.D. Anderson Member-at-Large, 1987-1989

1986 - 1989, 1991 - 1994 Promotions Committee, Division of Medicine –

 M.D. Anderson

1987 – 1990 Medical Oncology Fellowship Steering Committee, M.D. Anderson

1988 – 1991 Curriculum Committee, University of Texas Graduate School of

 Biomedical Sciences

1988 – 1989 Program Committee-1989 Fundamental Research Symposium,

 M.D. Anderson

1989 – 1999 M.D.-Ph. D. Committee of the University of Texas School of Medicine at

 Houston, Director of the M.D.-Ph.D. Cancer Track Program, Co-Director of

 the Program

1989 – 2008 Member, Graduate Committee, Interdisciplinary Studies in Cancer

 Biology Program

1989 –1990 Program Committee-1990 Fundamental Research Symposium,

 M.D. Anderson

1990 – 1995 Member, Intellectual Property Committee, M.D. Anderson,

 Vice-Chairman 1993-1994, Chairman 1994-1995

1991 – 1995 Research Committee, PRS Executive Council Subcommittee

1992 Intramural Assessment Team for the Office of Technology Development

1992 – 1993 Advisory Committee to the Search Committee for the Head of the

 Division of Medicine

1992 Indigent Care/Referral Focus Group

1993 Education Council, The University of Texas, M.D. Anderson Cancer

 Center

1993 – 1995 Patient Satisfaction Steering Committee

1993 – 1994 Quality Council Implementation Plan Subcommittee

1993 Managed Care Task Force on Education

Administrative Responsibilities (cont.):

1993 – 1995 Health Services Research Working Group, Leader

1993 – 1995 Special Assistant to the Vice President for Patient Care

1994 – 1995 Steering Committee, Institutional Reengineering, Chief staff member

1995 – 1999 Executive Committee for the Prevention Faculty

1995 – 1998 Associate Vice President for Clinical and Translational Research

1996 – 2007 Institutional Research Integrity Officer in area of scientific misconduct

1998 – 2007 Institutional Information Systems Steering Committee

1998 Institutional Health Services Research Steering Committee

1998- 2000 Associate Vice President for Research Administration

1998 – 2007 President’s Advisory Board

1998 – 2007 Executive Committee of the Science Faculty, ex-officio

1998 – 2007 Executive Committee of the Medical Staff, ex-officio

1998 – 2007 Research Council, ex-officio

1999 – 2007 Conflict of Interest Committee, ex-officio

1999 – 2007 Institutional Space Committee

1999 – 2006 Institutional Compliance Committee

2000 - 2007 Vice President for Research Administration

2000- 2004 Clinical Council, ex-officio

1. Member, Planning Committee for New Institutional Clinical Facility
2. Chairman, President’s Oversight Committee for the Cancer Therapeutics Development Program

2006-2007 Chairman, Animal Research Strategic Advisory Committee

2009-2012 Chairman, Institutional Animal Care and Use Committee

2010-2011 Executive Director, Pharmaceutical Development Center, M. D. Anderson

Local, State, National, International Committees:

1981 Developmental Therapeutics Contract Committee, NCI

1981 Platinum Coordination Complex Analog Development Committee, Developmental Therapeutics Program, NCI

1982 Scientific Advisory Committee to Develop Experimental Metastatic Models for Drug Screening, NCI

1983 – 1984 Decision Network Committee, NCI

June, 1987 Grant Review - Study Section American Cancer Society

Oct., 1987 Special Study Section - RFA-87-CA-21 "Molecular Probes in Unique Subsets

 of Colorectal Cancer Patients" - NCI

May, 1988 Site Visit - Dana-Farber Cancer Center, Boston, MA

1988 – 1989 Program Committee - National meeting of the American Association for

 Cancer Research

March, 1989 Site Visit - NYU School of Medicine, New York

1990 – 1991 Program Committee - National meeting of the American Association for

 Cancer Research

1990 – 1991 Local Arrangements Committee - National Meeting of the American

 Association for Cancer Research

1991 – Pres. Texas State Legislative Committee of the American Association for

 Cancer Research

1995 – 1996 Sustaining Membership Committee-AACR

1996 – Pres. Technical Advisory Committee on Reimbursement of Medical Education

 and Research Costs of the Texas Health Care Information Council

1996 Chairman of Planning Committee of the Human Protections Workshop,

November 1-2, jointly sponsored with Texas Southern University, The U.S. Food and Drug Administration and the Office for Protection from Research Risks

1998 Special Friend to KinderRx Clinic for children exposed to alcohol or HIV

1999 - 2000 First President of Gulf Coast Chapter of ASPEN

2002- 2005 Member, Communications Committee, American Society of Clinical Oncology

2002- 2005 Member, Public Issues Committee, American Society of Clinical Oncology

* 1. Judge, Best Practice Award, Award for Excellence in Human Research Protection, Health Improvement Institute

2005-2008 Board of Trustees, Congregation Beth Israel

2005-2008 The Metropolitan Organization member and Executive Committee

2005-2008 The Chaplaincy Fund, Inc of The University of Texas M. D. Anderson Cancer Center

2007-2008 Board of the Council on Governmental Relations

2007-2008 Diversity Council, M.D. Anderson Cancer Center

2008 Harris County Medical Society Alternative Delegate to the Texas Medical Association

2008 Board of Directors South Main Alliance, Houston, TX

2008 University of Texas IRB Task Force

2010 Legacy Community Health Services, Inc., Board of Directors of largest FQHC in Houston, Chair, Committee on Strategic Planning and Public Policy

2012 Member of first study section reviewing PCORI grant applications for federal government (Panel ZRG1 CB-J(70)R on 2/21/12, Washington, DC)

2012 Member Excellence in Human Research Protection Awards Steering Committee, Health Improvement Institute, Best Practice Award

2012 Southern Medical Association Leadership and Professional Identity Committee

2012 Member, Future Directions Committee, CPRIT

Honors and Awards:

Member, American Society for Clinical Investigation

Fellow, American College of Physicians

Phi Beta Kappa

Phi Eta Sigma

Engel Society-Duke University School of Medicine

Undergraduate Chemistry Honorary-Duke University

Dean's Teaching Excellence Award, 1988-1989 for Internal Medicine

Beta Gamma Sigma-National honorary of colleges of business administration

3rd Annual Hohn Lecture Series Speaker, Roswell Park Cancer Center

Salute to Excellence Award from CPA Society of Houston, Healthcare Symposium, November 2010

Outstanding CPE Recipient-Houston CPA Society, May 2011

Lectureships and Visiting Professorships:

Invited Speaker-Euchem Conference on Coordination Chemistry and Cancer

 Chemotherapy-7th International Congress of Pharmacology, July 24-26, 1978,

 Toulouse, France

Invited Speaker and editor-Symposium of the National Cancer Institute Conference on

Cis-Platinum and Testicular Cancer, September 21-22, 1978, Washington, D.C.

Invited Speaker-Cisplatin-Current Status and New Developments-A Symposium

sponsored by the University of Alabama Comprehensive Cancer Center and Bristol Laboratories, September 27-28, 1979, Atlanta

Invited Speaker-11th International Congress of Chemotherapy and 19th Interscience

Conference on Antimicrobial Agents and Chemotherapy-Symposium on Platinum and Other Metal Complexes-October 1-5, 1979, Boston

Invited Speaker-12th International Congress of Chemotherapy, Florence, Italy, 1981

Invited Speaker-Inorganic Division of the American Chemical Society Symposium on

"Chemistry and Biochemistry of Platinum, Gold, and Other Metal Chemotherapeutic Agents", 1982, Las Vegas

Invited Speaker-Biochemical Modulators Advisory Group- National Cancer Institute, March

8, 1983 - Platinum Compounds

Invited Speaker-Biochemical Modulators Advisory Group-June 13, 1983 – DNA

 Intercalating Agents

Invited Speaker-Chemical Modifiers of Cancer Treatment-October 20-24, 1985,

 Clearwater, FL

Invited Speaker-Second International Symposium on Cellular Oncology-December 11-13,

 1985, Palm Springs, CA

Invited Speaker-192nd National American Chemical Society meeting-September 9-10,

 1986, Anaheim, CA

Invited Speaker-1st Conference on DNA Topoisomerases in Cancer Chemotherapy

November 19-20, 1986, New York, NY

Invited Speaker - FASEB - ASPET Symposium - DNA Topoisomerases as Targets for

 Chemotherapy - April 1, 1987, Washington, D.C.

Invited Speaker - Memorial-Sloan Kettering Institute's Oncology Fellowship Program –

 April 7, 1987, New York, NY

Invited Speaker - Montreal General Hospital and McGill Cancer Center - May 5-6, 1987,

 Montreal, Canada

Invited Speaker - Duke University Comprehensive Cancer Center - William Shingleton

 Symposium - November 3, 1987

Visiting Professor - Department of Radiation Oncology University of Michigan, Ann Arbor,

Michigan, December 8-9, 1987

Invited Speaker - Brook Lodge Symposium on "Drug-DNA Interactions: Biological

 Implications" - December 9-11, 1987, Kalamazoo, MI

Invited Speaker - Tumor Biology Group Conference-City of Hope National Medical Center,

 Duarte, CA - March 30, 1988

Invited Speaker - Ireland Cancer Center - Case-Western Reserve University, June 10,

 1988

Invited Speaker - Northport VA Northeast Region Oncology Conference on "Cancer Care

 in the Northeastern Region" - January 19, 1989

Invited Speaker - Institute for Molecular Design, Department of Chemistry, University of

 Houston - February 8, 1989

Invited Speaker - University of Washington, Seattle, WA, Department of Pediatrics and Neurosurgery, April 24, 1989

Invited Speaker - Baylor College of Medicine, May 31, 1989

Invited Speaker - Cleveland Clinic, August 25, 1989

Invited Speaker - Bowman Gray School of Medicine, Wake Forest University, Department

 of Biochemistry, November 7, 1989

Invited Speaker - Medical College of Virginia, Departments of Medicine and

 Pharmacology, December 13, 1989

Invited Speaker - Upjohn Company, Grand Rapids, MI, February 14, 1990

Invited Speaker - St. Jude Children's Research Hospital, February 16, 1990

Invited Speaker - Memorial City Medical Center, Houston, TX March 1, 1990

Invited Speaker - Leukemia...the Next Questions, Houston, TX March 10, 1990

Invited Speaker - Adria Laboratories, Columbus, Ohio, April 12, 1990

Invited Speaker - Gordon Research Conference on Chemotherapy of Experimental and

 Clinical Cancer, July 16-19, 1990

Invited Speaker - SynPhar Laboratories/Taiho Pharmaceuticals 3rd Annual Conference,

 Enzyme Inhibitors As Possible Therapeutic Agents, Victoria, British Columbia, Canada August 13-16, 1990

Invited Speaker - Vanderbilt University, Department of Biochemistry, November 12, 1990

Invited Speaker - University of Pittsburgh, Department of Pharmacology, November 16,

 1990

Invited Speaker - Keystone Symposium on Molecular and Cellular Biology, "Genomic

 Instability and Cancer", Tamarron, Colorado, February 4-5, 1991

Invited Speaker - Internal Medicine Grand Rounds, University of Texas School of Medicine

at Houston, March 12, 1991

Invited Speaker - Preuss Foundation Seminar on "The Pharmacologic Problems in the Treatment of Glial Tumors", Duke University Medical Center, April 15-17, 1991

Invited Speaker - FASEB - ASPET Symposium, "Experimental Therapeutic Strategies

 Against Drug Resistance", April 22, 1991, Atlanta

Invited Speaker - Ohio State University, Division of Radiobiology, Topics in Molecular and

 Environmental Health May 10, 1991

Invited Speaker - American Association of Clinical Chemistry, Symposium-"Current Topics

 in Cancer Diagnosis and Therapy", Washington, D.C., August 1, 1991

Invited Speaker - Memorial Sloan-Kettering Institute Symposium in honor of the retirement

 of Dr. M. Lois Murphy, "The Chemotherapy of Childhood Cancer", March 24, 1992

Invited Speaker - Imperial Cancer Research Fund, London, England, June 18, 1992

Invited Speaker - International Symposium of the Sonderforschungsbereich 172,

 "Approaches for the Identification of Lesions Relevant in Carcinogenesis",

 Wurzburg, Germany, June 20, 1992

Invited Speaker - Medical Oncology: The Cutting Edge, Memorial Sloan-Kettering Cancer

 Center, October 22, 1992

Invited Speaker - The University of Chicago Annual Pharmacology Lecture, June 18, 1993

Invited Speaker and Chairman of meeting - First Workshop on Molecular Resistance

 Mechanisms for the Cooperative Study Group Cellular Resistance, October 26-27,

 1993, Munich, Germany

Invited speaker - The University of Houston College of Business Administration, Course

 DISC 4363/7361-Operations Management in the Service Sector-"From Medical

 School to Business School: Reengineering a Career", November 16, 1993

Invited Speaker - The University of St. Thomas Association of MBA Professionals,

 December 9, 1993

Invited Speaker - The First Annual Greater Houston Quality Summit, “Quality in Health

 Care: It’s Not Enough to Keep Us in Business”, April 28, 1994

Invited Speaker - Loyola University Chicago, Graduate Program in Molecular Biology

 Seminar Series, May 2, 1994

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine, Rice

 University, August 2, 1994

Invited Speaker - The University of Houston College of Business Administration, “Quality

 Measurement in Healthcare”, lecture for Dr. Elizabeth Anderson, November 17,

 1994

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine, July

 11, 1995

Invited Speaker - The University of Houston College of Business Administration, “Quality

 Measurement in Healthcare”, lecture for Dr. Elizabeth Anderson, November 7, 1995

Invited Speaker- Houston Hispanic Forum Career and Education Day, “Careers in

 Research and Science”, Houston, TX, February 24, 1996

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 16, 1996

Invited Guest - MS-NBC Internight with Katie Couric-”The War on Cancer-Are we winning

 or losing?”, Olympic Village, Atlanta, GA, July 17, 1996

Invited Speaker - President’s Cancer Panel-”Managed Care’s Role in the War on Cancer-

Issues of Access in Today’s Health Care System”, San Antonio, TX, September 24, 1996

Invited Speaker - The University of Houston College of Business Administration, “Quality

Measurement in Healthcare”, lecture for Dr. Elizabeth Anderson, November 7, 1996

Invited Speaker - The University of Houston Center for Executive Development-”Managing

 Health Care Operations-Total Quality Management”, January 28, 1997

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 14, 1997

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 28, 1997

Radio program-America Talks Health-Weekly reports for M.D.Anderson-September 1997

to 1999

Invited Speaker- Houston Hispanic Forum Career and Education Day, “Careers in

 Research and Science”, Houston, TX, January 31, 1998

Invited guest-Fox News on Health-Decrease in Cancer Rates and Deaths, March 16, 1998

Invited guest-NBC Nightly News with Tom Brokaw-“In His Own Words”-Commentary on new breakthrough cancer drugs-May 4, 1998

Invited guest-CNN Special Report-“The Battle with Cancer” with Bernard Shaw and Judy

Woodruff-May 4, 1998

Invited guest-MSNBC-Morning News with Bridget Quinn-“New Developments in Cancer

Research”-May 7, 1998

Invited guest-MSNBC-“The War on Cancer”-May 8, 1997

Invited guest-NBC Today with Jodie Applegate-“New Developments in Cancer Treatment”-

May 10, 1998

Invited guest-CNN Late Edition with Wolf Blitzer-Commenting on the developments of the

week with Dr. Arthur Caplan and Ellen Stovall-May 10, 1998

Invited guest-PBS The News Hour with Jim Lehrer-“Hope or Hype”-Latest developments in

the war on cancer with Dr. Lynn Schuchter, Dr. Derek Raghavan, and Elizabeth

Farnsworth-May 27, 1998

Invited witness-The U.S. House of Representatives Committee on Commerce

Subcommittee on Health and Environment-“The State of Cancer Research”-July 20, 1998

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 15, 1998

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 29, 1998

Invited guest-National Public Radio, local affiliate KUHF-Cancer Clinical Trials-

 August 3, 1998

Invited Speaker-Friends of the M.D. Anderson Volunteers-"Why We Are Winning the War

on Cancer", September 3, 1998

Invited Speaker-10th Annual Anderson Network-"Living Fully with Cancer"-"Ask the

Experts-Clinical Trials, Research, and Genetics", September 12, 1998

Invited guest-Newsweek Radio-"Clinical Trials"-October 10, 1998

Invited speaker-Kiwanis Club of Greater North Houston-"Why We are Winning the War on

Cancer", October 29, 1998

Panel Moderator-Cancer in the 21st Century-A Symposium for Members of the Media

hosted by President George Bush and Dr. John Mendelsohn-UT M.D. Anderson

Cancer Center, November 6, 1998

Invited Speaker- Houston Hispanic Forum Career and Education Day, “Careers in

 Medicine”, Houston, TX, February 6, 1999

Invited Speaker-"Research Integrity-A Professional, Ethical, and Social Obligation"-The

 Public View of Biomedical Research-panel discussion with Congressman Ken

 Bentsen, Dr, Geoffrey Cox, and Dr. Arthur Vailas, UT-School of Public Health,

 March 12, 1999

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 7, 1999

Invited Speaker-“Balancing Traditional and Scientific Methods”, Moderator for panel

discussion at the Houston International Community Health Summit, September 24,

1999

Invited Speaker- Houston Hispanic Forum Career and Education Day, “Careers in

 Medicine”, Houston, TX, February 5, 2000

Invited witness-Texas House Business and Industry Committee, Public Hearing, Houston, TX, June 29, 2000

Invited panelist-The McQuistion Program-Public Broadcasting System-KERA, Dallas, TX; “Cancer: Treatments and Cures in the 21st Century, July 11, 2000

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 13, 2000

Invited Speaker-The Anderson Network “Hope in the New Century” meeting-“Current Controversies in Clinical Research-Gene Therapy and Beyond”-Houston, Texas, September 8, 2000

Television Guest-KPRC Channel 2 monthly segments on cancer research and cancer care-Beginning September 17, 2000 to 2006

Invited Speaker-CanCare-Cancer Support Network Continuing Education-Houston, Texas, September 21, 2000

Invited Speaker-The University of Texas M.D. Anderson Cancer Center Scientific Excellence Series-“21st Century Ethics”-November 14, 2000

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 17, 2001

Invited Speaker – Rotary Club of Bellaire-“Controversies in Clinical Research”-August 2, 2001

Invited Speaker – Texas Healthcare and Bioscience Institute Board of Directors Meeting-The Effects of HIPAA and Senate Bill 11 on Clinical Research, August 27, 2001, Dallas, TX

 Television Guest - Weekday Program, “The Stem Cell Controversy”, KUHT Channel 8, Houston, TX, August 28, 2001

Invited Speaker – American Medical Writers Association (AMWA) Southwest Chapter, Houston, TX, “Current Controversies in Clinical Research”, September 14, 2001

Invited Speaker – Houston Pediatric Society, Houston, TX, “Current Controversies in Clinical Research”, September 25, 2001

Invited Speaker – CanCare-Cancer Support Network, “Current Controversies in Clinical Research”, October 30, 2001

Invited Speaker – The 9th Genitourinary Oncology Conference-Development and Application of Therapies in Genitourinary Malignancies, “Clinical Research: A Regulated Research Endeavor”, February 8, 2002, Houston, TX

Invited Speaker – Leadership Houston Class XX Health and Human Services Day, “Health Issues and Dilemmas”, February 12, 2002, Houston, TX

Invited Speaker – BMT 2002: Stem Cells, Transplantation and the Therapy of Cancer-Update for Physicians and Case Managers, “Government and Regulatory Issues Facing Clinical Trials”, February 15, 2002, Houston, TX

Invited Speaker – 3rd Annual Cancer Symposium-Our History, Our Health, Our Hope, Wheeler Avenue Baptist Church, February 23, 2002, Houston, TX

Invited Speaker – Cancer Clinical Trials: Myths and Facts Seminar. University of Texas

 M. D. Anderson Cancer Center Cancer Information Service, March 16, 2002, Houston, TX

Invited Speaker-Moderator of Forum I-“Challenges in Clinical Cancer Research: Ethics, Regulation, Compliance, and Administration“, Annual meeting of the American Association for Cancer Research, April 7, 2002, San Francisco, CA

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 30, 2002

Invited Speaker – Astrodome Rotary Club, “Latest in Cancer Treatments”, August 7, 2002

Invited Speaker- Winship Cancer Center, Emory University, “Clinical Research Infrastructure” February 1, 2003

Invited Speaker-U.T. M.D. Anderson Cancer Center’s Pharmaceutical Development Program Symposium, “The Regulatory Aspects of Clinical Research in the Post-Genomic World”, Houston, TX, April 26, 2003

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 15 and 29, 2003

Invited Speaker-15th Annual Anderson Network-"Living Fully with Cancer"-Medical Panel-“Financial Conflicts of Interest in Academic Medicine”, September 6, 2003

Television Guest-Newsmaker Sunday with Bill Balleza-KPRC-Channel 2 in Houston, TX-“Cancer in the Baby Boom Generation”

Invited Speaker – Leadership Houston Class XXI Health and Human Services Day, “Financial Conflicts of Interest in Academic Medicine”, May 13, 2004, Houston, TX

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 13 and 27, 2004

Invited Speaker – “The Critical Path to New Medical Products: The Challenges in Protecting Human Subjects”, Protection of Human Subjects Conference, The University of Houston, April 22, 2005

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 12 and 26, 2005

Invited Speaker – Ethics, Money and Medicine Conference, The University of Texas M. D. Anderson Cancer Center, “Fiduciary Responsibilities of the Clinical Investigator—Effects on Patients”, February 25, 2006

Invited Speaker – Keynote address, 8th Annual Encounter with Science Education, Universidad Del Este, Puerto Rico, “Ethical Aspects of Clinical Trials”, March 24, 2006

Invited Speaker – NCURA’s Financial Research Administration VII: Enhancing the Partnerships conference-“Topics in Hospital Research and Clinical Trials”, Palm Springs, CA, April 2, 2006

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 10 and 24, 2006

Invited Speaker – University of Texas Center for Clinical Research and Evidence Based Medicine, “Financial Conflict of Interest in Academic Research”, March 28, 2007.

Invited Speaker – The Methodist Hospital, Houston, TX, “Financial Conflict of Interest in Academic Research”, April 25, 2007

Invited Testimony-Texas Senate Finance Committee Hearing on Cancer Research Fund, Austin, TX, May 18, 2007 with Dr. Len Lichtenfeld, Dr. Karen Fields and Lance Armstrong

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 23 2007

Guest Host-Webcast-M.D. Anderson Patient Power-Brain Tumors with Dr. Ray Sawaya, July 24, 2007

Invited Speaker- The Healthcare Roundtable for Corporate Counsel, “Clinical Research Infrastructure in a Comprehensive Cancer Center: The Challenges, The Need, The Risk”, March 18, 2008, Sarasota, FL

Invited Speaker-The First Annual Ethics and Compliance in Oncology Research Conference, April 6, 2008, Conflict of Interest in Clinical Research, The University of Texas M. D. Anderson Cancer Center

Invited Speaker-M. D. Anderson Division of Pediatrics Grand Rounds, June 16, 2008, “Clinical Research Infrastructure in a Comprehensive Cancer Center: The Challenges, The Need, The Risk”

Invited Speaker-ACI’s 10th National Conference on Adding, Updating and Expanding Comprehensive Cancer Programs and Services for Hospitals and Health Systems, “Clinical Research Infrastructure in a Comprehensive Cancer Center: The Challenges, The Need, The Risk”, June 20, 2008, Ann Arbor, Michigan

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 7 2008

Initial Host-M. D. Anderson Cancer Newsline Podcast beginning August 2008

Invited Speaker – Division of Cancer Medicine Grand Rounds, UT M. D. Anderson Cancer Center, Houston, TX, “Health Care Reform and Other Pending Legislation That Will Affect Medical Practice, Scientific Research and the Delivery of Cancer Care”, June 16, 2009.

Invited Speaker – Faculty Development Seminar, UT M. D, Anderson Cancer Center, Houston, TX, “Under the Hill: A Year in Washington, D.C.”, June 16, 2009.

Invited Speaker – Houston CPA Society, The Pulse of Healthcare, “Red Kool-Aid, Blue Kool-Aid”, Houston, TX, October 20, 2009

Invited Speaker-The Healthcare Roundtable for Corporate Counsel, “Red Kool-Aid, Blue Kool-Aid-Health Care Reform”, November 5, 2009, Las Vegas, NV

Invited Speaker-MAPI Manufacturers Alliance, “Red Kool-Aid, Blue Kool-Aid-Health Care Reform”, November 13, 2009, Houston, TX

Invited Speaker-University of Texas Health Sciences Center School of Medicine Ethics Lecture Series, “Red Kool-Aid, Blue Kool-Aid-Health Care Reform”, January 21, 2010, Houston, TX

Invited Speaker-Jewish Council for Public Affairs, ”Jewish Ethics and Health Care Reform”, February 22, 2010, Dallas, TX

Invited Speaker-American Leadership Forum, “Red Kool-Aid, Blue Kool-Aid-Health Care Reform”, March 5, 2010, Houston, TX

Invited Speaker-University of Texas M. D. Anderson Cancer Center, Cancer Prevention Grand Rounds, “Red Kool-Aid, Blue Kool-Aid-Health Care Reform”, March 12, 2010, Houston, TX

Invited Speaker-3rd Annual David C. Hohn, Jr., MD Speaker in Health Policy, Roswell Park Cancer Center, April 7, 2010

Invited Speaker-The Society of Social Work Leadership in Health Care Texas-“Red Kool-Aid, Blue Kool-Aid-Health Care Reform”, April 8, 2010, Houston, TX

Invited Speaker-Pediatrics Grand Rounds, The University of Texas M. D. Anderson Cancer Center, “Red Kool-Aid, Blue-Kool-Aid: Health Care Reform”, April 12, 2010

Invited Participant-“Resolve: Health Care is a Right”, The Benjamin Rush Society, Baylor College of Medicine, May 14, 2010

Invited Speaker-Legacy Community Health Services Strategic Planning Retreat, Houston, TX, June 12, 2010

Invited Speaker and Session Chair-8th Annual Disparities in Health in America Workshop, “Health, Health Disparities and Health Policy”, Houston, TX, June 26, 2010

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 5, 2010

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 19, 2010

Key Note Speaker – “Red Kool-Aid, Blue Kool-Aid: Health Care Reform and its Effects on Neurologists” Houston Neurological Society, July 29, 2010

Invited Speaker – Disparities in Health in America; Working Toward Social Justice, Special Topics Course at Rice University, September 7, 2010

Invited Speaker – “The Only Jew in the Room—No Longer”, Congregation Beth Israel Yom Kippur Symposium, September 18, 2010

Invited Speaker – “Red Kool Aid, Blue Kool Aid: A Doctor’s Odyssey on Capitol Hill”, Healthcare Financial Management Association-Texas Gulf Coast Chapter, Galveston, TX, September 19, 2010

Invited Speaker – “Cancer 2010”, The Shaping of the 21st Century, Rice University Glasscock School of Continuing Studies, Houston, TX, October 5, 2010

Invited Speaker – Texas Pain Society 2nd Annual Scientific Meeting, “Red Kool Aid, Blue Kool Aid: A Doctor’s Odyssey on Capitol Hill”, Bastrop, TX, October 31, 2010.

Invited Speaker – Baylor College of Medicine Health Policy Elective for 1st and 2nd year medical students, November 9, 2010

Invited Speaker – The University of Houston Law Center class on health law, November 9, 2010

Invited Speaker-The 2010 Healthcare Symposium for the Houston CPA Society, “Red Kool Aid, Blue Kool Aid: A Doctor’s Odyssey on Capitol Hill”, November 10, 2010

Invited Speaker-The 2nd Yonsei-M. D. Anderson R and D Symposium, “Clinical Research Infrastructure in a Comprehensive Cancer Center: The Challenges, The Need, The Risk”, Seoul, South Korea, November 12, 2010

Invited Speaker-Duke University Medical School 2nd Year course in health policy-lecture and lead small group discussion. December 15-17, 2010

Invited Speaker- Houston CPA Society, Houston TSCPA Foundation, “Red Kool Aid, Blue Kool Aid: A Doctor’s Odyssey on Capitol Hill”, Houston, TX, January 11, 2011

Invited Speaker-“Healthcare Reform: Diagnosis and Prognosis”, George McMillan Fleming Center for Healthcare Management, UT Health School of Public Health, January 27, 2011.

Invited Speaker-“Red Kool Aid, Blue Kool Aid: A Doctor’s Odyssey on Capitol Hill”, UT Houston School of Medicine, March 17, 2011.

Invited Speaker-“Red Kool Aid, Blue Kool Aid: A Doctor’s Odyssey on Capitol Hill”,

 The Society of Social Work Leadership in Health Care Texas, April 9, 2011, El Paso, TX.

Invited Speaker-“Red Kool Aid, Blue Kool Aid: A Doctor’s Odyssey on Capitol Hill”, River Oaks Breakfast Club, May 17, 2011

Invited Speaker-“Red Kool-Aid, Blue Kool-Aid: Part 2: What Now in Health Care?”, National Council of Philippine American Canadian Accountants, Houston, TX, July 3, 2011

Invited Speaker - Houston/Galveston National Youth Leadership Forum on Medicine,

 July 18, 2011

Invited Speaker – -“Red Kool-Aid, Blue Kool-Aid: Part 2: What Now in Health Care?”, Texas Tech Health Sciences Center in El Paso Grand Rounds, July 26, 2011

Invited Speaker-“Code Red, Code Blue: How Understanding policy, process, politics and personalities can lead medicine through its current crisis”, University College Dublin, Ireland Symposium on “Why Health Care Professionals Can and Should Influence Health Policy”, September 9, 2011

Invited Speaker--“Code Red, Code Blue: How Understanding policy, process, politics and personalities can lead medicine through its current crisis”, Houston CPA Society, September 23, 2011.

Invited Speaker—-“Red Kool Aid, Blue Kool Aid: A Doctor’s Odyssey on Capitol Hill During the Passage of the Patient Protection and Affordable Care Act: What Will It Do to Hematologic and Oncologic Practice?“, Medical Oncology and Hematology 2011: Advances That Change Physician Practice, MD Anderson Cancer Center, October 21, 2011

Invited Speaker-“Red Kool Aid, Blue Kool Aid: A Doctor’s Odyssey on Capitol Hill”, The University of Houston School of Law class on health care law, November 28, 2011.

Invited panelist-The All Houston Emergency Medicine Conference-panel on health care reform-UT Health, February 15, 2012

Invited Speaker-“Red Kool-Aid, Blue Kool-Aid”, Doctors for Change, Houston, TX February 28, 2012.

Invited Speaker-“Red Kool-Aid, Blue Kool-Aid: Policy, Process, Politics and Personalities that Led to the Passage of the Health Care Bill (PPACA 2010). What It Teaches Us About Congress and What We Can Do About It”, Medico-Legal Aspects of Healthcare: Emerging Policy Issues, Southern Medical Association and Auburn University’s PEMBA Program, Washington, DC, March 19, 2012.

Invited Speaker-“Red Kool-Aid, Blue Kool-Aid: Health Care Reform Update”, On the Brink: Innovative Approaches to Medical Social Work. March 30, 2012, Houston, TX.

Invited Speaker-“Red Kool-Aid, Blue Kool-Aid: Health Care Reform 101 for Oncologists”, Denali Oncology Group, 5th State Spring Membership Meeting, Talkeetna, Alaska, March 31, 2012.

Invited Speaker-“Red Kool Aid, Blue Kool-Aid: Health Care Reform and the 4 P’s”. The University of Houston School of Law, April 23, 2012.

Invited Speaker-“Red Kool-Aid, Blue Kool-Aid: Delivering Quality Healthcare Despite Morons and Crooks on Capitol Hill and the Nation’s Premier Cancer Hospital”. For Department of Medical Breast Oncology, MD Anderson Cancer Center, July 9, 2012.

Invited Speaker-“Health Care Reform” for The Breast Health Collaborative of Texas, Houston, TX, July 12, 2012.

Invited Speaker-“Houston, Do We Have a Problem?: Retractions, Mistakes, and Other Causes of Non-reproducible Results“, 2nd Annual Post-Doctoral Symposium, MD Anderson Cancer Center, August 2, 2012

Invited Speaker-“The Business of Affordable Healthcare”, Greater Southeast Management District Annual Summit, Houston, TX, September 5, 2012

Invited speaker-“The ACA and Healthcare Reform”, Houston 20/20: Building the Economy of Tomorrow, Houston Economic Summit, Rice University, September 15, 2012.

Invited speaker-“Red Kool-Aid, Blue Kool-Aid: Health Care Reform After the Election” Southern Medical Association-SMA 2012 Healthcare Summit, Nashville, TN, November 16, 2012

 Invited Speaker-Duke University Medical School 2nd Year course in global health and health policy-lecture and lead small group discussion. December 13-14, 2012.

Invited Testimony-Texas House of Representatives Committee on Public Health-“Healthcare Ideas and Improvements” on behalf of Legacy Community Health, February 13, 2013.

Invited panelist-All Houston Emergency Medicine Conference, February 21, 2013

Invited Speaker-“Red Kool-Aid, Blue Kool-Aid”, 2013 Intensive Winter Institute Mental Health and Substance Abuse Disorders Prevention and Treatment: The Power of Partnerships, February 22, 2013.

Invited Speaker-“Conflict of Interest in Academia-Straining the Public’s Trust” for a Course in Ethical Issues in Clinical Research-The University of Texas School of Medicine at Houston, April 3, 2013.

Society Memberships:

American Society for Clinical Investigation

American Federation for Clinical Research

American College of Physicians, Fellow

American Association for Cancer Research

American Society of Clinical Oncology

American Society for Clinical Pharmacology and Therapeutics

American Association for the Advancement of Science

Southern Medical Association

Southern Oncology Association

Editorial Boards:

The Journal of Experimental Therapeutics and Oncology

International Journal of Oncology

Journal of Adolescent and Young Adult Oncology

Ph.D. Student Committees:

Examination Committee:

Lisa Hostetler-1987

Ruo-dan Zhang-1995

Stephen Hewitt-1995

Jeff Deyo-1996

Keith Ligon-1996

Darrin Beaupre-1996

Advisory Committees:

Darrin Beaupre-graduated

Stephen Hewitt-graduated

William Pierceall-graduated

Huan Giap-graduated

Jeff Deyo-graduated

Keith Ligon-graduated

Taeha An-graduated with Masters degree

John Su-graduated

Tim King-graduated

Other students:

Undergraduate students-Summer and In-school programs:

NCI-Stephen Michaels MDA-Laurie Ricketts

Howard Schwartz Karl Deisseroth

Ronald Schwartz Patricia Satitpunwaycha

Al Steren Paul Kim

Margaret Nichols Rishi Gupta

Post-doctoral Fellows:

NCI-Yves Pommier MDA-Milorad Bakic

Kenneth Micetich HK Kim

Ed Reed Karsten Wasserman

Jon Minford Amy Ellis

 Paul Loflin

MBA and other Business Students:

The University of Houston- Patient Satisfaction Survey:

Donald H. Foyt

William L. Green

William J. Shields

Faculty Co-Advisor: Dr. Elizabeth Anderson

Physician Productivity:

Saba Abashawl

Galen Husser

Susan Riggs

Goh Sebhat

Faculty Co-Advisor: Dr. Elizabeth Anderson

Rice University-Health Services Research:

Deanna Belanger

Nazlin Kesshwani

Grace Yap

Faculty Co-Advisor: Former Houston Mayor Kathryn J. Whitmire

Grants:

RP101207

Title: CERCIT: Comparative Effectiveness Research on Cancer in Texas

Source: Cancer Prevention and Research Institute of Texas

Principal Investigator: James Goodwin, M.D.

Project: Knowledge Translation Core

Core Investigator; Leonard A. Zwelling, M.D., M.B.A., 10% effort

Total Direct Costs: $4.8 million

Period: July 1, 2010-June 30, 2013

ID64823

Title: Robert Wood Johnson Health Policy Fellowship

Source: Robert Wood Johnson Foundation

Principal Investigator: Leonard A. Zwelling, M.D., M.B.A.

Total Direct Costs: $165,000

Period: September 1, 2008-August 31, 2011

ID#IRG-114939

Title: Institutional Research Grant

Source: American Cancer Society

Principal Investigator: Leonard A. Zwelling, M.D.

Total Direct Costs: $450,000

Period: January 1, 2008-December 31, 2010

ID#5-P30 CA16672-25

Title: Cancer Center Support (CORE) Grant

Source of Support: NCI

Principal Investigator: John Mendelsohn, M.D.

Core Director: Leonard A. Zwelling, M.D. on 2 cores

Clinical Trial Support (Total direct costs-$246, 268, 20% effort)

Protocol Review and Monitoring System (Total direct costs-$118,144, 20% effort)

Period: Current, July 1, 1998-June 30, 2003

ID#5-P30 CA16672-28

Title: Cancer Center Support (CORE) Grant

Source of Support: NCI

Principal Investigator: John Mendelsohn, M.D.

Core Director: Leonard A. Zwelling, M.D. on 2 cores

Clinical Trial Support (Total direct costs-$315,890, 10% effort)

Protocol Review and Monitoring System (Total direct costs-$232,272, 10% effort)

Period: Current, July 1, 2003-June 30, 2004

ID#1 SO7 RR18240-01

Title: Better Human Subjects Protection Via Education and IS

Source of Support: NIH

Principal Investigator: Leonard A. Zwelling, M.D.

Period: Sept. 1, 2002 – August 31, 2003

Total Direct Costs: $250,000

ID 2 SO7 RR018240-02

Title: Human Subjects Protection Outreach-Education and IS

Source of Support: NIH

Principal Investigator: Leonard A. Zwelling, M.D.

Period: Sept. 1, 2003-August 31, 2004

Total Direct Costs: $250,000

ID# R01-CA 40090

Title: "Biochemical Pharmacology of DNA Intercalating Agents"

Source of Support: NCI

Principal Investigator: Leonard A. Zwelling, M.D.

Percent Effort: 50%

Period: July 1, 1985 - June 30, 1989

Total Direct Costs: $241,292

ID# RO1-CA 40090-05 (Renewal)

Title: "Biochemical Pharmacology of DNA Intercalating Agents"

Source of Support: NCI

Principal Investigator: Leonard A. Zwelling, M.D.

Percent Effort: 30%

Period: December 1, 1990 - November 30, 1995

Total Direct Costs: $523,712

ID#RO1-CA40090-10 (Renewal)

Title: ”Biochemical Pharmacology of DNA Intercalating Agents”

Source of Support: NCI

Principal Investigator: Leonard A. Zwelling, M.D.

Percent Effort: 30%

Period: July 1, 1996-June 30, 2000

Total Direct Costs: $318,171

ID# CH-324

Title "Biochemical Basis for Tumoricidal Synergism Between Antimetabolites and DNA Intercalating Agents"

Source of Support: American Cancer Society

Principal Investigator: Leonard A. Zwelling, M.D.

Percent Effort: 25%

Period: July 1, 1985 - June 30, 1987

Total Direct Costs: $106,299

ID# CH-324A/B (Renewal)

Title: "Modulation of Topoisomerase II-Reactive Drug Action"

Source of Support: American Cancer Society

Principal Investigator: Leonard A. Zwelling, M.D.

Percent Effort: 25%

Period: July 1,1987 - June 30, 1989

Total Direct Costs: $213,000

ID# CH-324C/D (Renewal)

Title: "Modulation of Topoisomerase II-Reactive Drug Action"

Source of Support: American Cancer Society

Principal Investigator: Leonard A. Zwelling, M.D.

Percent Effort: 25%

Period: July 1, 1989 - June 30, 1991

Total Direct Costs: $226,000

ID# CH-324E/F (Renewal)

Title: "Modulation of Topoisomerase II-Reactive Drug Action"

Source of Support: American Cancer Society

Principal Investigator: Leonard A. Zwelling, M.D.

Percent Effort: 25%

Period: July 1, 1991 - June 30, 1993

Total Direct Costs: $242,000

ID#DHP-39G (Renewal of CH-324F)

Title: "Modulation of Topoisomerase II-Reactive Drug Action"

Source of Support: American Cancer Society

Principal Investigator: Leonard A. Zwelling, M.D.

Percent Effort: 25%

Period: July 1, 1993 - June 30, 1995

Total Direct Costs: $246,000

Title: "Novel Alkylating Anthracyclines"

Source of Support: Boazman Memorial Fund for Cancer Research, Gugenheim Estate Fund for Cancer Research,

Lucas Memorial Fund for Cancer Research

Principal Investigators: David Farquhar, Ph.D. & Leonard A. Zwelling, M.D.

Total Cost: $45,871

Title: Cronkite Benefit Fund Allocation for Gene Therapy for Pediatric Brain Tumors

Source of Support: University Cancer Foundation

Principal Investigator: Eugenie Kleinerman, M.D.

Leonard A. Zwelling, M.D.

Period: January 21, 1993-no specific ending date

Total Cost: $34,000

Title: Clinical Oncology Career Development Award

Source: American Cancer Society

Principal Investigator: Cynthia Herzog, M.D.

Leonard A. Zwelling, M.D.-Mentor

Period: July 1, 1994-June 30, 1997

Total Cost: $90,000

ID#CA66632-01

Title: Efficacy of IL-1 and etoposide in relapsed osteosarcoma

Source of support: National Cancer Institute

Principal Investigator: Eugenie Kleinerman, M.D.

Leonard A. Zwelling, M.D.

Percent Effort: 5%

Period: March 1, 1995-February 28, 1997

Total Cost: $100,000

ID# CH-328

Title: "The Therapeutic Index of Functional Bleomycin Analogues"

Source of Support: American Cancer Society

Principal Investigator: Robert A. Newman, Ph.D.

Leonard A. Zwelling, M.D.

Percent Effort: 10%

Period: July 1, 1985 - June 30, 1987

Title: "Topoisomerase II-Mediated DNA Cleavage as a Predictor of Clinical Response in Human Adult Leukemia"

Source of Support: Leukemia Research Foundation, Inc.

Principal Investigator: Elihu H. Estey, M.D.

Percent Effort: 10% - $13,615

Period: July 1, 1986 - June 30, 1987

ID# BR 25-38

Title: "Molecular Pharmacology of Topoisomerase II-Reactive Anticancer Drugs"

Source of Support: M. D. Anderson - BRSG through NIH Grant #RR-5511-23

Principal Investigator: Leonard A. Zwelling, M.D.

Percent Effort: 15%

Period: May 1, 1987 - October 31, 1988

Total Costs: $19,700

ID# CA 47847

Title: "Therapeutic Index of Liblomycin" A Better Bleomycin"

Source of Support: National Cancer Institute

Principal Investigator: Robert A. Newman, Ph.D.

Percent Effort: 5%

Period: July 1, 1988 - June 30, 1991

Title: "Molecular Basis of the Resistance of a Human Leukemia Line to Topoisomerase II-Reactive DNA Intercalating Agents"

Source of Support: Institutional Research Grant through NIH grant #RR5511-77

Principal Investigator: Leonard A. Zwelling, M.D.

Period: April 1, 1990-March 31, 1991

Total Cost: $8000

Title: "Evaluation of Topoisomerase II Activity in Explanted Human Malignant and Normal Cells"

Source of Support: Adria Laboratories

Principal Investigator: Leonard A. Zwelling, M.D.

Period: November 1, 1990-October 31, 1992

Total Cost: $65,000

ID# RO3 CA53398

Title: "Human Topoisomerase I: An exploitable anticancer drug target"

Source of Support: NCI

Principal Investigator: James L. Abbruzzese, M.D.

Leonard A. Zwelling, M.D.

Percent Effort: 10%

Period: September 30, 1991-December 31, 1992

Total Cost: $25,000

ID# CA 27931

Title: "Chromosome Aberrations with Therapeutic Agents"

Source of Support: National Cancer Institute

Principal Investigator: Walter N. Hittelman, Ph.D.

Leonard A. Zwelling, M.D.

Percent Effort: 10%

Period: May 1, 1987 - April 30, 1992

ID# CA50380

Title: "Improving the Therapeutic Index of Platinum Complexes"

Source of Support: National Cancer Institute

Principal Investigator: Zahid H. Siddik, Ph.D.

Leonard A. Zwelling, M.D.

Percent Effort: 5%

Period: July 1, 1991-June 30, 1994

Title: "Biochemical and Molecular Determinants of Antileukemia Drug Resistance: A Therapy-Specific Indicator of Prognosis"

Source of Support: Physicians Referral Service

Principal Investigator: Leonard A. Zwelling, M.D.

Percent Effort: 5%

Period: April 1, 1990-December 31, 1993

Total Cost: $30,000

ID# R55 CA56887-01

Title: Investigations of New Agents in Leukemia

Source of Support: NCI

Principal Investigator: Hagop Kantarjian, M.D.

Leonard A. Zwelling, M.D.

Percent Effort: 25%

Period: September 30, 1992-September 29, 1994

Total Cost: $100,000 Shannon Award

ID# Master Agreement NO1-CM-17562-01

Title: Biochemical Mechanisms of Action of Studies with Penclomedine

Source of Support: NCI

Principal Investigator: Robert Newman, Ph.D.

Leonard A. Zwelling, M.D.

Percent Effort: 5%

Period: September 30, 1992-September 29, 1993

Total Cost: $50,000

ID# RO3 CA58752-01

Title: Small Grants for Lung, Breast, and Ovarian Clinical Trials-In Vitro Correlates of Drug Sensitivity in Lung Cancer

Source of Support: National Cancer Institute

Principal Investigator: Bonnie S. Glisson, M.D.

Leonard A. Zwelling, M.D.

Percent Effort: 5%

Period: 1992-1994

Total Cost: $50,000

Patents Granted:

Wysor, M.S. and Zwelling, L.A. Anti-trypanosomal activity of platinum coordination compounds, #4,532,122, July 30, 1985.

**Published Articles**

1. Zwelling, L.A., Mandell, G.L., and Young, R.C.: Peritoneoscopy: An Invasive Procedure Without Bacteremia. Ann. Intern. Med. 87: 454-455, 1977.

2. Zwelling, L.A., Gunther, S.F., and Hockstein, E.: Removal of Os Supranaviculare from a Runner's Painful Foot: a case report. Am. J. Sports Med. 6: 1-3, 1978.

3. Zwelling, L.A., Kohn, K.W., Ross, W.E., Ewig, R.A.G., and Anderson, T.: The Kinetics of Formation and Disappearance of a DNA Cross-linking Effect in Mouse Leukemia L1210 Cells Treated with cis- and trans-diamminedichloroplatinum(II). Cancer Res. 38: 1762-1768, 1978.

4. Zwelling, L.A. and Balow, J.E.: Hypersthenuria in high-dose carbenecillin therapy. Ann. Int. Med. 89: 225-226, 1978.

5. Zwelling, L.A., Bradley, M.O., Sharkey, N.A., Anderson, T., and Kohn, K.W.: Mutagenicity, cytotoxicity and DNA crosslinking in V79 Chinese hamster cells treated with cis- and trans-Pt(II)diamminedichloride. Mutat. Res. 67: 271-280, 1979.

6. Locker, G.Y., Doroshow, J.H., Zwelling, L.A., and Chabner, B.A.: The Clinical features of hepatic angiosarcoma: a report of four cases and a review of the English literature. Medicine 58: 48-64, 1979.

7. Zwelling, L.A., Anderson, T., and Kohn, K.W.: DNA-protein and DNA interstrand crosslinking by cis- and trans-platinum(II)diamminedichloride in L1210 mouse leukemia cells and relation to cytotoxicity. Cancer Res. 39: 365-369, 1979.

8. Ross, W.E., Zwelling, L.A., and Kohn, K.W.: Relationship between cytotoxicity and DNA strand breakage by adriamycin and other intercalating agents. Int. J. Radiat. Oncol. Biol. Phys. 5: 1221-1224, 1979.

9. Zwelling, L.A., Filipski, J., and Kohn, K.W.: The effect of thiourea on survival and DNA crosslink formation in cells treated with platinum(II) complexes, L-phenylalanine mustard and Bis(2-chloroethyl)methylamine. Cancer Res. 39: 4989-4995, 1979

10. Kleinerman, E.S., Zwelling, L.A., and Muchmore, A.V.: The enhancement of naturally occurring human spontaneous monocyte-mediated cytotoxicity by cis-diamminechloro-platinum(II). Cancer Res. 40: 3099-3102, 1980.

11. Kleinerman, E.S., Zwelling, L.A., Howser, D., Barlock, A., Young, R., Decker, J., Bull, J., and Muchmore, A.: Defective monocyte killing in patients with malignancies and restoration of function during chemotherapy. Lancet 2: 1102-1105, 1980.

12. Zwelling, L.A., Michaels, S., Schwartz, H., Dobson, P.P., and Kohn, K.W.: DNA crosslinking as an indicator of sensitivity and resistance of mouse L1210 leukemia to cis-diamminedichloroplatinum(II) and L-phenylanine mustard. Cancer Res. 41: 640-649, 1981.

13. Erickson, L.C., Zwelling, L.A., Ducore, J.M., Sharkey, N.A., and Kohn, K.W.: Differential cytotoxicity in normal and transformed human fibroblasts treated with cis-diamminedichloroplatinum(II). Cancer Res. 41: 2791-2794, 1981.

14. Zwelling, L.A., Michaels, S., Erickson, L.C., Ungerleider, R.S., Nichols, M., and Kohn, K.W.: Protein-associated DNA strand breaks in L1210 cells treated with the DNA intercalating agents, 4'-(9-acridinylamino)-methanesulfon-m-anisidide (m-AMSA) and adriamycin. Biochemistry 20: 6553-6563, 1981.

15. Zwelling, L.A., Kerrigan, D., and Pommier, Y.: Inhibitors of poly(adenosine diphosphoribose) synthesis slow the resealing rate of x-ray-induced DNA strand breaks. Biochem. Biophys. Res. Commun. 104: 897-902, 1982.

16. Ducore, J.D., Erickson, L.C., Zwelling, L.A., Laurent, G., and Kohn, K.W.: Comparative studies of DNA crosslinking and cytotoxicity in Burkitt's lymphoma cell lines treated with cis-diamminedichloroplatinum(II) and L-phenylalanine mustard. Cancer Res. 42: 897-902, 1982.

17. Kleinerman, E.S. and Zwelling, L.A.: The effect of cis-Diamminedichloroplatinum(II) on immune function in vitro and in vivo. Cancer Immunology and Immunotherapy, 12: 191-196, 1982.

18. Bradley, M.O., Paterson, S., and Zwelling, L.A.: Thiourea prevents cytotoxicity and mutagenicity but not sister chromatid exchanges in V-79 cells treated with cis-diamminedichloroplatinum(II). Mutat. Res., 96: 67-74, 1982.

19. Kleinerman, E.S., Zwelling, L.A., Schwartz, R., and Muchmore, A.V.: Effect of L-phenylalanine mustard, adriamycin, actinomycin D, and 4'-(9-acridinylamino) methanesulfon-m-anisidide on naturally occurring human spontaneous monocyte-mediated cytotoxicity. Cancer Res., 42: 1692-1695, 1982.

20. Zwelling, L.A. and Mattern, M.R.: DNA repair deficiencies do not affect intercalator-induced cytotoxicity or DNA scission in human cells. Mutat. Res. Letts., 104: 295-304, 1982.

21. Zwelling, L.A., Kerrigan, D., and Michaels, S.: Cytotoxicity and DNA strand breaks by 5-iminodaunorubicin in mouse leukemia L1210 cells and a comparison with adriamycin and m-AMSA. Cancer Res., 42: 2687-2691, 1982.

22. Wysor, M.S., Zwelling, L.A., Sanders, J.E., and Grenan, M.M.: Cure of mice infected with Trypanosoma rhodesiense by cis-diamminedichloroplatinum(II) and disulfiram rescue. Science, 217: 454-456, 1982.

23. Zwelling, L.A., Kerrigan, D., Pommier, Y., Michaels, S., Steren, A., and Kohn, K.W.: Formation and resealing of intercalator-induced DNA strand breaks in permeabilized L1210 cells without the stimulated synthesis of poly-(ADP-Ribose). J. Biol.Chem., 257: 8957-8963, 1982.

24. Pommier, Y., Kerrigan, D., Schwartz, R., and Zwelling, L.A.: The formation and resealing of intercalator-induced DNA strand breaks in isolated L1210 cell nuclei. Biochem. Biophys. Res Commun., 107: 576-583, 1982.

25. Micetich, K.C., Zwelling, L.A., Gormley, P., and Young, R.C.: A phase I-II study of m-AMSA administered as a continuous infusion. Cancer Treat. Rep. 66: 1813-1817, 1982.

26. Zwelling, L.A., Kerrigan, D., Michaels, S., and Kohn, K.W.: Cooperative sequestration of m-AMSA in L1210 cells. Biochem. Pharm., 31: 3269-3277, 1982.

27. Zwelling, L.A., Michaels, S., Kerrigan, D., Pommier, Y., and Kohn, K.W.: Protein-concealed DNA strand breaks produced in mouse leukemia L1210 cells by ellipticine and 2-methyl-9-hydroxyellipticinium. Biochem. Pharm., 31: 3261-3267, 1982.

28. Poirier, M.A., Lippard, S.J., Zwelling, L.A., Ushay, H.M., Kerrigan, D., Thill, C.C., Santella, R.M., Grunberger, D., and Yuspa, S.H.: Antibodies elicited against cis-diamminedichloroplatinum(II)-modified DNA are specific for cis-diammineplatinum adducts formed in vivo. Proc. Natl. Acad, Sci. USA 79: 6443-6447, 1982.

29. Zwelling, L.A., Kerrigan, D., and Mattern, M.R.: Ataxia-telangiectasia cells are not uniformly deficient in poly(ADP-ribose) synthesis following x-irradiation. Mutat. Res. Letts. 120: 69-78, 1983.

30. Johnston, J.B., Zwelling, L.A. Kerrigan, D., Lloyd, L., and Glazer, R.I.: Comparison DNA scission and cytotoxicity produced by adriamycin and 5-iminodaunorubicin in human colon carcinoma cells. Biochem. Pharm. 32: 2255-2258, 1983.

31. Micetich, K., Zwelling, L.A., and Kohn, K.W.: Quenching of DNA-platinum(II) monoadducts as a possible mechanism of resistance to cis-platinum(II)diamminedichloride in L1210 cells. Cancer Res. 43: 3609-3613, 1983.

32. Mattern, M.R., Zwelling, L.A., Kerrigan, D., and Kohn, K.W.: The reconstitution of higher-order DNA structure after x-irradiation of mammalian cells. Biochem. Biophys. Res. Commun. 112: 1077-1084, 1983.

33. Zwelling, L.A., Kerrigan, D., and Lippman, M.E.: Protein-associated intercalator-induced DNA scission is enhanced by estrogen stimulation in human breast cancer cells. Proc. Natl. Acad. Sci. USA 80: 6182-6186, 1983.

34. Pommier, Y., Zwelling, L.A., Mattern, M.R., Erickson, L.C., Kerrigan, D., Schwartz, R., and Kohn, K.W.: Effects of dimethylsulfoxide and thiourea upon intercalator-induced DNA strand breaks in mouse leukemia L1210 cells. Cancer Res. 43: 5718-5724, 1983.

35. Pommier, Y., Mattern, M.R., Schwartz, R., and Zwelling, L.A.: Absence of swivelling at sites of intercalator-induced protein-associated deoxyribonucleic acid strand breaks in mammalian cell nucleoids. Biochemistry 23: 2922-2927, 1984.

36. Pommier, Y., Mattern, M.R., Schwartz, R., Zwelling, L.A., and Kohn, K.W.: Changes in deoxyribonucleic acid linking number due to treatment of mammalian cells with the intercalating agent, 4'-(9-acridinylamino)methanesulfon-m-anisidide (m-AMSA). Biochemistry 23: 2927-2932, 1984.

37. Pommier, Y., Schwartz, R.E., Kohn, K.W., and Zwelling, L.A.: Formation and rejoining of deoxyribonucleic acid double-strand breaks induced in isolated cell nuclei by antineoplastic intercalating agents. Biochemistry 23: 3194-3201, 1984.

38. Kao-Shan, C.S., Micetich, K., Zwelling, L.A., and

Whang-Peng, J.: Cytogenetic effects of 4'(9-acridinyl-amino)methanesulfon-m-anisidide (m-AMSA) on human lymphocytes in vivo and in vitro. Cancer Treat. Rep., 68: 989-997, 1984.

39. Zwelling, L.A., Minford, J., Nichols, M., Glazer, R.I., and Shackney, S.: Enhancement of intercalator-induced DNA scission and cytotoxicity in murine leukemia cells treated with 5-azacytidine. Biochem. Pharm., 33: 3903-3906, 1984.

40. Pommier, Y., Zwelling, L.A., Schwartz, R.E., and Kohn, K.W.: Absence of a requirement for long-range DNA torsional tension in the production of protein-associated DNA strand breaks in isolated mammalian cell nuclei by the DNA intercalating agent 4'(9-acridinylamino)methanesulfon-m-anisidide (m-AMSA). Biochem. Pharm., 33: 3909-3912. 1984.

41. Minford, J., Kerrigan, D., Nichols, M., Shackney, S., and Zwelling, L.A.: Enhancement of the DNA Breaking and Cytotoxic Effects of Intercalating Agents by Treatment with Sublethal Doses of Arabinosyl Cytosine or Hydroxyurea in L1210 Cells. Cancer Res., 44: 5583-5593, 1984.

42. Zwelling, L., Kerrigan, D., and Marton, L.J.: Effect of Difluoromethylornithine, an inhibitor of polyamine biosynthesis on the topoisomerase II-mediated DNA scission produced by 4'-(9-acridinylamino)methanesulfon-m-anisidide in L1210 murine leukemia cells. Cancer Res., 45: 1122-1126, 1985.

43. Leming, P.D., Martin, S.E., and Zwelling, L.A.: A typical herpes simplex (HSV) infection in a patient with Hodgkin's disease. Cancer, 54: 3043-3047, 1984.

44. Pommier, Y., Zwelling, L.A., Kao-Shan, C.S., Whang-Peng, J., and Bradley, M.O.: Correlations between intercalator-induced DNA strand breaks and sister chromatid exchanges, mutations, and cytotoxicity in Chinese hamster cells. Cancer Res., 45:3143-3149, 1985.

45. Kleinerman, E.S., Ceccorulli, L.M., Zwelling, L.A., Twilley, T., Herberman, R.B., Jacob, J., and Gelmann, E.P.: Activation of monocyte-mediated tumoricidal activity in patients with the acquired immunodeficiency syndrome. Journal of Clinical Oncology, 3: 1005-1012, 1985.

46. Hartley, J.A., Gibson, N.W., Zwelling, L.A., and Yuspa, S.H.: The association of DNA strand breaks with accelerated terminal differentiation in mouse epidermal cells exposed to tumor promoters. Cancer Research, 45: 4864-4870, 1985.

47. Pommier, Y., Schwartz, R., Zwelling, L.A. and Kohn, K.W.: Effects of DNA intercalating agents on topoisomerase II-induced DNA strand cleavage in isolated mammalian cell nuclei. Biochemistry, 24: 6406-6410, 1985.

48. Pommier, Y., Minford, J., Schwartz, R., Zwelling, L.A., and Kohn, K.W.: Effects of the DNA intercalators 4'-(9-acridinylamino)methanesulfon-m-anisidide (m-AMSA, amsacrine) and 2-methyl-9-hydroxyellipticinium (2-Me-9-OH-E+) on topoisomerase II mediated DNA strand cleavage and strand passage. Biochemistry, 24: 6410-6416, 1985.

49. Pommier, Y., Schwartz, R.E., Zwelling, L.A., Kerrigan, D., Mattern, M. R., Charcosset, J.Y., Jacquemin-Sablon, A., and Kohn, K.W.: Reduced formation of protein-associated DNA strand breaks in Chinese hamster cells resistant to topoisomerase II inhibitors. Cancer Res., 46: 611-616, 1986.

50. Bakic, M., Beran, M., Andersson, B.S., Silberman, L., Estey, E., and Zwelling, L.A.: The production of topoisomerase II-mediated DNA cleavage in human leukemia cells predicts their susceptibility to 4'-(9-acridinylamino)methanesulfon-m-anisidide (m-AMSA). Biochem. Biophys. Research Commun., 134: 638-645, 1986.

51. Minford, J., Pommier, Y., Filipski, J., Kohn, K.W., Kerrigan, D., Mattern, M., Michaels, S., Schwartz, R., and Zwelling, L.A.: Isolation of intercalator-dependent protein-linked DNA strand cleavage activity from cell nuclei and identification as topoisomerase II. Biochemistry, 25: 9-16, 1986.

52. Reed, E., Yuspa, S.H., Zwelling, L.A., Ozols, R.F., and Poirier, M.C.: Quantitation of cisplatin-DNA adducts in testicular and ovarian cancer patients receiving cisplatin chemotherapy. J. Clin. Invest., 77: 545-550, 1986.

53. Wasserman, K., Zwelling, L.A., Mullins, T.D., Silberman, L.E., Andersson, B.S., Bakic, M., Acton, E.M., and Newman, R.A: The effects of 3'-deamino-3'-(3-cyano-4-morpholinyl) doxorubicin and doxorubicin on the survival, DNA integrity, and nucleolar morphology of human leukemia cells in vitro. Cancer Res., 46: 4041-4046, 1986.

54. Zwelling, L.A., Estey, E., Silberman, L., Doyle, S., and Hittelman, W.: The effect of cell proliferation and chromatin conformation on intercalator-induced, protein-associated DNA cleavage in human brain tumor cells and human fibroblasts. Cancer Research, 47: 251-257, 1987.

55. Andersson, B.S., Beran, M., Bakic, M., Silberman, L.E., Newman, R.A., and Zwelling, L.A.: In vitro toxicity and DNA cleaving capacity of Benzisoquinolinedione (Nafidimide; NSC 308847) in human leukemia. Cancer Res., 47: 1040-1044, 1987.

56. Estey, E.H., Silberman, L., Beran, M., Andersson, B.S., and Zwelling, L.A.: The interaction between nuclear topoisomerase II activity from human leukemia cells, exogenous DNA, and 4'-(9-acridinylamino) methanesulfon-m-anisidide (m-AMSA) or 4-(4,6-O-ethylidene-beta-D-glucopyranoside) (VP-16) indicates the sensitivity of the cells to the drugs. Biochem. Biophys. Res. Comm., 144: 787-793, 1987.

57. Estey, E., Adlakha, R.C., Hittelman, W.N., and Zwelling, L.A.: Cell cycle stage-dependent variations in drug-induced topoisomerase II-mediated DNA cleavage and cytotoxicity. Biochemistry, 26: 4338-4344, 1987.

58. Bakic, M., Chan, D., Andersson, B.S., Beran, M., Silberman, L., Estey, E., Ricketts, L., and Zwelling, L.A.: Effect of 1-beta-D-arabinofuranosylcytosine (ara-C) on nuclear topoisomerase II activity and on the DNA cleavage and cytotoxicity produced by 4'-(9-acridinylamino) methanesulfon-m-anisidide (m-AMSA) and etoposide in m-AMSA-sensitive and -resistant human leukemia cells. Biochem. Pharmacol., 36: 4067-4077, 1987.

59. Bakic, M., Chan, D., Freireich, E.J, Marton, L.J., and Zwelling, L.A.: The effect of polyamine depletion by alpha-difluoromethylornithine (DFMO) or (2R, 5R)-6-heptyne-2,5-diamine (R,R-MAP) on drug-induced, topoisomerase II-mediated DNA cleavage and cytotoxicity in human and murine leukemia cells. Cancer Res., 47: 6437-6443, 1987.

60. Zwelling, L.A., Chan, D., Hinds, M., Silberman, L., and Mayes, J.: Anion-dependent modulations of DNA topoisomerase II-mediated reactions in potassium-containing solutions. Biochem. Biophys. Res. Comm., 152: 808-817, 1988.

61. Wassermann, K., Newman, R.A., McLaughlin, J.D., Sacks, P.G., and Zwelling, L.A.: A possible role for altered poly(adenosine diphosphoribose)-synthesis in the sensitivity of

human head and neck squamous carcinoma cells to ionizing radiation. Biochem. Biophys. Res. Comm., 154: 1041-1046, 1988.

62. Zwelling, L.A., Chan, D., Hinds, M., Mayes, J., Silberman, L., and Blick, M.: The effect of phorbol ester treatment on drug-induced, topoisomerase II-mediated DNA cleavage in human leukemia cells. Cancer Res., 48: 6625-6633, 1988.

63. Kim, H-K., Zwelling, L. A., Sacks, P. G., Hong, W. K., Chan, D., Silberman, L., and Glisson, B. S.: Effect of retinoic acid on DNA cleavage and cytotoxicity of topoisomerase II-reactive drugs in a human head and neck squamous carcinoma cell line. Cancer Res., 49: 1197-1201, 1989.

64. Zwelling, L. A. and Perry, W. M.: Leucine zipper in human DNA topoisomerase II. Molecular Endocrinology, 3:603-604, 1989.

65. Adlakha, R. C., Ashorn, C. L., Chan, D., and Zwelling, L. A.: Modulation of 4'-(9-acridinylamino) methanesulfon-m-anisidide-induced topoisomerase II-mediated DNA cleavage by gossypol. Cancer Research, 49:2052-2058, 1989.

66. Kleinerman, E. S., Knowles, R. D., Blick, M. B., Zwelling, L. A.: Lithium chloride stimulates human monocytes to secrete tumor necrosis factor/cachectin. J. Leukocyte Biology, 46: 484-492, 1989.

67. Zwelling, L. A., Hinds, M., Chan, D., Mayes, J., Sie, K. L., Parker, E., Silberman, L., Radcliffe, A., Beran, M., Blick, M.: Characterization of an Amsacrine-resistant line of human leukemia cells. Evidence for a drug-resistant form of topoisomerase II. J. Biol. Chem., 264: 16411-16420, 1989.

68. Mirkes, P. E. and Zwelling, L. A.: Embyotoxicity of the intercalating agents m-AMSA and o-AMSA and the epipodophyllotoxin VP-16 in postimplantation rat embryos in vitro. Teratology, 41: 679-688, 1990.

69. Wasserman, K., Zwelling, L. A., Lown, J. W., Hartley, J. A., Nishikawa, K., Lin, J-R, and Newman, R. A.: Liblomycin-mediated DNA cleavage in human head and neck squamous carcinoma cells and purified DNA. Cancer Research, 50: 1732-1737, 1990.

70. Fan, D., Bucana, C., O'Brian, C., Zwelling, L.A., Seid, C., and Fidler, I.J.: Enhancement of tumor sensitivity to Adriamycin by presentation of the drug inphosphatidylcholine-phosphatidylserine liposomes. Cancer Research, 50: 3619-3626, 1990.

71. Zwelling, L. A., Slovak, M. L., Doroshow, J. H., Hinds, M., Chan, D., Parker, E., Mayes, J., Sie, K. L., Meltzer, P. S., and Trent, J. M.: HT1080/DR4: a p-glycoprotein-negative human fibrosarcoma cell line exhibiting resistance to topoisomerase II-reactive drugs despite the presence of a drug-sensitive topoisomerase II. J. Natl. Cancer Inst., 82: 1553-1561, 1990.

72. Zwelling, L. A., Hinds, M., Chan, D., Altschuler, E., Mayes, J., and Zipf, T. F.: Phorbol ester effects on topoisomerase II activity in HL-60 human leukemia cells with different proclivities toward monocytoid differentiation. Cancer Research, 50: 7116-7122, 1990.

73. Zwelling, L. A., Mayes, J., Deisseroth, K., Hinds, M., Grant G., Pathak, S., Ledley, F. D., Vyas, R., and Hittelman, W.: A restriction fragment length polymorphism for human topoisomerase II: Its possible relationship to drug-resistance. Cancer Communications, 2: 357-361, 1990.

74. Zwelling, L. A., Chan, D., Altschuler, E., Mayes, J., Hinds, M., and Pettit, G. R.: The effect of bryostatin 1 on drug-induced, topoisomerase II-mediated DNA cleavage and topoisomerase II gene expression in human leukemia cells. Biochemical Pharmacology, 41: 829-832, 1991.

75. Hill, B. T., Whelan, R. D. H., Hosking, L. K., Shellard, S. A., Hinds, M. D., Mayes, J., and Zwelling, L. A.: A lack of detectable modification of topoisomerase II activity in a series of human tumor cell lines expressing only low levels of etoposide resistance. International J. of Cancer, 47: 899-902, 1991.

76. Zwelling, L. A., Mayes, J., Hinds, M., Chan, D., Altschuler, E., Carroll, B., Parker, E., Deisseroth, K., Radcliffe, A., Seligman, M., Li, L., and Farquhar, D.: The cross-resistance of an amsacrine-resistant human leukemia line to topoisomerase II-reactive DNA intercalating agents. Evidence for two topoisomerase II-directed drug actions. Biochemistry, 30: 4048-4055, 1991.

77. Hinds, M., Deisseroth, K., Mayes, J., Altschuler, E., Jansen, R., Ledley, F. D., and Zwelling, L. A.: Identification of a point mutation in the topoisomerase II gene from a human leukemia cell line containing an amsacrine-resistant form of topoisomerase II. Cancer Research, 51: 4729-4731, 1991.

78. Zwelling, L. A., Altschuler, E., Mayes, J., Hinds, M., and Chan, D.: The effect of staurosporine on drug-induced, topoisomerase II-mediated DNA cleavage in human leukemia cells. Cancer Chemotherapy and Pharmacology, 25: 48-52, 1991.

79. Zwelling, L. A., Altschuler, E., Cherif, A., and Farquhar, D.: N-(5,5-diacetoxypentyl)doxorubicin: a novel anthracycline producing DNA interstrand crosslinking and rapid endonucleolytic cleavage in human leukemia cells. Cancer Research, 51: 6704-6707, 1991.

80. Zwelling, L. A., Mitchell, M. J., Satitpunwaycha, P., Mayes, J., Altschuler, E., Hinds, M., and Baguley, B. C.: The relative activity of structural analogs of amsacrine against human leukemia cell lines containing amsacrine-sensitive or -resistant forms of topoisomerase II: The use of computer simulations in new drug development. Cancer Research, 52: 209-217,1992.

81. Ellis, A. L., Munger, C. E., Bunch, R. T., Woods, K. E., Randolph, J. K., Boise, L., Swerdlow, P. S., Zwelling, L. A., Hinds, M., Yanovich, S., and Gewirtz, D. A.: Components of intrinsic drug resistance in the rat hepatoma. Biochemical Pharmacology, 43: 331-342, 1992.

82. Zwelling, L. A., Bales, E., Altschuler, E., and Mayes, J.: The circumvention of resistance by Doxorubicin, but not by Idarubicin in a human leukemia cell line containing an intercalator-resistant form of topoisomerase II: evidence for a non-topoisomerase II-mediated mechanism of Doxorubicin cytotoxicity. Biochemical Pharmacology, 45: 516-520, 1993.

83. Kantarjian, H. M., Beran, M., Ellis, A., Zwelling, L. A., O' Brien, S., Cazenave, L., Koller, C., Rios, M. B., Plunkett, W., Keating, M. J., and Estey, E. H.: Phase I study of Topotecan, a new topoisomerase I inhibitor, in patients with refractory or relapsed acute leukemia. Blood, 81: 1146-1151, 1993.

84. Danks, M. K., Warmouth, M. R., Friche, E., Granzen, B., Bugg, B. Y., Harker, W. G., Zwelling, L. A., Futscher, B. W., Suttle, D. P., and Beck, W. T.: Single strand conformational polymorphism (SSCP) analysis of the 170 kDa isozyme of DNA topoisomerase II. Cancer Research, 53: 1373-1379, 1993.

85. Ganapathi, R., Zwelling, L., Constantinou, A., Ford, J., and Grabowski, D.: Altered phosphorylation, biosynthesis and degradation of the 170 kDa isoform of topoisomerase II in amsacrine-resistant human leukemia cells. Biochemical and Biophysical Research Communications, 192: 1274-1280, 1993.

86. Zwelling, L. A., Mayes, J., Altschuler, E., Satitpunwaycha, P., Tritton, T. R., and Hacker, M. P.: Activity of two novel anthracene-9,10 diones against human leukemia cells containing intercalator-sensitive or-resistant forms of topoisomerase II. Biochemical Pharmacology, 46: 265-271, 1993.

87. Mayes, J., Hinds, M., Soares, L., Altschuler, E., Kim, P., and Zwelling, L.A.: Further characterization of an amsacrine-resistant line of HL-60 human leukemia cells and its topoisomerase II: effects of ATP concentration, anion concentration, and the three-dimensional structure of the DNA target. Biochemical Pharmacology, 46: 699-707, 1993.

88. Ellis, A., Altschuler, E., Bales, E., Hinds, M., Mayes, J., Soares, L., Zipf, T.F., and Zwelling, L.A.: Phorbol regulation of topoisomerases I and II in human leukemia cells: studies in an additional cell pair sensitive and resistant to phorbol-induced differentiation. Biochemical Pharmacology, 47:387-396, 1994.

89. Kaufmann, S.H., Karp, J.E., Jones, R.J., Miller, C.B., Schneider, E., Zwelling, L.A., Cowan, K., Wendel, K., and Burke, P.J.: Topoisomerase II levels and drug sensitivity in adult acute myelogenous leukemia. Blood 83: 517-530, 1994.

90. Ellis, A., Nowak, B., Plunkett, W., and Zwelling, L.A.: Quantification of topoisomerase-DNA complexes in leukemia cells from patients undergoing therapy with topoisomerase-directed agents. Cancer Chemotherapy and Pharmacology, 34: 249-256, 1994.

91. Ohno, S., Siddik, Z.H., Kido, Y., Zwelling, L.A., and Bull, J.M.C.: Thermal enhancement of drug uptake and DNA adducts as a possible mechanism for the effect of sequencing hyperthermia on cisplatin-induced cytotoxicity in L1210 cells. Cancer Chemotherapy and Pharmacology, 34: 302-306, 1994.

92. Loflin, P.T., Hochhauser, D., Hickson, I.D., Morales, F., and Zwelling, L.A.: Molecular analysis of a potentially phorbol-regulatable region of the human topoisomerase II promoter. Biochemical Biophysical Research Communications, 200: 489-496, 1994.

93. Ellis, A.L. and Zwelling, L.A.: Time course of PMA-induced down-regulation of topoisomerase II in human leukemia cells. Biochemical Pharmacology, 48: 1842-1845, 1994.

94. Coughlin, S.A., Danz, D.W., Robinson, R.G., Klingbeil, K.M., Wentland, M.P., Corbett, T.H., Waud, W.R., Zwelling, L.A., Altschuler, E., Bales, E., and Rake, J.B.: Mechanism of action and antitumor activity of WIN 58161 ((S)-10-(2,6-dimethyl-4-pyridinyl)-9-fluoro-3-methyl-7-oxo-2,3-dihydro-7H-pyrido[1,2,3-de][1,4]benzothiazine-6-carboxylic acid). Biochemical Pharmacology, 50: 111-122, 1995.

95. O’Brien, S. Kantarjian, H., Ellis, A., Zwelling, L., Estey, E., and Keating, M.B.: Topotecan in chronic lymphocytic leukemia. Cancer, 75: 1104-1108, 1995.

96. Benvenuto, J.A., Hittelman, W.N., Zwelling, L.A., Plunkett, W., Pandita, T.K., Farquhar, D., and Newman, R.A.: Biochemical Pharmacology of Penclomidine (NSC-338720). Biochemical Pharmacology, 50: 1157-1164, 1995.

97. Anderson, E.A. and Zwelling, L.A.: Strategic service quality management for health care. American Journal of Medical Quality, 11: 3-10, 1996.

98. Herzog, C.E., Zwelling, L.A., McWatters, A., and Kleinerman, E.S.: The expression of topoisomerase II, Bcl-2, and p53 in three human brain tumor cell lines and their possible relationship to intrinsic resistance to etoposide. Clinical Cancer Research, 1: 1391-1397, 1995.

99. Loughlin, S., Gandhi, V., Plunkett, W., and Zwelling, L.A., The effect of 9--D-arabinofuranosyl-2-fluoroadenine and 1--D-arabinofuranosylcytosine on the cell cycle phase distribution, topoisomerase II level, mitoxantrone cytotoxicity, and DNA strand break production in K562 human leukemia cells. Cancer Chemotherapy Pharmacology, 38: 261-268, 1996.

100. Asano, T., Zwelling, L.A., An, T., McWatters, A., Herzog, C.E., Mayes, J., Loughlin, S.M., and Kleinerman, E.S.: Effect of transfection of a *Drosophila* topoisomerase II gene into a human brain tumor cell line intrinsically resistant to etoposide. British Journal of Cancer, 73: 1373-1380, 1996.

101. Abbruzzese, J., Madden, T., Sugarman, S.M., Ellis, A.L., Loughlin, S., Hess, K.R., Newman, R.A., Zwelling, L.A., and Raber, M.N.: Phase I clinical, plasma, and cellular pharmacologic study of Topotecan without and with granulocyte colony-stimulating factor. Clinical Cancer Research, 2: 1489-1497, 1996.

102. Loflin, P.T., Altschuler, E., Hochhauser, D., Hickson, I.D., and Zwelling, L.A. Phorbol ester-induced down-regulation of topoisomerase II mRNA in a human erythroleukemia cell line: evidence for a post-transcriptional mechanism. Biochem. Pharmacology, 52: 1065-1072, 1996.

103. Asano, T., An, T., Zwelling, L.A., Takano, H., Fojo, A.T., and Kleinerman, E.S.: Transfection of a human topoisomerase IIgene into etoposide-resistant breast tumor cells sensitizes the cells to etoposide. Oncology Research, 8: 101-110: 1996.

104. Asano, T., An, T. Mayes, J., Zwelling, L.A., and Kleinerman, E.S.: Transfection of human topoisomerase IIinto etoposide-resistant cells: Transient increase in sensitivity followed by down-regulation of the endogenous gene. Biochemical Journal, 319: 307-313, 1996.

105. Anderson, E.A. and Zwelling, L.A.: Measuring service quality at the University of Texas M.D. Anderson Cancer Center. International Journal of Health Care Quality Assurance, 9: 9-22, 1996.

106. Stedman, D. and Zwelling, L.A.: Importance and difficulty of determining the cost of clinical research. Academic Medicine, 71: 1164-1167, 1996.

107. Herzog, C.E. and Zwelling, L. A.: Evaluation of a potential regulatory role for inverted CCAAT boxes in the human topoisomerase II promoter. Biochemical Biophysical Research Communications, 232: 608-612, 1997.

108. Zwelling, L.A.: Clinical research has critical role in medical marketplace. Editorial in Outlook section of Houston Chronicle, April 27, 1997.

109. Herzog, C.E., Holmes, K.A., Tuschong, L.M., Ganapathi, R., and Zwelling, L.A.: Absence of topoisomerase II in an amsacrine-resistant human leukemia cell line with mutant topoisomerase II. Cancer Research, 58:5298-5300, 1998.

110. Zhou, Z., Zwelling, L.A., Kawakami, Y., An, T., Kobayashi, K., Herzog, C., Kleinerman, E.S.: Adenovirus-mediated human topoisomerase II gene transfer increases the sensitivity of etoposide-resistant human breast cancer cells. Cancer Research, 59: 4618-4624, 1999.

111. Brunelli, C.A., and Zwelling, L.A.:Letter to the Journal of the American Medical Association in response to article by Botkin, J.R. on Protecting the privacy of family members in survey and pedigree research. JAMA 285: 1960-1963, 2001.

112. Zwelling, L.A.: Letter to the Editor of the New York Times in response to article “Cells That Save Lives Are a Mother’s Legacy”. New York Times, November 24, 2001.

113. Zhou, Z., Zwelling, L.A., Ganapathi, R., Kleinerman, E.S. Enhanced etoposide sensitivity following adenovirus-mediated human topoisomerase II [Alpha] gene transfer is independent of topoisomerase II [Beta]. British Journal of Cancer 85:747-751, 2001.

114. Jia, S-F., Zwelling, L.A., McWatters, A., An, T., and Kleinerman, E.S.: Interleukin-1 increases the cytotoxic activity of etoposide against human osteosarcoma cells. J. Exp. Therapeutics and Oncology, 2: 27-36. 2002.

115. Asano, T., Kleinerman, E.S., Zwelling, L.A., Zhou, Z., and Fukunaga, Y.: Adenovirus-mediated human topoisomerase II alpha gene transfer increases the sensitivity of etoposide-resistant human and mouse breast cancer cells. Acta Oncologica, 44: 240-247, 2005.

116. Zwelling, L.A. and Malinow, A.: Doctors agree: We need single payer health care; Editorial in Outlook section of Houston Chronicle, April 27, 2008.

117. Cox, J.D., Giralt, S.A., Veazie, M.L., Ajani, J.A., Bruner, J.M., Chan, K.W., Hittelman, W. N., Hunt, K.K., Iyer, R.B., Karp, D.D., Kuban, D.A., Lippman, S.M., Raad, I.I., Rodriguez-Bigas, M.A., Zwelling, L. A., Markman,M.: Evaluating Quality in Clinical Cancer Research: The M.D. Anderson Cancer Center Experience. Oncology, 77:75-81, 2009.

118. Zwelling, L.A.: Modest proposals for streamlining the Senate; Editorial in Outlook section of Houston Chronicle, October 4, 2009.

119. Zwelling, L. A.: ‘Comparative Effectiveness’ Research Is Always Behind the Curve: Op-ed, Wall Street Journal, March 16, 2010.

120. Edge, S.B., Zwelling, L.A., Hohn, D.C.: The anticipated and unintended consequences of PPACA on cancer research. The Cancer Journal-Principles and Practice in Oncology, 16: 606-613, 2010.

121. Zwelling. L.A.: Prudent Planning. Letter to the Editor of Houston Chronicle. January 18, 2011.

122. Zwelling, L.A.: The making of a cancer doctor: The 30-year road to a new treatment for osteosarcoma. Jewish Herald-Voice, 102: 3A, January 20, 2011.

123. Zwelling, L.A.: Comparative Effectiveness Reseaerch: How Can It Change Practice? Health Affairs blog, April 18, 2011, **http://healthaffairs.org/blog/2011/04/18/comparative-effectiveness-research-how-can-it-change-practice/**.

124. Zwelling, L.A.: The health care community must engage in a meaningful, apolitical discussion of ethics and economics. Special contributor to the Austin American Statesman, March 5, 2011.

125. Zwelling, L.A.: A False Choice. Letter to the Editor of Houston Chronicle. April 2, 2011.

126. Zwelling, L.A.: Will That Treatment Guideline Hurt? Letter to the Editor of NY Times, April 4, 2011.

127. Zwelling, L.A.: Give Credit to Three for Daring Proposals. Editorial to Houston Chronicle Outlook Section, June 26, 2011.

128. Zwelling, L.A,: Are we too close to cancer?. Statesman.com, Special contributor to the Austin American Statesman. July 22, 2011. (<http://www.statesman.com/opinion/zwelling-are-we-too-close-to-cancer-1638742.html>)

129. Zwelling, L.A.: Doctor-patient interaction. Letter to the Editor of Houston Chronicle, July 30, 2011.

130. Zwelling, LA: New Research Effort: A Win-Win For All. Op-ed in Houston Chronicle, September 6, 2011.

131. Zwelling LA and Goodwin JS: Some Facts To Consider in Prostate Screening Debate. Op-ed in Houston Chronicle, October 26, 2011.

132. Zwelling LA: Sunday Dialogue: Judging the Health Care Law. Letter to the Editor of NY Times, November 20, 2011.

133. Zwelling LA: “Put health care in good hands”. Special Contributor. Austin-American Statesman, November 30, 2011. (<http://www.statesman.com/opinion/put-health-care-in-good-hands-2005104.html>)

134. Zwelling LA, Elting L and Goodwin JS: “Personalized cancer care: Think big and small”, Galveston Daily News, December 9, 2011.

135. Zwelling LA, Kleinerman E: “Adolescents and Young Adults: Bringing A Neglected Group Into Cancer Research”, Health Affairs blog, January 13, 2012. (<http://healthaffairs.org/blog/2012/01/13/adolescents-and-young-adults-bringing-a-neglected-group-into-cancer-research/>)

136. Zwelling LA, Goodwin JS and Elting L: “Cancer survivors present unique new challenges”, El Paso Times, January 29, 2012. (<http://www.elpasotimes.com/opinion/ci_19843328>)

137. Zwelling LA: “Time for some innovative thinking in the war on cancer”, Houston Chronicle, February 1, 2012. (<http://www.chron.com/opinion/outlook/article/Time-for-some-innovative-thinking-in-the-war-on-2884570.php>) (Also reprinted in McEwan-Adkins and Burnett, 20 Literacy Strategies to Meet the Common Core, Solution Tree Press, 2013).

138. Zwelling, LA: “The unintended consequences of health care reform law”, Houston Chronicle, March 22, 2012.

139. Zwelling, LA: “A 21st Century FDA is a Long Way in the Future”, Wall Street Journal, Letters to the Editor, April 23, 2012.

140. Zwelling, LA: “Getting to the Gate Can Grate”, Houston Chronicle, May 7, 2012.

141. Zwelling, LA: “What market forces?”, Houston Chronicle, Letters, June 21, 2012.

142. Zwelling, LA: “Why conflicts of interest must be eliminated, not managed”, Houston Chronicle, June 24, 2012.

143. Zwelling, LA: “Supreme Court Decision on the ACA And What It Can Mean to Oncology”, Cancer Letter 38:1, June 29, 2012.

144. Zwelling, LA: “First we should decide if health care is a right”, Houston Chronicle, July 12, 2012.

145. Zwelling, LA: “Sunday Dialogue: Are Americans Selfish?”, Letter to the Editor, New York Times, July 15, 2012, <http://www.nytimes.com/2012/07/15/opinion/sunday/sunday-dialogue-are-americans-selfish.html?_r=1&partner=rssnyt&emc=rss>.

146. Zwelling, LA: “It’s time to make a deal on limiting some guns”, Houston Chronicle, August 4, 2012.

147. Zwelling, LA: “Voting is a sacred duty owed to U.S. Founders”, Houston Chronicle, August 24, 2012.

148. Zwelling, LA: “Government, Cigarette Labeling and Freedom of Speech”, Wall Street Journal, Letter to the Editor, September 14, 2012.

149. Kantarjian, H and Zwelling, LA: “Doctors Still Know Best”, Houston Chronicle, November 6, 2012 (<http://www.chron.com/default/article/Doctor-still-knows-best-4010458.php>).

150. Zwelling, LA: “Cancer institute needs less noise, more light” Houston Chronicle, November 23, 2012.

151. Kantarjian, H and Zwelling LA: “Allowing patients to self-inject drugs could lower health care costs”, Houston Chronicle, December 7, 2012 (<http://www.houstonchronicle.com/opinion/outlook/article/Allowing-patients-to-self-inject-drugs-could-4097991.php>)

152. Levin B and Zwelling L: “Oncologist Convicted In Absentia, Imprisoned in United Arab Emirates”, Letter to the Editor, Cancer Letter, 38: No. 46, p. 11, December 14, 2012.

153. Zwelling, LA: “U.S. pays bills, misses benefits” Houston Chronicle, January 1, 2013.

154. Kantarjian, H and Zwelling, LA: “It’s time to price drugs by their value to patients” Houston Chronicle, January 13, 2013. (<http://www.chron.com/default/article/It-s-time-to-price-drugs-by-their-value-to-4187508.php>)

155. Zwelling, LA: Letter to the Editor, Austin-American Statesman on opinion piece by Winkler: “CPRIT ignoring business”, February 3, 2013.

156. Kantarjian HM and Zwelling L: Cost of Cancer Drugs: What Price for What Benefit?, The ASCO Post, 4: 1, 2013.

157. Zwelling, LA: “Interlocking tragedies: Armstrong and CPRIT”, Houston Chronicle, February 13, 2013.

158. Kantarjian, H, Fojo, T and Zwelling L: “Making cancer drugs less expensive” (web), “How to make drugs cheaper” (print) Washington Post, February 24, 2013. (Reprinted in Ft. Worth Star-Telegram, February 28 <http://www.star-telegram.com/2013/02/28/4652040/setting-a-just-price-for-cancer.html>)

159. Zwelling, LA: “Repositioning academic medicine: changes in health care” Houston Chronicle, March 9, 2013 (<http://www.chron.com/opinion/outlook/article/Medical-centers-adjust-to-ObamaCare-4340639.php>)

160. Zwelling, LA, Kurzrock, R, Cohen, PR: “Doctor Nab in Dubai and Donations”, Letter to the Editor, Wall Street Journal, March 19, 2013. (<http://online.wsj.com/public/page/letters.html>)

161. Mobley A, Linder SK, Braeuer R, Ellis L, and Zwelling L: “A Survey on Data Reproducibility in Cancer Research Provides Insights into Our Limited Ability to Translate Findings from the Laboratory to the Clinic”, PLOS ONE, in press.

162. Kantarjian H, Fojo T, Mathisen M, and Zwelling L: “Cancer Drugs in the United States: Justum Pretium—The Just Price, J. Clinical Oncology, in press.

163. Farroni JS, Zwelling L, Cortes J, and Kantarjian H: “Saving Medicare through Patient-Centered Changes—The Case of Injectables, The New England Journal of Medicine, 368: 1572-1573, 2013.

164. Zwelling LA, Kurzrock R, Cohen PR, Levin B, and Parish, LC: “The Karabus Affair Speaks to Larger Issues for American Academic and Medical Centers”, Letter from the Editor, Clinics in Dermatology, in press.

Invited Articles

1. Bender, R.A., Zwelling, L.A., Doroshow, J.H., Locker, G.Y., Hande, K.R., Murinson, D.S., Cohen, M., Myers, C.E., and Chabner, B.A.: Antineoplastic drugs: clinical pharmacology and therapeutic use. Drugs 16: 48-87, 1978.

2. Zwelling, L.A. and Kohn, K.W.: The mechanisms of action of cis-platinum(II)-diamminedichloride. Cancer Treat. Rep. 63: 1439-1444, 1979.

3. Kleinerman, E.S. and Zwelling, L.A.: The effects of cisplatin, bleomycin and DTIC on immune function in vitro and in vivo. Clinics in Immunology and Allergy, 4: 279-294, 1984.

4. Zwelling, L.A.: DNA topoisomerase II as a target of antineoplastic drug therapy. Cancer Metastasis Reviews, 4: 263-276, 1985.

5. Zwelling, L.A., Estey, E., Bakic, M., Silberman, L., and Chan, D.: Topoisomerase II as a target of antileukemic drugs. NCI Monograph - Proceedings of the First Conference on DNA Topoisomerases in Cancer Chemotherapy, 47: 79-82, 1987.

6. Zwelling, L.A.: Receptors and topoisomerase: one protein, two functions, not always. Molecular Endocrinology, 2: 305-306, 1988.

7. Zwelling, L.A. and Chan, D.: Filter elution of mammalian cellular DNA: Use of Nucleopore polycarbonate membranes to quantify effects of chemical and physical agents on DNA of intact cells. Poretraits - newsletter of the Nucleopore Corporation, Winter, 1988.

8. Zwelling, L. A.: Topoisomerase II as a target of antileukemia drugs: A review of controversial areas. Hematologic Pathology, 3: 101-112, 1989.

9. Ellis, A. L. and Zwelling, L. A.: Resistance to topoisomerase II-directed agents. In Hickman, J. A. and Tritton, T. (Eds.): Frontiers in Pharmacology: Cancer Chemotherapy. Blackwell Scientific Publishers Ltd., Oxford, England, pp.200-213, 1993.

10. Zwelling, L. A.: Consequences of the resistance to drug-induced, topoisomerase II-mediated DNA cleavage. Toxicology Letters, 67: 231-236, 1993.

11. Loflin, P.T. and Zwelling, L.A.: Topoisomerase II and the path to apoptosis. Contemporary Oncology, 4: 46-57, 1994.

12. Kaufmann, S.H., Gore, S.D., Miller C.B., Jones, R.J., Zwelling, L.A., Schneider, E., Burke, P.J., and Karp, J.E.: Topoisomerase II and the response to antileukemic therapy. Leukemia and Lymphoma, 29: 217-237, 1998.

13. Zwelling, L.A. and Fontaine, R.D.: Legal issues in clinical research. Nurse Investigator, 4: 3-5, 1998.

14. Zwelling, L.A.: Citation in Congressional Record on June 3, 1998 by Congressman Sam Johnson of remarks made by Dr. Zwelling on May 14, 1998 with regard to the Medical Innovation Tax Credit Bill.

15. Buzdar, A.U., Brunelli, C.B. and Zwelling, L.A.: Protecting human subjects from risk in the performance of clinical research and the informed consent process. in Progress in Anti-Cancer Chemotherapy. Springer-Verlag, France, pp. 7-15, 1999.

 Books and Chapters

1. Kohn, K.W., Ewig, R.A.G., Erickson, L.C., Zwelling, L.A., Ross, W.E., and Cohen, L.C.: Measurements of DNA damage in mammalian cells by alkaline elution. In Santi, L., and Parodi, S. (Eds.): Short Term Tests for Prescreening of Potential Carcinogens. Instituto Scientifico Per Lo Studio E La Cura Dei Tumor, Genova, Italy, 1979, pp. 11-19.

2. Zwelling, L.A. and Kohn, K.W.: Effects of cisplatin on DNA and possible relationships to cytotoxicity and mutagenicity in mammalian cells. In Prestayko, A.W., Crooke, S.T., and Carter, S.K. (Eds.): Cisplatin-Current Status and New Developments. Bristol Laboratories Symposium. New York, pp. 21-35, 1980.

3. Kohn, K.W., Kwig, R.A.G., Erickson, L.C., and Zwelling, L.A.: Measurements of strand breaks and crosslinks in DNA by alkaline elution. In Friedberg, E.C. and Hanawalt, P.C. (eds.): DNA Repair: A Laboratory Manual of Research Techniques. Marcel Dekker, pp. 379-401, 1981.

4. Zwelling, L.A. and Kohn, K.W.: Platinum complexes. In Chabner, B.A. (Ed.): Pharmacologic Principles of Cancer Treatment. W.B. Saunders, pp. 309-339, 1982.

5. Kohn, K.W. and Zwelling, L.A.: Consequences of DNA intercalation: protein-associated DNA strand breaks. In Muggia, F.M., Young, C.W. and Carter, S.K. (Eds.): International Symposium on Anthracycline Antibiotics in Cancer Therapy. Martinus, Nishoff, pp. 86-96, 1982.

6. Zwelling, L.A.: The biological consequences of Pt-DNA crosslinks in mammalian cells. In Lippard, S.J. (Ed.): Platinum, Gold and Other Metal Chemotherapeutic Agents. American Chemical Society Symposium Series, pp. 27-49, 1983.

7. Zwelling, L.A., Pommier, Y., Kerrigan, D., and Mattern, M.R.: Intercalator-induced protein-associated DNA strand breaks in mammalian cells. In Glazer, R.I. (Ed.): Recent Developments in Cancer Chemotherapy. CRC Press, pp. 181-205, 1984.

8. Cooney, D.A., Jayaram, H.N., Glazer, R.I., Kelley, J.A., Marquex, V.E., Gebeyehu, G., Van Cott, A.C., Zwelling, L.A., and Johns, D.G.: Studies on the mechanism of action of tiazofurin metabolism to an analog of NAD with potent IMP dehydrogenase-inhibitory activity. In Weber, G. (ED.): Advances in Enzyme Regulation. Pergamon Press, pp. 271-303, 1983.

9. Zwelling, L.A.: Cisplatin and new platinum analogs. In Pinedo, H.M., and Chabner, B.A., (Eds.): Cancer Chemotherapy, 7:105-122, 1985.

10. Poirier, M.C., Reed E., Zwelling, L.A., Ozols, R.F., Litterst, C.L., and Yuspa, S. H.: Polyclonal antibodies to quantitate cis-Diamminedichloroplatinum (II) DNA adducts in cancer patients and animal models. Environmental Health Perspectives, 68: 89-94, 1985.

11. Zwelling, L.A., Silberman, L., and Estey E. Intercalator-induced, topoisomerase II-mediated DNA cleavage and its modification by antineoplastic antimetabolites. Int. J. Radiation Oncology Biol. Phys. 12:1041-1047, 1986.

12. Zwelling, L.A. Cisplatin and new platinum analogs. In: Pinedo, H.M. and Chabner, B.A., (Eds.): Cancer Chemotherapy, 8: 97-116, 1986.

13. Zwelling, L.A: Topoisomerase II-DNA complexes: novel targets of antineoplastic drug action. In Thompson, E.B. and Papaconstantinou, J. (Eds.) DNA: Protein Interactions and Gene Regulation, University of Texas Press, pp. 183-199, 1987.

14. Zwelling, L.A. Cisplatin and new platinum analogs. In: Pinedo, H.M., Chabner, B.A., and Longo, D., (Eds.): Cancer Chemotherapy and Biological Response Modifiers, 9: 71-80, 1987.

15. Zwelling, L.A., Silberman, L. and Estey E. The stabilization of topoisomerase II-DNA complexes as a mechanism of antineoplastic drug action. In Moloy, P.J., and Nicholson, G.L. (Eds.) Occult Nodal Metastasis in Solid Carcinomata, Cancer Research Monographs, Vol. 5, Praeger, pp. 73-82, 1987.

16. Zwelling, L.A. Cisplatin and new platinum analogs. In: Pinedo, H.M., Chabner, B.A., and Longo, D., (Eds.): Cancer Chemotherapy and Biological Response Modifiers, 10: 64-72, 1988.

17. Herzog, CE and Zwelling, LA. Drug-Induced Cytotoxicity in Tissue Culture. In: *Methods in Molecular Biology Vol. 95: DNA Topoisomerase Protocols. Part II: Enzymology and Drugs.* Osheroff, N and Bjornsti MA (Ed): Humana Press, Totowa, NJ, 2001, pp. 205-213.

18. Zwelling, LA and Brunelli, CA, Strategies for the Administration of a Clinical Trials Infrastructure: Lessons from a Comprehensive Cancer Center. In: Cancer Clinical Trials: Proactive Strategies. Leong, SPL (Ed): Springer, New York, NY, 2007, pp. 241-274.