



Curriculum Vitae

STEPHEN L. LESSNICK, M.D., Ph.D.

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PERSONAL DATA

Birth Place: Queens, NY
Citizenship: United States
Date of Birth: May 19, 1967

BUSINESS ADDRESS

Huntsman Cancer Institute
2000 Circle of Hope
Room 4242
Salt Lake City, UT 84112

CONTACT INFORMATION

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EDUCATION

<u>Years</u>	<u>Degree</u>	<u>Institution (Area of Study)</u>
1985-1989	B.A.	Brandeis University (Biochemistry and Biology)
1989-1994	Ph.D.	University of California, Los Angeles (Molecular Biology)
1989-1996	M.D.	University of California, Los Angeles (Medicine)
1996-1997	Intern	Children's Hospital, Boston (Pediatrics)
1997-1998	Resident	Children's Hospital, Boston (Pediatrics)
1998-2001	Fellow	Dana-Farber Cancer Institute and Children's Hospital, Boston (Pediatric Hematology/Oncology)

BOARD CERTIFICATIONS

10/16/2001-2008 Board Certified in Pediatrics (allowed to lapse, 2008)
11/18/2002 to Present Board Certified in Pediatric Hematology/Oncology

CURRENT LICENSES/CERTIFICATIONS

02/13/2004-01/31/2014 State of Utah Physician and Surgeon License, 5548638-1205
02/13/2004-01/31/2014 State of Utah Physician/Surgeon Controlled Substance License,
5548638-8905
2004-2013 Drug Enforcement Agency License, BL5875957

ACADEMIC HISTORY

Department of Pediatrics, Harvard Medical School, Harvard University

2001-2003 Instructor

Department of Pediatrics, University of Utah

2004-2008 Assistant Professor
2008-2011 Associate Professor with Tenure
2011 to Present Professor with Tenure

Department of Oncological Sciences, University of Utah

2004-2008 Adjunct Assistant Professor
2008-2012 Adjunct Associate Professor
2012 to Present Adjunct Professor

Department of Bioengineering, University of Utah

2008 to Present Adjunct Associate Professor

PROFESSIONAL EXPERIENCE

Full Time Positions

2001-2003 Attending Physician in Pediatric Hematology/Oncology, Children's
Hospital, Boston, MA, USA
2001-2003 Attending Physician in Pediatric Hematology/Oncology, Dana-
Farber Cancer Institute, Boston, MA, USA
2004 to Present Investigator, Huntsman Cancer Institute, University of Utah, Salt
Lake City, UT, USA
2004 to Present Attending Physician in Pediatric Hematology/Oncology, Primary
Children's Medical Center, Salt Lake City, UT, USA
2007 to Present Member, Huntsman-Intermountain Cancer Care Program, Salt Lake
City, UT, USA

Part Time Positions

2004-2006 Consultant for Prolexys, Inc., Salt Lake City, UT, USA
2013 to Present Scientific Advisory Board member, Salarius Pharmaceuticals, LLC

Editorial Experience

2010 to Present Senior Editorial Board Member
American Journal of Translational Research, Madison, WI, USA
2010-2011 Lead Guest Editor, Sarcoma, Special Issue: "The Molecular Basis of
Sarcoma"

2011 to Present	Associate Editor Frontiers in Pediatric Oncology, Laussane, Switzerland
2012 to Present	Review Editor Frontiers in Cancer Genetics, Laussane, Switzerland
2012 to Present	Editorial Board Member Sarcoma, Hindawi Publishing Corporation, New York, NY
2004 to Present	Ad hoc reviewer for the following journals: Cancer Cell Cancer Genetics Cancer Research Cell Clinical Cancer Research Developmental Dynamics Genes & Development International Journal of Cancer Journal of Clinical Investigation Journal of Clinical Oncology Journal of Molecular Diagnostics Molecular Cancer Research Molecular and Cellular Biology Molecular and Cellular Biochemistry Nature Medicine Oncogene Pediatric Blood and Cancer Pediatric Research PLoS Genetics Proceedings of the National Academy of Sciences (PNAS) Sarcoma
2012	Ad hoc reviewer for the Genetics Home Reference, U.S. National Library of Medicine

SCHOLASTIC HONORS

1989	B.A., <i>cum laude</i> , High Honors in Biochemistry, Brandeis University, Waltham, MA, USA
1990	First Place Award, Short Term Training Program abstract presentation, University of California, Los Angeles, CA, USA
1991	Second Place Award, Alpha Omega Alpha Medical Honors Society Research Award, University of California, Los Angeles, CA, USA
2009 to Present	Jon and Karen Huntsman Presidential Professor in Cancer Research, University of Utah, Salt Lake City, UT, USA

ADMINISTRATIVE EXPERIENCE

Administrative Training

- 2009 Leadership Development for Health Care Executives, David Eccles School of Business, University of Utah (71 Continuing Medical Education Credits)
- 2010-2011 Leadership Development Program, sponsored by Academic Affairs, Health Sciences, and the Division of Human Resources, University of Utah

Administrative Duties

- 2006 to Present Founder and Administrator, The International Ewing's Sarcoma Research Forum (on-line research discussion forum hosted through Huntsman Cancer Institute)
- 2007-2010 Co-Program Leader, Huntsman Cancer Institute Cancer Center Support Grant, Nuclear Control of Cell Growth and Differentiation, Program, Salt Lake City, UT, USA
- 2009 to Present Director, Center for Children's Cancer Research (C3R), Huntsman Cancer Institute, Salt Lake City, UT, USA
- 2011 Associate Director (with Dean Li), University of Utah Med to Grad Program (U2M2G). Howard Hughes Medical Institute (HHMI) funded program.

Professional & Scientific Committees

- 2004 to Present Member, Translational Research Committee, Children's Oncology Group
- 2004 to Present Member, Ewing's Sarcoma Biology Committee, Children's Oncology Group
- 2006 to Present Steering Committee Member, Bone Tumor Committee, Children's Oncology Group
- 2006 to Present Chair, Ewing's Sarcoma Biology Committee, Children's Oncology Group
- 2007-2009 Member, Young Investigators Committee, Children's Oncology Group
- 2008 to Present Member, Faculty of 1000 Medicine, Sarcoma Section
- 2008-2011 Member, Board of Trustees, Ronald McDonald House Charities of the Intermountain Area, Inc., Member of Medical Policies and Procedures Committee
- 2011-2013 Member, Board of Directors, Connective Tissue Oncology Society
- 2011 to Present Member, Children's Oncology Group Scientific Council
- 2011 to Present Vice Chair for Biology, Bone Tumor Committee, Children's Oncology Group

Grant Review Committee/Study Sections

- 2006-2007 Ad Hoc Peer Review Committee Member, American Cancer Society, Molecular Genetics and Oncogenes Grant Review Study Section
- 2007 to Present Grant Reviewer, Liddy Shriver Sarcoma Initiative
- 2008 to Present Grant Reviewer, Alex's Lemonade Stand Foundation for Childhood Cancer

2008-2011	Member, American Cancer Society, Tumor Biology and Genomics Grant Review Study Section
2009	Ad Hoc reviewer, Technical Evaluation Panel (TEP) for NIH National Cancer Institute RFP N01-CM-90110-03 "Pediatric Preclinical Testing Program"
2010 to Present	Member, Special Emphasis Panel (SEP) for NIH National Cancer Institute Loan Repayment Program (LRP), Clinical Research (L30 mechanism) and Pediatric Research (L40 mechanism)
2011-2012	Ad Hoc reviewer for NIH NCI-F Training Review Committee
2011	Ad Hoc reviewer for NIH Special Emphasis Panel (SEP) ZRG OBT-Z (02)
2011	Grant Reviewer, CureSearch Ewing's Sarcoma Research Award
2012-2015	Member, NIH NCI-F Institutional Training and Education study section (appointment July 1, 2012 – June 30, 2015)

Symposium/Meeting Chair/Coordinator

2004	Co-organizer, Sarcoma, Symposium, Huntsman Cancer Institute, Salt Lake City, UT, USA
2004	Co-organizer, Huntsman Cancer Institute Retreat, Salt Lake City, UT, USA
2006	Co-organizer, Cancer Center Retreat, University of Utah, Salt Lake City, UT, USA
2006	Session Chair, Child Health Research Center, Annual Retreat, Salt Lake City, UT
2006	Co-organizer, Oncological Sciences Retreat, University of Utah, Salt Lake City, UT, USA
2009	Session Chair, Connective Tissue Oncology Society 2009 Annual Meeting, Miami, FL
2010	Session Chair, Global Perspectives on Cancer Prevention, Diagnosis and Treatment: The Middle East and Utah, Salt Lake City, UT
2010	Co-organizer, Bone Sarcoma Genomics Consortium Meeting, April 17, 2010, Washington, D.C.
2010-2011	American Society of Clinical Oncology 2010-2011 Cancer Education Committee, Pediatric Oncology Track, for ASCO 2011 Annual Meeting, Chicago, IL.
2011	Session Chair, "Pediatric Bone Sarcomas: Converging Progress on the Biologic and Clinical Fronts?" American Society of Clinical Oncology 2011 Annual Meeting, Chicago, IL.
2011-2012	American Society of Clinical Oncology 2011-2012 Cancer Education Committee, Track Leader for Pediatric Oncology Track, and Cancer Education liaison for the Pediatric Oncology Track Scientific Program Committee, for ASCO 2012 Annual Meeting, Chicago, IL.
2012	Session Chair, "Molecular and Genomic Diagnostics in Pediatric Oncology: When and How They Should Be Implemented?" American Society of Clinical Oncology, 2012 National Meeting, Chicago, IL.

- 2012-2013 American Society of Clinical Oncology 2012-2013 Cancer Education Committee, Pediatric Oncology Track, for ASCO 2013 Annual Meeting, Chicago, IL.
- 2014 Co-organizer, Connective Tissue Oncology Society 2014 Annual Meeting, Berlin, Germany

UNIVERSITY COMMUNITY ACTIVITIES

- 2004-2005 Member, Oncological Sciences Faculty Search Committee
- 2004-2005 Member, University of Utah Small Animal Imaging Committee
- 2004-2006 Member, Adult Oncology Sarcoma Faculty Search Committee
- 2004-2006 Co-mentor, Multidisciplinary Cancer Research Training Grant
- 2004 to Present Member, Molecular Biology Program
- 2004 to Present Member, Sarcoma Services
- 2004 to Present Member, M.D./Ph.D. Admission Committee
- 2004 to Present Member, M.D./Ph.D. Advisory Committee
- 2004-2007 Mentor, Children's Health Research Center
- 2005-2007 Member, Molecular Biology Admissions Committee
- 2005 to Present Mentor, Hematology Training Grant
- 2005-2007 Member, Pediatric Pathology Faculty Search Committee
- 2007-2008 Member at Large, Department of Oncological Sciences, Graduate Committee
- 2007 Member, USTAR Neuroscience and Biomedical Technology Research Building Small Animal Imaging Facility Steering Committee
- 2007-2009 Member, School of Medicine, Seminar Series Committee
- 2007-2012 Mentor, Developmental Biology Training Grant
- 2007-2012 Mentor, Genetics Training Grant
- 2007 to Present Mentor, Multidisciplinary Cancer Research Training Grant
- 2007-2008 Chair, Pediatric Hematology/Oncology Faculty Search Committee
- 2007-2009 Organizer, Sarcoma Research in Progress Series
- 2007-2011 Executive Committee member, Multidisciplinary Cancer Research Training Grant
- 2007 to Present Member, Huntsman Cancer Institute, Research Leadership Council
- 2007-2008 Member, Faculty search committee for Director of Pediatric Pathology Division
- 2008 Member, Member, Center for Clinical and Translational Science, Internal Advisory Committee
- 2008-2009 Member, Radiation Oncology Faculty Search Committee
- 2008 to Present Member, Huntsman Cancer Institute Biostatistics Shared Resource Oversight Committee
- 2008 to Present Member, Huntsman Cancer Institute Tissue Resource and Application Core (TRAC) Faculty Advisory Board
- 2008-2009 Member, Huntsman Cancer Institute, Faculty Search Committee for Sarcoma Medical Oncologist

2008-2011	Member, Department of Oncological Sciences, Curriculum Committee
2008 to Present	MD/PhD Program Representative, Department of Oncological Sciences, Graduate Committee
2008-2009	Member, Huntsman Cancer Institute Biostatistics Shared Resource Faculty Search Committee
2009 to Present	Member, Department of Pediatrics Executive Committee
2009-2012	Member, University of Utah Academic Senate
2009 to Present	Member, Huntsman Cancer Institute, Comparative Oncology Resource Steering Committee
2011 to Present	Scholar, Entrepreneurial Faculty Scholars Program
2011-2012	Chair, Department of Oncological Sciences Faculty Search Committee for genomics position

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

1989-1998	American Medical Association
1990 to Present	American Association for the Advancement of Science
1996-2003	Massachusetts Medical Society
2004 to Present	Children's Oncology Group
2005 to Present	American Society of Pediatric Hematology/Oncology
2006 to Present	Connective Tissue Oncology Society
2006 to Present	American Association of Cancer Research
2010 to Present	American Society of Clinical Oncology

FUNDING

Active Grants

3/1/10 - 2/28/15	5 R01 CA140394-02 EWS/FLI and its Targets in Ewing's Sarcoma NIH/NCI Total Direct Costs: \$1,037,500. Total Costs: \$1,564,440. Role: <u>Principal Investigator</u>
3/1/07 - 2/29/12	5 U10 CA98543-09 Children's Oncology Group Master Grant NIH/NCI Direct Costs: \$10,033. Total Costs: \$15,000. Role: <u>Member of the Scientific Council</u>
1/1/12 - 9/30/12	10027157 Ewing's Sarcoma Research Fellowship Sydney's Incredible Defeat of Ewing's Sarcoma (SIDES) Direct Costs: \$30,000. Total Costs: \$30,000. Role: <u>Principal Investigator</u>
3/1/11 - 2/29/12	5 U10 CA98543-09 Children's Oncology Group Master Grant

NIH/NCI
Direct Costs: \$8,406. Total Costs: \$12,566.
Role: Study Chair, AEWS07B1

1/1/12 – 12/31/12
1167
New Approach to Ewing's Sarcoma
Hyundai Hope on Wheels
Total Direct Costs: \$100,000. Total Costs: \$100,000.
Role: Principal Investigator

12/1/11 – 11/30/12
10022793
Prognostic Value of p53 and/or p16 Alterations in Ewing's Sarcoma
Thrasher Research Fund
Total Direct Costs: \$172,052. Total Costs: \$199,851
Role: Principal Investigator

Past Grants

4/1/09 - 3/31/12
5 R21 CA138295-02
Antibody Based Detection of Translocations in Pediatric Cancer
NIH/NCI
Total Direct Costs: \$408,323. Total Costs: \$662,200.
Role: Principal Investigator

7/1/09 - 6/30/11
PID 10011515
Molecular Diagnostic, Prognostic, and Therapeutic Approaches Towards Ewing's Sarcoma
Total Direct Costs: \$200,000. Total Costs: \$200,000.
Alex's Lemonade Stand Foundation
Role: Principal Investigator

5/9/97 - 4/30/15
5P30CA042014-22 (Beckerle)
Cancer Center Support Grant (Beckerle PI since 05/01/06)
Total Direct Costs: \$460,789 (interim funding)
NIH/NCI
Role: Program Leader, Nuclear Control of Cell Growth and Differentiation Program, 5/1/08-9/1/10

7/1/06 - 6/30/10
RSG0618801MGO
EWS/FLI and its Targets in Ewing's Sarcoma Development
Total Direct Costs: \$600,000. Total Costs: \$714,000.
American Cancer Society
Role: Principal Investigator

9/1/08 - 8/31/10
PID 10008382
NR0B1 in Ewing's sarcoma
Total Direct Costs: \$100,000. Total Costs: \$100,000.
Liddy Shriver Sarcoma Initiative
Role: Principal Investigator

7/31/02 - 6/30/07 No cost extension to 06/30/2008	K08 CA096755 Tumor Suppressors in Ewing's Sarcoma Total Direct Costs: \$754,533. Total Costs: \$814,896. NIH/NCI Role: <u>Principal Investigator</u>
2/14/05 - 7/14/07	SPR06INN0VRESEARCHLESSNICK Analysis of EWS/FLI Target Genes Total Direct Costs: \$50,000. Total Costs: \$50,000. Primary Children's Medical Center Foundation Role: <u>Principal Investigator</u>
7/1/05 - 6/30/07	PID2412050 Analysis of Ewing's Sarcoma EWS/FLI Target Genes Total Direct Costs: \$70,000. Total Costs: \$70,000. Hope Street Kids Role: <u>Principal Investigator</u>
1/1/07 - 12/31/07	PID10002446 NR0B1 in Ewing's sarcoma Total Direct Costs: \$25,000. Total Costs: \$25,000. Liddy Shriver Sarcoma Initiative Role: <u>Principal Investigator</u>
1/1/07 - 12/31/07	PID10002447 EWS/ETS Detection in Ewing's sarcoma Total Direct Costs: \$25,000. Total Costs: \$25,000. Liddy Shriver Sarcoma Initiative Role: <u>Principal Investigator</u>
3/1/08 - 2/28/09	PID10006471 Molecular Diagnostic, Prognostic, and Therapeutic Approaches Towards Ewing's Sarcoma Total Direct Costs: \$50,000. Total Costs: \$50,000. Sunbeam Foundation Role: <u>Principal Investigator</u>
Past Contracts	
3/1/2010 - 2/28/2011	19849 Children's Oncology Group Chair's Grant (Reaman PI) Direct Costs: \$9,803 NIH/NCI Role: <u>Study Chair AEWS07B1</u>

TEACHING RESPONSIBILITIES/ASSIGNMENTS

Course and Curriculum Development

2005 Developed (with N. Moghal) new section for Molecular Biology

- Journal Club and Grant Writing Course (MOLBIOL6100):
RAS/MAPK Signaling in Development and Cancer
- 2008 Complete reorganization of Molecular Biology of Cancer Course (ONCSC 6500-001) when took over organization duties from David Virshup. Course renamed "Clinical and Molecular Cancer Biology."
- 2008 Developed (with A. Welm) the Cancer Biology Journal Club (ONCSC 7700-003), to include faculty mentors and monthly themes to enhance the educational component of this journal club.

Courses Directed

- 2005 to 2011 Director (with A. Welm), Cancer Biology Journal Club, ONCSC 7700-003 (previously titled Cancer Mechanisms, Targets, and Therapeutics Journal Club). Mixed class with graduate students, postdoctoral fellows, clinical fellows, and others. Approximately 30-40 trainees per year. Class runs weekly throughout the entire school year.
- 2008 to 2011 Director, Molecular Biology of Cancer Course, ONCSC 6500-001. Mixed class, primarily for graduate students, but also includes postdoctoral and clinical fellows, occasional faculty members, etc. Class runs once every-other year, approximately 40 attendees, meets three times per week for a half-semester.

Course Lectures

- 2001-2003 Lecturer for Pediatric Hematology/Oncology Fellow's Consolidation Course, Dana-Farber Cancer Institute and Children's Hospital, Boston, MA. Fellow's course, one lecture per year.
- 2004 to Present Ad Hoc Faculty Supervisor, Pediatric Hematology/Oncology Journal Club, University of Utah, Salt Lake City, UT. For entire Pediatric Hematology/Oncology Division, serve as faculty supervisor when requested.
- 2005-2006 Instructor, Molecular Biology Journal Club and Grant Writing, Mol Biol 6100, University of Utah, Salt Lake City, UT. Graduate student class, approximately 8 students per semester, met weekly for 12 weeks.
- 2005-2007 Lecturer, Molecular Biology of Cancer Course (Virshup, organizer), ONCSC 6500-001. Graduate student class, approximately 30-40 students per year. Two lectures per year.
- 2005 to Present Lecturer, Medical Student Research Program (Kaplan, organizer). Medical student class, approximately 30-40 students per year. One lecture per year.
- 2005-2008 Lecturer, Undergraduate Cancer Research Program (Trede, organizer). Undergraduate summer class, approximately 10 students per year. One lecture per year.
- 2005 to Present Lecturer on Lessnick Laboratory Research in Faculty Research Interest Series course. Graduate class, approximately 30 students per year. One lecture per year.
- 2006 to Present Lecturer on Sarcoma in Clinical Cancer Biology Course (Virshup, then Kuwada, then Trede and Topham organizers). Graduate

	student class, approximately 30-40 students per year. One lecture per year.
2006 to Present	Lecturer on Ewing's sarcoma and cell cycle regulation in Orthopedics Residents Basic Science Series (Randall, organizer). Orthopedic resident class, approximately 15-20 residents per year. Two lectures per year.
2007 to Present	Lecturer on Hematology in Physiology and Medicine for the Molecular Biologist Course, ONCSC 6520-001 (Li, organizer). Graduate student class, approximately 30 students per year. 1.5 lectures per year.
2010 to Present	Lecturer on Pediatric Cancer in Molecule, Cells, and Cancer Medical School Class, University of Utah School of Medicine. Medical student class, approximately 80 students. One lecture per year.

Small Group Teaching

2001-2003	Tutorial group leader for Hematology course, Harvard Medical School, Boston, MA. Medical student tutorial section consisting of 8 students, met three times per week for approximately one month.
2006 to Present	Mentor, Department of Pediatrics Grant Writing Retreat, Deer Valley, UT. Pediatric junior faculty-level workshop, runs twice per year with 10-20 attendees. Attend, when available, for entire weekend.

Postdoctoral Fellows supervised (direct laboratory supervision)

2004-2006	Chi Braunreiter, M.D. Children's Health Research Center trainee Multidisciplinary Cancer Research Training Grant awardee Current position: Assistant Director of Clinical Services, Division of Pediatric Hematology/Oncology, DeVos Children's Hospital, Grand Rapids, MI; Assistant Professor, Michigan State University, Grand Rapids, MI.
2005-2007	Jeffrey Hancock, M.D. Children's Health Research Center trainee Hematology Training Grant awardee Amgen Fellowship awardee Current position: Pediatric Hematologist/Oncologist, Teton Oncology, Rexburg, ID, and Adjunct Faculty member of Pediatric Hematology/Oncology Division, University of Utah, Salt Lake City, UT
2007 to Present	Wen Luo, Ph.D. Awarded Alex's Lemonade Stand Grant Awarded PCMC Foundation Grant
2008 to 2010	Colleen Druzgal, M.D. Children's Health Research Center trainee Multidisciplinary Cancer Research Training Grant awardee Current position: Assistant Professor, Dept. of Pediatric Hematology/Oncology, University of Virginia, Charlottesville, VA
2011 to Present	Michael J. Monument, MD, MSc Sarcoma Advanced Research and Clinical Fellow Awarded Orthopaedic Research and Education Foundation Young

Investigator Grant, 2012.

Graduate Students Supervised (direct laboratory supervision as thesis advisor)

2005-2010	Kunal Gangwal, PhD candidate, Department of Oncological Sciences. Received PhD 2010. Currently a postdoctoral fellow with Dr. Satyam Subramaniam at Dr. Reddy's Laboratories, Hyderabad, India.
2007 to Present	Elizabeth Toomey, PhD candidate, Department of Oncological Sciences
2007 to 2011	Ashley Kowalewski, PhD candidate, Department of Oncological Sciences. Received MS 2012.
2007 to Present	Savita Sankar, PhD candidate, Department of Oncological Sciences
2008 to 2010	Sam Francis, MS candidate, Bioengineering Department. Received MS 2010. Currently in University of Utah Medical School class of 2014.
2009 to Present	John Fadul, PhD candidate, Department of Oncological Sciences

M.D./Ph.D. Students Supervised (direct laboratory supervision as thesis advisor)

2005-2009	Michelle Kinsey, Department of Oncological Sciences Multidisciplinary Cancer Research Training Grant awardee Current position: Medical Science Liaison with Novartis
2005-2008	Leah Owen, Department of Oncological Sciences Developmental Biology Training Grant awardee Current position: Ophthalmology resident in University of Utah School of Medicine.
2012 to Present	Jason Tanner, Department of Oncological Sciences

Medical Students Supervised (direct laboratory supervision)

2005	Brayden McBride Summer research project
2007	Jarem Lloyd Summer research project
2010-2011	Robert Beck Took one year leave-of-absence from medical school to pursue research training. Currently in his first year of Surgery Preliminary Residency at the University of Kentucky Dr. James A. Bush Memorial Research Awardee (for most meritorious medical student research)

Undergraduate Students Supervised (direct laboratory supervision)

2004-2005	Brittany Folks Biology Undergraduate Research Program (BioURP) participant
2005	Danielle Wang Biology Undergraduate Summer Research Program participant
2007	Austin Trinh Biology Undergraduate Research Program (BioURP) participant

2008	Camille Enriquez Utah Research Access for Minorities Program (URAMP) participant
2009-2012	Bianca Lui Undergraduate researcher from University of Utah. Following graduation has taken a position at Idaho Technologies as a research technician.
2010	Aaron Grossberg Biology Undergraduate Summer Research Program participant
2011	Kristie Sleight ACCESS Program for Women in Science and Mathematics trainee, remained in lab as undergraduate researcher
2011	Danielle Nakai Native American Summer Internship Program participant via Department of Pediatrics
2012	Benjamin Neff
2013 to Present	Erin Price ACCESS Program for Women in Science and Mathematics trainee

Graduate Student Supervisory Committees (non-chair)

Completion date

2006	Annie Eisinger, Department of Oncological Sciences
2006	Dawne Shelton, Department of Oncological Sciences
2007	Deepak Raj, Department of Oncological Sciences
2007	Derick Holt, Department of Oncological Sciences
2007	Jeff Lenkart, Department of Oncological Sciences
2008	Sean Green, Department of Oncological Sciences
2008	Kym Zumbrennen, Department of Oncological Sciences
2008	Adam Kreutzer, Department of Oncological Sciences
2009	Stephen George, Department of Neurobiology and Anatomy
2009	Talmage Broadbent, Department of Oncological Sciences
2010	Chris Peterson, Department of Oncological Sciences
2010	Marc Elgort, Department of Oncological Sciences
2010	Lynn Rudner, Department of Oncological Sciences
2011	Andrew Oler, Department of Oncological Sciences
2011	Aubrey Chan, Department of Oncological Sciences
2012	Elizabeth Sloan, Department of Oncological Sciences
Current	Kelsi Kretschmann, Department of Oncological Sciences
Current	Krystal Straessler, Department of Human Genetics
Current	Vahid Khoddami, Department of Oncological Sciences
Current	Joseph Cho, Department of Oncological Sciences

Preliminary Committees for Graduate Students

2004-2005 Annie Eisinger, Department of Oncological Sciences
2004-2005 Jin Jin Cai, Department of Oncological Sciences
2005-2006 Maria Elias, Department of Oncological Sciences (Committee Chair)
2005-2006 Jingyu Huang, Department of Oncological Sciences
2005-2006 Kunal Gangwal, Department of Oncological Sciences (Thesis Advisor)
2005-2006 Leah Owens, Department of Oncological Sciences (Thesis Advisor)
2006-2007 Itrat Jafri, Department of Oncological Sciences
2006-2007 Ravi Alla, Department of Oncological Sciences
2006-2007 Kelli Lund, Department of Oncological Sciences (Committee Chair)
2006-2007 Michelle Kinsey, Department of Oncological Sciences (Thesis Advisor)
2007-2008 Noah Jenkins, Department of Oncological Sciences
2007-2008 Adam Kreutzer, Department of Oncological Sciences
2007-2008 Lynn Rudner, Department of Oncological Sciences (Committee Chair)
2007-2008 Rachel Toth, Department of Oncological Sciences
2007-2008 Ashley Gilbert, Department of Oncological Sciences (Thesis Advisor)
2007-2008 Savita Sankar, Department of Oncological Sciences (Thesis Advisor)
2007-2008 Elizabeth Toomey, Department of Oncological Sciences (Thesis Advisor)
2008-2009 Somaye Dehghanizadeh, Department of Oncological Sciences
2008-2009 John Fadul, Department of Oncological Sciences (Thesis Advisor)
2009-2010 Krystal Straessler, Department of Human Genetics
2009-2010 Vahid Khoddami, Department of Oncological Sciences
2009-2010 Gloria Slattum, Department of Oncological Sciences
2010-2011 Laura Jimenez, Department of Oncological Sciences
2010-2011 Mun Kyoung Kim, Department of Oncological Sciences
2011-2012 Cole Anderson, Department of Oncological Sciences
2012-2013 Jiafeng (Jeff) Xu, Department of Oncological Sciences

Other Trainee Supervisory Roles and Committees

2004-2006 Nancy McAllister, Children's Health Research Center Trainee Supervisory Committee member
2004-2006 Dustin Braunreiter, Children's Health Research Center Trainee Supervisory Committee member
2004-2006 Chi Braunreiter, Children's Health Research Center Trainee Supervisory Committee member
2005-2007 Jeffrey Hancock, Children's Health Research Center Trainee Supervisory Committee member
2007-2008 Annie Eisinger, Medical Student Faculty Advisor
2008-2010 Colleen Druzgal, Children's Health Research Center Trainee Supervisory Committee member
2011 Kristie Slight, University of Utah Bachelor of University Studies program Faculty Sponsor.

PEER-REVIEWED JOURNAL ARTICLES

1. Bruce, C, Baldwin, RL, **Lessnick, SL**, and Wisnieski, BJ. (1990). Diphtheria toxin and its ADP-ribosyltransferase-defective homologue CRM 197 possess deoxyribonuclease activity. *Proc. Natl. Acad. Sci. USA* 87, 2995-2998.
2. **Lessnick, SL**, Bruce, C, Baldwin, RL, Chang, MP, Nakamura, LT, and Wisnieski, BJ. (1990). Does diphtheria toxin have nuclease activity? (technical comments) *Science* 250, 836-838.
3. **Lessnick, SL**, Lyczak, JB, Bruce, C, Lewis, DG, Kim, SW, and Wisnieski, BJ. (1991). Localization of diphtheria toxin nuclease activity to fragment A. *J. Bacteriol.* 174, 2032-2038.
4. May, WA, Gishizky, ML, **Lessnick, SL**, Lunsford, LB, Lewis, BC, Delattre, O, Zucman, J, Thomas, G, and Denny, CT. (1993). Ewing sarcoma 11;22 translocation produces a chimeric transcription factor that requires the DNA-binding domain encoded by FLI1 for transformation. *Proc. Natl. Acad. Sci. USA* 90, 5752-5756.
5. May, WA, **Lessnick, SL**, Braun, BS, Klemsz, M, Lewis, BC, Lunsford, LB, Hromas, R, and Denny, CT. (1993). The Ewing's sarcoma EWS/FLI-1 fusion gene encodes a more potent transcriptional activator and is a more powerful transforming gene than FLI-1. *Mol. Cell. Biol.* 13, 7393-7398.
6. Sorensen, PHB, **Lessnick, SL**, Lopez-Terrada, D, Liu, XF, Triche, TJ, and Denny, CT. (1994). A second Ewing's sarcoma translocation, t(21;22), fuses the EWS gene to another ETS-family transcription factor, ERG. *Nature Genet.* 6, 146-151.
7. **Lessnick, SL**, Braun, BS, Denny, CT, and May, WA. (1995). Multiple domains mediate transformation by the Ewing's sarcoma EWS/FLI-1 fusion gene. *Oncogene* 10, 423-431.
8. Braun, BS, Frieden, R, **Lessnick, SL**, May, WA, and Denny, CT. (1995). Identification of target genes for the Ewing's sarcoma EWS/FLI fusion protein by representational difference analysis. *Mol. Cell. Biol.* 15, 4623-4630.
9. **Lessnick, SL**, Dacwag, CS, and Golub, TR. (2002). The Ewing's sarcoma oncoprotein EWS/FLI induces a p53-dependent growth arrest in primary human fibroblasts. *Cancer Cell* 1, 393-401.
10. Widlund, HR, Horstmann, MA, Price, ER, Cui, J, **Lessnick, SL**, Wu, M, He, X, and Fisher, DE. (2002). β -Catenin-induced melanoma growth requires the downstream target Microphthalmia-associated transcription factor. *J. Cell. Biol.* 158, 1079-1087.
11. Dolma, S, **Lessnick, SL**, Hahn, WC, and Stockwell, BR. (2003) Identification of genotype-selective anti-tumor agents using synthetic lethal chemical screening in engineered human tumor cells. *Cancer Cell* 3, 285-296.
12. Gozani, O, Karuman, P, Jones, DR, Ivanov, D, Cha, J, Lugovskoy, AA, Baird, CL, Zhu, H, Field, SJ, **Lessnick, SL**, Villasenor, J, Mehrotra, B, Chen, J, Rao, VR, Brugge, JS, Ferguson, CG, Payrastra, B, Myszka, DG, Cantley, LC, Wagner, G, Divecha, N, Prestwich, GD, and Yuan, J (2003) The PHD finger of the chromatin-associated protein ING2 functions as a nuclear phosphoinositide receptor. *Cell* 114, 99-111.
13. Sun, Y, Gao, D, Huang, J, **Lessnick, S**, and Tanaka, S. (2006) IGF2 is critical for tumorigenesis by synovial sarcoma oncoprotein SYT-SSX1. *Oncogene* 25, 1042-1052.
14. Smith, R, Owen, LA, Trem, DJ, Wong, JS, Whangbo, JS, Golub, TR, and **Lessnick, SL**. (2006) Expression profiling of EWS/FLI identifies NKX2.2 as a critical target gene in Ewing's sarcoma. *Cancer Cell* 9, 405-416.
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18. Haldar, M, Hancock, JD, Coffin, CM, **Lessnick, SL**, and Capecchi, MR. (2007) A Conditional Mouse Model of Synovial Sarcoma: Insights into a Myogenic Origin. *Cancer Cell* 11, 375-388.
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22. Hancock, JD, and **Lessnick SL**. (2008) A Transcriptional Profiling Meta-Analysis Reveals a Core EWS-FLI Gene Expression Signature. *Cell Cycle* 7, 250-256. PubMed PMID: 18256529
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27. Luo, W, Gangwal, K, Sankar, S, Boucher, KM, Thomas, D, and **Lessnick, SL**. (2009) GSTM4 is a microsatellite-containing EWS/FLI target involved in Ewing's sarcoma oncogenesis and therapeutic resistance. *Oncogene* 28, 4126-4132. PubMed PMID: 19718047.
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REVIEW ARTICLES

1. Randall, RL, **Lessnick, SL**, Johnson, B, and Joyner, DE. (2004) Molecular biology of sarcomas: update-the cell cycle paradigm. *Curr. Opin. Ortho.* 15, 456-467.
2. McAllister, NR and **Lessnick, SL**. (2005) The potential for molecular therapeutic targets in Ewing's sarcoma. *Curr. Treat. Options Oncol.* 6, 461-471.
3. Owen, LA and **Lessnick, SL**. (2006) Identification of Target Genes in Their Native Cellular Context: An Analysis of EWS/FLI in Ewing's Sarcoma. *Cell Cycle* 5, 2049-2053.
4. Gangwal, K and **Lessnick, SL**. (2008) Microsatellites are EWS/FLI response elements: Genomic "junk" is EWS/FLI's treasure. *Cell Cycle* 7, 3127-3132.
5. Braun, BS and **Lessnick, SL**. (2009) Pediatric Malignancies: Update on Sarcomas and Leukemia Development in Children. *Curr. Opin. Genet. Devel.* 19, 92-96.
6. **Lessnick, SL**, Dei Tos, AP, Sorensen, PHB, Dileo, P, Baker, LH, Ferrari, S, and Hall, KS. (2009) Small Round Cell Sarcomas. *Semin. Oncol.* 36, 338-346.
7. Randall, RL, **Lessnick, SL**, Jones, KB, Guow, L, Cummings, JE, Cannon-Albright, L, Schiffman, JD. (2010) Is there a predisposition gene for Ewing's Sarcoma? *J Oncol.* 2010:397632.
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9. Kowalewski, AA, Randall, RL, and **Lessnick, SL**. (2011) Cell cycle deregulation in Ewing's sarcoma pathogenesis. *Sarcoma* 2011:598704. PubMed PMID: 21052502. PMCID: PMC2968116.
10. **Lessnick, SL**, Kovar, H, and Houghton, P. (2011) The Molecular Basis of Sarcoma (Editorial). *Sarcoma* 2011:864130.
11. Jones, KB, Haldar, M, Schiffman, JD, Cannon-Albright, L, **Lessnick, SL**, Sharma, S, Capecchi, MR, and Randall, RL. (2011) Of mice and men: opportunities to use genetically engineered mouse models of synovial sarcoma for preclinical cancer therapeutic evaluation. *Cancer Control* 18,196-203. PubMed PMID: 21333582.
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14. **Lessnick, SL** and Ladanyi ML. (2012) Molecular Pathogenesis of Ewing Sarcoma: New Therapeutic and Transcriptional Targets. *Annual Review of Pathology: Mechanisms of Disease, Volume 7, in press* [DOI: 10.1146/annurev-pathol-011110-130237]. PubMed PMID: 21942527. PMCID: PMC3555146.
15. Calvert, GT, Randall, RL, Jones, KB, Cannon-Albright, L, **Lessnick, S**, Schiffman, JB. (2012) At-risk populations for osteosarcoma: The syndromes and beyond. *Sarcoma*, 2012:152382.
16. Spraker, HL, Price, SL, Chaturvedi, A, Schiffman, JD, Jones, KB, **Lessnick, SL**, Beckerle, M, Randall, RL. (2012) The clone wars – revenge of the metastatic rogue state: the sarcoma paradigm. *Front. Oncol.*, 2:2. [DOI: 10.3389/fonc.2012.00002].
17. Kovar, H, Alonso, J, Aman, P, Aryee, DNT, Ban, J, Burchill, SA, Burdach, S, De Alava, E, Delattre, O, Dirksen, U, Fourtouna, A, Fulda, S, Helman, LJ, Herrero-Martin, D, Hogendoorn, PC, Kontny, U, Lawlor, E, **Lessnick, SL**, Llombart-Bosch, A, Metzler, M, Moriggl, R, Niedan, S, Potratz, J, Redini, F, Richter, GS, Riedmann, L, Rössig, C, Schäfer, B, Schwentner, R, Scotlandi, K, Sorensen, PH, Stäge, MS, Tirode, F, Toretsky, J, Ventura,

- S, Eggert, A, Ladenstein, R. (2012). The First European Interdisciplinary Ewing's Sarcoma Research Summit. *Front Oncol.* 2:54. [DOI: 10.3389/fonc.2012.00054].
18. Monument, MJ, **Lessnick, SL**, Schiffman, JD, Randall RL. (2012) Microsatellite instability in sarcoma: fact or fiction? *ISRN Oncology* 2012, article 473146, 9 pages [doi:10.5402/2012/473146]
 19. Monument, MJ, Johnson, KM, Grossman, AH, Schiffman, JD, Randall, RL, **Lessnick, SL**. (2012) Microsatellites with macro-influence in Ewing sarcoma. *Genes* 3, 444-460.
 20. Gorlick, R, Janeway, K, **Lessnick S.**, Randall, RL, and Marina, N., on behalf of the COG Bone Tumor Committee. (2012) Children's Oncology Group's 2013 Blueprint for Research: Bone Tumors. *Pediatr Blood Cancer*, *in press*.

ELECTRONIC MEDIA

1. Delaney, T, Hornicek, F, **Lessnick, SL**, and Mankin H. (first published 2010; updated regularly) Epidemiology, pathology, and molecular genetics of the Ewing sarcoma family of tumors. In: *UpToDate, Basow, DS (Ed)*. UpToDate, Waltham, MA, USA.

BOOK CHAPTERS

1. **Lessnick, SL**. (2007). EWS/FLI Biology. In: *American Society of Clinical Oncology 2007 Educational Book*. Editor: Ramaswamy Govindan.
2. Dubois, S, Grier, HE, and **Lessnick, SL**. (2009). Chapter 21: Ewing's Sarcoma. In: *Oncology of Infancy and Childhood*. Editors: Orkin, S.H., Fisher, D.E., Look, A.T., Lux, S.E., Ginsburg, D., and Nathan, D.G. Saunders-Elsevier, Philadelphia, PA, USA.
3. Hawkins, D, Bölling, T, DuBois, S, Hogendoorn, PCW., Jürgens, H, Paulussen, M, Randall, RL, and **Lessnick, SL**. (2011) Chapter 33: Ewing Sarcoma . In: *Principles and Practice of Pediatric Oncology, sixth edition*. Editors: Pizzo, PA and Poplack DG. Lippincott Williams & Wilkins, Philadelphia, PA, USA.
4. de Alava, E, **Lessnick, SL**, and Sorensen, P. (2012) Chapter 19-1: Ewing sarcoma. In: *WHO Classification of Tumors of Soft Tissue and Bone, fourth edition*. Editors: Fletcher, C, Hogendorn, P, Mertens, F, and Bridge, J. International Agency for Research on Cancer (IARC), Lyon, France.

PENDING PUBLICATIONS

1. Wiles, ET, Lui-Sargent, B, Bell, R., and **Lessnick, SL**. (2012) BCL11B is up-regulated by EWS/FLI and contributes to the transformed phenotype in Ewing sarcoma. *PLoS ONE*, submitted.
2. Sankar, S, Gomez, NC, Bell, R, Patel, M, Davis, IJ, **Lessnick, SL**, and Luo, W. (2012) EWS and EWS/FLI differentially regulate neural phenotype in Ewing sarcoma. *Cancer Res.*, submitted.

RECENTLY PUBLISHED ABSTRACTS (Last 3 Years)

1. Smith, R, Hancock, JD, Kinsey, M, Owen, LA, and **Lessnick, SL**. (2007) Functional analysis of EWS/FLI target genes via an RNAi mini-library. *American Association of Cancer Research Annual Meeting, Los Angeles, CA*. Abstract 5870.
2. Hancock, JD, Braunreiter, CL, and **Lessnick, SL**. (2007) Microarray expression profile comparison of Ewing's sarcoma to model systems. *American Association of Cancer Research Annual Meeting, Los Angeles, CA*. Abstract 6497.
3. Randall, RL, **Lessnick, SL**, Kerber, R, Andtbacka, R, Scaife, C, Cannon-Albright, LA. (2007) A heritable contribution to malignant fibrous sarcomas. *Musculoskeletal Tumor*

Society Meeting, St. Louis, MO. Abstract 463.

4. Randall, RL, **Lessnick, SL**, Kerber, R, Coffin, CM, Scaife, C, Andtbacka, R, Cannon-Albright, LA. (2007) A heritable contribution to malignant fibrous sarcomas. *14th International Symposium on Limb Salvage*. Hamburg, Germany. Abstract P 3.44.
5. Randall, RL, **Lessnick, SL**, Kerber, R, Virshup, D, Coffin, CM, Chen, LL, Cannon-Albright, LA. (2007) Familial clustering of Ewing's sarcoma observed in a population-based resource. *14th International Symposium on Limb Salvage*. Hamburg, Germany. Abstract P. 3.45.
6. Gangwal, K, Sankar, S, Kinsey, M, Shah, A, Haroldsen, C, Boucher, K, Hollenhorst, PC, Watkins, S, Jorde, L, Graves, BJ, **Lessnick, SL**. (2007) Microsatellites as transcriptional targets in human cancer development. *Cold Spring Harbor meeting on Eukaryotic Mechanisms of Transcription Meeting*. Cold Spring Harbor, NY.
7. Randall, RL, **Lessnick, SL**, Kerber, R, Andtbacka, R, Scaife, C, Cannon-Albright, LA. (2007) A heritable contribution to malignant fibrous sarcomas. *75th Annual Meeting of the American Academy of Orthopaedic Surgeons*, San Francisco, CA. Abstract 453.
8. Randall, RL, **Lessnick, SL**, Kerber, R, Virshup, D, Coffin, CM, Chen, LL, Cannon-Albright, LA. (2007) Familial clustering of Ewing's sarcoma observed in a population-based resource. *75th Annual Meeting of the American Academy of Orthopaedic Surgeons*, San Francisco, CA. Abstract 458.
9. Gangwal, K, Sankar, S, Hollenhorst, PC, Kinsey, M, Haroldsen, SC, Shah, AA, Boucher, KM, Watkins, WS, Jorde, LB, Graves, BJ, and **Lessnick, SL**. (2007) 'Junk' DNA is an EWS/FLI response element in Ewing's sarcoma. *Connective Tissue Oncology Society annual meeting*, Seattle, WA. Abstract 790.
10. Randall, RL, **Lessnick, SL**, Kerber, R, Virshup, D, Coffin, CM, Chen, LL, Cannon-Albright, LA. (2007) Familial Clustering of Ewing's Sarcoma Observed in a Population-Based Resource. *Connective Tissue Oncology Society annual meeting*, Seattle, WA. Abstract 803.
11. Rivera-Begeman, A, Cost, C, **Lessnick, SL**, Smith, R, Timmons, C, Leavey, P. (2007) Comparison of Genetic, Antigenic and Clinical Features of Extraosseous Ewing Sarcoma (EO-EWS) and Osseous Ewing Sarcoma (O-EWS). *Connective Tissue Oncology Society annual meeting*, Seattle, WA. Abstract 889. (N.B., Lessnick and Smith were inadvertently left off the author list at the time of submission. This was corrected during the oral presentation of the poster).
12. Randall, RL, **Lessnick, SL**, Kerber, R, Coffin, CM, Scaife, C, Andtbacka, R, Cannon-Albright, LA. (2007) A heritable contribution of malignant fibrous sarcomas. *Connective Tissue Oncology Society annual meeting*, Seattle, WA. Abstract 802.
13. Hitchcock, Y, Macdonald, K, **Lessnick, SL**, Chen, L, Randall, RL. (2007) Alveolar Soft Part Sarcoma: Demographic, Clinical, and Pathologic Predictors of Survival from the Surveillance, Epidemiology, and End Results (SEER) Database. *Connective Tissue Oncology Society annual meeting*, Seattle, WA. Abstract 828.
14. **Lessnick, SL**. (2007) Deciphering the Transcriptional Hierarchy in Ewing's Sarcoma. *The Harry and Elsa Jiler-American Cancer Society Professors Meeting*, Naples, FL.
15. Hitchcock, YJ, Macdonald, K, **Lessnick, S**, Chen, L, Chen, J, Randall, RL. (2007) Alveolar soft part sarcoma demographic, clinical, and pathologic predictors of survival from the Surveillance, Epidemiology, and End Results (SEER) database. *Int. J. Rad. Onc. Biol. Phys.* 69, S754-S755. Abstract 2984.
16. Gangwal, K, Sankar, S, Hollenhorst, PC, Kinsey, M, Haroldsen, SC, Shah, AA, Boucher, KM, Watkins, WS, Jorde, LB, Graves, BJ, and **Lessnick, SL**. (2008). Microsatellites as

- EWS/FLI response elements in Ewing's sarcoma. *American Association of Cancer Research Annual Meeting*, San Diego, CA. Abstract 86.
17. Randall RL, **Lessnick SL**, Kerber R, Coffin CM, Chen LL, Cannon Albright LA. (2008) Familial clustering of Ewing's Sarcoma observed in a population-based resource Combined Meeting of the American Orthopaedic Association and the Canadian Orthopaedic Association, Quebec City, Canada.
 18. Randall RL, **Lessnick SL**, Kerber R, Coffin CM, Scaife C, Andtbacka R, Cannon Albright LA. (2008) A heritable contribution of malignant fibrous sarcomas. *Combined Meeting of the American Orthopaedic Association and the Canadian Orthopaedic Association*, Quebec City, Canada.
 19. Randall RL, **Lessnick SL**, Kerber R, Coffin CM, Chen LL, Cannon Albright LA. (2008) Familial clustering of Ewing's Sarcoma observed in a population-based resource. *60th Annual Meeting of the Association of Bone and Joint Surgeons*, Jackson Hole, WY.
 20. Sankar S, Owen LA, and **Lessnick SL**. (2008) EWS/FLI regulates NKX2.2 via GLI in a non-SHH-dependent manner. *Connective Tissue Oncology Society annual meeting*, London, UK.
 21. Kinsey M and **Lessnick S.L.** (2008) Transcriptional profile of NR0B1 in Ewing's sarcoma. *Cold Spring Harbor meeting: Nuclear Receptors: Bench to Bedside*, Cold Spring Harbor, NY.
 22. Million L, Barnette P, Randall L, Coffin C, and **Lessnick SL**. (2008) Correlation of karyotype with FISH and RT-PCR for diagnosis of Ewings sarcoma (EWS). *Connective Tissue Oncology Society annual meeting*, London, UK. Abstract 34872.
 23. Schiffman JD, Kinsey M, Nix D, and **Lessnick, SL**. (2009) Molecular inversion probes detect genome-wide, recurring copy number aberrations in Ewing's Sarcoma. *American Association of Cancer Research Annual Meeting*, Denver, CO. Abstract 3266.
 24. Luo W, Gangwal K, Sankar S, and **Lessnick SL**. (2009) Glutathione S-transferase M4 (GSTM4) is a direct EWS/FLI target gene involved in Ewing's sarcoma oncogenesis and therapeutic resistance. *American Association of Cancer Research Annual Meeting*, Denver, CO. Abstract 1244.
 25. Gangwal K and **Lessnick SL**. (2009) Emergent properties of EWS/FLI regulation via GGAA microsatellites in Ewing's sarcoma. *Cold Spring Harbor meeting on Mechanisms of Eukaryotic Transcription*, Cold Spring Harbor, NY.
 26. Gangwal K and **Lessnick SL**. (2009) Emergent properties of EWS/FLI regulation via GGAA microsatellites in Ewing's sarcoma. *Connective Tissue Oncology Society annual meeting*, Miami, FL. Abstract 39338.
 27. Chaturvedi A, **Lessnick SL**, and Beckerle MC. (2010) Mechanistic dissection of EWS-FLI impact on Ewing's sarcoma cell behavior. *American Association of Cancer Research Annual Meeting*, Washington, DC. Abstract 5134.
 28. Gangwal K, Enriquez CA, Close D, Hill CP, and **Lessnick SL**. (2010) Emergent properties of EWS/FLI regulation via GGAA-microsatellites in Ewing's sarcoma. *American Association of Cancer Research Annual Meeting*, Washington, DC. Abstract 3907.
 29. Druzgal CH, Downie J, Putnam A, **Lessnick S**, and Schiffman JD. (2010) Novel use of molecular inversion probes to interrogate formalin-fixed paraffin-embedded (FFPE) samples of Ewing's sarcoma. *American Society of Pediatric Hematology/Oncology Annual Meeting*, Montréal, Quebec, Canada.
 30. Luo W, Milash B, Dalley B, Smith R, Dutrow N, Cairns S, and **Lessnick SL**. (2010) Antibody detection of translocations (ADOT) in Ewing's sarcoma. *Connective Tissue Oncology Society annual meeting*, Paris, France. Abstract 892506.

31. Million L, Putnam A, Randall L, Coffin C, **Lessnick S**, Zhou H. (2010) Ewing sarcoma (EWS): How does percent necrosis of the primary tumor, in post chemotherapy surgical specimens, aid in distinguishing treatment failures? *Connective Tissue Oncology Society annual meeting*, Paris, France. Abstract 879496.
32. Jones KB, Schiffman JD, Kohlmann W, Randall R, **Lessnick SL**, Cannon-Albright L. (2010) Identification of a heritable contribution to sarcoma predisposition. *Connective Tissue Oncology Society annual meeting*, Paris, France. Abstract 900442.
33. Luo W, Milash B, Dalley B, Smith R, Dutrow N, Cairns, B, **Lessnick SL**. (2011) Antibody detection of translocations (ADOT) in Ewing's sarcoma. *American Association of Cancer Research Annual Meeting*, Orlando, FL. Abstract 4864.
34. Chaturvedi AP, Welm A, **Lessnick S**, Beckerle M. (2011) Impact of EWS-FLI induced changes in gene expression and cell behavior on metastatic potential. *American Association of Cancer Research Annual Meeting*, Orlando, FL. Abstract 2366.
35. Toomey E, Lui B, **Lessnick S**. (2012) BCL11B is a critical EWS/FLI up-regulated target in Ewing's sarcoma. *American Association of Cancer Research Annual Meeting*, Chicago, IL. Abstract 2204.
36. Monument MJ, Beck R, Watkins WS, Jorde LB, Randall RL, **Lessnick SL**. (2012) Ethnic polymorphisms in the GGAA microsatellite response element of key Ewing's sarcoma EWS/FLI-target genes. *American Association of Cancer Research Annual Meeting*, Chicago, IL. Abstract 3979.
37. Sankar S and **Lessnick SL**. (2012) Mechanism of transcriptional repression by EWS/FLI in Ewing's sarcoma. *American Association of Cancer Research Annual Meeting*, Chicago, IL. Abstract 2219.

ORAL PRESENTATIONS

Invited/Visiting Professor Presentations

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| 2003 | Invited Participant, National Cancer Institute, Sarcoma Progress Review Group, Bethesda, MD |
| 2004 | Invited Speaker, National Cancer Institute, "RNA Interference - Target Validation & Potential Therapeutic Applications for Childhood Cancer" Workshop, Bethesda, MD |
| 2005 | Invited Speaker, "Ewing's Sarcoma 3 rd International Symposium," Dallas, TX |
| 2006 | Invited Speaker, Connective Tissue Oncology Society meeting, Venice, Italy |
| 2007 | Invited Speaker, University of Texas Southwestern, Pediatric Hematology/Oncology Ground Rounds, Dallas, TX |
| 2007 | Invited Speaker, National Cancer Institute, Pediatric Oncology Branch, Ground Rounds, Bethesda, MD |
| 2007 | Invited Speaker for Education Session, American Society of Clinical Oncology, National Meeting, Chicago, IL; Topic: "EWS/FLI Biology" |
| 2007 | Invited Speaker, MD Anderson Cancer Center, Pediatric Hematology/Oncology Grand Rounds, Houston, TX |
| 2007 | Invited Speaker, Cold Spring Harbor Laboratory Meeting on Mechanisms of Eukaryotic Transcription, Cold Spring Harbor, NY; Topic: "Microsatellites as Transcriptional Targets in Human Cancer Development" |
| 2007 | Invited Speaker, IX Reunión Internacional de Oncología Pediátrica, Mexico City, Mexico; Topic: Genes Blanco de EWS/FLI en el desarrollo de Sarcoma de Ewing (EWS/FLI Targets in Ewing's Sarcoma Development) |

- 2008 Invited Speaker, St. Jude Children's Research Hospital, Solid Tumor Group Research Presentation, Memphis, TN
- 2008 Invited Speaker, "Rett Nearburg International Ewing's Sarcoma Symposium IV," Hanover, NH
- 2008 Invited Speaker, University of California, San Francisco, Cancer Center Presentation for Pediatric Cancers Program, San Francisco, CA
- 2008 Invited Speaker, Children's Hospital of Philadelphia, Pediatric Hematology/Oncology Grand Rounds, Philadelphia, PA
- 2008 Invited Speaker, European Society for Medical Oncology International Symposium on Sarcoma and GIST (including closed "pre-meeting"), Milan, Italy
- 2008 Invited Speaker, Schneider Children's Medical Center of Israel, Sackler School of Medicine, Tel-Aviv University, Workshop on Ewing Sarcoma in Memory of Rina Zaizov, Tel Aviv, Israel
- 2008 Invited Speaker, University of California San Diego, Pediatric Oncology Special Seminar, San Diego, CA
- 2008 Invited Speaker, University of Michigan, Cancer Center Research Seminar, Ann Arbor, MI
- 2008 Invited Speaker, Connective Tissue Oncology Society meeting, London, UK
- 2008 Invited Speaker, University of Colorado Cancer Center Seminar Series, Denver, CO
- 2008 Invited Speaker, National Cancer Institute, Pediatric Oncology Branch, Grand Rounds, Bethesda, MD
- 2009 Invited Speaker, Memorial Sloan-Kettering Cancer Center, Pediatric Ground Rounds, New York, NY
- 2009 Invited Speaker, Washington University School of Medicine, Department of Pediatrics, St. Louis, MO
- 2009 Invited Speaker, Primary Children's Medical Center Grand Rounds, Salt Lake City, UT
- 2009 Invited participant, 1st International Meeting on Sarcoma Biology, Miami, FL
- 2009 Invited speaker, Greehey Children's Cancer Research Institute, San Antonio, TX
- 2010 Invited speaker, European Society for Medical Oncology International Symposium on Sarcoma and GIST (also invited speaker to closed "pre-meeting"), Milan, Italy
- 2010 Invited speaker, Pennsylvania State University, Bortree Lecture Series, State College, PA
- 2011 Chair Presentation for Education Session, "Pediatric Bone Sarcomas: Converging Progress on the Biologic and Clinical Fronts?" at American Society of Clinical Oncology 2011 Annual Meeting, Chicago, IL; Topic: Recent Progress in Understanding the Biology of Bone Tumors.
- 2011 Invited speaker, Cancer and Blood Diseases Institute Seminar Series, Cincinnati Children's Hospital, Cincinnati, OH
- 2011 Invited participant, 2nd International Meeting on Sarcoma Biology, Chicago, IL
- 2011 Invited speaker, European Commission funded Network on Cancer Research in Children and Adolescents (ENCCA) Ewing Biology Subnetwork Meeting, Vienna, Austria
- 2012 Invited speaker, University of Texas Southwestern, Dallas, TX
- 2012 Invited speaker, 2nd German Interdisciplinary Sarcoma Conference, Berlin,

- Germany
- 2012 Chair Presentation for Education Session, “Molecular and Genomic Diagnostics in Pediatric Oncology: When and How They Should Be Implemented?” at the American Society of Clinical Oncology, 2012 National Meeting, Chicago, IL; Topic: “Does Genotype Define Disease: The Case of Pediatric Sarcomas”
- 2012 Invited speaker, European Science Foundation-European Molecular Biology Organization (ESF-EMBO) Symposium, “Molecular Biology and Innovative Therapies in Sarcomas of Childhood and Adolescence,” Pultusk, Poland; Topic: “EWS/FLI and its targets in Ewing sarcoma.”

OTHER SCHOLARLY ACTIVITY

1. **Lessnick, SL.** (2006-Present). Study Chair/Children's Oncology Group protocol AEWS02B1: A Groupwide Biology and Banking Study for Ewing Sarcoma. Protocol closed to enrollment July 7, 2008, but study remains open for data collection.
2. **Lessnick, SL.** (2007-2008). Study committee member/Children's Oncology Group protocol AEWS0621: Phase II Trial of Intermediate-Dose Cytarabine to Modulate EWS/FLI for Children and Young Adults with Recurrent or Refractory Ewing Sarcoma. Protocol completed May 2, 2008.
3. **Lessnick, SL.** (2008 to Present). Study Chair/Children's Oncology Group protocol AEWS07B1: A COG Study for Collecting and Banking Ewing's Sarcoma Specimens.
4. **Lessnick SL, Owen LA .** (2008). NKX2-2 (NK2 homeobox 2). Atlas Genet Cytogenet Oncol Haematol. January 2008 . URL: <http://AtlasGeneticsOncology.org/Genes/NKX22ID44177ch20p11.html>
5. **Lessnick, SL.** (2008 to Present). Study chair/Children's Oncology Group protocol AEWS08B1: Prognostic Value of p53 and/or p16 Alterations in Ewing Sarcoma.
6. **Lessnick, SL.** (2011 to Present). Study committee member/Children's Oncology Group Protocol AEPI10N5: Genetic Epidemiology of Ewing's Sarcoma.
7. **Lessnick, SL.** (2011 to Present). Study Chair/Children's Oncology Group protocol AEWS11B2: Analysis of GGAA microsatellites in Ewing sarcoma.
8. **Lessnick, SL.** (2012 to Present). Study committee member/Children's Oncology Group Protocol AEWS1221: Randomized Phase II Selection Trial Evaluating the Addition of the IGF-1R Monoclonal Antibody AMG 479 to Multiagent Chemotherapy for Patients with Newly Diagnosed Metastatic Ewing Sarcoma
9. Current IRB protocols (with **Lessnick** as primary investigator; excludes protocols with Lessnick simply listed as a collaborator):

IRB protocol number	Title	Current status	PI	IRB expiration date
IRB_00012421	Tumor Suppressors in Ewing's Sarcoma	Exempt	Lessnick	N/A
IRB_00018566	EWS/FLI Target Gene Expression	Exempt	Lessnick	N/A

	in Ewing's Sarcoma and Other Malignancies			
IRB_00031436	AEWS08B1: Prognostic Value of p53 and/or p16 Alterations in Ewing's Sarcoma	Approved	Lessnick	7/31/12
IRB_00048934	EWS/FLI AND ITS TARGETS IN EWING'S SARCOMA: microsatellites polymorphism differences across European and African populations	Exempt (Non-human subject research)	Lessnick	N/A

PATENTS

2011

United States Patent No. US 7,939,253 B2

Date of Patent: May 10, 2011

Title: Methods and compositions for the diagnosis and treatment of Ewing's Sarcoma

Inventor: Stephen L. Lessnick, Salt Lake City, UT.

Assignee: The University of Utah Research Foundation, Salt Lake City, UT.

Application number: 11/746,376

Filed: May 9, 2007

2012

United States Patent Application Publication No. US 2012/0053136 A1

Publication date: March 1, 2012

Title: Diagnosis and treatment of drug-resistant Ewing's sarcoma

Inventors: Stephen L. Lessnick, Salt Lake City, UT; Wen Luo, Salt Lake City, UT

Application number: 12/871,603

Filed: August 30, 2010