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SUMMARY OF QUALIFICATIONS

- Accomplished academic administrator, educator, clinician, and scientific researcher, with career success leading academic, research and clinical program development, expansion, and promotion
- Outstanding capacity to forge new opportunities and foster government, commercial, and academic collaborations
- Adept in university planning, development, and management
- Success record at faculty retention and recruitment while incorporating principles of inclusion and diversity
- Deep expertise in obtaining, allocating, and managing multimillion-dollar funding sources
- Nationally recognized as a thought- and opinion-leader, routinely serving in consulting and advising roles for organizations at the national, state, and local levels
- Versatile leader, with hands-on experience in business planning and development for academic institution, non-profit organizations, and foundations
- Extensive experience in ambassadorial roles

EDUCATION, TRAINING AND CERTIFICATIONS

EDUCATION

1990 MD – Harvard Medical School

1990 PhD Immunology – Harvard University

1984 AB Chemistry with honors, summa cum laude
University of North Carolina – Chapel Hill
Morehead Scholarship

POST-GRADUATE AND SPECIALIZED TRAINING

2019 Harvard University Advanced Leadership Program (part-time sabbatical)

2004 (October) Harvard School of Public Health. “Management Training for Academic Physicians in Leadership Positions.”

1994 – 1996 Fellow in Hematopathology
Vanderbilt University Medical Center

1993 – 1994 Resident in Clinical Pathology
Vanderbilt University Medical Center

1990 – 1993 Resident in Anatomic Pathology
Washington University/Barnes Hospital

BOARD CERTIFICATION

2014 American Board of Pathology, re-certification in Anatomic and Clinical Pathology

1994 American Board of Pathology, certification in Anatomic and Clinical Pathology

MEDICAL LICENSURE

1996 – Present New Mexico (96-92)

PROFESSIONAL APPOINTMENTS

EXECUTIVE APPOINTMENTS

2017 – Present UNM Health System Executive Committee

2015 – 2016 Interim Chief Informatics Officer, UNM Health Sciences Center

2012 – Present Executive Vice Chancellor, UNM Health Sciences Center

2009 – Present Vice Chancellor for Research, UNM Health Sciences Center (EVP and VP positions changed to Chancellor title in 2011)

2007 – 2009 Vice President for Translational Research, UNM Health Sciences Center (title change in 2009 eliminated "Translational")

2006 – 2007 Associate Vice President for Research, UNM Health Sciences Center

2005 – 2012 Senior Associate Dean for Research, UNM School of Medicine

ACADEMIC APPOINTMENTS

2012 – 2015 NM Health Disparities Center Fellow

2006 – Present Professor (tenured), Pathology, University of New Mexico

2002 – 2006 Associate Professor of Pathology (tenured), University of New Mexico

1996 – 2002 Assistant Professor of Pathology, University of New Mexico

RESEARCH APPOINTMENTS

2002 – 2006 Hematologic Malignancy Program Director, UNM Cancer Center

2000 – 2002 Director, UNM Office of Biocomputing

CLINICAL APPOINTMENTS

2019 – Present Chairman, Board of Directors, TriCore Reference Laboratories
2015 – 2016
2006 – 2008

2002 – Present Member, Board of Directors, TriCore Reference Laboratories

2003 – 2013 Member, Finance Committee of the Board, TriCore Reference Laboratories

2002 – 2006 Chief, Division of Clinical Pathology

1998 – 2003 Chief of Clinical Operations, Pathology, University of New Mexico

1998 – 2003 Laboratory Director, University Hospital Rapid Response Lab, TriCore Reference Laboratories

1996 – 1999 Assistant Medical Director of Molecular Diagnostics, University of New Mexico

1996 – 1998 Section Director, Clinical Hematology Laboratory, University of New Mexico

EDUCATIONAL ADMINISTRATIVE POSITIONS

2000 – 2004 MD/PhD Admissions Committee, Member

1999 – 2005 Director of Hematopathology Fellowship Research Program, University of New Mexico

2000 Chair, Continuing Medical Education Committee for the College of American Pathologists

1998 – 2000 Vice-Chair, Program and Program Education Committee for the College of American Pathologists (plans National Meetings and Web- based learning programs)

1998 – 2000 Vice-Chair, Technology and Education Committee for the College of American Pathologists (awards pathology resident training awards)

1995 – 2001 Contributing editor to national resident In Service Exam

1987 Second Annual Massachusetts Medical Society Medical Student Research Symposium, Chairperson

1986 First Annual Massachusetts Medical Society Medical Student Research Symposium, Chairperson

CORPORATE AND NON-PROFIT BOARDS

2017 – Present New Mexico Bioscience Authority, President and Chair, Board of Directors

2016 – Present EPSCoR/IDeA Coalition, Board of Directors

2015 – 2016 EPSCoR/IDeA Foundation, Board of Directors

2015 – Present Rhodes Group, Inc., Board of Directors

2014 – Present Innovate ABQ, Inc., Board of Directors

2014 – 2015 CleanSpot, Inc., Board of Directors

2013 – Present Sigma Xi, UNM Chapter Board of Directors

2010 – Present Science and Technology Corp, Board of Directors (Technology Transfer Company)

2008 – Present New Mexico Consortium, Board of Directors (National Lab – University Initiative)

2008 – Present New Mexico University Research Consortium, Board of Directors (Consortium of State Universities)

2008 – 2010 National Center for Genome Resources, Board of Directors

2007 – Present NMBio (formerly New Mexico Biomedical Business Association), Board of Directors

2005 – Present Foundation of Cancer Services of New Mexico, Founder and President (foundation for 501c3)

2001 Co-Founder, Cancer Service of New Mexico (501c3 organization)

2001 – Present Cancer Services of New Mexico, Founder and Board of Directors

2001 – 2003 Cancer Services of New Mexico, Treasurer

HONORS AND AWARDS

2019 UNM Innovation Award (for patents issued)
2018 Nomination, Federal Laboratory Consortium Excellence in Technology Transfer Award (for work with Sensor-Kinesis Corporation to develop Shear Horizontal Surface Acoustic Wave Biosensor)
2017 UNM Innovation Award
2016 UNM Innovation Award
2015 UNM Innovation Award
2014 Albuquerque Convention and Visitors Bureau Award (for promotion of tourism and economic growth)
2014 Institutional Science Promotion Video Award (NIH)
2014 UNM Innovation Award
2012 UNM Innovation Award
2011 Who's Who in Technology Award – Intel Corporation and New Mexico Business Weekly
2010 Top 100 Technologies in R&D Magazine
2006 UNM Innovation Award
2006 Chief Scientist Award for Excellence from the Defense Intelligence Agency for contribution to national defense
2004 UNM Innovation Award

2003	Spokesperson training award for College of American Pathologists
2002	Wells Fargo Award for Drug Discovery
2002	Preceptor Award for Student Mentorship
2002	Dean's Award of Distinction
2001	Lansky Award from the College of American Pathologists for leadership and contribution to field
2001	Manuscript chosen for Yearbook in Pathology and Laboratory Medicine
2001	Faculty Teaching Excellence Award
2001	Preceptor Award for Student Mentorship
2001	Dean's Award of Distinction
2000	University of New Mexico Regents' Lectureship (Permanent title and award for clinical research and educational contribution to the university)
2000 – 2003	American Cancer Society, national Designated Research Investigator for Coaches against Cancer and Shoot Hoops for Lymphoma (one individual per year)
2000	Dean's Award of Distinction
1999	Dean's Award of Distinction
1999	Nominated for UNM teaching award
1998	Dean's Award of Distinction
1994	ASIP travel award for molecular diagnosis in pathology course
1992 – 1993	National Research Service Award for Post-doctoral training
1986 – 1990	National Research Service Award for Pre-doctoral training
1985	Harvard Medical School Research Award for Medical Student
1980 – 1984	John Motley Morehead Scholarship
1984	Merck Index Award (given to top three science students at graduation)
1984	Summa cum laude
1984	Degree with honors in chemistry (based on research)
1983	Phi Beta Kappa
1981	CRC Chemistry Award (given to top freshman)
1981	Phi Beta Sigma (academic honor society)
1980 – 1984	All ACC Athlete (12 seasons, cross-country, indoor and outdoor track)

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

NATIONAL COMMITTEES AND APPOINTMENTS

2016 – Present	EPSCoR/IDeA Coalition, Board of Directors
2016	White House-Sponsored "Medicine Responds to Addiction" Taskforce, Member
2015 – 2017	USU/APLU Executive Research Committee
2015 – 2016	EPSCoR/IDeA Foundation, Board of Directors
2015 – 2016	USU/APLU Biomedical Research Workforce Action Groups, Member
2013 – Present	USU, University Leadership Representative for UNM
2013 – 2016	Growth & Sustainability Workforce Sub-Committee, AAMC/USU Chair
2013 – 2016	AAMC Forum on Conflicts of Interest Steering Committee
2012 – 2016	AAMC Workforce Learning Collaborative
2010 – Present	Children's Oncology Group T-ALL Study Committee, Member
2007 – 2014	Vice President for Research Executive Planning Committee, AAHC
2005 – 2009	Advisory Council for Western Regional Center of Excellence for Biodefense
2004 – 2009	Served as ad hoc spokesperson for College of American Pathologists
2004 – 2008	External Advisory Board for Moffit Cancer Center
2001 – 2003	American Heart Association Nation Council on Cardiovascular Biology
2000	College of American Pathologists (CAP) Continuing Education Committee, Chair

1998 – 2000	CAP Program and Program Education Committee, Vice Chair
1998 – 2000	CAP Technology and Education Committee, Vice Chair
1997	CAP Future Technology Committee, Chair
1994 – 1997	CAP Committee on Future Technology
1988 – 1990	Massachusetts Medical Society (MMS), committee on long-term planning
1987	Second Annual MMS Medical Student Research Symposium, Chairperson
1986	First Annual MMS Medical Student Research Symposium, Chairperson

STATE AND MUNICIPAL COMMITTEES AND APPOINTMENTS

2016 – 2017	GrowBio (Albuquerque Biotechnology Development Committee), Chair
2013 – Present	New Mexico Collaborative Research and Development Council
2012 – Present	Mayor's Council on City Development
2011 – Present	Biomedical Research Institute of New Mexico, Member
2010 – 2014	NM Human Services Department Provider/Workforce/Delivery System Stakeholder Advisory Workgroup, Member
2010 – 2014	NM Human Services Department Health Care Information Technology Stakeholder Advisory Workgroup, Member
2005 – Present	Academic Affiliation Partnership Council (UNM/VA Affiliation Group)
2005	Governor's Task Force on Biotechnology Development in NM (BioTEP)
2004	Medical Commercialization Network, Member
2001	Mayor's Council on Biotechnology Development in Albuquerque
1996 – 2000	Literacy Council of Albuquerque, Board Member

STUDY SECTIONS AND WORKSHOP APPOINTMENTS

2017	NIH Study Section, NCI Special Emphasis Panel (R01)
2016	NIH Study Section, NCI Program Project Meeting I (P01)
2014	NIH Study Section, NCI Program Project Meeting III (P01)
2013	Special Review Panel, Lymphatics in Health and Disease in the Digestive, Urinary, Cardiovascular and Pulmonary Systems
2013	NIGMS Council
2011 – 2014	Special Panel Review for CTSA Grants, Member
2008 – 2012	Special Emphasis Panel Review SPORE Grants, Member
2008 – Present	Special Emphasis Panel Review NCI P01 Clinical Studies, Member
2007 – 2010	HHMI Review Panelist Research Training Fellowships
2006 – 2007	NIH Study Section, Tumor Microenvironment, Member
2003 – 2005	American Cancer Society: Leukemia, Immunology and Blood Cell Committee, Chair
2003	NCI Workshop on Leukemia Research
2002 – 2004	NCI Workshop on Bone Marrow Microenvironment
2001	American Cancer Society, Ad hoc Site Reviewer for Clinical Investigator Award
2000 – 2005	American Cancer Society; Leukemia, Immunology and Blood Cell Committee, Member
1997 – 2000	College of American Pathologist, Pathology Education Committee (Reviews Scholars Awards, Technology and Informatics grants)

CLINICAL AND TRANSLATIONAL SCIENCE AWARD RELATED COMMITTEES

2010 - Present	Mountain West Research Consortium Executive Committee, Member
2010 – 2017	Mountain West Research Consortium Executive Committee, Founder and Chair
2010 – 2014	CTSA Consortium Executive Committee, Member
2010 – 2014	CTSA Consortium Steering Committee, Member

2010 – 2014 Strategic Goal 3 Committee, Co-Chair

PROFESSIONAL SOCIETIES, MEMBERSHIP

2015 – Present Greater Albuquerque Medical Society
2006 – Present Association for Academic Health Centers (AAHC)
2005 – Present AAMC GRAND
2001 – Present Children's Oncology Group
1997 – 2008 American Association for Cancer Research (AACR)
1997 – 2002 Southwest Oncology Group Leukemia Committee and Leukemia Tumor Biology Committee
1997 – 1999 Association of Molecular Pathologists (AMP)
1995 – 2008 Society for Hematopathology
1994 – 2008 American Society for Hematology (ASH)
1994 – 2008 American Society for Investigative Pathology (ASIP)
1993 – Present College of American Pathologists (CAP)
1985 – 1990 Massachusetts Medical Society

PEER-REVIEW ACTIVITIES

Current and Previous Editorial Boards
Frontiers for Young Minds
Biomarkers
American Journal of Clinical Pathology

Ad Hoc Reviewer for Peer-Reviewed Journals
American Journal of Clinical Pathology
Blood
Journal of Biologic Chemistry
Journal of Virology
Human Pathology
Journal of Nuclear Medicine
American Journal of Physiology – Heart and Circulation
Journal of Immunology
Nature Biology

COMMUNITY SERVICE

2017 – Present Corporate Chair, American Lung Association Fight for Air Climb
2005 – Present Founder and President, Foundation of Cancer Services of New Mexico (foundation for 501c3)
2005 Governor's Task Force on Biotechnology Development in NM (BioTEP)
2004 – 2009 Serve as ad hoc spokesperson for College of American Pathologists
2004 Medical Commercialization Network, Member
2001 Co-founder Cancer Service of New Mexico (501c3 organization)
2001 – Present Board Member, Cancer Services of New Mexico
2001 – 2003 Treasurer, Cancer Services of New Mexico
2001 Mayor's Council on Biotechnology Development in Albuquerque
1996 – 2000 Board Member, Literacy Council of Albuquerque

My wife and I founded Cancer Services of New Mexico in 2001 to reduce cancer suffering in New Mexico. We are the only statewide non-profit organization that looks broadly at addressing gaps in cancer-related sercives while maintaining a 100% focus on New Mexico. We serve approximately 2000 cancer survivors and their

families each year, free of charge. This is the largest organization of its type in the United States. We have programs that include:

1) Family Cancer Retreat. Twice each year, this free three-day educational retreat provides a group of adult cancer patients/survivors and their loved ones with tools and information they need to better manage the survival process. It is the larges general cancer education program in New Mexico, and, to our knowledge, is unique nationwide.
2) Legal and Paperwork Assistance Program. We run weekly "clinics" to assist cancer survivors with understanding their insurance and paperwork related to their care. This program has provided over $5M in cancer care to patients over the last 4 years.
3) Family Cancer Resource Bags. Statewide distribution of free information kits that help newly diagnosed parents and their children aged 13 – 18 cope with the impact of cancer on their families.
4) Zoo Night for Kids with Cancer. A free evening of fun, sharing, and learning held each year for New Mexico's current and former pediatric cancer patients and their families.
5) New Mexico Cancer Services Survey. First-ever statewide survey to determine cancer survivor perspective on how to improve cancer-related services in New Mexico.

I spun a foundation off of this organization in 2005 that is committed to fundraising for the parent CSNM organization. I am president of the foundation, which has a separate board of directors.

SCHOLARLY PUBLICATIONS AND WORK

BOOKS

LARSON RS (ed). Bioinformatics and Drug Discovery. Humana Press, first edition: London, 2005.

LARSON RS (ed). Bioinformatics and Drug Discovery. Humana Press, second edition: London, 2012.

LARSON RS, Oprea TI (eds). Bioinformatics and Drug Discovery. Humana Press, third edition: London, 2019.

ORIGINAL RESEARCH IN REFERRED JOURNALS

Wright SF, Berkowitz P, Deerfield D, Byrd PA, Olson D, **LARSON RS**, Hinn G, Koellher K, Hiskey RG. Chemical Modification of Bovine Prothrombin Fragment 1 in the presence of Tb^{3}+ Ions. J Biol Chem, 261:10598-10604, 1985.

Sastre L, Roman J, Teplow D, Deyer W, Gee C, **LARSON RS**, Roberts T, Springer TA. A partial genomic DNA clone for the α subunit of the mouse complement receptor type 3 and cellular adhesion molecule Mac-1. Proc Natl Acad Sci USA, 83:5644-5648, 1986.

Sastre L, Roman J, Teplow D, Deyer W, Gee C, **LARSON RS**, Roberts T, Springer TA. Proc Natl Acad Sci USA, 83:5644-5648, 1986.

Corbi AL, Miller L, O'Connor K, **LARSON RS**, Springer TA. cDNA cloning and complete primary structure of the α subunit of the leukocyte adhesion glycoprotein, 150,95. EMBO J, 6:4023-4028, 1987.

Corbi AL, **LARSON RS**, Kishimoto TK, Springer TA, and Morton CC. Chromosomal Location of the Genes Encoding the Leukocytic Adhesion Receptors LFA-1, Mac-1, and 150,95. Identification of a Gene Cluster Involved in Cell Adhesion. J Exp Med, 167:1597-1607, 1988.

Wang D, Liebowitz D, Wang F, Gregory C, Rickinson A, **LARSON RS**, Springer TA, Kieff E. Epstein-Barr Virus Latent Infection Membrane (LMP) Protein Alters Lymphocyte Morphology, Adhesion and Growth: Detection of the Amino Terminus Abolishes Activity. J Virology, 62:4173-4184, 1988.

LARSON RS, Corbi AL, Berman L, Springer TA. Primary Structure of the LFA-1 alpha Subunit: An Integrin with an Embedded Domain Defining a Protein Superfamily. J Cell Biol, 108:703-712, 1989.

Dustin ML, Garcia-Aguilar J, Hibbs M, **LARSON RS**, Staunton DE, Wardlaw A, Springer TA. Structure and Regulation of the Leukocyte Adhesion Receptor LFA-1 and its Counter-Receptors, ICAM-1 and ICAM-2. Proceedings of Cold Spring Harbor Quant Biol, 753-765, 1989.

Kishimoto TK, **LARSON RS**, Dustin JL, Corbi AL, Staunton DE, Springer TA. The Leukocyte Integrins. Advances in Immunology, 46:149-182, 1989.

LARSON RS, Hibbs M, Corbi AL, Luther E, Garcia-Aguilar J, Springer TA. The subunit specificity of CD11a/18, CD11b, and CD11c panels of antibodies. Leukocyte Typing IV, 566-570, 1990.

LARSON RS, Hibbs M, Springer TA. The leukocyte integrin LFA-1 reconstituted cDNA transfection in a nonhematopoietic cell line is functionally active and not transiently regulated. Cell Regulation, (c. Mol Biol of Cell) 1:359-367, 1990.

LARSON RS. LFA-1 alpha subunit: Complete primary structure with transient expression and functional studies. Thesis, 1990.

LARSON RS, Haskell E, Perez J. Pathogenesis of a Double (Septal and Free Wall) Rupture. Cardio Pathol, 1:199-204, 1992.

LARSON RS, Wick MR. Primary Mucoepidermoid Carcinoma of the Thyroid: Diagnosed by Fine-Needle Aspiration Biopsy. Diag Cytopath, 9:438-443, 1993.

LARSON RS, Rudloff M, Liapsis H, Davila R, Manes JL, Kissane JM. The Ivemark syndrome: An uncommon cystic renal lesion with syndromic associations. Ped Nephrol, 9:594-598, 1995.

Weinstock LB, **LARSON RS**, Stahl DS, Fleshamn JW. Diffuse Microscopic Angiodysplasia: A Previously Unreported Variant of Angiodysplasia. Dis Colon and Rectum, 38:428-432, 1995.

LARSON RS, McCurley TL. CD4 Predicts Nonlymphocytic Lineage in Acute Leukemia: Insights from Analysis of 125 Cases Using Two-Color Flow Cytometry. Am J Clin Path, 104:204-211, 1995.

LARSON RS, Butler M. Use of Fluorescence in Situ Hybridization (FISH) in the Diagnosis of DiGeorge Syndrome and Related Diseases. Diag Mole Path, 4:274-279, 1995.

LARSON RS, McCurley TL. Relationship of CD4 and CD34 expression in acute leukemia. Blood, 85:3768-3769, 1995.

LARSON RS, Scott MA, McCurley TL, Vnencek-Jones C. Microsatellite analysis of post transplant lymphoproliferative disorders: Determination of host/donor origin and identification of a putative lymphomagenic mechanism. Cancer Res, 56:4378-4381, 1996.

LARSON RS, Sukpanichnant S, Greer JP, Cousar JB, Collins RD. The Spectrum of Multiple Myeloma: Diagnostic and Biologic Implications. Hum Pathol, 28:1336-1347, 1997.

LARSON RS, Manning S, Macon WR, Vnencek-Jones C. Microsatellite Instability in Natural Killer Cell-like T-Cell Lymphomas in Immunocompromised and Immunocompetent Individuals. Letter. Blood, 89:1114-1115, 1997.

Wagner CR, Ballato G, Akanni AO, McIntee EJ, **LARSON RS**, Chang SL, Abul-Hajj YJ. Potent Growth Inhibitory Activity of Zidovudine (AZT) on Cultured Human Breast Cancer Cells and Rat Mammary Tumors. Cancer Research, 57:2341-23445, 1997.

LARSON RS, Brown DC, Sklar LA. Retinoic acid induces aggregation of the acute promyelocytic leukemia cell line NB-4 that is mediated by LFA-1 and ICAM-2. Blood, 90:2747-2756, 1997.

Hodges KB, **LARSON RS**, Butler M. Increased Incidence of Chromosomal Fragile Sites in Mentally Retarded Males with Seizures and on Diphenylhydantoin Therapy. Ann Clin Lab Sci, 28:293-298, 1998.

Hodges KB, Vnencek-Jones C, **LARSON RS**, Kinney MC. Rarity of Genomic Instability in Pathogenesis of Classical Anaplastic Large Cell Lymphoma. Hum Pathol, 30:173-177, 1999.

Brown DC, Tsuji H, **LARSON RS**. All-*trans* retinoic acid differentially regulates adhesion mechanism and transmigration on the acute promyelocytic cell NB-4 under physiologic flow. Br J Haematology,107:86-98, 1999.

Luther LM, Lakey D, **LARSON RS**, Haas D. Utility of Bone Marrow Biopsy for Rapid Diagnosis of Febrile Illnesses in Patients with Human Immunodeficiency Virus Infection. Southern Med Journal, 93:692-7, 2000.

Rimsza LM, **LARSON RS**, Winter SS, Foucar K, Chong YY, Garner K, Leith CP. Benign Hematogone-Rich Lymphoid Proliferations Can Be Distinguished From B-Lineage Acute Lymphoblastic Leukemia by Integration of Morphology, Immunophenotype, Adhesion Molecule Expression, and Architectural Features. Amer J Clin Path, 114:66-75, 2000.

Winter SS, Sweatman JJ, **LARSON RS**. Improved Quantification of Cell Survival on Stromal Cell Monolayers by Flow Cytometric Analysis. Cytometry, 40:26-31, 2000.

Tallman MS, Andersen JW, Schiffer CA, Appelbaum FR, Feusner JH, Ogden A, Shepherd C, Rowe JM, **LARSON RS**, Wiernik PH. Clinical description of 44 patients with acute promyelocytic leukemia who developed retinoic acid syndrome. Blood, 95:90-95, 2000.

Ledford M, Friedman KD, Hessner MJ, Moehlenkamp C, Williams TM, **LARSON RS**. A Multi-Site Study for Detection of the Factor V (Leiden) Mutation from Genomic DNA Using a Homogenous Invader Microtiter Plate FRET Assay. J Mol Diag, 2:97-104, 2000.

Evans HC, Burks E, Viswanatha D, **LARSON RS**. Histologic Appearance and Immunohistochemistry of T-Large Granular Lymphoproliferative Disease in the Bone Marrow. Hum Path,31:1266-1273, 2000.

Edwards B, Curry MS, Tsuji H, **LARSON RS**, Brown DC, Sklar LA. Expression of P-selectin at Low Site Density Promotes Selective Recruitment of Eosinophils Over Neutrophils. J Immunol, 165:404-410, 2000.

Winter SS, Sweatman JJ, Hart A, Rhoades TH, **LARSON RS**. Enhanced T-lineage acute lymphoblastic leukemia cell survival on bone marrow strom requires involvement of LFA-1 and ICAM-1.Br J Hematol, 115:862-871, 2001.

Koster F, Foucar K, Hjelle B, Chong YY, **LARSON RS**, McCake M. Presumptive Diagnosis of Hantavirus Cardiopulmonary Syndrome by Routine Complete Blood Count and Blood Smear Review. Am J Clin Path, 116:665-672, 2001.

Shannon J, Brown DC, Silva M, **LARSON RS**. Novel cyclic peptide inhibits intercellular adhesion molecule-1 mediated cell aggregation. J Pept Res, 58:140-150, 2001.

Chigaev A, Blenc AM, Braaten JV, Kumaraswamy N, Prosnitz E, **LARSON RS**, Sklar LA. Real-time Analysis of the Affinity Regulation of VLA-4. J Biol Chem, 276:48670-48678, 2001.

DiVietro JA, Smith MJ, Smith BRE, Petruzelli L, **LARSON RS**, Lawrence MB. Immobilized IL-8 Triggers Progressive Activation of Neutrophils Rolling in Vitro on P-selectin and ICAM-1. J Immunol, 167:351-360, 2001.

Brown DC, **LARSON RS**. Improvements to parallel flow chambers to reduce reagent and cellular requirements. Immunology, 2:9-14, 2001.

Kepley CL, Andrews RP, Brown DC, Chigaev A, Sklar LA, Oliver JM, **LARSON RS**. Regulation of human basophil adhesion to endothelium under flow conditions: Different very late antigen 4 regulation on umbilical cord blood-derived and peripheral blood basophils. J Allergy and Clinical Immunol, 110(3):469-475, 2002. [PMID: 12209096]

Winter SS, Sweatman JJ, Shuster JJ, Link MP, Amylon M, Pullen J, Camitta BM, **LARSON RS**. Bone marrow stroma-supported culture of t-lineage acute lymphoblastic leukemic cells predicts treatment outcome in children: a pediatric oncology group study. Leukemia, 16:1121-1126, 2002.

Blenc AM, Chigaev A, Sklar LA, **LARSON RS**. VLA-4 affinity on precursor B-ALL cells inversely correlates with number of circulating cells and DNA ploidy. Leukemia, 17:21-4, 2003.

Sillerud LO, Burks E, Brown DC, **LARSON RS**. NMR-derived model of interconverting conformations of an ICAM-1 inhibitory cyclic-nanopeptide. J Pept Research, 62:97-116, 2003.

Buranda T, Huang J, Ramarao GV, Ista LK, **LARSON RS**, Ward TL, Sklar LA, Lopez GP. Biomimetic Molecular Assemblies on Glass and Mesoporuous Silica Microbeads for Biotechnology. Langmuir, 19:1654-1663, 2003.

Merchant SH, Gurule DM, **LARSON RS**. Amelioration of ischemia-reperfusion injury with cyclic peptide blockade of ICAM-1. Am J Phys-Heart and Circ, 284(4):H1260-H1268, 2003. [PMID:12595290]

Chigaev A, Zwartz G, Graves SW, Dwyer DC, Tsuji H, Foutz TD, Edwards BS, Prossnitz ER, **LARSON RS**, Sklar LA. α4β1 Integrin Affinity Changes Govern Cell Adhesion. J Biol Chem, 10:1074, 2003. [PMID:12844491]

Zwartz G, Chigaev A, Foutz R, **LARSON RS**, Posner R, Sklar LA. Relationship Between Molecular and Cellular Dissociation Rates for VLA-4/VCAM-1 Interaction in the Absence of Shear Stress. Biophysical, J 86(2):1243-1252, 2004. [PMCID:PMC1303916]

Churchwell CJ, Rintoul MD, Martin S, Visco DP, Kotu A, Brown DC, Sillerud LO, **LARSON RS**. The Signature Molecule Descriptor: Inverse Quantitative Structure-Activity Relationship of ICAM-1 Inhibitory Peptides. J Mol Model and Design, 22(4):263-273, 2004. [PMID:15177078]

Sklar LA, Tsuji J, Edwards B, **LARSON RS**, Schuyler M. Eosinophil traffic in the circulation following allergen challenge. Eur J Allergy Clin Immunol, 59:596-605, 2004.

Sillerud LO, Burks E, Brown MW, Wester MJ, Brown DC, **LARSON RS**. NMR solution of a potent peptide inhibitor of integrin-based cell adhesion produced by homologous amino acid substitution. J Pept Res, 64:1-14, 2004.

Sillerud LO, **LARSON RS**. Design and Structure of Peptide and Peptidomimetic Antagonists of protein-Protein Interaction. Current Protein and Peptide Science, 6(2):151-169, 2005. [PMID:15853652]

LARSON RS, Davis T, Bologa C, Semenuk G, Vijayan A, Li Y, Oprea T, Chigaev A, Wagner CR, Sklar LA. Dissociation of I Domain and Global Conformational Changes in LFA-1: Refinement of Small Molecule-I Domain Structure-Activity Relationships. Biochemistry, 44(11):4322-4331, 2005. [PMID:15766261]

LARSON RS, Brown DC, Ye C, Hjelle B. Peptide Antagonists of Sin Nombre and Hantan Virus Entry Through β3 Integrin Receptor. J Virol, 79(12):7319-7326, 2005. [PMCID:PMC1143646]

Reichard KK, Burks E, Foucar K, Wilson C, Viswanatha D, Hozier JC, **LARSON RS**. CD4(+) CD56(+) Lineage-Negative Malignancies are Rare Tumors of Plasmacytoid Dendritic Cells. Am J Surg Path, 29(10):1274-1283, 2005. [PMID:16160468]

Palomero T, Odom DT, O'Neil J, Ferrando AA, Margolin A, Neuberg DS, Winter SS, **LARSON RS**, Young RA, Look AT. Transcriptional Regulatory Networks Downstream of TAL1/SCL in T-Cell Acute Lymphoblastic Leukemia. Blood, 108(3):986-92, 2006. [PMCID:PMC1895859]

Poria RB, Norenberg JP, Wagner CR, Arterburn JB, **LARSON RS**. Characterization of a Radiolabeled Small molecule Targeting Leukocyte Function-Associated Antigen-1 Expression in Lymphoma and Leukemia. Cancer Biotherapy and Radiopharmaceuticals, 21(5):418-426, 2006. [PMID:17105416]

Flynn ER, Bryant HC, Bergemann C, **LARSON RS**, Lovato DM, Segatskov D. Use of a SQUID array to detect T-Cells with magnetic nanoparticles in determining transplant rejection. J Magnetism and Magnetic Materials, 311:429-435, 2007. [PMCID:PMC2139906]

Winter SS, Jiang Z, Khawaja HM, Griffin T, Devidas M, Asselin B, **LARSON RS**. Identification of Genomic Classifiers that Distinguish Induction Failure in T-lineage Acute Lymphoblastic Leukemia: A Children's Oncology Group Study. Blood, 110(5):1429-1438, 2007. [PMCID:PMC1975833]

Bryant HC, Sergatskov DA, Lovato DM, Adolphi N, **LARSON RS**, Flynn ER. Magnetic needles and supermagnetic cells. Phys Med Biol, 52(14):4009-4025, 2007. [PMCID:PMC2041887]

Hall PR, Malone L, Sillerud LO, Ye C, Hjelle B, **LARSON RS**. Characterization and NMR solution structure of a novel cyclic pentapeptide inhibitor of pathogenic Hantaviruses. Chem Biol Drug Des, 69(3):180-190, 2007. [PMID:17441904]

DiVietro JA, Brown DC, Sklar LA, **LARSON RS**, Lawrence MB. Immobilized Stromal Cell-Derived Factor - 1α Triggers Rapid VLA-4 Affinity Increases to Stabilize Lymphocyte Tethers on VCAM-1 and Subsequently Initiates Firm Adhesion. J Immunology, 178(6):3903-3911, 2007. [PMID:17339490]

Estes DA, Lovato DM, Kawaja HM, Winter SS, **LARSON RS**. Genetic alterations determine chemotherapy resistance in childhood T-ALL: modeling in stage-specific cell lines and correlation with diagnostic patient samples. Br J Hematol, 139(1):20-30, 2007. [PMID:17854304]

Winter SS, Lovato DM, Khawaja HM, Edwards BS, Steele ID, Young SM, Oprea TI, Sklar LA, **LARSON RS**. High Throughput Screening for Daunorubicin-mediated Drug Resistance Identifies Mometasone Furoate as a Novel ABCB1 Reversal Agent. J Biomolecular Screening, 13(3):185-193, 2008. [PMID:18310528]

Hall PR, Hjelle B, Brown DC, Ye C, Bondu-Hawkins VS, Kilpatrick KA, **LARSON RS**. Multivalent Presentation of Anti-Hantavirus Peptides on Nanoparticles Enhances Infection Blockade. Antimicrobial Agents and Chemotherapy, 52 (6):2079-2088, 2008. [PMCID:PMC2415754]

Bisoffi M, Hjelle B, Brown DC, Branch DW, Edwards TL, Brozik SM, Bondu-Hawkins VS, **LARSON RS**. Detection of viral bioagents using a shear horizontal surface acoustic wave biosensor. Biosensors & Bioelectronics, 23 (9):1397-1403, 2008.

Nolte KB, Stewart DM, O'Hair KC, Gannon WL, Briggs MS, Barron AM, Pointer J, **LARSON RS**. Speaking the Right Language: The Scientific Method as a Framework for a Continuous Quality Improvement Program within Academic Medical Research Compliance Units. Academic Medicine, 83:941-948, 2008. [PMID:18820524]

Adolphi NL, Huber DL, Jaetao JE, Bryant HC, Lovato DM, Fegan DL, Venturini EL, Monson TC, Tessier TE, Hathaway HJ, Bergemann C, **LARSON RS**, Flynn ER. Characterization of Magnetite Nanoparticles for SQUID-reflexometry and Magnetic Needle Biopsy. J Magnetism and Magnetic Materials, 321:1459-1464, 2008. [PMCID:PMC2734090]

Ivnitski SI, **LARSON RS**, Lovato DM, Khawaja HM, Winter SS, Oprea T, Sklar LA, Edwards BS. High Throughput Flow Cytometry to Detect Selective inhibitors of ABCB1, ABCC1 and ABCG2 Transporters. Assay and Drug Development Technologies, 6(2):263-76, 2008. [PMID:18205550]

Jaetao JE, Butler KS, Adolphi NL, Lovato DM, Bryant HC, Rabinowitz I, Winter SS, Tessier TR, Hathaway HJ, Bergemann C, Flynn ER, **LARSON RS**. Enhanced Leukemia Cell Detection Using a Novel Bone Marrow Sampling Device and nanoparticles. Cancer Research, 69 (21):8310-8316, 1-7, 2009.[PMCID:PMC2783727]

Hall PR, Kilpatrick KA, Ye C, Bondu-Hawkins V, Brown DC, Durfee P, Chackerian B, Duran W, Hjelle B, **LARSON RS**. Role for the fusion domain tyrosine in binding of pathogenic hantavirus to integrin β_3. Journal of Virology, 83:8965-9, 2009.

Hall PR, Hjelle B, Njus H, Ye C, Bondu-Hawkins V, Brown K, Kilpatrick K, **LARSON RS.** Phage-display selection of cyclic peptides which inhibit Andres virus infection. J Virol, 83 (17):8965-9, 2009. [PMCID:PMC2738185]

Gutierrez A, Sanda T, Grebliunaite R, Carracedo A, Salmena L, Ahn Y, Dahlberg S, Neuberg D, Moreas L, Winter SS, **LARSON RS**, Zhang J, Protopopov A, Chin L, Pandolfi PP, Silverman L, Hunger S, Sallan S, Look AT. High Frequency of PTEN, P13K, and AKT Abnormalities in T-Cell Acute Lymphoblastic Leukemia. Blood 114(3):647-650, 2009. [PMCID:PMC2713461]

Padilla RS, Sebastian S, Jiang Z, Nindl I, **LARSON RS**. Gene Expression Patterns of Normal Human Skin, Actinic Keratosis and Squamous Cell Carcinoma: A Spectrum of Disease Progression. Archives of Dermatology, 146:288-293, 2010.

Sanda T, Li X, Gutierrez A, Ahn Y, Neubert D, O'Neil J, Strack P, Winter C, Winter SS, **LARSON RS**, Von Boehmer H, and Look AT. Interconnecting Molecular Pathways in the Pathogenesis and Drug Sensitivity of T-cell Acute Lymphoblastic Leukemia. Blood, 115(9):1735-45, 2010. [PMCID:PMC2832805]

Gutierrez A, Sanda T, Ma W, Zhang J, Grebliunaite J, Protopopov A, Winter SS, **LARSON RS**, Silverman L, Chin L, Hunger SP, Jamieson C, Sallan SE, and Look AT. Inactivation of *LEF1* in T-cell acute lymphoblastic leukemia. Blood, 115(14):2835-51, 2010. [PMCID:PMC2854430]

Adolphi NL, Huber DL, Bryant HC, Monson TC, Fegan DL, Lim JK, Trujillo J, Tessier TE, Lovato DM, Butler KS, Provencio PP, Hathaway HJ, Majetich S, **LARSON RS**, Flynn ER. Characterization of Single-core Magnetite Nanoparticles for Magnetic Imaging by SQUID-relaxometry. Physics in Medicine and Biology, 55(19):5985-6003, 2010. [PMCID:PMC3883308]

Gutierrez A, Dahlberg SE, Neuberg DS, Zhang J, Grebliunaite R, Sanda T, Protopopov A, Kutok J, Winter SS, **LARSON RS**, Loh ML, Silverman LB, Chin L, Hunger SP, Salian SE, Look AT. Absence of Biallelic TCRgamma Deletion Predicts Early Treatment Failure in Pediatric T-Cell Acute Lymphoblastic Leukemia, JClin Oncol, 28 (24):3816-23, 2010. [PMCID:PMC2940399]

Hall PR, Leitao A, Ye C, Kilpatrick K, Hjelle B, Oprea TI, **LARSON RS**. Small Molecule Inhibitors of Hantavirus Infection. Bioorganic & Medicinal Chemistry Letters, 20(23):7085-91, 2010. [PMCID:PMC3622053]

Buranda T, Wu Y, Perez D, Jett SD, Bondu-Hawkins V, Ye C, Edwards B, Hall P, **LARSON RS**, Lopez GP, Sklar LA, Hjelle B. Recognition of DAF and $\alpha_v\beta_3$, by inactivated Hantaviruses, towards the development of HTS flow cytometry assays. Analytical Biochemistry, 402(2):151-160, 2010. [PMCID:PMC2905740]

Price DW, Miller EK, Rahm AK, Brace NE, **LARSON RS**. Assessment of barriers to changing practice as CME outcomes. J Contin Educ Health Prof, Fall; 30(4):237-45, 2010. [PMID:21171029]

Chigaev A, Smagley Y, Zhang Y, Waller A, Haynes ML, Amit O, Wang W, **LARSON RS**, Sklar LA. Real-Time Analysis of the Inside-out Regulation of Lymphocyte Function-Associated Antigen 1 Revealed Similarities and Differences with Very Late Antigen- 4. J Biol Chem, 286(23):20375-86, 2011. [PMCID:PMC3121518]

Hathaway HJ, Butler KS, Adolphi NL, Lovato DM, Belfon R, Fegan D, Monson TC, Trujillo JE, Tessier TE, Bryant HC, Huber DL, **LARSON RS**, Flynn ER. Detection of Breast Cancer Cells using Targeted Magnetic Nanoparticles and Ultra-Sensitive Magnetic Field Sensors. Breast Cancer Res, 13(5):3050-3062, 2011. [PMCID:PMC3262221]

Oprea TI, Bauman JE, Buranda T, Chigaev A, Edwards BS, Jarvik JW, Gresham HD, Haynes MK, Hjelle B, Hromas R, Hudson L, **LARSON RS**, Mackenzie DA, Muller CY, Reed JC, Simons PC, Smagley Y, Strouse J, Surviladze Z, Thompson T, Ursu O, Waller A, Wandinger-Ness A, Winter SS, Wu Y, Young SM, Bologa CG, and Sklar LA. Drug Repurposing from an Academic Perspective. Drug Discovery Today Therapeutic Strategies, 8(3-4):61-69, 2011. [PMCID:PMC3285382]

Adolphi NL, Butler KS, Lovato DM, Tessier TE, Trujillo JE, Hathaway HJ, Fegan D, Monson TC, Stevens TE, Huber DL, Ramu1 J, Milne ML, Altobelli SA, Bryant HC, **LARSON RS**, Flynn ER. Imaging of Her2-Targeted Magnetic Nanoparticles for Breast Cancer Detection: Comparison of SQUID-detected Magnetic Relaxometry and MRI. Contrast Media & Molecular Imaging, 7(3):308-19, 2012. [PMCID:PMC3883306]

Johnson C, Adolphi NL, Butler KL, Lovato DM, **LARSON RS**, Schwindt PDD, Flynn ER. Magnetic Relaxometry with an Atomic Magnetometer and SQUID Sensors on Targeted Cancer Cells. J Mag and Mag Materials, 324(17):2613-2619, 2012. [PMID:22773885]

Bisoffi M, Severns V, **LARSON RS.** CTSA-Enhanced Innovative Device Development. Clinical Translational Science Journal, 5(4):311-3, 2012. [PMCID:PMC3422769]

Strouse JJ, Ivnitski-Steele I, Khawaja H, Perez D, Ricci J, Yao T, Weiner WS, Schroeder CE, Simpson DS, Maki BE, Li K, Golden JE, Foutz TD, Waller A, Evangelisti AM, Young SM, Chavez SE, Garcia MJ, Ursu O, Bologa CG, Carter MB, Salas VM, Gouveia K, Tegos GP, Oprea TI, Edwards BS, Aubé J, **LARSON RS**, Sklar LA. Selective Efflux Inhibition of ATP-binding Cassette Sub-family G Member 2. J Biomol Screen, 18:26-38, 2013. [PMID:23658968]

Winter SS, Ricci J, Serna-Gallegos T, Taylor J, Gutierrez N, Lovato DM, Njus H, **LARSON RS**. ATP Binding Cassette C1 (ABCC1/MRP1)-mediated drug efflux contributes to disease progression in T-linage acute lymphoblastic leukemia. Health-Leukemia Research, 5:5A, 2013. [PMCID:PMC3819435]

Di Cello F, Dhara S, Hristov AC, Kowalski J, Elbahloul O, Hillion J, Roy S, Meijerink JP, Winter SS, **LARSON RS**, Huso DL, Resar L. Inactivation of the Cdkn2a locus cooperates with HMGA1 to drive T-cell leukemogenesis. Leukemia and Lymphoma, 54:1762-8, 2013. [PMID:23311322]

Butler KS, Lovato DM, Adolphi NL, Belfon R, Fegan DL, Monson TC, Hathaway HJ, Huber DL, Tessier TE, Bryant HC, Flynn ER, **LARSON RS.** Development of Antibody-tagged Nanoparticles for Detection of Transplant Rejection Using Biomagnetic Sensors. Cell Transplant, 22(10):1943-1954, 2013. [PMID:23069078]

Bisoffi M, Severns V, Branch DW, Edwards TL, **LARSON RS**. Rapid Detection of Human Immunodeficiency Virus Type 1 and Type 2 by Use of an Improved Piezoelectric Biosensor. Journal of Clinical Microbiology, 51(6):1685-91, 2013. [PMCID:PMC3716090]

Butler KS, Adolphi NL, Bryant HC, Lovato DM, **LARSON RS**, Flynn ER. Modeling the Efficiency of a Magnetic Needle for Collecting Magnetic Cells. Physics in Medicine & Biology, 59(2014):3319-3335, 2014. [PMID:24874577]

Kaufman A, Roth P, **LARSON RS**, Ridenour N, Welage LS, Romero-Leggott V, Nkouaga C, Armitage K, McKinney KL. Vision 2020 Measures University of New Mexico's Success by Health of its State. Am J Prev Med, 48(1):108-115, 2015. [PMID:25441236]

Baca JT, Severns V, Lovato D, Branch DW, **LARSON RS**. Rapid Detection of Ebola Virus with a Reagent-Free, Point-of-Care Biosensor. Sensors, 15(4):8605-14, 2015. [PMID: 25875186]

Matlawska-Wasowska K, Kang H, Devidas MWen J, Harvey RC, Nickl CK, Ness SA, Rusch M, Li Y, Onozawa M, Martinez C, Wood BL, Asselin BL, Chen I-M, Roberts KG, Baruchel A, Soulier J, Dombret H, Zhang J, **LARSON RS**, Raetz E, Carroll WL, Winick NJ, Aplan PD, Loh ML, Mullighan CG, Hunger SP, Heerema NA, Carroll AJ, Dunsmore KP, Winter SS. *MLL* Rearrangements Impact Outcome in *HOXA*-Deregulated T-Lineage Acute Lymphoblastic Leukemia: A Children's Oncology Group Study. Leukemia, 30(9):1909-1912, 2016. [PMID: PMC5014577]

Ricci JW, Lovato D, Severns V, Sklar LA, **LARSON RS**. Novel ABCG2 Antagonists Reverse Topotecan-Mediated Chemotherapeutic Resistance in Ovarian Carcinoma Xenografts. Molecular Cancer Therapeutics, 15(12):2853-62, 2016. [PMID: 27671528]

Kaufman A, Rhyne RL, Anastasoff J, Ronquillo F, Nixon M, Mishra S, Poola C, Page-Reeves J, Nkouaga C, Cordova C, **LARSON RS**. Health Extension and Clinical and Translational Science: An Innovative Strategy for Community Engagement. J Am Board Fam Med, 30(1):94-99, 2017. [PMID:28062823]

Farnbach Pearson AW, Moffett ML, **LARSON RS**, Rayburn WF. Mandated Self-Reporting of Workforce Data Collected During Medical License Renewal: A Case Study of Obstetrician-Gynecologists in New Mexico. Journal of Medical Regulation, 103(3):6-11, 2017.

Altschul DB, Bonham CA, Faulkner MJ, Farnbach Pearson AW, Reno J, Lindstrom W, Alonso-Marsden SM, Crisanti A, Salvador JG, **LARSON R**. State Legislative Approach to Enumerating Behavioral Health Workforce Shortages. Am J Prev Med, 54(6S3):S220-S229, 2018. [PMID:29779546]

LARSON RS. A Path to Better-Quality Mobile Health Apps. J Med Internet Res, 6(7):e10414, 2018. [PMID:30061091]

Fink BC, Uyttebrouck O, **LARSON RS**. An Unfinished Task: Limiting Opioid Prescribing as a Means of Reducing Opioid Analgesic Misuse, and Overdose Deaths. J Law Med Ethics, submitted.

BOOK CHAPTERS/REVIEW ARTICLES

Kishimoto TK, **LARSON RS**, Dustin ML, Corbi AL, Staunton DE, Springer TA. The leukocyte integrins. Leukocyte Adhesion Molecules, 7-43, 1989.

LARSON RS, Springer TA. Leukocyte integrins: Structure and Function of Leokocyte Integrins. Immunological Reviews, 114:178-217, 1990.

LARSON RS, McCurley TL. Cutting Edge Technologies in the Evaluation of Bone Marrow Samples. Clinical Laboratory Science, 19 (6):358-362, 1996

LARSON RS, Wolff SJ. Chronic Myeloid Leukemia. 10th Edition Wintrobe's Hematology. Williams & Wilkens. New York, 2242-2372, 1998.

LARSON RS. Immunodeficiency Disorders. Pediatric Hematopathology. Eds. Collins RD and Swerdlow S, 21-41, 2001.

LARSON RS, Collins RD, Swerdlow SH. X-linked Lymphoproliferative Disorder. Pediatric Hemapathology. Eds. Collins RD and Swerdlow S, 42-47, 2001.

Viswanatha D, **LARSON RS**. Molecular Techniques in the Diagnosis of Hematopoietic Neoplasms. Clinical Diagnosis and Management 20th Ed. ,Ed. John Bernard Henry, 1355-1371, 2001.

Rabinowitz I, **LARSON RS**. Chronic Myeloid Leukemia. 11th Edition Wintrobe's Hematology. Williams & Wilkens. New York, 2235-2258, 2003.

LARSON RS, Tallman M. Retinoic acid syndrome: manifestations, pathogenesis, and treatment. Bailliere's Best Practice & Research: Clinical Haematology, 16(3):453-461, 2003.

Sillerud LO, **LARSON RS**. Design and Structure of Peptide Antagonists and Peptidomimetics. Current Protein and Peptide Science, 6:151-169, 2005.

LARSON RS, Chigaev A, Edwards B, Ramirez S, Winter SS, Zwartz G, Sklar LA. Application of Flow Cytometry to Cell Adhesion Biology: From Aggregates to Drug Discovery. Flow Cytometry for Biotechnology. Oxford University Press. New York, 347-374, 2005.

Sillerud LO, **LARSON RS**. Magnetic Resonance-Based Screening Methods. Bioinformatics and Drug Design. Larson (ed) Humana Press. London, 2005.

Viswanatha D, **LARSON RS**. Molecular techniques in the diagnosis of hematopoietic neoplasms. Clinical Diagnosis and Management 21st Edition, 21:1295-1322, 2006.

Rabinowitz I, Reichard KK, **LARSON RS**. Chronic Myeloid Leukemia. 12th Edition Wintrobe's Hematology. Williams & Wilkens. New York, 2006-2030, 2008.

Viswanatha D, Czuchlewski DR, **LARSON RS**. Molecular Diagnosis of Hematopoietic Neoplasms. Henry's Clinical Diagnosis and Management by Laboratory Method 22nd Ed., Ed. John Bernard Henry, McPherson Pincus, 22:1415-1441, 2011.

Sillerud LO, **LARSON RS**. Advances in Nuclear Magnetic Resonance for Drug Discovery. Bioinformatics and Drug Discovery 2nd Edition. Ed. **LARSON RS**, Springer. New York, 195-266, 2012

LARSON RS, Baca JT. Versatility of the Surface Acoustic Wave Biosensor Platform for Detecting Bacteria and Viruses. Global Point-of-Care Strategies for Disasters, Complex Emergencies, and Public Health Crises: Enhancing Standards of Care at the Site of Need. Eds. Kost G and Curtis C, AACC Press. Washington DC, 165-172, 2015.

Ricci JW, Lovato D, **LARSON RS**. ABCG2 Inhibitors: Will They Find Clinical Relevance? J Develop Drugs, 4(5):e138 (6pp.), 2015.

BRIEF REPORTS

LARSON RS, Macon WR. T-Cell lymphoma involving subcutaneous tissue. ASCP/CAP Check Sample, 18:93-104, 1994.

Larson RI, **LARSON RS**. Chronic T-Cell large granular lymphocyte proliferation. ASCP/CAP Check Sample, QAH 98-2, 1997.

Oprea TI, Kappler MA, Allu TK, Mracec M, Ola MM, Rad R, Ostopovici L, Hadruga N, Baroni M, Zamora I, Berellini G, Aristei Y, Cruciani G, Bologa CG, Edwards BA, Sklar LA, Blalkin KV, Savchuk N, Brown DC, **LARSON RS**. Mining Large Chemical Space in Lead and Drug Discovery. International Conference of Drug Design, Sweden, 2005.

EDITORIAL/LETTER TO EDITORS

LARSON RS. NIH Gets Boost, Will Young Researchers? Grand Rounds. JAMA, October, p.1., 1986.

LARSON RS, McCurley TL. CD4 Expression in Acute Myeloid Leukemia. Response. Am J Clin Path, 109:700, 1997.

Farnbach Pearson AW, **LARSON RS**. Reassessing the Data on Whether a Physician Shortage Exists. JAMA, 318(11):1069-1070, 2017. [PMID:28975299]

Scrase D, Unruh M, **LARSON RS**. Graying state needs more health care. Albuquerque Journal, October 22, 2017. https://www.abqjournal.com/1081348/graying-state-needs-more-health-care.html.

LARSON RS. We need federal limits on prescribing opioids. The Hill, February 18, 2018. http://thehill.com/opinion/healthcare/374474-we-need-federal-limits-on-prescribing-opioids.

LARSON RS. Should the government limit a physician's ability to treat patients with opioids? Yes: It is the only way to handle the problem of overprescribing. Wall Street Journal, June 25, 2018. https://www.wsj.com/articles/should-the-government-limit-a-physicians-ability-to-treat-patients-with-opioids-1529892300.

BOOK REVIEW

LARSON RS. Immunology by Janis Kuby. Am J Clin Path, 98(3):381, 1992.

PHOTOGRAPHY AWARD

LARSON RS, Batt P. ASCP/CAP Medical Photography Competition. 1994.

ABSTRACTS WITH PRESENTATION AT NATIONAL MEETING

LARSON RS, Corbi AL, Springer TA. Cloning of the alpha subunit of human LFA-1. J Cell Biol Supplement 11D:T417, 1987.

LARSON RS, Corbi AL, Springer TA. LFA-1 alpha subunit: Complete primary structure. Second International Workshop on Macrophage Biology and Activation. Hilton Head, SC. July, 1988.

LARSON RS, Hibbs M, Corbi AL, Luther E, Garcia-Aguilar J, Springer TA. The subunit specificity of CD11a/18, CD11b, and CD11c panels of antibodies. Fourth International Workshop of Monoclonal Antibodies. Vienna, Austria. July, 1989.

LARSON RS, Rudloff M, Liapis H, Davila R, Manes JL, Kissane J. The Ivemark Syndrome: An uncommon cystic renal lesion with syndrome associations. Fifth International Workshop on Polycystic Kidney Disease. Kansas City, MO. June 19, 1992.

LARSON RS, Collins RD, Macon WR, Kinney MC. Differentiation of anaplastic large cell Ki-1+ lymphoma from Hodgkin's disease by a panel of monoclonal antibodies reactive in paraffin. Laboratory Investigation. 70(1):113A, 1994.

Kinney MC, **LARSON RS**, Macon WR, Collins RD. Strategies to distinguish anaplastic large cell lymphoma (ALCL) from Hodgkin 's disease (HD). VII Meeting of the European Association for Hematopathology. Toledo, Spain. October, 1994.

LARSON RS, McCurley TL. CD4 predicts nonlymphocytic lineage in acute leukemia: Insights from analysis of 125 cases using two-color flow cytometry. Modern Pathology 8:114A, 1995.

LARSON RS, Scot MA, McCurley TL, Vnencek-Jones CL. Microsatellite instability in post-transplant lymphoproliferative disorders: Possible mechanisms of lymphoma genesis in T-Cell cases. FASEB J. 10:A 1271, 1995.

LARSON RS, Manning S, Macon WR, Scott MA, McCurley TL, Vnencak-Jones CL. Microsatellite instability in T-Cell lymphomas in allograft recipients: Evidence for a mechanism of lymphoma genesis. 46th Annual Meeting of the American Society of Human Genetics. October 30, 1996.

McCurley TL, **LARSON RS**. Clinical Applications of Flow Cytometry in Hematology and Immunology. Clinical Laboratory Science. 19 (6):358-362, 1996.

Leith C, **LARSON RS**, Foucar K. Natural killer cell lymphoma/leukemia with predominantly extranodal disease. Fourth National Hematopathology Workshop. Pittsburg, PA. September, 1997.

Foucar K, Leith C, **LARSON RS**. Unusual presentation of granulocytic sarcoma. Fourth National Hematopathology Workshop. Pittsburg, PA. September, 1997.

Brown DC, Sklar LA, **LARSON RS**. All-*Trans* retinoic acid alters selectin and integrin dependent adherence to endothelium of the acute promyelocytic cell line NB-4 under physiologic flow. American Society of Hematology. San Diego, CA. Blood 90 (Suppl 1):415a. December, 1997.

Winter SS, Hart A, **LARSON RS**. Combinatorial effects of LFA-1 dependent Stromal; cell adherence and soluble factors on T-Cell leukemia survival. American Society of Hematology, Blood 92 (Suppl):81a. 1998.

Winter SS, Sweatman JJ, **LARSON RS**. Integrin-enhanced survival of childhood T-ALL samples maintained on Stromal cell monolayers. American Society of Hematology. Blood 94 (Suppl):72a. 1999.

Rimza LM, Chong C, Leith C, **LARSON RS**, Foucar K. Florid Hematogone Proliferations Immunophenotypic distinction from acute lymphoblastic leukemia. US and Canadian Association of Pathology. March, 1999.

Shannon J, Brown DC, Silva M, **LARSON RS**. Development of cyclic peptide inhibitor of LFA-1 binding to ICAM-1. American Society of Hematology. Blood 94 (Suppl):429a. 1999.

Kepley CL, Brown DC, Andrews RP, Oliver JM, **LARSON RS**. Basophils derived from cord blood adhere to IL-4 activated endothelium under flow conditions. American Association of Immunology. May, 2000.

Winter SS, Lewis J, Leith CL, Viswanatha D, **LARSON RS**. Monoclonal reactivity of HLDA7 T-Cell panel on hematopoietic tumors. Human Leukocyte Differentiation Antigen Workshop. June 20, 2000.

Winter SS, Brown DC, Sweatman JJ, **LARSON RS**. Reactivity of adhesion structures on mAb on hematopoietic tumors. Human Leukocyte Differentiation Antigen Workshop. June 21, 2000.

Winter SS, Sweatman JJ, Shuster JJ, Amylon MD, Link MP, **LARSON RS**. Bone marrow-supported recovery of T-lineage acute lymphoblastic leukemia (T-ALL) cells is prognostic of treatment outcome: A Pediatric Oncology Group Study. American Society of Hematology. Blood 96:111a. 2000.

Burks E, **LARSON RS**. T-Cell large granular lymphocyte leukemia. Society for Hematopathology Workshop. Boston, MA. November 9, 2001.

Blenc AM, **LARSON RS**. Cutaneous B-cell lymphoma. Society for Hematopathology Workshop. Boston, MA. November 9, 2001.

Blenc AM, Chigaev A, Sklar LA, **LARSON RS**. Detection of adhesion defects on leukemic cells in real time. American Association of Cancer Research Annual Meeting. Miami Beach, FL. October 29, 2001.

Sklar LA, Edwards BS, **LARSON RS**, Prossnitz ER, Andrewski B, et al. High Throughput screening of molecular targets by flow cytometry. Society for Hematopathology Workshop. Boston, MA. November 9, 2001.

Rabinowitz I, **LARSON RS**. Peripheral blood cells from patient treated with all-*trans* retinoic acid shows progressive adherence to endothelium corresponding with development of retinoic acid syndrome. American Society of Hematology. Blood 98:206b. 2001.

Burks E, Wester MJ, Brown DC, **LARSON RS**. Structural and functional characterization of a family of peptide antagonists directed against LFA-1/ICAM-1. American Society of Hematology. Blood 98:228a. 2001.

Tafoya L, Blenc AM, Brown DC, **LARSON RS**. Regulation of LFA1/ICAM-1 interaction on normal and lymphoma B cells. American Society of Hematology. Blood 98:235a. 2001.

Blenc AM, Chigaev A, Shuster JS, Willman CW, Sklar LA, **LARSON RS**. VLA-4 affinity inversely correlates with WBC but not patient outcome in precursor B-ALL. American Society of Hematology. Blood 98:719a. 2001.

Sklar LA, Edwards BS, **LARSON RS**, Lopez G, Prossnitz E, Andrzejewski B, Bennet T, Buranda T, Chigaev A, Jackson C, Key A, Kuckluck F, Potter R, Ramirez S, Simons P, Young S. High Throughput screening by flow cytometry. Society for Biomolecular Screening 7th Annual Conference. Baltimore, MD. September 10-13, 2001.

LARSON RS. Novel computational techniques for drug design. American Cancer Society Meeting. October 16, 2002.

Sillerud LO, Burks E, Wester M, Brown DC, Gabaldon J, Vijayan S, **LARSON RS**. Machine Learning applied to 2D NMR based design of novel cell adhesion inhibitors. American Cancer Society Meeting. October 16, 2002.

Gabaldon J, Sillerud LO, Burks E, **LARSON RS**. Using 2D-NMR and Linear Discriminant Analysis to Classify the Activity of LFA-1/ICAM-1 Cell Aggregation Inhibition in Cyclic Nona peptides. Annual Meeting of ASH. Philadelphia, PA. Blood 100:218b. 2002.

List AF, Blenc AM, Chigaev A, Brown DC, Glinsmann-Gibson B, Prossnitz E, Sklar LA, **LARSON RS**. Modulation of Integrin Affinity by VEGF and SDF-1α in MDS: Promotion of Homotypic Aggregation, Adhesion to Fibronectin, and Drug Resistance Amenable to Pharmaceutical Blockade. Annual Meeting of ASH. Philadelphia, PA. Blood 100:372a, 2002.

Winter SS, Merchant S, Zeya J, Strawler C, Carroll M, Willman CW, **LARSON RS**. Microarray analysis in a case-control cohort of T-ALL samples identifies genes of potential prognostic and pathogenic significance. American Society of Hematology. Blood 100:759a. 2002.

Burks EJ, Schroeder TM, Foucar K, Wilson C, Viswanatha D, **LARSON RS**. Blastic CD43+ Malignancies: Integrated Morphologic and Immunophenotypic Approach for Delineation of Myeloid, Dendritic, T- and NK-cell Origin. USCAP Meeting. April, 2003.

Gurule DM, Merchant SH, **LARSON RS**. Amelioration of ischemia-reperfusion injury with cyclic peptide blockade of ICAM-1. ASIP Meeting. April, 2003.

List AF, Tache-Tallmadge C, Tate W, Glinsmann-Gibson B, Brown DC, Semenuk G, Sklar LA, **LARSON RS**. Farnesyl Transferase Inhibitor Molecule beta-integrin affinity to promote homotypic and heterotypic adhesion of chronic myelomonocytic leukemia cells. American Society of Hematology Meeting. December, 2003.

LARSON RS, Brown DC, Chunyan Y, Hjelle B. Peptide antagonists of β3 integrin mediated cell entry of Sin Nombre virus. 6th International Conference of Hantavirus, HFRS and HPS. Seoul, Korea. June 23-25, 2004.

Palomero T, Odom DT, O'Neil J, Ferrando AA, Winter SS, **LARSON RS**, Young RA, Look AT. Genome wide transcriptional regulatory networks downstream of TAL1/SCL in T-Cell acute lymphoblastic leukemia. American Society of Hematology. December, 2004.

LARSON RS, Brown DC, Ye C, Hjelle B. Peptide antagonist that inhibit Sin Nombre and Hantan virus entry into cells. International Union of Microbiology Societies. 2005.

Estes DA, Poria R, Lovato DM, Khawaja HM, Quan CL, Winter SS, **LARSON RS**. Establishment and Identification of Genetic Alterations in Chemotherapy-Resistant T-ALL Cell Lines. American Society of Hematology. Atlanta, GA. 106:184b. 2005.

Winter SS, Khawaja H, Kooperberg C, Ferrando A, Look AT, **LARSON RS**. Genetic signatures distinguishes outcome in pediatric patients with T-ALL. American Society of Hematology. Atlanta, GA. 2005.

Flynn ER, Bryant HC, **LARSON RS**, Sergatskov DA. Magnetic nanoparticles in vivo detection of transplant rejection. American Physical Society. Baltimore, MD. March, 2006.

Flynn ER, Bryant HC, **LARSON RS**, Sergatskov DA. Detection and Treatment Possibilities of Disease with magnetic Nanoparticles. 6th International Conference on the Scientific and Clinical Applications of Magnetic Carriers. Vienna, Austria. May, 2006.

Flynn ER, Bryant HC, **LARSON RS**. Superparamagnetic nanoparticle of live cells using SQUID sensors. Orlando, FL. July, 2006.

Jaeto JE, Lovato DM, Sergotskov DA, Bergemann C, Bryant HC, Flynn ER, **LARSON RS**. Noninvasive Approach to Detection of T-Cell Mediated Graft Rejection Through Antibody-Tagged Nanoparticles Using SQUID Detection. American Society of Hematology. Orlando, FL. Blood 108:919a, 2006.

Estes DA, Lovato DM, Khawaja HM, Winter SS, **LARSON RS**. Identification of Chemotherapy-Resistant mechanisms in Childhood T-ALL Cell Lines: Correlation with Genetic Profiles in Patients Having Early Treatment Failure. American Society of Hematology. Orlando, FL. Blood 108:171b, 2006.

Winter SS, Khawaja H, Jiang Z, Griffin T, Asselin B, **LARSON RS**. Identification of Genomic Classifiers that Distinguish Induction Failure in T-lineage Acute Lymphoblastic Leukemia in COG Study 9404. American Society of Hematology. Orlando, FL. Blood 108:517a, 2006.

Winter SS, Lovato DM, Khawaja HM, Oprea T, Edwards B, Sklar LA, **LARSON RS**. Identification of Off-Patent Drugs that Reverse Daunorubicin Efflux Mediated by ABC B1 in T-ALL Cells. American Society of Hematology, Orlando, FL. Blood 108:735a, 2006.

Adolphi NI, Flynn ER, Bryant HC, Sillerud LO, **LARSON RS**, Lovato DM. SQUID Magnetometry and MRI Detection of Magnetic Nanoparticles that Selectively Bind to Cancer Cells Bind. International Conference on Magnetic Resonance Microscopy, Aachen, Germany. 2007.

Winter SS, Khawaja HM, Lovato DM, **LARSON RS**. De novo expression of ATP Binding Cassette C! (ABCB1) on T-ALL cells confers resistance to vincristin independent of an MDRI phenotype. American Society of Hematology. Orlando, FL. Blood 118(11):701a, 2007.

Edwards TL, Kilpatrick KAA, Brown DC, **LARSON RS**, Brozik S, Branch DW. Multianalyte Detection with a 320MHz LiTaO3 SH-SAW Sensor System. 213th Electrochemical Society Meeting. Phoenix, AZ. May, 2007.

Hathaway HJ, Jaetao JE, Lovato DM, Adolphi NL, Tessier T, Feagan D, Huber DL, Bergemann C, Flynn ER, **LARSON RS**. Her2-Conjugated Magnetic Nanoparticles for Detection of Breast Cancer by Superconducting Quantum Interference Device (SQUID). Scientific and Clinical Applications of Magnetic Carriers 7th International Conference. Vancouver, BC, Canada. May 21-24, 2008.

Flynn ER, Adolphi NL, Belfon R, Butler KS, Byrd J, Bryant HC, Fegan D, Hathaway HJ, Jaetao JE, Lovato DM, Rabinowitz I, Tessier T, Winter SS, **LARSON RS**. Measurement of Minimal Residual Disease in Leukemia by a Magnetic Biopsy Needle using CD34 Labeled Magnetic Nanoparticles. National Cancer Institute. Washington, DC. November 8, 2008.

Flynn ER, Adolphi NL, Bryant HC, Fegan D, Hathaway HJ, Huber DL, Jaetao JE, **LARSON RS**, Lovato DM, Rabinowitz I, Tessier TE, Winter SS. Development and Characterization of a Magnetic Biopsy Needle and Magnetic Nanoparticles for Sensitive Detection of Cancer Cells in the Bone Marrow. NIH Transitional Science Symposium. Washington, DC. November, 2008.

Gutierrez A, Sanda T, Winter SS, **LARSON RS**, Silverman L, Hunger SP, Sallan SE, Look AT. LEF1 is a Tumor Suppressor in T-Cell Acute Lymphoblastic Leukemia. American Society of Hematology. San Francisco, CA. December, 2008.

Edwards TL, Bisoffi M, Branch DW, Brozik SM, Hjelle B, Brown DC, Kilpatrick KAA, **LARSON RS**. Development of an Integrated Method of Pathogen Detection by Surface Acoustic Wave (SAW) Technology. TECHINT II-Integrated Performance Conference. Chantilly, VA. December 9-11, 2008.

Flynn ER, Adolphi NL, Bryant HC, Butler KS, Fegan D, Tessier TE, Hathaway HJ, Huber DL, Jaetao JE, **LARSON RS**, Lovato DM, Rabinowitz I, Winter SS. Use of Antibody Markers and Magnetic Nanoparticles with a Magnetic Biopsy Needle for Sensitive Detection of Cancer Cells in the Bone Marrow. Ventana Conference. Tucson, AZ. 2009.

Flynn ER, Adolphi NL, Belfon R, Bryant HC, Butler K, Fegan D, Hathaway HJ, Huber DL, Jaetao JE, Lovato DM, Tessier TE**, LARSON RS**. Development of an In-Vivo Breast Cancer Detection Method using SQUID-Relaxometry and Targeted Magnetic Nanoparticles. NCI Translational Science Meeting. Vienna, VA. November 2009.

Gutierrez A, Grebliunaite R, Dahlberg SE, Neuberg DS, Zhang J, Sanda T, Protopopov A, Chin L, Winter SS, **LARSON RS**, Kutok J, Silverman LB, Hunger SP, Sallan SE, Look AT. Absence of T-Cell Receptor Gene Rearrangements Predict Early Treatment Failure in Pediatric T-Cell Acute Lymphoblastic Leukemia. American Society of Hematology. New Orleans, LA. December 2009.

Resar L, Di Cello F, Dhara S, Kowalski J, Elbahlouh O, Hillion J, Winter SS, **LARSON RS**, Huso D. Inactivation of the *INK4A/ARF* (*CDKN2*) locus cooperates with *HMGA1* in T-cell leukemogenesis. 51st ASH Annual Meeting and Exposition. New Orleans, LA. December 2009.

Sonu R, **LARSON RS**, Bisoffi M, Kost GJ. Point-of-care surface acoustic wave biosensors for blood donor screening: Keeping the blood supply safe and available for emergency and disaster. San Jose, CA, April 2010; American Association of Clinical Chemists. Knoxville, TN, June 2010.

Wasowska K, Harvey RC, Chen I, Willman CW, Heerema N, Carroll A, Devidas M, Loh M, Hunger S, Raetz E, Mullighan C, Asselin B, Winick N, Carroll W, **LARSON RS,** Dunsmore K, Winter SS. Expression Profiling for MEIS1 and HOXA9/10 Identifies an Increased Incidence of MLL Rearrangements in T-All: A Children's Oncology Group Study. American Society of Hematology, Atlanta, Georgia, December 2012

Miller S, Lovato D, Price A, Huber DL, **LARSON RS**, Flynn E. Molecular Imaging of HER2-Targeted Superparamagnetic Nanoparticles in an Orthotopic Mouse Mammary Tumor Model by Nanomagnetic Relaxometry. World Molecular Imagining Congress, Savannah, Georgia, September 2013.

LARSON RS, Projecting Workforce Shortages in New Mexico. The NM Public Health Association & The Center for the Advancement of Research, Engagement and Sciences on Health Disparities National Health Disparities 2014 Joint Conference, Albuquerque, NM, March 2014.

LARSON RS, Kaufman A, Romero-Leggett V, Moffett M, Chang B, Roth P. Projecting Workforce Shortages in New Mexico. AAMC Health Workforce Research Conference, Washington, DC, May 2014.

Romero-Leggett V, Chang B, **LARSON RS**, Kaufman A, Roth P. Growing Our Own Diverse Healthcare Workforce. AAMC Health Workforce Research Conference, Washington, DC, May 2014.

Chang B, Kaufman A, Romero-Leggott V, **LARSON RS**, Roth P. Effect of State GME Funding on the New Mexico Rural Workforce: Family Medicine and Psychiatry. AAMC Health Workforce Research Conference, Washington, DC, May 2014.

Kaufman A, Chang B, **LARSON RS**, Romero-Leggett V, Roth P. Community Health Workers, the University and Medicaid Managed Care. AAMC Health Workforce Research Conference, Washington, DC, May 2014.

Moffett ML, Farnbach Pearson AW, **LARSON R**. Factors Related to the Age of Actively-Licensed Physicians in New Mexico. AAMC Health Workforce Research Conference, May 2015

Moffett ML, Farnbach Pearson AW, **LARSON R**. Gender Differences in Physician Practice Location and Patient Populations. AAMC Health Workforce Research Conference, May 2015

Moffett ML, Farnbach Pearson AW, **LARSON R**, Verzi SJ, Kleban SD. Modeling Future Physician Workforce Adequacy to Inform Policy. AAMC Health Workforce Research Conference, May 2015

Moffett ML, Farnbach Pearson AW, Sklar D, **LARSON R**. Moving In, Out and On: Physician Workforce in New Mexico. AAMC Health Workforce Research Conference, May 2015

Moffett ML, Kaufman A, Farnbach Pearson AW, **LARSON R**. Impacts of Changing Primary Care Workforce in New Mexico. AcademyHealth Annual Research Meeting, June 2015

Matlawska-Wasowska K, Kang H, Devidas M, Wen J, Harvey RC, Ness SA, Li Y, Wood BL, Asselin BL, Chen I-M, Zhang J, Aplan P, Loh M, Mullighan C, Heerema N, Carroll AJ, Hunger SP, **LARSON R**, Raetz E, Dunsmore KP, Winter S. Mixed Lineage Leukemia Rearrangements (MLL-R) are Determinants of High Risk Disease in Homeobox A (HOXA)-Deregulated T-Lineage Acute Lymphoblastic Leukemia: A Children's Oncology Group Study. American Society of Hematology, December 2015.

Farnbach Pearson AW, Moffett ML, **LARSON RS**, Rayburn WF. New Mexico's Rural and Metropolitan Obstetrician and Gynecologist Workforce, 1990 – 2014: Implications for Health Policy. AAMC Health Workforce Research Conference, May 2016.

Moffett ML, Farnbach Pearson AW, **LARSON RS**, Rayburn WF. The Value of Latitudinal and Longitudinal Health Workforce Data: Ob-Gyn in New Mexico. AAMC Health Workforce Research Conference, May 2016.

Baca JT, Severns V, Lovato D, Branch DW, **LARSON RS**. Rapid Detection of O:157 *E. coli* with a Reagent-Free, Handheld Biosensor. Biodefense World Summit, June 2016.

Farnbach Pearson AW, Moffett ML, **LARSON RS**. Are primary care physician counts representative of the pediatric primary care workforce? A New Mexico case study. AAMC Health Workforce Research Conference, May 2017.

Moffett ML, Rayburn WF, Farnbach Pearson AW, **LARSON RS**. Value of Mandatory Statewide Collection of Demographic Data about Obstetrician-Gynecologists. ACOG Annual Clinical and Scientific Meeting, June 2017.

Farnbach Pearson AW, Rayburn WF, **LARSON RS**. Demographic Diversity of New Mexico Primary Care Physicians by Population Setting. AAMC Health Workforce Research Conference, May 2018.

Farnbach Pearson AW. Rayburn WF, **LARSON RS**, Cordova de Ortega LM. Access to Pediatric Care Across New Mexico Communities: Ratios of Pediatric to Adult Primary Care Physicians and Physicians to Population. AAMC Health Workforce Research Conference, May 2018.

Farnbach Pearson AW, Reese AL, Rayburn WF, **LARSON RS**, Cox KJ. Access to Obstetric Care: Understanding the Demographics and Distribution of Obstetricians-Gynecologists, Certified Nurse Midwives and Licensed Direct Entry Midwives in Underserved Areas of New Mexico. AAMC Health Workforce Research Conference, May 2018.

Farnbach Pearson AW, Rayburn WF, **LARSON RS**. Beyond "Counting Heads:" Patterns of Working Hours Among Physicians and Implications for Future Workforce Needs. AAMC Health Workforce Research Conference, May 2019.

PATENTS ISSUED or PENDING

2017 US Patent Application 15/411,576
LARSON RS, Hjelle B, Hall PR, Brown DC, Bisoffi M, Brozik SM, Branch DW, Edwards TL, Wheeler D
Detection of Bioagents Using a Shear Horizontal Surface Acoustic Wave Biosensor
Continuation of US Patent 8,709,791

2016 US Patent Application 15/214,921
Norenberg JP, **LARSON RS**
Non-Invasive Diagnostic Agents of Cancer and Methods of Diagnosing Cancer, Especially Leukemia and Lymphoma
Divisional of US Patent 8,097,237

2014 US Patent 10,031,135 B2
LARSON RS, Hjelle B, Hall PR, Brown DC, Bisoffi M, Brozik SM, Branch DW, Edwards TL, Wheeler D
Detection of Bioagents Using a Shear Horizontal Surface Acoustic Wave Biosensor
Divisional of US Patent 8,709,791

2014 US Patent 9,546,186 B2
Norenberg JP, **LARSON RS**
Non-Invasive Diagnostic Agents of Cancer and Methods of Diagnosing Cancer, Especially Leukemia and Lymphoma
Divisional of US Patent 8,834,838

2014 US Patent Application 14/587,925

LARSON RS, Sklar LA, Edwards BS, Strouse JJ, Ivnitski-Steele I, Khawaja HM, Ricci JW, Aube J, Golden JE, Yao T, Weiner WS, Schroeder CE
Selective Efflux Inhibitors and Related Pharmaceutical Compositions and Methods of Treatment

2013 US Patent 8,834,838 B2
Norenberg JP, **LARSON RS**
Non-Invasive Diagnostic Agents of Cancer and Methods of Diagnosing Cancer, Especially Leukemia and Lymphoma
Divisional of US Patent 8,435,489 B2

2012 US Patent 9,056,111 B1
LARSON RS, Sklar LA, Edwards BS, Strouse JJ, Ivnitski-Steele I, Khawaja HM, Ricci JW, Aube J, Golden JE, Yao T, Weiner WS, Schroeder CE
Selective Efflux Inhibitors and Related Pharmaceutical Compositions and Methods of Treatment

2011 US Patent 8,435,489 B2
Norenberg JP, **LARSON RS**
Non-Invasive Diagnostic Agents of Cancer and Methods of Diagnosing Cancer, Especially Leukemia and Lymphoma
Divisional of US Patent 8,097,237

2008 US Patent 8,709,791 B2
LARSON RS, Hjelle B, Hall PR, Brown DC, Biosffi M, Brozik SM, Branch DW, Edwards TL, Wheeler D
Detection of Bioagents Using a Shear Horizontal Surface Acoustic Wave Biosensor

2008 US Patent Application 12/315,132
LARSON RS, Sklar LA, Edwards BS, Ivnitski-Steele ID, Oprea TI, Lovato DM, Khawaja HM, Winter SS, Young SM
Compounds and Methods for the Selective Inhibition of ABCB1, ABCC1 and ABCG2 Transporters and the Treatment of Cancers, Especially Drug Resistant Cancers and High Throughput Flow Cytometry Assay to Detect Selective Inhibitors

2006 US Patent 8,097,237 B2
Norenberg JP, **LARSON RS**
Non-Invasive Diagnostic Agents of Cancer and Methods of Diagnosing Cancer, Especially Leukemia and Lymphoma

2005 US Patent 7,309,316 B1
Flynn ER, **LARSON R**
Magnetic Needle Biopsy

2004 US Patent Application 10/886,407
LARSON R, Sillerud L
Tertiary Structures of ICAM-1/LFA-1 Modulators

2003 US Patent 6,881,747 B2
LARSON RS, Wagner CR
Small Molecules for Inhibition of Function and Drug Delivery to Leukocytes

2001 US Patent 6,630,447 B2

LARSON RS
Peptide Inhibitors of LFA-1/ICAM-1 Interaction
Continuation-in-part of US Patent 6,649,592

2000 US Patent 6,649,592 B1
LARSON RS
Peptide Inhibitors of LFA-1/ICAM-1 Interaction

PREVIOUS PATENTS (PROVISIONAL or RELATED)

2016 US Patent Application 15/147,648
LARSON RS, Sklar LA, Edwards BS, Strouse JJ, Ivnitski-Steele I, Khawaja HM, Ricci JW, Aube J, Golden JE, Yao T, Weiner WS, Schroeder CE
Selective Efflux Inhibitors and Related Pharmaceutical Compositions and Methods of Treatment

2012 US Patent Provisional Application 61/680,899
Selective ATP-Binding Cassette Sub-family G Member 2 Efflux Inhibitor Revealed Via High-Throughput Flow Cytometry
Established priority claims for US Patent 9,056,111 B1 and Applications 14/587,925 and 15/147,648

2011 US Patent Provisional Application 61/537,199
Selective Efflux Inhibitors and Related Pharmaceutical Compositions and Methods of Treatment
Established priority claims for US Patent 9,056,111 B1 and Applications 14/587,925 and 15/147,648

2009 US Patent SN 61/205,211
Cyclic Peptides for the Inhibition of Andes Virus Infections

2008 US Patent SN 61/205,246
Linear Peptide Inhibitors of Hantavirus Infection

2008 US Patent SN 61/189,849
Small Molecule Inhibitors of Hantavirus Infection

2008 US Provisional Application 61/131,214
Novel ABCB1 Inhibitors
Established priority claim for US Patent Application 12/315,132

2008 US Provisional Application 61/124,377
High Throughput Flow Cytometry Assay to Detect Selective Inhibitors of ABCB1, ABCC1 and ABCG2 Transporters
Established priority claim for US Patent Application 12/315,132

2007 US Patent SN 60/900,417
Peptides that Bind and Inhibit Sin Nombre Virus

2007 US Provisional Application 61/004,342
Compounds and Methods for the Inhibition of ABCB1 and the Treatment of Cancers
Established priority claim for US Patent Application 12/315,132

2007	US Provisional Application 61/009,656 Established priority claim for US Patent 8,709,791 B2
2007	US Provisional Application 60/926,827 Established priority claim for US Patent 8,709,791 B2
2007	US Provisional Application 60/900,416 Ligand Based Biosensor for Detection of Microbes Established priority claim for US Patent 8,709,791 B2 and Application 14/172,429
2007	US Patent SN 60/880,309 Compounds and Methods for the Inhibition of ABCB1 and the Treatment of Cancers
2006	US Patent SN 60/858,080 Inhibitors of ICAM-1 and Methods of Use
2005	US Provisional Application 60/710,665 Established priority claim for US Patents 8,097,237 B2, 8,435,489 B2 and 8,834,838 B2, and Application 15/214,921
2004	US Provisional Application 60/549,501 Magnetic Needle Biopsy Established priority claim for US Patent 7,309,316 B1
2003	US Patent Application 10/615,479 Peptide Inhibitors of LFA-1/ICAM-1 Interaction Continuation-in-part of US Patent 6,649,592 B1
2003	US Provisional Application 60/495,590 Established priority claim for US Patent Application 10/886,407
2003	US Provisional Application 60/485,343 Established priority claim for US Patent Application 10/886,407
2002	US Provisional Application 60/378,536 Drug Discovery Systems and Methods and Compounds for Drug Delivery Established priority claim for US Patent 6,881,747 B2
1998	WO Patent Application PCT/US1998/009212 Inhibition of LFA-1/ICAM-2 Dependent Leukemic Cell Aggregation
1998	US Patent Application 09/424,190 Inhibition of LFA-1/ICAM-2 Dependent Aggregation
1990	US Patent Application 08/739,032 Cloning of LFA-1 cDNA

GRANT FUNDING

CURRENT

Title: Biomedical Research Facility
PI: Richard Larson
Agency: NIH/ORIP **C06OD028370**
Period: 10/1/2019 – 9/30/2024 Total Award: $4,000,000

Title: Clinical and Translational Research Infrastructure Network IDeA-CTR
Clinical Research Design, Epidemiology, and Biostatistics Core
PI: Parvesh Kumar/UNM Subcontract PI Richard Larson
Agency: NIH/NIGMS **U54GM104944**
Period: 8/8/2018 – 6/30/2023 Total Award: $19,686,542

Title: NCATS Accrual to Clinical Trials (ACT) Project
PI: Steven Reis/UNM Subcontract PI Richard Larson
Agency: NIH/NCATS **UL1TR001857-03S1**
Period: 5/1/2018 – 6/30/2020 Total Award: $151,500

Title: University of New Mexico Clinical and Translational Science Center
PI: Richard Larson
Agency: NIH/NCATS **UL1TR001449**
Period: 8/14/2015 – 3/31/2020 Total Award: $18,038,634

Title: University of New Mexico Clinical and Translational Science Center
PI: Matthew Campen/Co-I Richard Larson
Agency: NIH/NCATS **KL2TR001448**
Period: 8/14/2015 – 3/31/2020 Total Award: $1,628,164

Title: Advanced Biomanufacturing of the Bone-Ligament Interface
PI: Richard Larson/Co-I Eric Prossnitz
Agency: NIH/NCATS **UL1TR001449-04S1**
Period: 8/3/2018 – 3/31/2020 Total Award: $148,964

PAST GRANT FUNDING

Title: Collaboration to Enhance Naloxone Dispensing in Rural and Underserved Areas (CONSIDER)
PI: Richard Larson/Co-I Ludmila Bakhireva
Agency: NIH/NCATS **UL1TR001449-04S2**
Period: 9/6/2018 – 3/31/2019 Total Award: $298,963

Title: Mechanisms of Immunotoxicity Produced by Uranium, Arsenic, and Combined Exposures
PI: Richard Larson/Co-I Scott Burchiel
Agency: NIH/NCRR **UL1TR001449-02S2**
Period: 8/15/2016 – 8/14/2019 Total Award: $155,249

Title: Biomarker-Based Incidence Estimation of Hepatitis C Infection in Young Adult Injection Drug Users
PI: Richard Larson/Co-I Kimberly Page
Agency: NIH/NCRR **UL1TR001449-02S1**
Period: 8/15/2016 – 8/14/2018 Total Award: $187,246

Title: Clinical and Translational Research Infrastructure Network IDeA-CTR
Clinical Research Design, Epidemiology, and Biostatistics Core
PI: Parvesh Kumar/UNM Subcontract PI Richard Larson
Agency: NIH/NIGMS **U54GM104944**
Period: 9/15/2013 – 6/30/2018 Total Award: $19,915,508

Title: Developing a Workforce to Improve Health and Reduce Disparities
PI: Paul Roth/ Co-PIs Richard Larson, Art Kaufman
Agency: NIH/NICHD **U24MD006960**
Association of American Medical Colleges (AAMC)
Period: 1/1/2013 – 6/30/2017 Total Award: $412,349

Title: HOPE Initiative Strategic Plan Develompent
PI: Ryan Cangiolosi/Co-Investigator Richard Larson
Agency: DOJ **DJJ-17P-USA51-0028**
Period: 1/4/2017 – 5/1/2017 Total Award: $25,000

Title: SAW Sensor Technology Phases I and II
PI: Richard Larson
Agency: Sensor-Kinesis Corporation
Period: 3/1/2015 – 3/31/2017 Total Award: $548,594

Title: IRB Reliance Supplement
PI: Alan Green/Co-I Richard Larson
Agency: NIH/NCATS **UL1TR001086-02S2**
Period: 9/20/2014 – 4/30/2015 Total Award: $129,960

Title: University of New Mexico Clinical and Translational Science Center
PI: Richard Larson
Agency: NIH/NCRR **UL1RR031977**
NIH/NCATS **UL1TR000041**
Period: 7/1/2010 – 3/31/2015 Total Award: $18,608,568

Title: University of New Mexico Clinical and Translational Science Center
PI: Richard Larson
Agency: NIH/NCRR **KL2RR031976**
NIH/NCATS **KL2TR000089**
Period: 7/1/2010 – 3/31/2015 Total Award: $1,522,856

Title: Enhancing Clinical Research Professionals' Training and Qualifications
PI: Richard Larson/Co-I Corey Ford
Agency: NIH/NCATS **UL1TR000041-05S1**
Period: 9/6/2014 – 3/5/2015 Total Award: $111,529

Title: Clinical Trial to Validate Clinical Use of Nanoparticles
PI: Richard Larson
Agency: Senior Scientific
Period: 6/1/2011 – 9/30/2014 Total Annual Award: $270,000

Title: UNM HSC Prediabetes Center
PI: Richard Larson
Agency: CDC Division of Diabetes, NCCDPHP, DDT/ **1H75DP002861-01**
Period: 9/1/2010 – 8/31/2013 Total Award: $600,000

Title: Co-Registered Vibrometry and Imaging: A Combined Synthetic-Aperture Rader and Fractional Fourier Transform Approach
PI: Majeed Hyatt/Richard Larson
Agency: NSF **IIS-0813747**
Period: 9/2009 – 7/31/2012 Total Award: $600,000

Title: Biomagnetic In-Vivo Imaging of Ovarian Cancer (Phase 2)
PI: Richard Larson on SBIR subcontract
Agency: NIH **1R44CA123785**
Period: 5/11/2009 – 4/30/2012 Total Annual Award: $336,044
This project focuses on producing nanoparticles coupled to ligands for bindings to cells.

Title: University of New Mexico Clinical and Translational Science Center Supplement
PI: Richard Larson
Agency: NIH/NCRR **UL1RR031977-02S2**
Period: 9/1/2011 – 3/31/2012 Total Award: $303,740

Title: Use of Nanoparticles in a Magnetic Needle Biopsy (Phase 2)
PI: Richard Larson on SBIR subcontract
Agency: NIH **2R44CA105742**
Period: 4/1/2008 – 3/31/2012 Total Annual Award: $478,739
This project focuses on the use of nanoparticles in a magnetic biopsy needle.

Title: Microenvironmental Mechanisms of Leukemia Cell Survival and Patient Prognosis
PI: Richard Larson
Agency: NIH **5RO1CA114589-05**
Period: 4/1/2005 – 2/28/2012 Total Annual Award: $422,145
This project focuses on BM stoma supported growth of T-ALL cells and gene microarray analysis and identifies novel prognostic markers and new therapeutic targets.

Title: Force Conformation and Affinity in VLA-4 and LFA-1 Adhesion
PI: Sklar Co PI: Richard Larson
Agency: NIH **2RO1HL081062**
Period: 8/1/2007 – 6/31/2011 Total Annual Award: $491,916

Title: Point-of-Care Multiplex Pathogen Detection by Surface Acoustic Wave Biosensors
PI: Richard Larson
Agency: NIH/NIAID **U54EB007959-03**
Period: 4/1/2009 – 3/31/2011 Total Annual Award: $225,000
This project focuses on the development of a miniature, portable, autonomous, near-real-time, multi-sensor detector system for bioagents.

Title: General Clinical Research Center
PI: Richard Larson
Agency: NIH/NCRR **5MO1RR000997**
Period: 12/1/2005 – 11/30/2010 Total Annual Award: $3,084,421

Title: Multiplex Screening for ABC Transporter Inhibitors
PI: Richard Larson
Agency: NIH **1RO3MH081228**
Period: 10/1/2007 – 9/30/2010 Total Annual Award: $25,000
This project focused on screening for ABCB1 inhibitors in a developed flow cytometry based assay.

Title: Biomagnetic Sensor for Detecting Breast Cancer (Phase 2)
PI: Richard Larson SBIR subcontract
Agency: NIH **2R44CA0965154**
Period: 9/1/2007 – 8/31/2010 Total Annual Award: $238,000
This project focused on the use of nanoparticles in a magnetic biopsy needle.

Title: Biomagnetic Determination of Transplant Rejection (Phase 2)
PI: Richard Larson on SBIR subcontract
Agency: NIH **2R44AI6676**
Period: 8/1/2007 – 7/31/2010 Total Award: $99,690
This project focused on the use of nanoparticles in detection of transplant rejection.

Title: Agents for Specific NMR and SQUID Imaging of Prostate Cancer
PI: Sillerud Co PI: Richard Larson
Agency: NIH **1R01CA123194**
Period: 7/21/2007 – 5/31/2010 Total Annual Award: $493,056

Title: Clandestine Genetic Sampling and Informatics for Intelligence Application
PI: Richard Larson
Agency: APL – JHU subcontract
Period: 4/7/2008 – 7/31/2009 Total Annual Award: $40,000
This project focused on the isolation of human DNA and RNA.

Title: Integrated Network of Ligand-Based Autonomous Bioagent Detectors
PI: Richard Larson
Agency: Defense Intelligence Agency (Annual Competitive Renewal)
Period: 7/1/2005 – 6/30/2009 Total Annual Award: $6,500,000
This project focused on designing and building ligand-based biosensors.

Title: Biomagnetic In-Vivo Imaging of Ovarian Cancer (Phase 1)
PI: Richard Larson on SBIR subcontract
Agency: NIH **1R44CA123785**
Period: 5/1/2008 – 4/30/2009 Total Annual Award: $336,044
This project focused on producing nanoparticles coupled to ligands for bindings to cells.

Title: Neutralizing Compounds for Viral Hemorrhagic Fever
PI: Richard Larson
Agency: NIAID **R56AI063448**
Period: 7/1/2005 – 8/31/2008 Total Annual Award: $336,375

Title: Selectin Chemokine and Integrin Control, of Vascular
PI: Michael Lawrence Subcontract PI: Richard Larson (4% effort)
Agency: NIH **2RO1HL54614-06 (SB)**
Period: 7/1/2003 – 6/30/2008 Total Annual Award: $98,555
This project focused on the understanding of how VLA-4 VCAM-1 is involved in B cell lymphoma trafficking.

Title: Cell Entry Inhibitors for Sin Nombre Virus Project
PI: Hjelle Co-PI: Richard Larson (4% effort)
Agency: NIH/NIAID **1U01AI56618-01**
Period: 7/1/2003 – 6/30/2008 Total Annual Award: $1,257,997
This project focused on cooperative research for the development of vaccines, adjuvants, therapeutics, immunotherapeutics and diagnostics for defense.

Title: Diagnosing Alzheimer ’s disease with Magnetic Nanoparticles
PI: Richard Larson (SBIR subcontract)
Agency: NIH **1R43AG029015**
Period: 2/1/2007 – 1/31/2008 Total Annual Award: $37,500

Title: Clinical and Translational Science Center at the University of New Mexico Planning Grant
PI: Burge Co-PI: Richard Larson
Agency: NIH/NCRR **1P20RR023493**
Period: 11/1/2006 – 10/31/2007 Annual Direct Cost: $150,000
The purpose of this planning grant was to develop a funded Clinical Translational Science Center award at the University of New Mexico Health Sciences Center.

Title: Biomagnetic Sensor for Detecting Breast Cancer (Phase 1)
PI: Richard Larson (SBIR subcontract)
Agency: NIH **2R43 CA096154**
Period: 9/1/2006 – 8/31/2007 Total Annual Award: $150,000
This project focused on the use of nanoparticles in a magnetic biopsy needle.

Title: Use of Nanoparticles in a Magnetic Biopsy Needle (phase 1)
PI: Richard Larson (SBIR subcontract)
Agency: NIH **1R43CA105742**
Period: 8/1/2005 – 7/31/2007 Total Annual Award: $168,708
This project focused on the use of nanoparticles in a magnetic biopsy needle.

Title: Medical Student Training Award
PI: Richard Larson
Agency: ASH
Period: 6/01/2001 – 5/31/2007 Total Annual Award: $4,500
This project focused on identifying a medical student interested in the field of hematology and encouraging research in this area.

Title: Immune Dysregulation in Allergic Asthma
PI: Mary Lipscomb Co-PI on Project 3: Richard Larson
Agency: NIH/NHLBI **2P50HL56384**
Period: 12/01/2001 – 11/06/2006
This project focused on adhesion mechanisms involved in Eosinophil localization.

Title: Animal Resources Facility Improvement
PI: Richard Larson
Agency: NIH/NCRR **1G20RR017013**
Period: 9/1/2004 – 8/31/2006 Total Award: $700,000 ($600,000 Institutional Match)
This project was to improve the ARF facilities.

Title: Biomagnetic Determination of Transplant Rejection (Phase 1)
PI: Richard Larson SBIR subcontract
Agency: NIH **1R43AI066765**
Period: 7/1/2005 – 6/30/2006 Total Annual Award: $22,340
This project focused on the use of nanoparticles in detection of transplant rejection.

Title: Biologic Ligand-Based Detection Systems for Biodefense
PI: Richard Larson (5% effort)
Agency: NSF **IIS-0434120**
Period: 8/1/2004 – 2/28/2006 Total Annual Award: $240,000
This project was directed at the development of a portable, ligand-based detector system for Bioagents.

Title: Neutralizing Compounds for Viral Hemorrhagic Fever
PI: Richard Larson
Agency: NIH/NIAID **R21AI53334**
Period: 10/1/2002 – 8/31/2005 Total Annual Award: $450,000
This project focused on drug discovery technologies to neutralize Sin Nombre virus.

Title: Neutralizing Compounds for Viral Hemorrhagic Fever
PI: Richard Larson
Agency: NIH/NIAID **R21AI53334**
Period: 09/01/2003 – 08/31/2005 Total Annual Award: $225,000

Title: T-ALL Stromal Cell Interaction and Patient Outcome
PI: Richard Larson
Agency: NIH/NCI **R21CA982511**
Period: 2/1/2003 – 1/31/2005 Total Annual Award: $300,000
This project focused on innovative in vitro assays of survival and adhesion receptor defects in samples from T-ALL pediatric subjects, which was then correlated with clinical outcomes.

Title: P30 New Mexico Institute of Environmental Health
PI: Richard Larson Core 3 Biocomputing
Agency: NIEHS
Period: 2003 – 2005 Total Annual Award: $300,000
Larson served as Director of Biocomputing Core.

Title: UNM Cancer Center Planning Grant
PI: Willman, MD
Agency: NIH **1P20CA88339**
Period: 7/1/2001 – 6/30/2004
Larson served as Director of Hematologic Program.

Title: Role of LFA-1 in Spread of Normal and Malignant Lymphocytes
PI: Richard Larson
Agency: American Cancer Society **RPG0009601LBC**
Period: 1/1/2000 – 12/31/2003 Total Annual Award: $900,000
This project focused on developing peptide inhibitor of malignant B lymphocytes metasis and sought to define the role of LFA-1/ICAM-1 binding in normal B lymphocyte extravasations.

Title: Inhibitors to LFA-1 and Neutrophil Extravasation
PI: Richard Larson
Agency: American Heart Association Grant in Aid **0151298Z**
Period: 7/1/2001 – 6/30/2003 Total Annual Award: $110,000
This project focused on designing and optimizing peptide and small molecules antagonists to LFA-1/ICAM-1.

Title: FPW Biosensor Development
PI: Richard Larson
Agency: Environmental Protection Agency
Period: 4/1/2002 – 10/31/2002 Total Annual Award: $30,000
This project focused on development of a novel mass biosensor using ICAM-1/LFA-1 receptor-ligand interaction as prototype.

Title: Quartz-Based Biosensor
PI: Richard Larson (subcontract)
Agency: TPL, Inc.
Period: 4/1/2002 – 9/30/2002 Total Annual Award: $45,000
This project focused on production of a biosensor for use in drug discovery.

Title: Cardiovascular Biology Institutional Research Training Grant
PI: Richard Larson
Agency: NIH/NLHBI
Period: 1999 – 2002

Title: Inhibitors to LFA-1 and Leukocyte Extravasation
PI: Richard Larson
Agency: American Heart Association (Beginning Grant in Aid)
Period: 1999 – 2001 Total Annual Award: $60,000

Title: Role of LFA-1 Binding in the Survival of T-ALL Cells
PI: Winter Co-PI: Richard Larson
Agency: Bear Necessity Pediatric Leukemia Foundation
Period: 1999 – 2000 Total Award: $10,000

Title: Mechanisms of Leukostasis in Acute Leukemia
PI: Eaton
Agency: NIH/IdeA
Period: 1996 – 1999 Total Award: $163,359

Title: Role of LFA-1 in Leukocyte Localization to Lung
PI: Richard Larson
Agency: American Lung Association
Period: 1998 Total Award: $20,000

Title: Role of LFA-1 in Leukostasis in Lung
PI: Richard Larson
Agency: American Cancer Society
Period: 1996 – 1997 Total Award: $20,000

*Annual amounts are approximate and may have varied from year to year depending on funding source