CURRICULUM VITAE

NAME Leslie Anne Leinwand

DATE OF BIRTH November 18, 1950

CITIZENSHIP U.S.A.

BUS. ADDRESS Molecular, Cellular and Developmental Biology
University of Colorado at Boulder
Campus Box 596
Boulder, Colorado 80309-0596
Phone: 303-492-7606
Fax: 303-492-8907
email: Leslie.Leinwand@Colorado.edu

EDUCATION

1978	Ph.D. Yale University, New Haven, Connecticut
1970-1972	B.S. Cornell University, Ithaca, New York
1968-1970	Salem College, Winston-Salem, North Carolina

PROFESSIONAL EMPLOYMENT

2009-	Chief Scientific Officer, BioFrontiers Institute, University of Colorado, Boulder, CO
2007-2010	Interim Director, Linda Crnic Institute for Down Syndrome, Denver CO
2003-2009	Director, Colorado Initiative in Molecular Biotechnology, University of Colorado, Boulder,CO
1997-	Co-Director, University of Colorado, Cardiovascular Institute, Denver, CO
1995-	Professor, Department of Molecular, Cellular and Developmental Biology, University of Colorado, Boulder, CO
1995-	Professor, Cardiology Division, School of Medicine, Anschutz Medical Campus, Denver, CO
1995-2007	Chair, Department of Molecular, Cellular and Developmental Biology, University of Colorado, Boulder, CO
1989-1995	Professor, Departments of Microbiology & Immunology; Genetics; Medicine; Albert Einstein College of Medicine, Bronx, NY
1990-1995	Adjunct Professor, Dept. of Pharmacology, Columbia University College of Physicians & Surgeons, New York, NY
1991-1995	Director, Cardiov. Research, Albert Einstein and Montefiore Medical Center, Bronx, NY
1987-1989	Associate Professor, Depart. of Med., Albert Einstein College of Medicine, Bronx, NY
1987-1990	Director, Graduate School of the Albert Einstein College of Medicine, Bronx, NY
1987-1995	Scientific Director, Cardio. Center, Albert Einstein College of Medicine, Bronx, NY
1987-1995	Director, Section of Molecular Cardio., Albert Einstein College of Medicine, Bronx, NY
1985-1989	Associate Professor, Depts. of Microbiology & Immunology and Genetics, Albert Einstein College of Medicine, Bronx, NY
1980-1985	Assistant Professor, Dept. of Microbiology & Immunology, Albert Einstein College of Medicine, Bronx, NY

RESEARCH EXPERIENCE

1978-1980	Postdoctoral Fellow, Rockefeller University. Research Advisor: Dr. James E. Darnell, Jr. Topic: Organization and expression of interspersed repetitive DNA sequences in the Chinese hamster genome.
1973-1977	Ph.D. thesis research, Yale University. Research Advisor: Dr. Frank H. Ruddle. Topic: Regulation of differentiated function in somatic cell hybrids; mouse gene mapping using somatic cell genetics.

TEACHING EXPERIENCE

2006-present From Bench to Bedside: The Role of Science in Medicine, undergraduate class
1981-present Gene Expression in Animal Cells, Molecular Biology & Genetics
1985, 1986, 1988 Instructor, Physiology course, Woods Hole Marine Biological Laboratory

PROFESSIONAL ACTIVITIES (1995 – Present)

2016- Advisory Board, BIRCWH Grant
2016- Scientific Advisory Board, Fulcrum Therapeutics, Inc.
2016- Advisory Board, CU Café
2016-2017 Editorial Board, FASEB J. (Federation of American Societies for Experimental Biology)
2016- External Advisory Board, University of Arizona, Department of Physiology
2014- NIH CCHF Study Section Member
2013- External Advisory Board, Indiana University School of Medicine
2013-2016 Scientific Advisory Board, Morgridge Institute for Research
2013- External Advisory Board, Stanford Cardiovascular Institute
2012- Scientific Advisory Board, MyoKardia, Inc.
2011- Board of Directors, Global Down Syndrome Foundation
2011- Scientific Advisory Board, Linda Crnic Institute for Down Syndrome
2011- Board of Directors, Linda Crnic Institute for Down Syndrome
2010-2014 External Advisory Board, Georgia Institute of Technology, Institute for Biogengineering & Bioscience
2010-2013 Boettcher Award Selection Review Panel
2009- Scientific Advisiory Board, Diabetes and Obesity Research Center, Burnham Institute for Medical Research
2009- Scientific Advisory Board, Centers of Biomedical Research Excellence, University of Hawaii
2009- Scientific Advisory Board, LuMind Research Down Syndrome Foundation
2008-2010 Deming Center, Advisory Board
2008-2011 Colorado Biosciences Association, Board
2008- Board of Directors, Hiberna Corp
2008 Organizer, Keystone Cardiovascular Symposium
2006-2010 NIH, Peer Review Advisory Committee
1999-2001 NIH, GM Advisory Council
1999-2002 External Advisory Board, Univ. of Cincinnati, MD-Ph.D. Program
1999-2008 Keystone Symposia Board of Directors
1999-2009 Basic Science Committee, American Heart Association
1998-2009 Editorial Board, *Circulation*
1999-2009 Editorial Board, *Circulation Research*
1999-2010 Editorial Board, *Journal of Molecular and Cellular Cardiology*
1998-2010 Editorial Board, *Journal of Cell Biology*
1998-2008 Editorial Board, *Cardiovascular Pathology*
1997 Chair, Keystone Muscle Development Symposium
1997-2000 Recombinant DNA Advisory Committee (RAC), NIH
1996-1999 Scientific Advisory Committee, Muscular Dystrophy Association
1996-1998 Chair, Basic Science Council, American Heart Association
1992-1995 Board of Directors, New York Heart Association
1991-2001 Associate Editor, *Cell Motility and the Cytoskeleton*
1991-1999 Associate Editor, *Circulation Research*
1990-2003 Editorial Board, *Gene Expression*

SELECTED HONORS AND AWARDS

2015 Louis Guyton Award, American Physiological Society
2015 James W. Fisher Award Lecturer, Tulane University
2015 Distinguished Professor, University of Colorado

2014 Pioneer Award, Marine Biological Laboratory
2014 Princesses Lecturer, Victor Chang Cardiovascular Research Institute
2014 Elected Member, The American Academy of Arts and Sciences
2013 Bonfils-Stanton Foundation Award for Science and Medicine
2010 Professor of Distinction, University of Colorado
2010 The James O. Davis Lectureship Award, University of Missouri
2009 Colorado BioScience Lifetime Achievement Award
2008 Arthus Fox Visiting Professorship, NYU School of Medicine
2007- Recipient, Tom Marsico Endowed Chair
2006- HHMI Professor
2005 Fellow, AAAS
1993-2003 NHLBI MERIT Award
1989-1993 Irma T. Hirschl Scholar Award
1984-1989 American Heart Association Established Investigator
1978-1979 Damon Runyon-Walter Winchell Postdoctoral Fellow

PATENTS

1. U.S. Patent 5,240,834 Date Issued: 08/31/93. Title: Solubilization of protein after bacterial expression using sarkosyl. Inventors: S. Frankel, L. Leinwand
2. U.S. Patent 6,353,151 Date Issued: 03/05/02. Title: Transgenic model for heart failure. Inventors: L. Leinwand, K. Vikstrom
3. U.S. Patent: 7,049,066 Date Issued: 5/23/06. Title: Diagnosis and treatment of myocardial failure. Inventors: M. Bristow, L. Leinwand, W. Minobe, K. Nakao, K. Kinugawa.
4. Canada Patent: 2,278,465 Date Issued: 04/27/2010. Title: Diagnosis and treatment of myocardial failure. Inventors: M. Bristow, L. Leinwand, W. Minobe.

PATENTS PENDING

1. U.S. Patent Pending 13/272,910 Filed 10/13/11. Title: Methods and composition for inducing physiological hypertrophy. Inventors: L. Leinwand, C. Riquelme, B. Harrison, J. Magida.
2. U.S. Patent Pending 61/977,922 Filed 04/10/14. Title: A mammalian-virus based display system for affinity screening of proteins. Inventors: D. Busha, L. Leinwand.

PUBLICATIONS (297)

1. **Leinwand LA** and Ruddle FH. (1977) Stimulation of *in vitro* translation of messenger RNA by actinomycin D and cordycepin. Science 197:381-383. PMID: 17919.
2. **Leinwand LA,** Kozak CA and Ruddle FH. (1978) Assignment of the gene for triose phosphate isomerase to chromosome 6 and tripeptidase-1 to chromosome 10 in *Mus musculus* by somatic cell hybridization. Somatic Cell Genetics 4:233-240. PMID: 566475.
3. **Leinwand LA,** Fournier REK, Nichols EA and Ruddle FH (1978) Assignment of the gene for adenosine kinase to mouse chromosome 14 by somatic cell hybridization. Cytogenet. and Cell Genet. 21:77-85. PMID: 206412.
4. **Leinwand LA** and Ruddle FH. (1978) Assignment of the gene for dipeptidase-2 to *Mus musculus* chromosome 18 by somatic cell hybridization. Biochemical Genetics 16:447-452. PMID: 736882.
5. **Leinwand LA,** Nichols EA and Ruddle FH. (1978) Assignment of the gene for glyoxalase I. to mouse chromosome 17 by somatic cell hybridization. Biochemical Genetics 16:659-666. PMID: 569476.
6. Ruddle FH, Conta B, **Leinwand LA**, Kozak C, Ruddle N, Besmer P and Baltimore D. (1978) Assignment of the receptor for esotropic murine leukemia virus to mouse chromosome 5. J. Exp. Medicine 22:451-465. PMCID: PMC2184946.

7. Kozak C, Fournier REK, **Leinwand LA,** and Ruddle FH. (1979) Assignment of the gene for resistance to ouabain to mouse chromosome 3. Biochemical Genetics 17:23-34. PMID: 454358.
8. **Leinwand LA**, Strair R, and Ruddle FH. (1978) Phenotypic and molecular expression of albumin in rat hepatoma x L cell hybrids. Experimental Cell Res. 115:261-268. PMID: 28957.
9. Jelinek W and **Leinwand LA.** (1978) Low molecular weight RNAs hydrogen bonded to nuclear and cytoplasmic poly (A)-terminated RNA from cultured Chinese hamster ovary cells. Cell 15:205-214. PMID: 699042.
10. Swan D, D'Eustachio P, **Leinwand LA**, Seidman J, Keithley D, and Ruddle F. (1979) Chromosomal assignment of the mouse K light chain genes. Proc. Natl. Acad. Sci, USA. 76:2735-2739. PMCID: PMC383683.
11. Jelinek W, Toomey T, **Leinwand LA**, Duncan C, Biro P, Choudary P, Weissman S, Rubin C, Houck C, Deininger P and Schmid C. (1980) Ubiquitous, interspersed repeated sequences in mammalian genomes. Proc. Natl. Acad. Sci, USA. 77:1398-1402. PMCID: PMC348502.
12. Haynes S, Toomey T, **Leinwand LA** and Jelinek W. (1981) The Chinese hamster Alu-equivalent sequence: A conserved, highly repetitious, interspersed DNA sequence has a structure suggestive of a transposable element. Mol. Cell. Biol. 1:573-583. PMCID: PMC369705.
13. Schmid CW, Fox G, Dowds B, Lowensteiner D, Paulson K, Shen CJ and **Leinwand LA.** (1983) Families of repeated human DNA sequences and their arrangements. Perspectives on Genes and the Molecular Biology of Cancer. ed. D. Robberson and G. Saunders. Raven Press, New York. pp. 35-41.
14. Pease L, Nathenson S and **Leinwand LA.** (1982) Mapping class I gene sequences in the major histocompatibility complex. Nature 298:382-385. PMID: 6283386.
15. Krauter K, **Leinwand LA**, D'Eustachio P, Ruddle FH and Darnell Jr JE. (1982) Structural genes of the mouse major urinary protein are on chromosome 4. J. Cell Biol. 94:414-417. PMCID: PMC2112879.
16. **Leinwand LA**, Wydro R, and Nadal-Ginard B. (1982) Small RNA molecules related to the Alu family of repetitive DNA sequences. Mol. Cell. Biol. 2:1320-1330. PMCID: PMC369936.
17. **Leinwand, L.A.**, L. Saez, E. McNally and B. Nadal-Ginard (1983) Isolation and characterization of human myosin heavy chain genes. Proc. Natl. Acad. Sci. 80:3716:3720. PMCID: PMC394121.
18. Gatmaitan Z, Jefferson DM, Ruiz-Opazo N, Biempica L, Arias I, Dudas G, **Leinwand LA** and Reid LM. (1983) Regulation of growth and differentiation of a rat hepatoma cell line by the synergistic interactions of hormones and collagenous substrata. J. Cell. Biol. 97:1179-1190. PMCID: PMC2112632.
19. **Leinwand LA**, Fournier REK, Nadal-Ginard B, and Shows T. (1983) Multigene family for sarcomeric myosin heavy chain in mouse and human DNA: localization on a single chromosome. Science 221:766-769. PMID: 6879174.
20. Enat R, Jefferson DM, Ruiz-Opazo N, Gatmaitan Z, **Leinwand LA** and Reid LM. (1984) Hepatocyte proliferation *in vitro*: its dependence on the use of serum-free, hormonally defined medium and substrata of extracellular matrix. Proc. Natl. Acad. Sci. USA. 81:1411-1415. PMCID: PMC344845.
21. Sun L, Paulsen KE, Schmid CW, Kadyk L, and **Leinwand LA.** (1984) Non-Alu family interspersed repeats in human DNA and their transcriptional activity. Nucl. Acids Res. 12:2669-2690. PMCID: PMC318698.
22. Heller D, Jackson M, and **Leinwand LA.** (1984) Organization and expression of non-Alu family interspersed repetitive DNa sequences in the mouse genome. J. Mol. Biol. 173:419-436. PMID: 6708106.
23. Chinsky J, Goodenow M, Jackson M, Lilly F, **Leinwand LA,** and Childs G. (1985) Thymic lymphomas in RF and AKR Mice: comparison of endogenous MuLV proviral organization and RNA expression in 3-methylcolanthrene-induced and spontaneous tumors. J. of Virology 53:94-99. PMCID: PMC254983.
24. Jackson M, Heller D, and **Leinwand LA.** (1985) Transcriptional measurements of mouse repeated DNA sequences. Nucl Acids Res 3:3389-3403. PMCID: PMC341242.

25. Paulsen KE, Deka N, Schmid C, Misra R, Schindler C, Rush M, Kadyk L, and **Leinwand LA.** (1985) A transposon-like element in human DNA. Nature 316:359-361. PMID: 2862587.
26. De Lozanne A, Lewis M, Spudich JA, and **Leinwand LA.** (1985) Cloning and characterization of a nonmuscle myosin heavy chain cDNA. Proc. Natl. Acad. Sci. USA 82:6807-6810. PMCID: PMC390776.
27. Goodenow M, Kessler K, **Leinwand LA,** and Lilly F. (1986) Absence of trisomy 15 in chemically induced murine T cell lymphomas. Cancer Genetics and Cytogenet. 19:205-211. PMID: 3484666.
28. Saez L and **Leinwand LA.** (1986) Cloning and characterization of myosin cDNAs in adult human skeletal muscle. in ICN-UCLA Symposium on *Molecular Biology of Muscle Development* Vol. 29, ed. Emerson, Fischman, Nadal-Ginard, and Siddiqui, pp. 263-272.
29. Saez L and **Leinwand LA.** (1986) Characterization of diverse forms of myosin heavy chain expressed in adult human skeletal muscle. Nucl. Acids Res. 14:2951-2969. PMCID: PMC339714.
30. Schwartz C, NcNally E, **Leinwand LA,** and Skolnick M. (1986) Polymorphism of a human myosin heavy chain locus and linkage to an anonymous single copy locus at 17p13. Cyto and Cell Genet. 424:117-120. PMID: 2877813.
31. Warrick H, De Lozanne A, **Leinwand LA**, and Spudich JA. (1986) Conserved protein domains in a myosin heavy chain gene from Dictyostelium discoideum. Proc. Natl. Acad. Sci. USA 83:9433-9437. PMCID: PMC387152.
32. Barker D, Wright E, Nguyen K, Cannon L, Fain P, Goldgar D, Bishop DT, Carey J, Baty B, Kivlin J, Willard H, Waye JS, Greig G, **Leinwand LA**, Nakamura Y, O'Connell P, Leppert M, Lalouel J-M, White R, and Skolnick M. (1987) Localization of Von Recklinghausen Neurofibromatosis to the pericentromeric region of chromosome 17. Science 236:1100-1102.
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34. Goodwin EB, Szent-Gyorgyi A, and **Leinwand LA.** (1987) Cloning and characterization of the scallop essential and regulatory myosin light chains. J. Biol. Chem. 262:11052-11056. PMID: 2440882.
35. Kraft R and **Leinwand LA.** (1987) Sequence of the complete P Protein gene and Part of the M. Protein gene from the histidine transport operon of *E.coli* compared to that of S. *typhimurium*. Nucl. Acids Res. 15:8568. PMCID: PMC306385.
36. De Lozanne A, Berlot C, **Leinwand LA,** and Spudich JA. (1987) Expression of a functional *Dictyostelium* myosin tail fragment in *E. coli*. J. Cell Biol. 105:2999-3005. PMCID: PMC2114700.
37. De Lozanne A, Warrick H, Chasan R, **Leinwand LA**, and Spudich JA. (1988) Molecular genetic approaches to myosin function. in Signal Transduction in Cytoplasmic Organization and Cell Motility. Ed. P. Satir, J.S. Condeelis, E. Lazarides, pp. 279-286.
38. Heller D, Gianola L. and **Leinwand LA.** (1988) A highly conserved mouse gene with a propensity to form pseudogenes in mammals. Mol. Cell.Biol. 8:2797-2803. PMCID: PMC363497.
39. McNally E, Goodwin E, Spudich JA, and **Leinwand LA.** (1988) Coexpression and assembly of myosin heavy chain and myosin light chain in *E. coli.* Proc. Natl. Acad. Sci. USA 85:7270-7273. PMCID: PMC282167.
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43. Eghbali M, Blumenfeld OO, Seifter S, Buttrick PM, **Leinwand LA**, Robinson TF, Zern MA, and Giambrone MA. (1989) Localization of Types I, III, and IV collagen mRNAs in rat heart cells by *in situ* hybridization. J. of Mol. Cell. Cardiol. 21:103-113. PMID: 2716064.
44. NcNally E, Buttrick PM and **Leinwand LA.** (1989) Ventricular myosin light chain 1: nucleotide sequence of a full length cDNA and expression during development and in hypertension. Nucl. Acids Res. 17:2753-2767. PMCID: PMC317655.
45. Feghali R and **Leinwand LA.** (1989) Molecular genetics of a human perinatal skeletal muscle myosin heavy chain. J. Cell Biol. 108:1791-1797. PMCID: PMC2115547.
46. Karsch-Mizrachi I, Travis M, Blau H, and **Leinwand LA.** (1989) Expression and DNA sequence analysis of a human embryonic skeletal muscle myosin heavy chain gene. Nucl. Acids Res. 17:6167-6179. PMCID: PMC318269.
47. **Leinwand LA**, Sohn R, Frankel S, Goodwin E, and McNally E. (1989) Bacterial expression of eukaryotic contractile proteins. Cell Motil. and the Cyto. 14:3-11. PMID: 2684424.
48. McNally E, Kraft R, Bravo-Zehnder M, Taylor D, and **Leinwand LA.** (1989) Full length cDNAs for rat alpha and beta cardiac myosin heavy chain: sequence comparisons suggest a molecular basis for functional differences. J. Mol. Biol. 210:665-671. PMID: 2614840.
49. Kraft R, Bravo-Zehnder M, Taylor D, and **Leinwand LA.** (1989) Complete nucleotide sequence of full-length cDNA for rat beta cardiac myosin heavy chain. Nucl. Acids Res. 17:7529-7530. PMCID: PMC334841.
50. McNally E, Gianola KM, and **Leinwand LA.** (1989) Complete nucleotide sequence of full-length cDNA for rat alpha cardiac myosin heavy chain. Nucl. Acids Res. 17:7527-7528. PMCID: PMC334840.
51. Tsika RW, Bahl JJ, **Leinwand LA,** and Morkin E. (1990) Thyroid hormone regulates expression of a transfected human -myosin heavy chain fusion gene in fetal rat heart cells. Proc. Natl. Acad. Sci. USA 87:379-383. PMCID: PMC53267.
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55. Fishman G, Spray D. and **Leinwand LA.** (1990) Molecular cloning, characterization and functional expression of the human cardiac gap junction cDNA. J. Cell Biol. 111:589-598. PMCID: PMC2116184.
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57. Frankel S, Condeelis J, and **Leinwand LA.** (1990) Expression of actin in *E. coli*: aggregation, solubilization, and functional analysis. J.Biol. Chem. 265:17980-17987. PMID: 2211676.
58. Goodwin EB, **Leinwand L,.** and Szent-Gyorgyi AG. (1990) Regulation of scallop myosin by mutant regulatory light chains. J. Mol. Biol. 216:85-93. PMID: 2146399.
59. Feghali R, Reid L, and **Leinwand LA.** (1990) The role of the extracellular matrix in cardiac muscle development. In The Development and Regenerative Potential of Cardiac Muscle ed. J. Oberpriller pp. 33-52.
60. Frankel S, Sohn R, and **Leinwand LA.** (1991) The use of sarkosyl for generating soluble proteins expressed in *E. coli*. Proc. Natl. Acad. Sci. 88:1192-1196. PMCID: PMC50983.
61. Buttrick PM, Malhotra A, Factor S, Geenen D, **Leinwand LA,** and Scheuer J. (1991) The effect of aging and hypertension on cardiac biochemistry and gene expression in the rat. Circ. Res. 68:645-652. PMID: 1835908.
62. Fishman G, Hertzberg E, Spray D, and **Leinwand LA.** (1991) Expression of connexin 43 in the developing rat heart. Circ. Res. 68:782-787. PMID: 1660362.

63. McNally E, Bravo-Zehnder M, and **Leinwand LA.** (1991) Identification of sequences necessary for the association of cardiac myosin subunits. J. Cell Biol. 113:585-590. PMCID: PMC2288968.
64. Fishman G, Moreno A, Spray D, and **Leinwand LA.** (1991) Functional analysis of human cardiac gap junction channel mutants. Proc. Natl. Acad. Sci. 88:3525-3529. PMCID: PMC51484.
65. Fishman G, Eddy R, Shows TB, Rosenthal L, and **Leinwand LA.** (1991) The human connexin gene family: distinct chromosomal locations but similar structure. Genomics 10:250-256. PMID: 1646158.
66. Kitsis R, Buttrick PM, McNally E, Kaplan M, and **Leinwand LA.** (1991) Hormonal modulation of a gene injected into rat heart. Proc. Natl. Acad. Sci. 88:4138-4142. PMCID: PMC51613.
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68. **Leinwand LA** and Leiden JM. (1991) Gene transfer into cardiac myocytes *in vivo*. Trends in Cardiovascular Medicine 1:271-276.
69. Buttrick PM, Kass A, Kitsis R, Kaplan M, and **Leinwand LA.** (1992) Behavior of genes directly injected into the rat heart *in vivo*. Circ. Res. 70:193-198. PMID: 1309314.
70. Feghali R, Karsch-Mizrachi I, **Leinwand LA,** and Stave Kohtz D. (1992) Four myosin heavy chain genes are expressed by human fetal skeletal muscle cells differentiating in culture. Gene Exp. 2:49-58. PMID: 1617302.
71. Kraft R, Kadyk L, and **Leinwand LA.** (1992) Sequence organization of variant mouse 4.5S RNA genes and pseudogenes. Genomics 12:555-566. PMID: 1373121.
72. LeBlanc JM, Kitsis RN, Buttrick PM, and **Leinwand LA.** (1992) *Molecular Genetic Manipulation of Cardiac Myosin in (Nuromuscular Development and Disease*) ed., A.M. Kelly and H.M. Blau. Raven Press, Ltd. pp. 223-237.
73. Kitsis RN and **Leinwand LA.** (1992) Discordance between gene regulation *in vitro* and *in vivo*. Gene Expression 1:313-318. PMID: 1472867.
74. Yoon SJ, Seiler S, Kucherlapati R, and **Leinwand LA.** (1992) Organization of the human skeletal myosin heavy chain gene cluster. Proc. Natl. Acad. Sci. **89**:12078-12082. PMCID: PMC50701.
75. Buttrick PM, Kaplan M, Kitsis RN, and **Leinwand LA.** (1993) Distinct behavior of cardiac myosin heavy chain gene constructs *in vivo*: discordance with *in vitro* results. Circ. Res. 72:1211-1217. PMID: 8495550.
76. Kitsis RN, Kass A, Buttrick PM, and **Leinwand LA**. (1993) Methodological issues of *in vivo* cardiac gene transfer. Methods in Molecular Genetics. 1:374-392.
77. Hughes SM, Cho M, Karsch-Mizrachi I, Travis M, Silberstein L, **Leinwand LA,** and Blau HM. (1993) Three slow myosin heavy chains sequentially expressed in developing mammalian skeletal muscle. Dev Biol. 158:183-199. PMID: 7687223.
78. Ogata I, Saez C, Greenwel P, Lourdes-Ponce M, Geerts A, **Leinwand LA,** and Rojkind M. (1993) Rat liver fat-storing cell lines express sarcomeric myosin heavy chain mRNA and protein. Cell Motil & Cytoskel. 26:125-132. PMID: 8287498.
79. Vikstrom K, Rovner AS, Bravo-Zehnder M, Saez C, Straceski AJ, and **Leinwand LA.** (1993) Sarcomeric myosin heavy chain expressed in nonmuscle cells forms thick filaments in the presence of substoichiometric amounts of light chains. Cell Motil & Cytoskel. 26:192-204. PMID: 8293476.
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81. Liao L, Sindhwani R, **Leinwand LA,** Diamond B, and Factor S. (1993) Cardiac α myosin heavy chains differ in their induction of myocarditis. J. Clin. Invest. 92:2877-2882. PMCID: PMC288490.
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85. Sindhwani R, Ismail-Beigi F. and **Leinwand LA.** (1994) Post-transcriptional regulation of rat cardiac myosin heavy chain expression. J. Biol. Chem. 269:3272-3276. PMID: 8106364.
86. Weiss A, Mayer G, and **Leinwand LA.** (1994) Diversity of myosin-based motility: multiple genes and functions. *Molecular Evolution of Physiological Processes*, ed., D. Fambrough. Rockefeller University Press, pp. 159-171. PMID: 7939894.
87. Buttrick PM, Kaplan M, **Leinwand LA,** and Scheuer JA. (1994) Alterations in gene expression in the rat heart with pathologic and physiologic cardiac hypertrophy. J. Mol. Cell Cardiol. 26:61-66. PMID: 8196070.
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MANUSCRIPTS (submitted or in revision)

299. Magida J, Graw S, Merlo M, Losurdo P, Brun F, Sinagra G, Taylor M, Mestroni L, **Leinwand LA.** A metabolic phenotype in mutation-positive patients with end-stage hypertrophic cardiomyopathy. (submitted)
300. Wan W, Panepento A, Dolechek C, Choi E, Anseth K, **Leinwand LA**. Substrate stiffness and topographical cues synergistically affect cardiac myocyte function. (submitted)
301. Wan W, **Leinwand LA.** Computational approach to measuring myocyte disarray in animal models of heart disease. (submitted)
302. Luckey SW, Haines C, Konhilas JP, Luczak E, Messmer-Kratzsch A, **Leinwand LA.** Cyclin D2 is a critical mediator of exercise-induced cardiac hypertrophy. (submitted)