Jeffry B. Lansman, Ph.D.

Professor Emeritus of Cellular & Molecular Pharmacology
University of California, San Francisco · School of Medicine

Mills River, North Carolina
Cardiovascular Research Institute
Weill Institute for Neurosciences

PROFILE

Cellular and molecular physiologist with three decades of UCSF faculty service in research, graduate education, and academic governance. Author of more than 50 peer-reviewed publications in journals including *Nature*, *Neuron*, and the *Journal of Physiology*. Co-discovered the L- and T-type cardiac calcium channels and the mechanism of dihydropyridine action, and established mechanosensitive TRPV4 channels as a driver of Duchenne muscular dystrophy pathology. Seven-time Teacher of the Year at UCSF and two-time AACP Teacher of the Year, with extensive systemwide academic leadership across the University of California in graduate program evaluation, faculty due-process adjudication, Title VII/IX coordination, and undergraduate admissions policy.

50+	8,968	33	7×
PEER-REVIEWED PUBLICATIONS	GOOGLE SCHOLAR CITATIONS	H-INDEX	TEACHER OF THE YEAR, UCSF

PRINCIPAL POSITIONS HELD

2017 – Present **Professor Emeritus, Cellular & Molecular Pharmacology**
University of California, San Francisco

2012 – 2017 **Professor, Cellular & Molecular Pharmacology**
University of California, San Francisco

1992 – 2012 **Associate Professor, Cellular & Molecular Pharmacology**
University of California, San Francisco

1987 – 1992 **Assistant Professor, Department of Pharmacology**
University of California, San Francisco

Affiliated Academic Programs

- Neuroscience Graduate Program, Weill Institute for Neurosciences, UCSF
- Cardiovascular Research Institute, UCSF

EDUCATION

1978 – 1982 **Ph.D., Physiology and Biophysics**
University of California, Los Angeles

1976 – 1978 **M.S., Biology**
Tufts University

1971 – 1973 **B.A., Biology**
Purchase College, State University of New York

Postdoctoral Training

1985 – 1986 **NATO–NSF Postdoctoral Fellow**
Physiological Laboratory, University of Cambridge

1983 – 1984 **NIH Postdoctoral Fellow**
Department of Physiology, Yale School of Medicine

1982 – 1983 **NIMH Postdoctoral Fellow**
Department of Physiology, University of California, Los Angeles

ACADEMIC LEADERSHIP & GOVERNANCE

University of California System-Wide

2013 – 2016 **Chair, University Committee on Privilege and Tenure**
Led the Academic Senate's quasi-judicial body overseeing faculty grievance and disciplinary adjudication across all ten UC campuses. Revised systemwide policy in response to incidents of racial discrimination and sexual harassment; drafted guidelines coordinating divisional Privilege and Tenure hearings with Title VII/IX Office investigations.

2013 – 2014 **Member, President Napolitano's Work Group on Discrimination and Bias**
Appointed to the independent task force chaired by former California Supreme Court Justice Carlos Moreno to develop new UC-wide policies for investigating and sanctioning acts of discrimination.

2012 – 2013 **Member, University Committee on Privilege and Tenure**
Reviewed systemwide policies and procedures governing faculty due-process hearings.

2003 – 2005 **Member, Academic Senate Board on Admissions and Relations with Schools**
Set systemwide undergraduate admissions policy for the nine UC campuses, including "Eligibility in a Local Context," admissions testing principles, subject requirements, and inclusiveness indicators.

UCSF Campus

2012 – 2014 **Chair, Academic Senate Committee on Privilege and Tenure**
Presided over evidentiary hearings in faculty disciplinary and grievance cases; negotiated settlements with administrative counsel; led development of policy extending due-process rights to Adjunct Series faculty.

2007 – 2009 **Chair, Academic Senate Graduate Council**
Directed external quality reviews of UCSF doctoral programs in Neuroscience, Chemistry & Chemical Biology, Developmental Biology, Bioengineering, and Medical Anthropology. Oversaw launch of new Master's programs in Global Health, Science & Technology Studies in Medicine, and Dental Hygiene, and of a Ph.D. program in Epidemiology and Translational Sciences.

2014 – 2017 **Member, Academic Committee on Courses of Instruction**
Reviewed and approved all new courses at UCSF; partnered with program directors to define skill outcomes, evaluation methods, and curricular placement.

2009 **Member, Chancellor's Executive Budget Committee**

2008 **Chair, Academic Task Force on the UCSF Institute of Quantitative Biosciences (QB3)**
Advanced the consortium's mandate to apply physics, chemistry, and computer science to fundamental problems in human biology and to accelerate technology transfer into commercial start-ups.

2008 **Chair, Task Force to Review the Department of Bioengineering and Therapeutic Science**

2004 – 2006 **Member, Academic Senate Graduate Council**
Recommended policy on graduate student progress, examinations, fellowships, and relationships with foundations and research institutions.

TEACHING

Directed the second-year pharmacology sequence for doctoral pharmacy students (Immunopharmacology and Endocrine Drugs; Autonomic and Cardiovascular Pharmacology; Neuropharmacology) and taught cardiovascular pharmacology in the School of Medicine. Directed and taught *Basic Concepts in Cellular and Molecular Neuroscience* — the core course for first-year Neuroscience Ph.D. students — covering the biophysics of nerve excitation, electro-diffusion thermodynamics, the Nernst–Planck flux equation, the origin of the membrane potential, voltage-clamp methods, the Hodgkin–Huxley action-potential model, selective ion transport, and the functional diversity of ion channels relevant to information processing in the brain.

Courses Directed and Taught

Course	Role
Autonomic & Cardiovascular Pharmacology	Course Director, Lecturer
Immuno- and Endocrine Pharmacology	Course Director, Lecturer
Neuropharmacology	Course Director, Lecturer
Basic Concepts of Cellular & Molecular Neuroscience	Course Director, Lecturer
Prologue, School of Medicine	Small Group Leader

HONORS & AWARDS

Research & Scholarly Honors

1991 Dunaway-Burnam Visiting Professor of Physiology, Dartmouth Medical School
1987 Basil O'Connor Scholar Award, March of Dimes Foundation
1986 Syntex Scholars Achievement Award in Cardiovascular Research
1985 NATO Postdoctoral Fellowship, Cambridge University (National Science Foundation)
1980 Sigma Xi, Tufts University

Teaching Honors — UCSF Schools of Pharmacy and Medicine

2015 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Winter)
2014 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Spring)
2014 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Winter)
2013 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Winter)
2013 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Fall)
2013 Joseph M. Long Foundation Prize for Excellence in Teaching, UCSF School of Pharmacy (Graduating Class of 2013)
2013 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Winter)
2012 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Winter)
2011 Long Prize "Teacher of the Year," UCSF School of Pharmacy
2010 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Spring)
2010 AACP Teacher of the Year, American Association of Colleges of Pharmacy
2010 Joseph M. Long Foundation Prize for Excellence in Teaching, UCSF School of Pharmacy (Graduating Class of 2010)
2010 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Winter)
2009 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Spring)
2009 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Winter)
2009 AACP Teacher of the Year, American Association of Colleges of Pharmacy
2009 Joseph M. Long Foundation Prize for Excellence in Teaching, UCSF School of Pharmacy (Graduating Class of 2009)
2008 Nominated — Kaiser Award for Excellence in Teaching, UCSF School of Medicine
2008 Nominated — Essential Core Teaching Award for Excellence in Small Group, UCSF School of Medicine
2008 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Fall)
2008 Long Prize "Teacher of the Year," UCSF School of Pharmacy
2008 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Spring)
2008 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Winter)
2007 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Fall)
2006 Long Prize "Teacher of the Year," UCSF School of Pharmacy
2006 Nominated — Academic Senate Distinction in Teaching
2006 Dean's Recognition for Excellence in Teaching, UCSF School of Pharmacy (Winter)
2006 Joseph M. Long Foundation Prize for Excellence in Teaching, UCSF School of Pharmacy (Graduating Class of 2006)
2004 Long Prize "Teacher of the Year," UCSF School of Pharmacy
2004 Joseph M. Long Foundation Prize for Excellence in Teaching, UCSF School of Pharmacy (Class of 2004)
2002 Long Prize "Teacher of the Year," UCSF School of Pharmacy

SELECTED SCIENTIFIC CONTRIBUTIONS

UCLA, 1982 Discovered I_f, the hyperpolarization-activated pacemaker current responsible for spontaneous rhythmic activity of the sinoatrial node.

UCLA, 1982 Identified the calcium-activated sodium channel that governs the duration of individual calcium action potentials in nerve and sensory cells.

Yale, 1984 Co-discovered distinct **L- and T-type calcium channels** in ventricular myocytes and elucidated the mechanism by which dihydropyridines and beta-adrenergic agonists modulate heart rate and contractility.

Yale, 1985 Achieved the first direct measurement of the molecular residence time of a single Ca^{2+} ion within the pore of a calcium channel, providing definitive evidence for the two-site binding model of channel selectivity.

Cambridge, 1986 Identified mechanically-activated ion channels in vascular endothelial cells as the primary transducer of blood pressure and shear flow in vasculature regulation.

UCSF, 1990 Established mechanosensitive ion channels as the dominant pathway for pathological Ca^{2+} influx in **Duchenne muscular dystrophy** and degenerative muscle disease.

UCSF, 2001 Characterized functionally distinct L-type Ca^{2+} channels in brain neurons and described a novel store-depletion–activated pathway for refilling intracellular Ca^{2+} stores.

UCSF, 2012 Demonstrated electrical remodeling in the pathogenesis of cerebellar neurodegenerative disease.

AREAS OF RESEARCH INTEREST

- Voltage-gated calcium channels and signaling
- Mechanosensitive ion channels (TRPV4)
- Degenerative disease of nerve and muscle
- Cardiac electrophysiology and diagnostics
- AI/CNN cardiac diagnostics
- Small-molecule drug discovery

MENTORING & TRAINING

Pre-Doctoral Students Supervised

Years	Name	Program	Current Position
1987 – 1991	Paul Slesinger	Neuroscience	Professor, Mount Sinai School of Medicine
1987 – 1993	Alfredo Franco-Obregón	Neuroscience	Professor of Surgery, National University of Singapore
1988 – 1993	Teryl Elam	Physiology	Private Practice, OB-GYN
1995 – 1996	Pascal Chavis	Visiting Ph.D.	Institut de Neurobiologie de la Méditerranée, Marseille

Postdoctoral Fellows and Visiting Scholars

Years	Name	Program	Current Position
1987 – 1991	Christine Haws, Ph.D.	Postdoctoral Fellow	—
1989 – 1993	Bruce Winegar, Ph.D.	Postdoctoral Fellow	Senior Scientist, Pherin Pharmaceuticals
1992 – 1995	Rheinnalt Parri, Ph.D.	Postdoctoral Fellow	Professor of Pharmacology, Aston University, UK
1993	Munir Hussain, Ph.D.	Burroughs Wellcome Visiting Fellow	Associate Professor, University of Bradford, UK
1993 – 1994	Rajeswari Medicherla, Ph.D.	Postdoctoral Fellow	—
1996	Leonard Koh, M.D.	Visiting Clinical Fellow	Endocrinology, Singapore General Hospital
1997 – 1998	Ronan Kelly, D.Phil.	Postdoctoral Fellow	Vice President, Eli Lilly & Company
2000 – 2001	Gang Lu, M.D.	Postdoctoral Fellow	Senior Scientist, Hoffmann-La Roche

Additionally, mentored and supervised the research of **16 undergraduate and post-baccalaureate trainees** who have since matriculated into highly ranked M.D. and Ph.D. programs.

PROFESSIONAL SERVICE

Editorial Boards

- *Annals of Pharmacology and Therapeutics* (2016–2017)
- *Brain and Neuroscience* (2016–2017)

Peer Review for Professional Publications

ACS Chemical Biology
Biophysical Journal
FASEB Journal
Journal of Cell Biology
Journal of General Physiology
Journal of Physiology
Journal of Neurophysiology
Neuroscience
PLoS One
PLoS Computational Biology

Society Memberships

- Biophysical Society (1986–2022)
- Society of General Physiologists (1986–2024)

SELECTED INTERNATIONAL INVITED PRESENTATIONS

2004 **Australian Physiological Society Symposium, "Stretch-activated Ion Channels" — Invited Speaker**
1995 **Université de Montpellier, France — Ph.D. Dissertation Committee**
1991 **Third International Congress of Comparative Physiology, Tokyo — Invited Speaker**
1991 **International Symposium on Mechanoreceptors, Nagoya, Japan — Invited Speaker**
1990 **International Symposium on Basic Neurophysiology, Okazaki, Japan — Invited Speaker**
1990 **International Symposium on the Regulation of Coronary Circulation, Kobe, Japan — Invited Speaker**
1986 **Physiological Laboratory, Cambridge University — Invited Speaker**
1984 **Physiological Society and Department of Physiology, Oxford University — Invited Speaker and Seminar**

ADVANCED TRAINING & CERTIFICATE COURSES

2021 **Entrepreneurship, Wharton School, University of Pennsylvania**
1988 **Biological Imaging, Marine Biological Laboratory, Woods Hole**
1980 **Invertebrate Ecology, Bermuda Biological Station for Research**
1979 **Invertebrate Embryology, Hopkins Marine Station, Stanford University**
1977 **Synaptic Structure and Function, Cold Spring Harbor Laboratory**
1976 **Invertebrate Physiology, Marine Biological Laboratory, Woods Hole**
1975 **Neurobiology, Marine Biological Laboratory, Woods Hole**

RESEARCH PROGRAM

Biophysical Basis of Mechanosensitivity and Muscle Disease

How cells convert mechanical force into ion flux remains a foundational and largely unsolved problem in biology. My laboratory showed that mechanosensitive (MS) channels in muscle from Duchenne dystrophy (mdx) mice remain open for seconds rather than milliseconds, producing the pathological Ca^{2+} loading that drives muscle cell death (Franco & Lansman, *Nature* 1990; Franco-Obregón & Lansman, *J. Physiol.* 1994, 2002). Combining pharmacology with genetics, we subsequently demonstrated that skeletal-muscle MS channels contain **TRPV4** proteins, linking cytoskeletal defects to TRPV4 gain-of-function in autosomal dominant skeletal dysplasias, distal spinal muscular atrophy, and hereditary motor neuropathies (Ho et al., *Channels* 2012). Current work focuses on the discovery of small-molecule blockers of TRPV4-containing MS channels as a therapeutic strategy for degenerative cardiac and skeletal muscle disease.

Neuronal L-type, Voltage-Gated Calcium Channels

As a postdoctoral fellow with R. W. Tsien and Peter Hess at Yale, I co-authored the defining characterization of L- and T-type calcium channels in ventricular myocytes (Hess, Lansman & Tsien, *Nature* 1984; Nilius, Hess, Lansman & Tsien, *Nature* 1985). At UCSF, my laboratory translated this framework to the brain, using cerebellar granule cells and naturally occurring mouse mutants to uncover functionally distinct populations of neuronal L-type channels — including reopening channels active at negative potentials (Slesinger & Lansman, *Neuron* 1991) and facilitating channels sensitive to prior depolarization (Parri & Lansman, *J. Neurosci.* 1996). We subsequently demonstrated that metabotropic glutamate receptors couple L-type channels to ryanodine receptors, revealing an oscillatory Ca^{2+}-signaling motif in which store depletion potentiates L-type current (Chavis, Fagni, Lansman & Bockaert, *Nature* 1996). More recent work shows compensatory upregulation of L-type and down-regulation of NMDA receptor channels in leaner mutant mice, providing a mechanistic model for cerebellar ataxia and broader ion-channel neurodegeneration.

SELECTED PEER-REVIEWED PUBLICATIONS

Complete list: 50+ peer-reviewed publications. Citation indices (Google Scholar, Nov 2024): **8,968 total citations · h-index 33 · i10-index 50**.

Lansman, J. and Haynes, D.H. (1975). Kinetics of a Ca^{2+}-triggered membrane aggregation reaction of phospholipid membranes. *Biochimica Biophysica Acta*, 394:335–347.

Lansman, J.B. and Haynes, D.H. (1979). Charge asymmetry does not affect the rate of Ca^{2+}-induced aggregation of phospholipid vesicles. *Biophysical Journal*, 26:335–337.

Haynes, D.H., **Lansman, J.B.**, Cahill, A.L., and Morris, S.J. (1979). Kinetics of cation-induced aggregation of Torpedo electric organ synaptic vesicles. *Biochimica Biophysica Acta*, 557:340–353.

Lansman, J.B. and Cochrane, D.E. (1979). Wheat germ agglutinin stimulates exocytotic histamine secretion from rat mast cells in the absence of extracellular calcium. *Biochemical Pharmacology*, 29:455–458.

Cochrane, D.E., Distel, D.L., **Lansman, J.B.**, and Paterson, B.M. (1982). Stimulus-secretion coupling in rat mast cells: inactivation of calcium-dependent secretion. *Journal of Physiology*, 323:423–435.

Carraway, R., Cochrane, D.E., **Lansman, J.B.**, Leeman, S.E., Paterson, B.M., and Welch, H.J. (1982). Neurotensin stimulates histamine secretion from rat mast cells and elevates plasma histamine levels. *Journal of Physiology*, 323:403–414.

Moody, W.J. and **Lansman, J.B.** (1983). Developmental regulation of Ca and K currents during hormone-induced meiotic maturation of starfish oocytes. *Proceedings of the National Academy of Sciences USA*, 80:3096–3100.

Lansman, J.B. (1983). Voltage clamp study of the conductance activated at fertilization in the egg of a starfish. *Journal of Physiology*, 345:353–372.

Hess, P., **Lansman, J.B.**, and Tsien, R.W. (1984). Different modes of calcium channel gating behavior favored by dihydropyridine agonists and antagonists. *Nature*, 311:538–544.

Nilius, B., Hess, P., **Lansman, J.B.**, and Tsien, R.W. (1985). A novel type of cardiac calcium channel in ventricular cells. *Nature*, 316:443–446.

Hess, P., **Lansman, J.B.**, and Tsien, R.W. (1986). Calcium channel selectivity for divalent and monovalent cations: voltage and concentration dependence of single channel current in ventricular heart cells. *Journal of General Physiology*, 88:293–319.

Lansman, J.B., Hess, P., and Tsien, R.W. (1986). Blockade of current through single calcium channels by Cd, Mg, and Ca: voltage- and concentration-dependence of Ca entry into the pore. *Journal of General Physiology*, 88:321–347.

Tsien, R.W., Bean, B.P., Hess, P., **Lansman, J.B.**, Nilius, B., and Nowycky, M.C. (1986). Mechanisms of calcium channel modulation by beta-adrenergic agents and dihydropyridine agonists. *Journal of Molecular and Cellular Cardiology*, 18:691–710.

Hess, P., **Lansman, J.B.**, Nilius, B., and Tsien, R.W. (1987). Calcium channel types in cardiac myocytes: modulation by dihydropyridines and beta-adrenergic stimulation. *Journal of Cardiovascular Pharmacology*, 8 (Suppl. 9):511–521.

Lansman, J.B. (1987). Calcium current and calcium-activated inward current in the oocyte of the starfish Leptasterias hexactis. *Journal of Physiology*, 390:397–413.

Lansman, J.B., Hallam, T.J., and Rink, T.J. (1987). Single stretch-activated ion channels in vascular endothelial cells as mechanotransducers? *Nature*, 325:811–813.

Nilius, B., Hess, P., **Lansman, J.B.**, and Tsien, R.W. (1987). Two kinds of calcium channels in isolated ventricular cells from guinea pig heart. *Fortschritte der Zoologie*, 33:83–98.

Franco, A. and **Lansman, J.B.** (1990). Calcium entry through stretch-inactivated ion channels in mdx myotubes. *Nature*, 344:670–673.

Franco, A. and **Lansman, J.B.** (1990). Stretch-sensitive channels in developing muscle cells from a mouse cell line. *Journal of Physiology*, 427:361–380.

Lansman, J.B. (1990). Blockade of current through single calcium channels by trivalent lanthanide cations: effect of ionic radius on the rates of ion entry and exit. *Journal of General Physiology*, 95:679–696.

Winegar, B. and **Lansman, J.B.** (1990). Voltage-dependent block by zinc of single calcium channels in mouse myotubes. *Journal of Physiology*, 425:563–578.

Forsayeth, J.R., Rossi, A.B., Franco, A., **Lansman, J.B.**, and Hall, Z. (1990). Expression of functional mouse muscle acetylcholine receptors in Chinese hamster ovary cells. *Journal of Neuroscience*, 10(8):2771–2779.

Gu, Y., Franco, A., Gardner, P.D., **Lansman, J.B.**, Forsayeth, J.R., and Hall, Z.W. (1990). Properties of embryonic and adult muscle acetylcholine receptors transiently expressed in COS cells. *Neuron*, 5:147–157.

Winegar, B., Kelly, R., and **Lansman, J.B.** (1991). Block of current through single calcium channels by Fe, Co, and Ni: location of the transition-metal binding site in the pore. *Journal of General Physiology*, 97:351–367.

Slesinger, P.A. and **Lansman, J.B.** (1991). Inactivation of calcium currents in granule cells cultured from mouse cerebellum. *Journal of Physiology*, 435:101–121.

Slesinger, P.A. and **Lansman, J.B.** (1991). Inactivating and non-inactivating dihydropyridine-sensitive calcium channels in mouse cerebellar granule cells. *Journal of Physiology*, 439:301–323.

Franco, A., Winegar, B.D., and **Lansman, J.B.** (1991). Open-channel block by gadolinium of the stretch-inactivated ion channel in mdx myotubes. *Biophysical Journal*, 59:1–7.

Haws, C.M. and **Lansman, J.B.** (1991). Calcium-permeable ion channels open at negative membrane potentials in cerebellar neurons from mdx mice. *Proceedings of the Royal Society of London B*, 244:185–189.

Haws, C.M. and **Lansman, J.B.** (1991). Developmental regulation of mechanosensitive Ca^{2+} channels in skeletal muscle from normal and mdx mice. *Proceedings of the Royal Society of London B*, 245:173–177.

Slesinger, P.A. and **Lansman, J.B.** (1991). Reopening of Ca^{2+} channels in mouse cerebellar neurons at resting membrane potentials during recovery from inactivation. *Neuron*, 7:755–762.

Haws, C.M., Slesinger, P.A., and **Lansman, J.B.** (1993). Dihydropyridine- and -conotoxin-sensitive Ca^{2+} currents in cerebellar neurons: persistent block of L-type channels by a pertussis toxin-sensitive G protein. *Journal of Neuroscience*, 13:1148–1156.

Franco-Obregón, A. and **Lansman, J.B.** (1994). Mechanosensitive ion channels in skeletal muscle from normal and dystrophic mice. *Journal of Physiology*, 481(2):299–309.

Elam, T.R. and **Lansman, J.B.** (1995). The role of Mg^{2+} in the inactivation of inwardly rectifying K^{+} channels in aortic endothelial cells. *Journal of General Physiology*, 105:463–484.

Franco-Obregón, A. and **Lansman, J.B.** (1995). Spontaneous and agonist-induced activity of acetylcholine receptor channels in developing muscle cells from normal and dystrophic mice. *Journal of Neuroscience Research*, 42:452–458.

Chavis, P., Fagni, L., Bockaert, J., and **Lansman, J.B.** (1995). Modulation of calcium channels by metabotropic glutamate receptors in cerebellar granule cells. *Neuropharmacology*, 34(8):929–937.

Slesinger, P.A. and **Lansman, J.B.** (1996). Reopening of single L-type Ca^{2+} channels in mouse cerebellar granule cells: voltage- and ion concentration-dependence. *Journal of Physiology*, 491.2:335–345.

Haws, C.M., Winegar, B., and **Lansman, J.B.** (1996). Block of L-type Ca^{2+} channels in skeletal muscle fibers by aminoglycoside antibiotics. *Journal of General Physiology*, 107:421–432.

Winegar, B., Haws, C.M., and **Lansman, J.B.** (1996). Subconductance block of mechanosensitive ion channels in skeletal muscle fibers by aminoglycoside antibiotics. *Journal of General Physiology*, 107:433–443.

Parri, H.R. and **Lansman, J.B.** (1996). Multiple components of Ca^{2+} channel facilitation in cerebellar granule cells: expression of facilitation during development in culture. *Journal of Neuroscience*, 16:4890–4902.

Chavis, P., Fagni, L., **Lansman, J.B.**, and Bockaert, J. (1996). Functional coupling between ryanodine receptors and L-type calcium channels in neurons. *Nature*, 382:719–722.

Franco-Obregón, A. and **Lansman, J.B.** (2002). Changes in mechanosensitive channel gating following mechanical stimulation in skeletal muscle myotubes from the mdx mouse. *Journal of Physiology*, 539.2:391–407.

Lansman, J.B. and Franco-Obregón, A. (2006). Mechanosensitive ion channels in skeletal muscle: a link in the membrane pathology of muscular dystrophy. *Clinical and Experimental Physiology and Pharmacology*, 33:649–656.

Vasquez, I., Tan, N., Boonyasampant, M., Koppitch, K., and **Lansman, J.B.** (2012). Partial opening and subconductance gating of mechanosensitive ion channels in dystrophic skeletal muscle. *Journal of Physiology*, 590(23):6167–6185.

Ho, T.C., Horn, N.A., Huynh, T., Kelava, L., and **Lansman, J.B.** (2012). Evidence TRPV4 contributes to mechanosensitive ion channels in mouse skeletal muscle fibers. *Channels*, 6(4):246–254.

Tan, N. and **Lansman, J.B.** (2014). Utrophin regulates modal gating of mechanosensitive ion channels in dystrophic skeletal muscle. *Journal of Physiology*, 592(15):3303–3323.

Lansman, J.B. (2015). Utrophin suppresses low-frequency oscillations and coupled gating of mechanosensitive ion channels in dystrophic skeletal muscle. *Channels*, 9(3):145–160.

Manuscripts in Preparation or Revision

Lansman, J.B. (2026). Compensatory changes in L-type and NMDA channels in cerebellar granule cells from leaner mice. *[in revision]*

Lansman, J.B. (2026). Hidden Markov Model analysis of individual subunit gating during single activations of mechanosensitive ion channels in dystrophic skeletal muscle. *[in preparation]*

Lansman, J.B. (2026). Analysis of the subconductance-blocking mechanism of ruthenium red on single mechanosensitive channels in skeletal muscle fibers. *[in preparation]*

Lansman, J.B. (2026). The sodium and potassium currents in skeletal muscle from mdx and mdx/utrophin double knockout mice. *[in preparation]*