

CURRICULUM VITAE - Barbara E. Ehrlich

Current Position: Professor
Departments of Pharmacology and Cellular & Molecular Physiology
Yale University School of Medicine
New Haven, CT 06520-8066
203 737 1158 voice
203 737 2027 fax
barbara.ehrlich@yale.edu

Education:

Sc.B. Brown University, 1974, Applied Mathematics and Biology, Honors.
Ph.D. University of California, Los Angeles, 1979, Physiology.

Research:

1972-1974 Pre-Doctoral Student. Brown University and Mount Desert Island Biological Laboratory, Providence, RI and Salsbury Cove, ME.
Iodide transport in choroid plexus epithelium.

1975-1980 Graduate Student. Department of Physiology, University of California, Los Angeles, CA
Membrane transport parameters in manic-depressive illness.

1980-Summer Post-Doctoral Fellow. Marine Biological Laboratory, Woods Hole, MA.
Lithium transport across squid axon membrane.

1980-1986 Post-Doctoral Fellow and then Instructor. Departments of Physiology and Neuroscience, Albert Einstein College of Medicine, Bronx, NY
Incorporation of cardiac and *Paramecium* calcium channels in lipid bilayers.

1986-1993 Assistant Professor. Departments of Medicine/Cardiology and Physiology, University of Connecticut, Farmington, CT

1993-1997 Associate Professor. Departments of Physiology and Medicine/Cardiology, University of Connecticut, Farmington, CT
Intracellular calcium release channel function and modulation.

1997- Professor. Departments of Pharmacology and Cellular & Molecular Physiology, Yale University School of Medicine, New Haven, CT.

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Honors and Awards:

1979-1980	Bank of America - Giannini Foundation Fellowship.
1980-Summer	Grass Foundation Fellowship in Neurophysiology.
1980-1982	Sidney Blackmer Postdoctoral Fellowship, Muscular Dystrophy Foundation.
1983-1986	Kurt P. Reiman Investigatorship, New York Heart Association.
1983-1986	The American Home Products Grant-in-Aid, New York Heart Association.
1986-Summer	M.B.L. Summer Fellowship.
1986-1990	PEW Scholar in Biomedical Science.
1987	The Margaret Oakley Dayhoff Memorial Award in Biophysics.
1987-Summer	M.B.L. Kuffler Fellowship.
1992, 1995	CAMEL Award for Best Pre-Clinical Course. Co-Organizer, Cardiovascular Subject Committee
1995	Blue Ribbon for Blueberry Pie, Barnstable County Fair, Falmouth, MA.
1996	H.F. Cserr Memorial Lecture, Mount Desert Island Biological Laboratory
2005	K.S. Cole Award for Excellence in Membrane Biophysics, Biophysical Society

Elected offices:

1989-1993	Trustee, Marine Biological Laboratory
1988-1990	Councilor, Society of General Physiologists
1993-1999	Science Council, Marine Biological Laboratory
1995-1996	President, Society of General Physiologists
1995-1998	Councilor, Biophysical Society
2002-2008	Trustee, Children's School of Science, Woods Hole, MA
2004-2007	Science Council, Marine Biological Laboratory

Meetings Organized:

1995	Membrane Biophysics Subgroup Symposium
1995	Society of General Physiologists 49th Annual Symposium "Organellar Pumps and Channels" with Dr. David Clapham
1996	FASEB Conference on "Calcium and Cell Function"
2003	Membrane Biophysics Subgroup Symposium

Extramural Peer Review Committees:

1988-1991	American Heart Association, New England Affiliates Review Board
1994	NSF Review Panel, Neuronal and Glial Mechanisms
1994-1997	American Heart Association, Regional Review Board C
1996-	Marine Biological Laboratory Fellowship Review Committee
1997-2001	NIH Study Section, Cell Biology and Physiology (CDF3)
2000-2004	American Heart Association Affiliate Research Committee
2004-2007	Board of Scientific Overseers, NICHD

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Students and Fellows, past:

Cathy R. Schen, MD (summer student, 1983, 1984) present position: Psychiatrist, private practice

Juan Bernal, MD (postdoctoral fellow, 1987-1990)

present position: Laboratory Director, Tenidos San Juan, Aguascalientes, Ags, Mexico

Karol Ondrias, PhD (postdoctoral fellow, 1988-1990)

permanent position: Senior Scientist, Institute of Experimental Pharmacology, Slovak Academy of Sciences, Dubravska cesta 9, 84216 Bratislava, Czechoslovakia

Anita M. Kelsey, MD (summer student, 1987; research fellow, 1993, 1995)

present position: Cardiologist, private practice

Louis Borgatta, MD (research fellow, 1989) present position: Cardiologist, private practice

Detcho Stoyanovsky, PhD (postdoctoral fellow, 1991-1992) present position: Associate Professor, Department of Biochemistry, University of Pittsburgh, Pittsburgh, Pennsylvania

Ilya Bezprozvanny, PhD (postdoctoral fellow, 1990-1994) present position: Associate Professor, Department of Physiology, University of Texas, Southwest Medical Center at Dallas, Texas

Edward Kaftan, PhD (graduate student, 1990-1996; postdoctoral fellow, 1996-1997)

present position: Research Scientist, Phizer Pharmaceuticals, Chicago Illinois

Habib Samady, MBChB (research fellow, 1992, 1993)

present position: Assistant Professor, Medicine/Cardiology, University of Virginia

Mark Landers, MD (research fellow 1992, 1993) present position Cardiologist, private practice

Kerry Quinn, PhD (postdoctoral fellow, 1994-1999) present position: scientist, Curagen, Branford CT

Frank Striggow, PhD (postdoctoral fellow, 1994-1996)

present position: Biotech Company, Magdeburg, Germany

Bonnie Seecharran, MBChB (research fellow, 1994)

present position: Cardiologist, private practice

Peter Danias, MD PhD (research fellow, 1995-present)

present position: Cardiologist, Private practice,

Robert Hagar, BA (MD-PhD student, 1995-2000)

Present position: General Physician, Private practice,

Gohar Jamil, MD (research fellow, 1995)

present position: Cardiologist, Private practice, Hartford, CT

Julian Esteban, MD (research fellow, 1996)

present position: Cardiologist, Private practice,

Elizabeth Dodge (research student, 1997-1998)

present position: Medical Resident, University of Texas, Dallas

Peter Koulen, PhD (postdoctoral fellow, 1998-2001)

Present Position: Associate Professor, University of North Texas, Forth Worth, TX

Anthony DePass, PhD (postdoctoral fellow, 1998-1999)

present position: Associate Professor, Long Island University, NY

Tobias Janowitz (research student, 1999, 2000)

Present position: Medical Student, Cambridge University, England

Danielle Johnston (undergraduate research student, 1999) Present position: graduate student, University of Washington, Seattle, WA

Edwin Thrower, PhD (postdoctoral fellow, 1999-2002) Present position: Research Scientist, Yale University

Friedrich Johenning (research student, 2000-2001)

Present position: Post-Doctoral Fellow, Charite University, Berlin, Germany

Phedra Marius (postdoctoral fellow, 2002-2003)

Present position: Teacher, High School, London England

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Students and Fellows, past (continued):

Chi-un Choe (research student, 2002-2003)

Present position: Medical student, University of Hamburg, Germany

Simon Jacob (research student, 2002-2003)

Present position: Medical student, University of Freiburg, Germany

Christina Schlecker (research student, 2002-2003)

Present position: Medical student, University of Tübingen, Germany

Nils Nicolay (research student, 2003-present)

Present position: Medical student, University of Heidelberg, Germany

Fannie Bialek (summer student, 2002, 2003)

Present position: University student, Princeton University, Princeton, NJ

Lauren Johnston (undergraduate research student, 2003, 2004)

Present position: Graduate student, University of Texas, Austin, TX

Xin Yu (undergraduate research student, 2001-2003)

Present position: Law student, NY University, NY

Georgia Anyatonwu (graduate student, 2001-2006)

Present position: Post-doctoral fellow, Thomas Jefferson University, Philadelphia, PA

Juliana Rengifo (graduate student, 2001-2006)

Present position: Post-doctoral fellow, University of Wisconsin, Madison, WI

Anurag Varshney (postdoctoral fellow, 2003-2006)

Present position: Research Scientist, Ranboxy, Inc, New Dehli, India

Manuel Estrada (postdoctoral fellow, 2003-2006)

Present position: Assistant Professor, Universidad de Chile, Santiago, Chile

Per Uhlen (postdoctoral fellow, 2004-2006)

Present position: Assistant Professor, Karolinska Institute, Stockholm, Sweden

Eva Winkler (research student, 2004-2005)

Present position: Medical student, University of Freiburg, Germany

David Johnston (undergraduate research student, 2005)

Present position: Graduate student, University of California, Los Angeles, CA

Students and Fellows, present:

Craig Gibson (graduate student, 2003-present)

Wolfgang Boehmerle (research student, 2005-present)

Felix Heidrich (research student, 2006-present)

Andjelka Celic (postdoctoral fellow, 2006-present)

Kun Zhang (research student, 2006-present)

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Papers:

- Ehrlich, B.E. and H.F. Cserr. Comparative aspects of brain barrier systems for iodide. *American Journal of Physiology* 234: R61-R65 (1978).
- Ehrlich, B.E. and J.M. Diamond. An ultramicro method for analysis of lithium and other biologically important cations. *Biochimica Biophysica Acta* 543: 264-268 (1978).
- Joep, R.S., D.J. Jenden, B.E. Ehrlich, J.M. Diamond. Choline accumulates in erythrocytes during lithium therapy. *New England Journal of Medicine* 299: 833-834 (1978).
- Ehrlich, B.E. and J.M. Diamond. Lithium fluxes in human erythrocytes. *American Journal of Physiology* 237: C102-C110 (1979).
- Ehrlich, B.E., J.M. Diamond, W. Kaye, E.M. Ornitz, L. Gosenfeld. Lithium transport in erythrocytes from a pair of twins with manic disorder. *American Journal of Psychiatry* 136: 1477-1478 (1979).
- Ehrlich, B.E., J.M. Diamond, L.D. Braun, E.M. Cornford, W.H. Oldendorf. Effects of lithium on blood-brain barrier transport of the neurotransmitter precursors choline, tyrosine, and tryptophan. *Brain Research* 193: 604-607 (1980).
- Ehrlich, B.E., C. Clausen, J.M. Diamond. Lithium pharmacokinetics: single dose experiments and analysis using a physiological model. *Journal of Pharmacokinetics and Biopharmaceutics* 8: 439-461 (1980).
- Joep, R.S., D.J. Jenden, B.E. Ehrlich, J.M. Diamond, L. Gosenfeld. Erythrocyte choline concentrations are elevated in manic patients. *Proceedings of the National Academy of Sciences* 77: 6144-6146 (1980).
- Modlin, I.M., B.E. Ehrlich, C.B.H. Lamers, J.M. Diamond, and J.H. Walsh. The variable effect of lithium on canine pancreatic polypeptide and gastrin release by a meal or bombesin. *Digestion* 22: 177-184 (1981).
- Ehrlich, B.E., J.M. Diamond, L. Gosenfeld. Lithium-induced changes in sodium-lithium countertransport. *Biochemical Pharmacology* 30: 2539-2543 (1981).
- Ehrlich, B.E. and E.M. Wright. Choline and PAH transport across blood-CSF barriers: The effect of lithium. *Brain Research* 250: 245-249 (1982).
- Diamond, J.M., B.E. Ehrlich, J.C. Freedman. A slow process in the effect of lithium therapy on countertransport. *New England Journal of Medicine* 307: 1646 (1982).
- Ehrlich, B.E. and J.M. Diamond. Lithium absorption: implications for sustained-release lithium preparations. *Lancet* i(8319): 306 (1983).
- Diamond, J.M., B.E. Ehrlich, S.G. Morawski, J.S. Fordtran. Lithium absorption in tight and leaky segments of intestine. *Journal of Membrane Biology* 72: 153-159 (1983).

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Papers (continued)

- Ehrlich, B.E., J.M. Diamond, V. Fry, K. Meier. Lithium inhibition of erythrocyte cation countertransport involves a slow process in the erythrocyte. *Journal of Membrane Biology* 75: 233-240 (1983).
- Clausen, C., B.E. Ehrlich, J.M. Diamond, L.F. Gosenfeld. Muscle lithium in manic depressives during lithium therapy. *New England Journal of Medicine* 309: 190 (1983).
- Ehrlich, B.E., C. Clausen, L.F. Gosenfeld, J.M. Diamond. Lithium concentration in the muscle compartment of manic-depressives during lithium therapy. *Journal of Psychiatric Research* 18: 139-148 (1984).
- Ehrlich, B.E., J.M. Russell. Lithium transport across squid axon membrane. *Brain Research* 311: 141-143 (1984).
- Ehrlich, B.E., C.R. Schen, J.L. Spudich. Bacterial rhodopsins monitored with fluorescent dyes in vesicles and *in vivo*. *Journal of Membrane Biology* 82: 89-94 (1984).
- Ehrlich, B.E., A. Finkelstein, M. Forte, C. Kung. Voltage-dependent calcium channels from *Paramecium* cilia incorporated into planar lipid bilayers. *Science* 325: 427-428 (1984).
- Hoch, D.H., M. Romero-Mira, B.E. Ehrlich, A. Finkelstein, B.R. DasGupta, L.L. Simpson. Channels formed by botulinum, tetanus, and diphtheria toxins in planar lipids bilayers: relevance to translocation of proteins across membranes. *Proceedings of the National Academy of Sciences* 82: 1692-1696 (1985).
- Ehrlich, B.E., C.R. Schen, M.L. Garcia, G.J. Kaczorowski. Incorporation of calcium channels from cardiac sarcolemmal membrane vesicles into planar lipid bilayers. *Proceedings of the National Academy of Sciences* 83: 193-197 (1986).
- Ehrlich, B.E., A.R. Jacobson, R. Hinrichsen, L.M. Sayre, M.A. Forte. *Paramecium* calcium channels are blocked by a family of calmodulin antagonists. *Proceedings of the National Academy of Sciences* 85: 5718-5722 (1988).
- Ehrlich, B.E. and J. Watras. Inositol 1,4,5-trisphosphate activates a channel from smooth muscle sarcoplasmic reticulum. *Nature* 336: 583-586 (1988).
- Ondrias, K., L. Borgatta, D.H. Kim, B.E. Ehrlich. Biphasic effects of doxorubicin on the calcium release channel from sarcoplasmic reticulum of cardiac muscle. *Circulation Research* 67: 1167-1174 (1990).
- Bernal, J., A.M. Kelsey, B.E. Ehrlich. GTP γ S increases the duration of backward swimming behavior and the calcium action potential in marine *Paramecium*. *Journal of Experimental Biology* 155: 505-518 (1991).
- Borgatta, L., J. Watras, A.M. Katz, B.E. Ehrlich. Regional differences in calcium release channels from heart. *Proceedings of the National Academy of Sciences* 88: 2486-2489 (1991).

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Papers (continued)

- Bezprozvanny, I., Watras, J., B.E. Ehrlich. Bell-shaped calcium responses of inositol 1,4,5-trisphosphate-gated and calcium-gated channels from endoplasmic reticulum of cerebellum. *Nature* 351: 751-754 (1991).
- Lee, Y.S., K. Ondrias, A.J. Duhl, B.E. Ehrlich, D.H. Kim. A comparison of calcium release from sarcoplasmic reticulum of slow and fast twitch muscles. *Journal of Membrane Biology* 122: 155-163 (1991). Watras, J., I. Bezprozvanny, B.E. Ehrlich. Inositol 1,4,5-trisphosphate-gated channels in cerebellum: presence of multiple conductance states. *Journal of Neuroscience* 11: 3239-3245 (1991).
- Bernal, J. and B.E. Ehrlich. Guanine nucleotides modulate calcium currents in a marine *Paramecium*. *Journal of Experimental Biology* 176: 117-133 (1993).
- Bezprozvanny, I., K. Ondrias, E. Kaftan, D. Stoyanovsky, B.E. Ehrlich. Activation of the calcium release channel (ryanodine receptor) by heparin and other polyanions is calcium dependent. *Molecular Biology of the Cell* 4: 347-352 (1993).
- Bezprozvanny, I. and B.E. Ehrlich. ATP modulates the function of inositol 1,4,5-trisphosphate-gated channels at two sites. *Neuron* 10: 1175-1184 (1993).
- Bezprozvanny, I., S.G. Bezprozvannaya, and B.E. Ehrlich. Caffeine-induced inhibition of inositol 1,4,5-trisphosphate-gated calcium channels from canine cerebellum. *Molecular Biology of the Cell* 5: 97-103 (1994).
- Brillantes, A-M.B., K. Ondrias, A. Scott, E. Kobrinsky, E. Ondriasova, M.C. Moschella, T. Jayaraman, M. Landers, B.E. Ehrlich, A.R. Marks. Stabilization of the calcium release channel (ryanodine receptor) function by FK-506 binding protein. *Cell* 77: 513-523 (1994).
- Bezprozvanny, I. and B.E. Ehrlich. Inositol (1,4,5)-trisphosphate (InsP₃)-gated Ca channels from cerebellum: conduction properties for divalent cations and regulation by intraluminal calcium. *Journal of General Physiology* 104: 821-856 (1994).
- Kaftan, E.J., A.R. Marks, B.E. Ehrlich. Effects of rapamycin on ryanodine receptor/calcium release channels from cardiac muscle. *Circulation Research* 78: 990-997 (1996).
- Strigow, F. and B.E. Ehrlich. Inositol (1,4,5)-trisphosphate receptor of cerebellum: Mn²⁺ permeability and regulation by cytosolic Mn²⁺. *Journal of General Physiology* 108: 115-124 (1996).
- Quinn, K.E. and B.E. Ehrlich. Methanethiosulfonate derivatives inhibit current through the ryanodine receptor/channel. *Journal of General Physiology* 109: 255-264 (1997).
- Strigow, F. and B.E. Ehrlich. Regulation of intracellular calcium release channel function by arachidonic acid and leukotriene B₄. *Biochemical and Biophysical Research Communications* 237: 413-418 (1997).

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Papers (continued)

- Kaftan, E.J., B.E. Ehrlich, J. Watras. Inositol (1,4,5)-trisphosphate (InsP₃) and calcium interact to increase the dynamic range of InsP₃ receptor-dependent calcium signaling. *Journal of General Physiology* 110: 529-538 (1997).
- Quinn, K.E., L. Castellani, K. Ondrias, and B.E. Ehrlich. Characterization of the ryanodine receptor/channel of invertebrate muscle. *American Journal of Physiology* 274: R494-R502 (1998).
- Hagar, R.E., A.D. Burgstahler, M.H. Nathanson, and B.E. Ehrlich. Type III InsP₃ receptors stay open in the presence of increased calcium. *Nature* 396: 81-84 (1998).
- Zecevic, N. A. Milosevic, B.E. Ehrlich. Heterogeneity of Purkinje cells in human fetal cerebellum revealed by calcium signaling molecules. *Early Human Development* 54(2):103-116 (1999).
- Moraru, I., E.J. Kaftan, B.E. Ehrlich, J. Watras. Regulation of type 1 InsP₃-gated calcium channels by InsP₃ and calcium: Simulation of single channel kinetics based on ligand binding and electrophysiological analysis. *Journal of General Physiology* 113: 837-849 (1999).
- Hagar, R.E. and B.E. Ehrlich. Regulation of the type III InsP₃ receptor by InsP₃ and ATP. *Biophysical Journal* 79: 271-278 (2000).
- Koulen, P and B.E. Ehrlich. Reversible block of the calcium release channel/ryanodine receptor by protamine, a heparin antidote. *Molecular Biology of the Cell* 11: 2213-2219 (2000).
- Koulen, P., T. Janowitz, L.D. Johnston, B.E. Ehrlich. Conservation of localization of IP₃ receptor type 1 in cerebellar Purkinje cells across vertebrate species. *Journal of Neuroscience Research* 61:493-499 (2000).
- Koulen, P., T. Janowitz, F. Jochenning, B.E. Ehrlich. Characterization of the ryanodine receptor from Zebrafish. *Journal of Membrane Biology*. 183:155-163 (2001).
- Koulen, P, Y. Cai, L. Geng, Y. Maeda, R. Witzgall, B.E. Ehrlich, S. Somlo. Polycystin-2 functions as an intracellular calcium release channel. *Nature Cell Biology* 4:191-197 (2002).
- Thrower, E.C., H.S. Park, S.H. So, S.H. Yoo, and B.E. Ehrlich. Activation of the InsP₃R Ca channel by the Ca storage protein chromogranin A. *Journal of Biological Chemistry* 277:15801-6 (2002)
- O'Neill, A.F., R.E. Hagar, W.R. Zipfel, M.H. Nathanson, B.E. Ehrlich. Regulation of the type III InsP₃ receptor by InsP₃ and calcium. *Biochemical and Biophysical Research Communications* 294:719-25 (2002).

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Papers (continued)

- Johenning, F.W., M. Zochowski, S.J. Conway, A.B. Holmes, P. Koulen, and B.E. Ehrlich. Distinct intracellular calcium transients in neurites and somata integrate neuronal signals. *Journal of Neuroscience* 22:5344-5353 (2002).
- Pusl, T., J.J. Wu, T.L. Zimmermann, L. Zhang, B.E. Ehrlich, J. B. Hoek, M. Berchtold, S. Karpen, M.H. Nathanson, and A.M. Bennett. EGF-mediated activation of the ETS-domain transcription factor Elk-1 requires nuclear Ca²⁺. *Journal of Biological Chemistry* 277:27517-27527 (2002).
- Q-X. Jiang, E.C. Thrower, D.W. Chester, B.E. Ehrlich, and F. J. Sigworth. Three-dimensional structure of type I inositol-1,4,5-triphosphate receptor at 24 Å resolution. *EMBO Journal* 21:1-7 (2002).
- Leite, W.F., E.C. Thrower, W. Echevarria, P. Koulen, K. Hirata, A. Bennett, B.E. Ehrlich, and M.H. Nathanson. Nuclear and cytosolic calcium are regulated independently. *Proceedings of the National Academy of Sciences* 100: 2975-2980 (2003).
- Anyatonwu, G., E.D. Buck, B.E. Ehrlich. MTSEA block of amine currents through the ryanodine receptor reveals single pore architecture. *Journal of Biological Chemistry* 278: 45528-45538 (2003).
- Thrower, E.C., C.U. Choe, S.H. So, B.E. Ehrlich, S.H. Yoo. A functional interaction between chromogranin B and the inositol 1,4,5-trisphosphate receptor. *Journal of Biological Chemistry* 278: 49699-49706 (2003).
- Cai, Y., G. Anyatonwu, D. Okuhara, K. Lee, Z. Yu, T. Onoe, C. Mei, Q. Qian, L. Geng, R. Witzgall, B.E. Ehrlich, S. Somlo Calcium Dependence of Polycystin-2 Channel Activity Requires Phosphorylation at Ser⁸¹² *Journal of Biological Chemistry* 279:19987-95 (2004).
- Johenning, F.W., M.R. Wenk, P. Uhlen, B. DeGray, E. Lee, P. De Camilli, B.E. Ehrlich. Expression of synaptojanin-1 alters InsP₃-mediated intracellular calcium signaling. *Biochemical Journal* 382: 687-94 (2004).
- Choe, C.U., K. Harrison, W. Grant, B.E. Ehrlich. Coupling of chromogranin with the inositol 1,4,5-trisphosphate receptor shapes calcium signaling. *Journal of Biological Chemistry* 279:35551-6 (2004).
- Zielinski, C.E., S.N. Jacob, B.E. Ehrlich, J. Craft Naïve CD4⁺ T cells from lupus-prone Fas-intact MRL mice display TCR-mediated hyperproliferation due to intrinsic threshold defects in activation *Journal of Immunology* 174:5100-9 (2005).

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Papers (continued)

- Jacob, S.N., C.U. Choe, M. P. Uhlen, B DeGray, Yeckel, B.E. Ehrlich. Signaling micro-domains regulate InsP₃-mediated intracellular Ca²⁺ transients in neurons. *Journal of Neuroscience* 25:2853-2864 (2005).
- Anyatonwu, G. and B.E. Ehrlich. Organic cation permeation through the channel formed by polycystin-2. *Journal of Biological Chemistry* 280: 29488-93 (2005).
- Marius, P, M.T. Guerra, M.H. Nathanson, B.E. Ehrlich, M.F. Leite. Calcium release from ryanodine receptors in the nucleoplasmic reticulum. *Cell Calcium* 39: 65-73 (2005).
- Estrada, M., P. Uhlen, B.E. Ehrlich. Testosterone induces rapid inositol 1,4,5 trisphosphate-dependent calcium oscillations. *Journal of Cell Science* 119: 733-743 (2006).
- Grant, W, B.E. Ehrlich, M.H. Nathanson, A.M. Bennett. Suppression of nuclear and cytosolic calcium signaling by targeted expression of calretinin. *Calcium Binding Proteins* 1:3-7 (2006)
- Uhlen, P., P. Burch, C.I. Zito, M. Estrada, B.E. Ehrlich and A.M. Bennett. Enhanced Calcium Oscillatory Frequency by *PTPN11*/SHP-2-associated Noonan Syndrome Mutation Impairs NFAT Signaling *Proceedings of the National Academy of Sciences* 103: 2160-2165 (2006).
- Gibson, T.B. M.C. Lawrence, C.J. Gibson, C.A. Vanderbilt, K. McGlynn, D. Arnette, W. Chen, J. Collins, B.E. Ehrlich, and M.H. Cobb. Inhibition of glucose-stimulated activation of extracellular-signal regulated protein kinases (ERKs) 1 and 2 by epinephrine in pancreatic beta-cells. *Diabetes* 55: 1066-73 (2006).
- Schlecker, C., W. Boehmerle, A. Jeromin, B. DeGray, K., A. Varshney, Y. Sharma, Szigeti-Buck, and B.E. Ehrlich. Enhancement of InsP₃ receptor activity by neuronal calcium sensor-1 is inhibited by therapeutic levels of lithium. *Journal of Clinical Investigation*, 116: 1668-74 (2006).
- Estrada, M., A. Varshney, and B.E. Ehrlich. Elevated testosterone induces apoptosis. *Journal of Biological Chemistry* 281: 25492-501 (2006).
- Boehmerle, W., U. Splittgerber, M.B. Lazarus, K.M. McKenzie, D.G. Johnston, D.J. Austin and B.E. Ehrlich. Paclitaxel induces calcium oscillations in neuronal cultures via an InsP₃ receptor and NCS-1 dependent Mechanism. *Proceedings of the National Academy of Sciences* 103(48):18356-61 (2006).

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Invited Reviews:

- Ehrlich, B.E., J.M. Diamond, C. Clausen, L. Gosenfeld, and S. Kaufman-Diamond. The red cell membrane as a model for studying lithium's therapeutic action. in *Lithium: Controversies and Unresolved Issues*. T.B. Cooper, S. Gershon, N.S. Klein, M.Schou (Eds.), Amsterdam: Excerpta Medica (1979), pp 758-767.
- Ehrlich, B.E. and J.M. Diamond. Lithium, membranes, and manic-depressive illness. *Journal of Membrane Biology* 52: 187-200 (1980).
- Gosenfeld, L., B.E. Ehrlich, J.M. Diamond. Affective disorders and lithium. in *Psychiatric Research in Practice: Biobehavioral Themes*. E.A. Serafetinides (ed.), New York: Grune and Stratton (1981), pp 85-100.
- Ehrlich, B.E. and M. Forte. Calcium channels incorporated into planar lipid bilayers: phenomenology, pharmacology, and phylogeny. in: *Ion Channel Modulation*. eds. A.D. Grinnel, D.L. Armstrong, and M.B. Jackson, Plenum Press, NY (1988), pp 33-41.
- Ehrlich, B.E. Incorporation of ion channels in planar lipid bilayers: How to make bilayers work for you. in: *The Heart and Cardiovascular System*, 2nd edition. eds. H.A. Fozzard, E. Haber, R. Jennings, A.M. Katz and H. Morgan, Raven Press, NY (1991), pp 551-560.
- Ehrlich, B.E. Planar lipid bilayers on patch pipets: Methods for bilayer formation and ion channel incorporation. in: *Ion Channels (a volume of Methods in Enzymology)*. eds. B. Rudy and L.E. Iverson, Academic Press, Orlando (1992), pp 463-470.
- Ehrlich, B.E., E. Kaftan, S. Bezprozvannaya, I. Bezprozvanny. A new look at the pharmacology of intracellular calcium release channels. *Trends in Pharmacological Sciences* 15: 145-149 (1994).
- Bezprozvanny, I. and B.E. Ehrlich. The InsP_3 receptor: functional properties and regulation. in: *Handbook of Membrane Channels*. ed. C. Peracchia, Academic Press, Orlando (1994), pp 511-526.
- Ehrlich, B.E. and I. Bezprozvanny. Intracellular calcium release channels. *Chinese Journal of Physiology* 37: 1-7 (1994).
- Bezprozvanny, I. and B.E. Ehrlich. The inositol 1,4,5-trisphosphate (InsP_3) receptor. *Journal of Membrane Biology* 145: 205-216 (1995).
- Ehrlich, B.E. Functional properties of intracellular calcium-release channels. *Current Opinion in Neurobiology* 5: 304-309 (1995).
- Ehrlich, B.E. and A.R. Marks. Regulation of the calcium release channel. in: *Ryanodine Receptors*. ed. V. Sorrentino, CRC Press, Boca Raton (1996), pp 17-30.
- Strigow, F. and B.E. Ehrlich. Ligand-gated channels inside and out. *Current Opinion in Cell Biology* 8: 490-495 (1996).

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Invited Reviews (continued)

Hagar, R.E. and B.E. Ehrlich. Regulation of the type III InsP₃ receptor and its role in beta cell function. Cellular and Molecular Life Sciences. 57:1938-49 (2000).

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