

Ana Y. Estevez, Ph.D.
Curriculum Vitae

Professor
Biology and Psychology Departments
Sarah Johnson '82 Professor in the Sciences
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St. Lawrence University
23 Romoda Drive
Canton, NY 13617
315- 229-5809

EDUCATION:

1999 Ph.D. Wayne State University School of Medicine, Detroit, MI
1994 B.S. Psychobiology, Binghamton University, Binghamton, NY, *Cum Laude*

PREVIOUS POSITIONS:

2011-2020 Associate Professor, Biology and Psychology Departments, St. Lawrence University
2005-2011 Assistant Professor, Biology and Psychology Departments, St. Lawrence University
2003-2005 Research Assistant Professor, Anesthesiology Research Division, Vanderbilt University
1999-2003 Postdoctoral Fellow, Anesthesiology Research Division, Vanderbilt University

UNDERGRADUATE COURSES REGULARLY TAUGHT:

Introduction to Neuroscience, Advanced Neuroscience, Cellular Mechanisms of Memory, Current Topics in Neuroscience, Drugs and the Brain, Neuroscience of Fear (summer course offered abroad)

FELLOWSHIPS AND GRANTS:

Since appointment at St. Lawrence University; ¹post-tenure

'2016 NSF Major Research Instrumentation Grant: 'Acquisition of a Laser Scanning Confocal Microscope for Research and Teaching in the Biological Sciences' submitted by Joseph S. Erlichman, Ana Y. Estevez, Michael Temkin, and Cintia Hongay (Clarkson University). \$282,390
'2015 St. Lawrence University Faculty Research Fellowship Award (a.k.a. Large Grant) to assist with laboratory supplies and testing expenses related to research on the biological effects of cerium oxide nanoparticles in cultured neurons. \$3000
2010 NSF Major Research Instrumentation Grant: 'Acquisition of High Performance Computer and Microarray Scanner for Interdisciplinary Research in Computer Science and Biology at St. Lawrence University' submitted by Richard Sharp, Ana Y. Estevez, Edwin Harcourt, Emily H. Dixon, Lorraine C. Olendzenski. \$179, 336
2007-2009 Merck/AAAS Undergraduate Science Research Program (USRP) – In conjunction with Dr. Larry French (Chemistry), contributing one of three projects to mentor undergraduate research at the interface of biology and chemistry. Project Title: Diversity Oriented

Synthesis of Potential Vanilloid Receptor Ligands and an Analysis of Their Effectiveness Using a Nematode Behavioral Assay. \$60,000 for all three projects and ancillary activities

2006-2007 National Science Foundation Research Starter Grant, 'Physiological role of TRPC channels in *C. elegans*'. \$22,500.

Prior to appointment at St. Lawrence University

2003-2005 National Institutes of General Medical Sciences- MORE Institutional Research and Academic Career Development Award (IRACDA) Fellowship (K12)

2000-2003 National Science Foundation Postdoctoral Fellowship, \$150,000.

INVITED LECTURES:

Since appointment at St. Lawrence University; ¹post-tenure

¹2018 Nanoparticles and Neuroprotection, Faculty Café Series, St. Lawrence University

¹2015 Nanoparticles and Neuroprotection – Lightning Chat
Laurentians for Life Learn Day, St. Lawrence University

¹2014 Neurocognitive Enhancement
Laurentian Engagement Lecture Series, St. Lawrence University

¹2012 Science's Top Models, Faculty Café Series, St. Lawrence University

¹2011 Cerium oxide nanoparticles for the treatment of oxidative stress disease
Clarkson University Biology Department Seminar Series

Science's Top Models, Science Café Series, Potsdam NY

2010 Antioxidant effects of cerium oxide nanoparticles in an in-vitro mouse hippocampal brain slice model of ischemia
Symposium: Oxidative stress and antioxidants: diagnosis and therapy 37th Northeast Regional Meeting of the American Chemical Society

2009 Using the nematode *C. elegans* to assay the effectiveness of novel anti-nociceptive compounds targeting transient receptor potential vanilloid 1 (TRPV1) channels.
Upstate N.Y. *C. elegans* Meeting, Syracuse NY

2007 Using *C. elegans* to study transient receptor potential (TRP) channels: what worms sensing hot peppers can tell us about pain, Colgate University Biology Department

2006 Oscillatory calcium signaling in the *C. elegans* intestine
Calcium and Cell Function - FASEB Summer Research Conference

Prior to appointment at St. Lawrence University

2004, 2005 "Effective Poster Presentations", Vanderbilt Summer Science Academy

"Using *C. elegans* to Study Oscillatory Ca²⁺ signaling"
Biology Department, Medgar Evers College, NY (November 2004)
University of Puerto Rico, Cayey Campus (March 2004)
University of Puerto Rico, Mayaguez Campus (March 2004)

2003 "Staying Regular: Electrophysiological Characterization of Ca²⁺-selective Currents in Cultured *C. elegans* Intestinal Epithelial Cells"
Spelman College Biology Department/RIMI Seminar Series

AWARDS:

Since appointment at St. Lawrence University (1st post-tenure)

2015 Sarah Johnson '82 Professorship in the Sciences

2008 J. Calvin Keene Award, St. Lawrence University, in recognition of high standards of personal scholarship, effective teaching, and moral concern

Prior to appointment at St. Lawrence University

2003 Society of General Physiologists Travel Award

1999 Distinguished Dissertation Award, Wayne State University

1998 2nd Place, Oral Presentation, Wayne State University Graduate Student Research Day

1997-1999 NIDDK Minority Travel Award, American Physiological Society

1998-2000 Society for Neuroscience Minority Travel Award

1998 Anthonie Van Harreveld Award, CNS Section, American Physiological Society

1998 Volunteer Recognition Award, Children's Center of Detroit

1994, 1996 Thomas C. Rumble Fellowship, Wayne State University

1994 Latino/Latina Achievement Award, Binghamton University

1992-1994 National Hispanic Scholarship Fund

SOCIETY MEMBERSHIPS:

American Physiological Society (APS), Society for Neuroscience (SfN), Society for Redox Biology and Medicine, Golden Key National Honor Society

PROFESSIONAL ACTIVITIES:

2019 *Ad-hoc* Reviewer for Society for Redox Biology and Medicine Abstracts

External Examiner, Ph.D. Thesis:

Maurish Bukhari, Clarkson University: "Utilization of ion channels to enhance permeation of chemotherapeutic drugs; and the role of intermediate conductance calcium activated potassium channel KCa3.1 in cervical squamous cell carcinoma in vitro", mentor: Dr. Damien Samways

Antonio Rockwell, Clarkson University: "Dm Ime4 regulates Chic splicing in *Drosophila* spermatogenesis", mentor: Dr. Cintia Hongay

2017 Ph.D. Proposal Committee Member, Antonio Rockwell, Clarkson Univ. Biology Dept.

2017-2019	Porter Physiology Development & Minority Affairs Committee, APS
2018	<i>Ad-hoc</i> reviewer for Materials Express (2015 RG Impact Factor: 1.64)
2017	<i>Ad-hoc</i> reviewer for Nanomedicine (2016 ISI Impact Factor: 5.720)
2016	<i>Ad-hoc</i> reviewer for: ACS Nano (ISI Impact Factor 13.334) Mini Reviews in Medicinal Chemistry (ISI Impact Factor: 2.903) International Journal of Molecular Sciences (ISI Impact Factor: 3.257) Society for Redox Biology and Medicine Abstracts
2015	<i>Ad-hoc</i> reviewer for: Chemical Communications (ISI 2010 Impact Factor: 6.718) Royal Society of Chemistry (RSC) Advances (ISI Impact Factor: 3.84) French National Research Agency
2014	<i>Ad-hoc</i> reviewer for Pharmaceutical Research (ISI 2012 Impact Factor: 4.742)
2013	Co-Chair of oral presentation session on “Neuroscience and Inflammation” at 20 th annual Society of Free Radical Biology and Medicine
2013	<i>Ad-hoc</i> reviewer for Experimental Eye Research (ISI 2013 IF: 3.06)
2012	<i>Ad-hoc</i> reviewer for: International Journal of Nanomedicine (ISI 2010 IF: 4.976) Chemical Communications (ISI 2010 Impact Factor: 5.787)
2011-2013	<i>Ad-hoc</i> reviewer for Society of Free Radical Biology and Medicine Abstracts
2002-2003	Co-Chair, Vanderbilt University Postdoctoral Association
2000-2002	Committee member, Vanderbilt University Postdoctoral Association

UNIVERSITY COMMITTEES AND SERVICE:

2020	Co-Chair, Experience St. Lawrence Task Force
2019	Search Committee Member: Physics Tenure Track Search and Bookstore Director
2018-2019	Chair, Faculty Council
2018	Strategic Budgeting Coordinating Committee
2017-2018	Vice-Chair, then Chair, Faculty Council
2016-2017	Public Health Minor Working Group
Spr 2016	Festival of Science, Committee Chair
Spr 2016	Search Committee member, Men’s Ice Hockey Head Coach
Sum 2015	Title IX Summer Working Group
Spr 2015, Spr 2016	Admissions Summer Intern Selection Committee

Spr 2015	Laurentian For Life Week – Committee member for “Laurentians Learn Day”
2014-2017	Sexual Misconduct, Domestic Violence, Dating Violence, and Stalking Review Board
Sum 2014 -Fall 2014	Title IX Task Force
2013- present	North Country Ambassador
2013-2016	DIS Study Abroad Campus Coordinator
2011-2013	Secretary, Faculty Council
Fall 2010-2014	Special Hearing Board
Spr 2009	CSTEP Symposium Panelist
2007 – 2009	Faculty Council Member
Spr 2007	Diversity Task Force
2006 – 2016	Advisor, Beta Beta Beta Biology Honorary
Spr 2006 – present	Health Careers Committee

ANCILLARY ACTIVITIES:

January 2018	Rotary Club – Neurobiology of Pain presentation
2015-present	Campus Kitchens Volunteer (when students are on break)
2015	Class Presenter for North Country’s Lifelong Learning Community Group (SOAR) – ‘The Neurobiology of Pain’
2014	Taught an after school enrichment class for Banford Elementary 2 nd graders Title: “The Science of the Senses”
2014	Hosted workshop on the Brain for Liberty Partnership Program
2009-2016	Coordinator, Brain Blast, Science Outreach Activity for Brain Awareness Week
2009-2010	Volunteer, St. Lawrence University Habitat for Humanity
2004-2005	Volunteer, Frist Center for the Visual Arts, Nashville TN
2001-2005	Mentor, Vanderbilt University Medical Center Youth Mentoring Program
2001	Volunteer, Vanderbilt University Medical Center Habitat for Humanity

STUDENT RESEARCH:

Undergraduate students are an integral part of my research program, and I typically have several working with me every semester as part of their senior year experience or honors project. Students also work with me during the summer, either as a SLU Fellow or C-STEP/McNair Scholar. They get to present their work at Family Weekend or

the Festival of Science. In addition, several of my research students are also included as co-authors on abstracts presented at national meetings or peer-review research publications (as indicated by the * in the lists below).

PEER-REVIEWED JOURNAL ARTICLE PUBLICATIONS:

Google Scholar Profile Page: <https://scholar.google.com/citations?hl=en&user=vDrvm2oAAAAJ>

Since appointment at St. Lawrence University (*Denotes undergraduate student author; †post-tenure)

1. † Heckman, K.L., **Estevez, A.Y.**, DeCoteau, W., *Vangellow, S., *Ribeiro, S., *Chiarenzelli, J., Hays-Erlichman, B., Erlichman, J.S., Variable in vivo and in vitro biological effects of cerium oxide nanoparticle formulations. *Frontiers Pharmacology*, 10:1599, doi: 10.3389/fphar.2019.01599, 2020. (Impact Factor 2018 3.845)
2. † **Estevez, A.Y.**, Ganesana, M., Trentini, J.F., Olson, J.E., Li, G., *Boateng, Y.O., *Lipps, J.M., *Yablonski, S.E.R., Leiter, J.C., Erlichman, J.S., Antioxidant enzyme-mimetic activity and neuroprotective effects of cerium oxide nanoparticles stabilized with various ratios of citric acid and EDTA, *Biomolecules* 9(10), 562; doi:10.3390/biom9100562, 2019. (Impact Factor 2018 4.694)
3. † DeCoteau W., Heckman K.L., **Estevez A.Y.**, Reed K.J., Costanzo W., Sanford, D., *Studlack, P., *Clauss, J., *Nichols, E., *Lipps, J., *Parker, M., Hays-Erlichman, B., Leiter, J.C., Erlichman, J.S., Cerium oxide nanoparticles with antioxidant properties ameliorate strength and prolong life in mouse model of amyotrophic lateral sclerosis. *Nanomedicine* 12:2311-2320, 2016. (Impact Factor 2018: 4.717)
4. † Heckman, K.L., DeCoteau, W., **Estevez, A.**, Reed, K.J., Costanzo, W., Sanford, D., Leiter, J.C., *Clauss, J., *Knapp, K., *Gomez, C., *Mullen, P., *Rathbun, E., *Prime, K., *Marini, J., *Patchefsky, J., Patchefsky, A.S., Hailstone, R.K., Erlichman, J.S., Custom cerium oxide nanoparticles protect against a free radical mediated autoimmune degenerative disease in the brain. *ACS Nano* 7, 10582-10596, 2013. (ISI Impact Factor 2012: 12.062)
5. **Estevez, A.Y.**, *Lynch, A., *Lucky, J., *Ludington, J., *Mosenthal, W., *Pritchard, S., Andreescu, S., Leiter, J.C., and Erlichman, J.S., Neuroprotective effects of cerium oxide nanoparticles in a mouse hippocampal brain slice model of ischemia, *J. Free Rad. Biol.Med.* 51 (6):1155-1163, 2011. (ISI Impact Factor 2009: 6.081)
6. Xing, J., Yan, X., **Estevez, A.Y.** and Strange, K., Highly Ca²⁺-selective TRPM channels regulate IP₃-dependent oscillatory Ca²⁺ signaling in the *C. elegans* intestine. *J. Gen. Physiol.*, 131: 245-255, 2008. (ISI Impact Factor 2008: 4.71)
7. Yan, X., Xing, J., Lorin-Nebel, C., **Estevez, A.Y.**, Nehrke, K., Lamitina, T. and Strange, K., Function of a STIM1 Homologue in *C. elegans*: Evidence that store-operated Ca²⁺ entry is not essential for oscillatory Ca²⁺ signaling and ER Ca²⁺ homeostasis. *J. Gen. Physiol.*, 128: 443-459, 2006. (ISI Impact Factor 2008: 4.71) **Highlighted in the issue**

Prior to appointment at St. Lawrence University

8. Espelt, M.V., **Estevez, A.Y.**, Yin, X. and Strange, K., Oscillatory Ca²⁺ signaling in the isolated *Caenorhabditis elegans* intestine: role of the inositol-1,4,5-trisphosphate receptor and phospholipases C beta and gamma, *J. Gen. Physiol.*, 126: 379-392, 2005.
9. **Estevez, A.Y.** and Strange, K., Calcium feedback mechanisms regulate oscillatory activity of a TRP-like Ca²⁺ conductance in *C. elegans* intestinal cells, *J. Physiol.*, 567: 239-251, 2005.

10. **Estevez, A.Y.**, Roberts, R.K. and Strange, K., Identification of store-independent and store-operated Ca^{2+} conductances in *C. elegans* intestinal epithelial cells, *J. Gen. Physiol.*, 122: 207-223, 2003.
Cited as a "Must Read" by the Faculty of 1000 Biology: <http://www.f1000biology.com/article/id/1008651/evaluation>
11. Christensen, M., **Estevez, A.**, Yin, X., Fox, R., Morrison, R., McDonnell, M., Gleason, C., Miller, D.M., Strange, K., A primary culture system for functional analysis of *C. elegans* neurons and muscle cells. *Neuron*, 33: 503-14, 2002.
Cited as a "Must Read" by the Faculty of 1000 Biology: <http://www.f1000biology.com/article/id/1004388/evaluation>
12. **Estevez, A.Y.**, Bond, T. and Strange, K., Regulation of $\text{I}_{\text{Cl, swell}}$ in neuroblastoma cells by G protein signaling pathways. *Am. J. Physiol.*, 281: C89-98, 2001.
13. **Estevez, A.Y.**, O'Regan, M.H., Song, D. and Phillis, J.W., Effects of the anion channel blocker DIDS on ouabain- and high K^{+} -induced release of amino acids from the rat cerebral cortex. *Brain Res Bull.*, 52: 45-50, 2000.
14. **Estevez, A.Y.**, O'Regan, M.H., Song, D. and Phillis, J.W., Hyposmotically-induced amino acid release from the rat cerebral cortex: role of phospholipases and protein kinases. *Brain Res.*, 844: 1-9, 1999.
15. Phillis, J.W., **Estevez, A.Y.**, Guyot, L.L., O'Regan, M.H., 5-(N-Ethyl-N-isopropyl)-amiloride, an $\text{Na}^{+}/\text{H}^{+}$ exchange inhibitor, protects gerbil hippocampal neurons from ischemic injury. *Brain Res.*, 839: 199-202, 1999.
16. **Estevez, A.Y.**, O'Regan, M.H., Song, D. and Phillis, J.W., Effects of anion channel blockers on hypototically induced amino acid release from the *in vivo* rat cerebral cortex. *Neurochem. Res.*, 24: 447-452, 1999.
17. Phillis, J.W., **Estevez, A.Y.** and O'Regan, M.H., Protective effects of the free radical scavengers dimethyl sulfoxide and ethanol, in cerebral ischemia in gerbils. *Neurosci. Lett.* 244: 109-111, 1998.
18. **Estevez, A.Y.** and Phillis, J.W., Hypercapnia-induced increases in cerebral blood flow: roles of adenosine, nitric oxide and cortical arousal. *Brain Res.*, 758: 1-8, 1997.
19. **Estevez, A.Y.** and Phillis, J.W., The phospholipase A_2 inhibitor, quinacrine, reduces infarct size in rats after transient middle cerebral artery occlusion. *Brain Res.* 752: 203-208, 1997.
20. Phillis, J.W., O'Regan, M.H., **Estevez, A.Y.**, Song, D., and Vander Heide, S.J., Cerebral energy metabolism during severe ischemia of varying duration and following reperfusion. *J. Neurochem.* 16: 1525-1531, 1996.

INVITED REVIEWS or BOOK CHAPTERS:

Since appointment at St. Lawrence University ([†]post-tenure)

1. [†]**Estevez, A.Y.**, DeCoteau, W.E., Heckman, K.L., Erlichman J.S. Toward a synthetic view of the therapeutic use of cerium oxide nanoparticles for the treatment of neurodegenerative diseases, in *Oxidative Stress: Diagnostics, Prevention and Therapy*, 2nd Edition, Eds. E. Silvana Andreescu and M. Hempel, pp. 431-461, American Chemical Society, Washington, D.C., 2015. **peer reviewed**
2. [†] **Estevez, A.Y.**, Erlichman, J.S., The potential of cerium oxide nanoparticles (nanoceria) for neurodegenerative disease therapy, editorial, *Nanomedicine (Lond)* 9:1437-1440, 2014. (ISI Impact Factor 2013: 5.824)

3. **Estevez, A.Y.** and Erlichman, J.S., Cerium oxide nanoparticles for the treatment of neurological oxidative stress diseases, in *Oxidative Stress: Diagnostics, Prevention and Therapy*, Eds. E. Silvana Andreescu and M. Hempel, pp. 255-288, American Chemical Society, Washington, D.C., 2011. **peer reviewed**
4. Andreescu, S., Ornatska, M., Erlichman, J.S., **Estevez, A.**, Leiter, J., Biomedical applications of metal oxides, in *Fine Particles in Medicine and Pharmacy*, Ed. E. Matijevic, pp. 57-101, Springer, 2011.
5. **Estevez, A.Y.** and Strange, K., Genetic and molecular characterization of Ca²⁺ and IP₃ signaling in the nematode *Caenorhabditis elegans*, In *Calcium Signaling*, 2nd edition, ed. J.W. Putney, pp. 161-186, CRC Press, Florida, 2006.

ABSTRACTS:

Since appointment at St. Lawrence University (* Denotes undergraduate student author; [†]post-tenure)

1. [†]Farber-Krug, A.E., **Estevez, A.Y.**, Effects of different cerium oxide nanoparticle formulations on oxidative stress survival in the nematode *C. elegans*, *FASEB J.*, 31:959.7, 2020
2. **Estevez, A.Y.**, Stadler, B., Erlichman, J.S., Effects of 1% mouse serum on the catalase- and superoxide dismutase-mimetic activity of custom synthesized cerium oxide nanoparticles, *FASEB J.* 33:557.8, 2019
3. **Estevez, A.Y.**, *Boateng, Y., *Lipps, J., Stadler, B., Erlichman, J.S., Analysis of the antioxidant enzyme-mimetic activity and neuroprotective effects of cerium oxide nanoparticles stabilized with varying ratios of citric acid and EDTA, *FASEB J.* 32:740.3, 2018
4. **Estevez, A.Y.**, Stadler, B., Erlichman, J.S. In-vitro analysis of catalase-, oxidase- and SOD-mimetic activity of commercially available and custom-synthesized cerium oxide nanoparticles and assessment of neuroprotective effects in a hippocampal brain slice model of ischemia, *FASEB J* April 2017 31:693.5
5. **Estevez, A.Y.**, *Cuff, B., *Manning, M., Erlichman, J., Effects of various types of cerium oxide nanoparticles on *C. elegans* healthspan 17th International Conference on Oxidative Stress Reduction, Redox Homeostasis and Antioxidants, June 2016
6. **Estevez, A.Y.**, Hays-Erlichman, B., *Buckleitner, J., *McGray, T.M., *Miller, S., Stadler, B., Erlichman, J.S., Measurement of catalase and oxidase activity of custom-synthesized cerium oxide nanoparticles and assessment of their antioxidant effectiveness in a mouse hippocampal brain slice model of ischemia, 8th International Nanotoxicology Congress, June 2016
7. **Estevez, A.Y.**, *Self, Q.R., Erlichman, J.S., Effects of cerium oxide nanoparticles on glutamate-induced oxidative stress in an immortalized mouse hippocampal cell line, 15th International Conference on Oxidative Stress Reduction, Redox Homeostasis and Antioxidants, June 2015
8. **Estevez, A.Y.**, *Miller, S., *Self, Q.R., Erlichman, J.S., Assessment of catalytic activity and oxidation-reduction potential of custom-synthesized cerium oxide nanoparticles in cell-free systems and tissue, Society for Free Radical Biology and Medicine, 21st Annual meeting, November 2014
9. **Estevez, A.Y.**, *Wasserbauer, M., *Airoldi, B., *Alvin, J.W., Reed, K., Erlichman, J.S., Comparison of commercial and custom-synthesized cerium oxide nanoparticles in mitigating oxidative stress markers in the nematode *Caenorhabditis elegans*, Society for Free Radical Biology and Medicine, 20th Annual Meeting, November 2013

10. DeCoteau, W. E.; **Estevez, A. Y.**; *Leo-Nyquist, S.; Heckman, K.; Reed, K.; Erlichman, J. S. Ceria nanoparticles reduce disease severity in a mouse model of multiple sclerosis. TechConnect World Conference and Expo 2011
 11. [†]*Alvin JW, Erlichman JS, **Estevez AY** (2011) Effects of cerium oxide nanoparticles on wild-type and superoxide dismutase deletion mutant strains of *Caenorhabditis elegans*. The FASEB Journal 25:831.19.
 12. [†]*Mosenthal W, *Nieves MD, *Beideck A, Erlichman JS, **Estevez AY** (2011) Neuroprotective mechanisms of cerium oxide nanoparticles. The FASEB Journal 25:639.8.
 13. **Estevez, A.Y.**, *Chatani, P., *Ludington, J., *Lynch, A., *Mosenthal, W., Andreescu, E.S., Leiter, J.C., Erlichman, J.S., Neuroprotective effects of cerium oxide nanoparticles in an in-vitro mouse hippocampal brain slice model of ischemia, TechConnect World 2010 Conferences & Expo, Abstract# 1891, 2010.
 14. *Mosenthal, W.P, *Lynch, A., Andreescu, E.S., Erlichman, J.S., and **Estevez, A.Y.**, Neuroprotective properties of cerium oxide nanoparticles, 37th Northeast Regional Meeting of the American Chemical Society, Abstract# 191, 2010.
 15. *Alvin, J.W., Erlichman, J.S., and **Estevez, A.Y.**, Effects of cerium oxide nanoparticles on wild-type and superoxide dismutase deletion mutant strains of *Caenorhabditis elegans*, 37th Northeast Regional Meeting of the American Chemical Society, Abstract# 407, 2010.
 16. **Estevez, A.Y.**, *Alvin, J.W., *Hamilton, K.L., Sanchez, C., *Chapp, A.D., and French, L.G., Evaluating the Effectiveness of Novel Transient Receptor Potential Vanilloid 1 (TRPV1) Ligands Using a *C. elegans* Bioassay. Soc. Neurosci. Abstr. # 761.15, 2009.
 17. Erlichman, J.S., **Estevez, A.Y.**, *Pritchard, S., *Aston, J., *Harper, K., *Delahanty, L., *Donovan, K., Leiter, J.C., The role of nitric oxide in the generation of reactive oxygen species following ischemia in mouse hippocampal slices. Soc. Neurosci. Abstr. # 834.5, 2008.
 18. *Hamilton, K.H., *Chapp, A.D., French, L.G., and **Estevez, A.Y.**, Using the nematode *C. elegans* to assay the effectiveness of novel anti-nociceptive compounds targeting transient receptor potential vanilloid 1 (TRPV1) channels. FASEB Journal 22: 945.5, 2008.
 19. Xing, J., Yan, X., **Estevez, A.**, and Strange, K., Highly Ca²⁺-selective TRPM channels regulate IP₃ dependent oscillatory Ca²⁺ signaling in the *C. elegans* intestine. FASEB Journal 22: 1201.15, 2008.
 20. **Estevez, A.Y.**, *Aucter, B., *Dirac, C., *Lepesqueur, T., *Marrero, A., and *Noyes, I., Role of the canonical transient receptor potential (TRP) ion channel, TRP-1, in *C. elegans* behaviors. FASEB Journal, 21: 604.7, 2007.
 21. Yan, X. Xing, J., Lorin-Nebel, C., **Estevez, A.**, Nehrke, K., Lamitina, T., Strange, K., Function of a STIM1 homologue in *C. elegans*: evidence that store-operated Ca²⁺ entry is not essential for oscillatory Ca²⁺ signaling and ER Ca²⁺ homeostasis. 16th International *C. elegans* Meeting, Abstract #586B, 2007.
 22. Yan, X., **Estevez, A.Y.**, He, L. and Strange, K., Function of STIM1 in *C. elegans* Ca²⁺ signaling pathways. FASEB Journal, 20: 785.9, 2006.
- Prior to appointment at St. Lawrence University
23. **Estevez, A.Y.** and Strange, K., Oscillatory activity of a *C. elegans* TRP-like Ca²⁺ conductance is regulated by intracellular Ca²⁺ feedback mechanisms. FASEB Journal, 19: 383.9, 2005.

24. Espelt, M.V., **Estevez, A.Y.** Baylis, H. and Strange, K., Oscillatory Ca^{2+} signaling in the *C. elegans* intestinal epithelium: role of the IP_3 receptor and PLC. *FASEB Journal*, 19: 383.10, 2005.
25. **Estevez, A.Y.**, and Strange, K., Changes in local intracellular Ca^{2+} concentration triggers Ca^{2+} current oscillations in *C. elegans* intestinal epithelial cells. *Society of General Physiologists Annual Meeting*, 2004.
26. **Estevez, A.Y.** and Strange, K., The outwardly rectifying Ca^{2+} conductance, I_{ORCa} , oscillates under physiological Ca^{2+} buffering conditions in cultured *C. elegans* intestinal epithelial cells. *FASEB Journal*, 18: 459.18, 2004.
27. Espelt, M.V., **Estevez, A.Y.** and Strange, K., Mechanisms of oscillatory Ca^{2+} signaling in the intestinal epithelium of the nematode *C. elegans*. *FASEB Journal*, 18: 459.17, 2004.
28. **Estevez, A.Y.** and Strange, K., Electrophysiological characterization of store-independent and store-dependent Ca^{2+} conductances in cultured *C. elegans* intestinal epithelial cells. *Society of General Physiologists Annual Meeting*, 2003.
29. **Estevez, A.Y.** and Strange, K., Characterization of store-independent and store-dependent Ca^{2+} conductances in cultured *C. elegans* intestinal epithelial cells. *14th International C. elegans Meeting*, Abstr. #409A, 2003.
30. **Estevez, A.Y.**, Roberts, R.K. and Strange, K., Staying regular: electrophysiological characterization of Ca^{2+} -selective currents in cultured *C. elegans* intestinal cells. *FASEB Journal*, 17:77.10, 2003.
31. **Estevez, A.Y.** and Strange, K. Functional characterization of a Ca^{2+} -selective ion channel in cultured *C. elegans* intestinal cells. *FASEB Journal*, 16: 622.9, 2002.
32. **Estevez, A.Y.**, Christensen, M., Fox, R., Morrison, R., Miller, D.M., and Strange, K., Functional characterization of cultured *C. elegans* body muscle cells and cholinergic motor neurons. *13th International C. elegans Meeting*, Abstr. #387, 2001.
33. **Estevez, A.Y.** and Strange, K., Identification of volume-sensitive anion currents in the model organism *Drosophila melanogaster*, *FASEB Journal*, 15: 667.17, 2001.
34. **Estevez, A.Y.**, Bond, T. and Strange, K., Regulation of the swelling activated anion current, $I_{\text{Cl, swell}}$, by G protein signaling pathways, *FASEB Journal*, 15: 667.18, 2001.
35. **Estevez, A.Y.** and Strange, K., Activation of $I_{\text{Cl, swell}}$ in N1E115 neuroblastoma cells is regulated by G-proteins. *Soc. Neurosci. Abstr.*, 26: 671.12, 2000.
36. **Estevez, A.Y.** and Strange, K. ATP-independent activation of $I_{\text{Cl, swell}}$ by G-proteins in N1E115 neuroblastoma cells. *FASEB Journal*, 14: 103.2, 2000.
37. **Estevez, A.Y.**, O'Regan, M.H., Song, D. and Phillis, J.W., Role of phospholipases and protein kinases in hyposmotically-induced amino acid release from the rat cerebral cortex. *Soc. Neurosci. Abstr.*, 25: 128.19, 1999.
38. **Estevez, A.Y.**, O'Regan, M.H., Song, D. and Phillis, J.W., Ouabain and high K^+ -induced release of amino acids from the rat cerebral cortex. *FASEB Journal*, 13:1999.
39. **Estevez, A.Y.**, O'Regan, M.H., Song, D. and Phillis, J.W., Mechanisms of hyposmotically-induced amino acid release from the *in vivo* rat cerebral cortex. *FASEB Journal*, 12 (5): 5920, 1998.
40. **Estevez, A.Y.**, O'Regan, M.H., Song, D. and Phillis, J.W., Anion channel blockers and hyposmotically-induced amino acid release from rat cerebral cortex. *Soc. Neurosci. Abstr.*, 23: 540.15, 1997.

41. **Estevez, A.Y.** and Phillis, J.W., The phospholipase A₂ inhibitor, quinacrine, reduces infarct size in rats after focal ischemia. *FASEB Journal*, 11: 3612, 1997.