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EDUCATION & RESEARCH TRAINING

1997-2000: Postdoctoral training, University of Colorado Medical School, Pharmacology and Neuroscience
1996-1997: Postdoctoral training, University of California, Irvine, Neurobiology and Behavior
1990-1996: Ph.D., University of California (Irvine, CA) in Biology (Psychobiology)
1988-1990: Research Assistant: Boston University Medical School
1988: B.S., Tufts University (Medford, MA) in Biopsychology, *cum laude*

ACADEMIC APPOINTMENTS

2013-present Vernon Roosa Professor of Applied Science, Trinity College
2013-present Professor, Department of Psychology / Neuroscience Program, Trinity College
2007-2013 Associate Professor, Department of Psychology / Neuroscience Program, Trinity College
2009-2011 Charles A. Dana Research Associate Professor of Neuroscience and Psychology
2009-2010 Director, Neuroscience Program, Trinity College
2008 (Fall) Acting Director, Neuroscience Program, Trinity College
2006-present Adjunct, Neuroscience Department, University of Connecticut Health Center
2006-present Adjunct, Department of Pharmacology and Toxicology, University of Connecticut
2003-2007 Assistant Professor, Department of Psychology and Neuroscience Program, Trinity College
2001-2002 Adjunct, Neuroscience and Psychology, Regis University
2000-2003 Instructor (Faculty), Dept. of Pharmacology / Neuroscience Program, Univ. Colorado Denver
1996-1997: Instructor, University of California, Irvine, Neurobiology and Behavior (Psychobiology)

GRANTS, HONORS, AWARDS (SELECTED)

2015-2018 National Center for Complementary and Integrative Health (\$357,000, *co-I*; *PI*: D. Ruskin) AT008742 “*Metabolic Therapy to Relieve Pain: Ketogenic Diet and Adenosine*”
2015-2018 National Institute of Neurological Disease and Stroke (\$352,000; *PI*) NS 066392-2 “*Ketogenic diet-induced changes in the cerebrospinal fluid: biomarkers and mechanisms*”
2016-2017 National Institute of Neurological Disease and Stroke & National Center for Complementary and Integrative Health (\$15,000; *PI*) NS096938 *Fifth Global Symposium On Ketogenic Therapies*
2010-2015 National Institute of Neurological Disease and Stroke (\$1.786M; *PI* and *Lead institution on grant with D. Boison and J. Geiger*) NS 065975 “*The Role of Adenosine in Ketogenic Diet Therapy*”
2013-2014 Mellon Foundation, via Trinity College (\$10,000, *PI*) “*Fresh Food, New Connections*”
2009-2014 National Science Foundation RUI grant (\$494,000, *PI*) IOS-0843585 “*Physiological Regulation of ATP and Adenosine: Linking Metabolism to Neuronal Excitability*”
2010-2014 National Institute of Neurological Disease and Stroke (\$230,000, *PI*; *co-PI*: H. Blaise) NS 066392 “*Effects of a Ketogenic Diet on Regional Brain Energy and Plasticity*”
2010-2014 National Institute of Neurological Disease and Stroke (\$225,000, *co-PI*; *PI*: D. Ruskin) NS 065446 “*The Effects of Ketogenic Diets on Inflammation and Chronic Pain*”
2012 Trustee Award for Faculty Excellence, Trinity College
2010 Kavli Fellow, 2010 US Kavli Frontiers of Science Symposium
2009 Mary Simone Erskine Award for Excellence in Mentoring, Research Training and Scholarship
2009 Finalist, Connecticut Woman of Innovation, Community Innovation

2008-2010 Full salary fellowship for Masahito Kawamura, MD/PhD, Jikei University, visiting faculty
2008-2010 National Institute of Neurological Disease and Stroke grant supplement (\$38,400, PI)
2007-2010 National Institute of Neurological Disease and Stroke (\$222,000, PI)
NS 061290 "Modulation of Adenosine by Temperature, Oxygen and Glucose"
2008-2009 CHDI Research Discovery Award (\$71,000, PI)
2008 Howard Hughes Medical Institute Trinity College Institutional Grant, Faculty Sub-Award (\$4,000)
2008 Annette and Kingsbury Browne Leadership in Conservation Award
2008 Finalist, Connecticut Woman of Innovation, Academic Innovation
2007 Finalist, Connecticut Woman of Innovation, Research Innovation
2006-2007 Connecticut EpSCOR Grant (\$13,000, co-PI w/ C. Swart)
2005 Connecticut EpSCOR Grant (\$10,000, PI), Kellogg Educational Fund (\$5,000, PI)
2001-2007 National Institute of Neurological Disease and Stroke (\$800,000, PI)
NS 29173 "Adenosine and Modulation of Synaptic Transmission"
1995 Regents Dissertation Fellowship
1993-94 Committee of 1000 Graduate Fellowship
1992-94 National Institute of Mental Health Training Grant: MH-14599
1991-92 Ralph Waldo Gerard Fellowship
1990 National Science Foundation REU Summer Research Fellowship

PROFESSIONAL SERVICE AND APPOINTMENTS (SELECTED; RECENT AND ONGOING)

Associate Editor: *Frontiers in Molecular Neuroscience*
Special Issue: Metabolic Control of Brain Homeostasis

Review Editor: *Frontiers in Neuroscience, Neurology, Psychiatry, Pharmacology*

Journal reviewer: *(selected and recent): Autism Research, Biological Psychiatry, Brain Research, Current Neuropharmacology, Current Topics in Medicinal Chemistry, EBioMedicine, Epilepsia, Epilepsy Research, European Journal of Neuroscience, Expert Review of Neurotherapeutics, Frontiers (various), Hippocampus, Journal of Alzheimer's Disease, Journal of Neurobiology, Journal of Neurochemistry, Journal of Neurophysiology, Journal of Neuroscience, Journal of Pharmacology and Experimental Therapeutics, Journal of Physiology, Neuroscience, Neuropharmacology, Nutrition and Metabolism; Nutritional Neuroscience, Physiology and Behavior, Purinergic Signalling; The Open Neuroscience Journal, The Open Nutraceutical Journal*

Grant reviewer: *(selected and recent): Arizona Biomedical Research Commission, Autism Research, Biomedical and Biological Sciences Research Council, Canadian Institutes of Health Research (CIHR), CURE, Department of Defense, Epilepsy Research UK, Lennox Gastaut Syndrome Foundation, National Institutes of Health, National Science Foundation, Neurological Foundation of New Zealand, Volkswagen Foundation, The Thrasher Research Fund, Wellcome Trust*

2016-present Bicentennial Strategic Planning Committee, Trinity College
2016-present Scientific Review Committee, CURE (Citizens United for Research in Epilepsy)
2016-present Ombudsman, Trinity College
2015-present Lennox-Gastaut Syndrome Foundation Advisory Board
2014-present Faculty Liaison, Trinity College Community Garden
2013-2017 Scientific Organizing Committee, Global Symposium on Dietary Therapies
 Liverpool (2014) and Banff (2016)
2015-2016 Appointments and Promotions Appeals Committee
2015-2016 Faculty Mentor, Bantam Nest – "Minty"
2013-2014 Presidential Search Committee, Trinity College

2012-2014	Co-organizer, Ketogenic Diet Special Interest Group, American Epilepsy Society
2012-2013	Co-chair, Campus Climate Committee, Trinity College
2011-2012	Mellon Presidential Grant Planning Committee, Trinity College
2011	Retreat Committee, Trinity College
2010	Board Member, Trinity Institute for Interdisciplinary Studies
2009-2011	Outreach Chair, (NorthEast Under/graduate Research Organization for Neuroscience) (N.E.U.R.O.N.)
2009-2011	National Institutes of Health Study Section ZRG1-F03A: Neurodevelopment, Synaptic Plasticity, and Neurodegeneration
2009-2012	Program Committee, Society for Neuroscience
2009-2012, 2016	Faculty Research Committee, Trinity College (on leave AY 2010-2011)
2008-present	Summer Science Program Committee, Trinity College
2005-present	Steering Committee, N.E.U.R.O.N.
2005-2009	Board Member, Biomedical Engineering Alliance and Consortium (BEACON) Foundation
2004-present	Rodent Health Committee, Trinity College
2003-present	Institutional Animal Care and Use Committee (IACUC), Trinity College (Chair 2012-2014; Vice Chair 2016-present)

INVITED TALKS AND SYMPOSIA:

Upcoming:

2018: Purines (Brazil)

2018: Sixth Global Symposium on Ketogenic Therapies (Korea)

Recent and selected (~10 years):

2017: Metabolic Therapeutics (Tampa, FL)

“Brain Health and Homeostasis: Ketogenic Diet, Autism and Adenosine”

2017: NEURON (Quinnipiac University, Hamden, CT)

“Metabolism and Brain Health: Back to the Future” (Keynote)

2016: American Epilepsy Society (Houston TX)

Mock NIH (NINDS) Study Section Panel Participant

2016: Fifth International Symposium on Dietary Therapies (Banff, AB)

“Diets as Precipitants and Treatments for Autism Spectrum Disorder”

2016: Building Better Brains (Grand Forks, North Dakota)

“Metabolic Therapy: Can Benefits Evolve Over Time”

2016: Metabolic Therapeutics (Tampa, FL)

“The Role of Adenosine in the Ketogenic Diet for Epilepsy”

2015: American Epilepsy Society (Philadelphia, PA)

“Ketogenic Diet and Adenosine: Linking Metabolism and Excitability”

2015: American Pain Society (Palm Springs, CA)

“Ketogenic Diets and Pain”

2015: University of Connecticut Health Center (Farmington, CT)

“Metabolic Therapy with a Ketogenic Diet: Mechanisms and Models”

2015: University of South Florida (Tampa, FL)

“Ketogenic Diet and Adenosine: Basic Research and Translational Opportunities”

2015: Brown University (Providence, RI)

“Life at a Liberal Arts College”

- 2014** Global Symposium on Dietary Therapies for Epilepsy and Other Neurological Disorders, Liverpool, England I
“Ketogenic Diet and Inflammation”
- 2013** Legacy Research Institute, Portland Oregon
“Ketogenic Diet and Adenosine: Basic Research and Translational Opportunities”
- 2012** 2012 Symposium on Dietary Therapies for Epilepsy and Other Neurological Disorders, Indian Lakes, Illinois *“Ketogenic Diet and Pain”*
- 2012** Trinity College, Reunion Weekend
- 2012** Purines 2012: Investigator’s Workshop, Fukuoka, Japan (*unable to attend due to illness*)
“Ketogenic Diet and Adenosine”
- 2012** Tufts University Medical School, Department of Neuroscience
“Metabolic Regulation of Adenosine: Diet Therapy for Brain Disease”
- 2011** University of Connecticut, Department of Psychology
“Ketogenic Diet and Adenosine: New Insights and Opportunities”
- 2011** Winter Conference on Brain Research *“Recent Developments in CNS Adenosine Research: Recognition of the Contributions of Thomas V. Dunwiddie”*
- 2010** Yale University, Psychiatry Department
“Metabolic Regulation of Adenosine: New Insights and Predictions”
- 2010** American Epilepsy Society, Investigator’s Workshop
“Seizure Control by Adenosine: Focal Augmentation and Global Metabolic Regulation”
- 2010** American Epilepsy Society, Ketogenic Diet Special Interest Group
“Role of Glucose in Ketogenic Diet: Insights from Basic Research”
- 2010** American Epilepsy Society, Pediatric Highlights
“The Antiepileptic Effect of a Ketogenic Diet is Mediated by Adenosine A1 Receptors”
- 2010** Society for Neuroscience (two workshops) *“How to Survive the Annual Meeting”*
- 2010** Global Symposium on the Dietary Treatments for Epilepsy and Other Neurological Disorders, Edinburgh *“Purinergic Modulation of Neuronal Excitability”*
- 2010** Swiss Federal Institute of Technology, Zurich
“Adenosine: A Key Link between Metabolism and Brain Activity”
- 2010** Connecticut College, Psychology Department
“The Role of Adenosine in Behavior, Metabolism and Brain Activity”
- 2010** Yale University, Biological Sciences Training Program (panel discussion on career options)
- 2010** Allan K. Smith Writing Center *“Why Writing is a Labor of Love”*
- 2010** Winter Conference on Brain Research *“Seize the Day: Novel Therapies for Epilepsy”*
- 2009** Trinity College *“Drug Development for What Ails Us: Translating Basic Discoveries into Tomorrow’s Therapies”*
- 2009** N.E.U.R.O.N. *“The Society for Neuroscience: What It is and How to Take Advantage of It”*
- 2009** PONCA Symposium, Keynote Speaker: *“Adenosine: Synaptic Regulation and Clinical Translation”*
- 2009** Winter Conference on Brain Research
“Therapeutic Perspectives of Adenosinergic Drugs in the Brain”
- 2008** University of North Dakota, Dept. of Anatomy and Cell Biology
“Adenosine, Glutamate and pH: Interactions and Implications”
- 2008** Trinity College, *“Food for Thought: Enhancing the Brain’s Natural Protective Mechanisms”*
- 2007** Clinic for Special Children, Lancaster County, PA: *A Link Between Metabolism and Excitability: Regulating ATP and Adenosine”*

PROFESSIONAL MEMBERSHIPS:

American Epilepsy Society, American Physiological Society, Biomedical Engineering Alliance of Connecticut (BEACON) Foundation Board of Directors, Faculty for Undergraduate Neuroscience, New England Under/graduate Research Organization for Neuroscience (NEURON), Nu Rho Psi, Society for Neuroscience

AREAS OF SCHOLARSHIP:

Regulation of Adenosine, Mechanisms and Applications of Ketogenic Diet Therapy, Synaptic Transmission and Synaptic Plasticity, Behavioral Neuroscience

BOOKS

Masino, S.A. (Senior Editor), Boison, D., D'Agostino D., Kossoff, E., Rho, J.M. (Associate Editors) *Ketogenic Diet and Metabolic Therapies: Expanded Roles in Health and Disease*, Oxford University Press, New York, USA. (2017)

Boison, D. & Masino, S.A. eds., (2016) *Homeostatic Control of Brain Function*, Oxford University Press, New York, USA.

Masino, S.A. & Boison, D. eds., (2012) *Adenosine: A Key Link Between Metabolism and Neuronal Activity*, Springer-Verlach Press, New York, USA.

PUBLICATIONS (*indicates Trinity undergraduate)

Cheng, N., Rho, J.M., Masino, S.A. (2017), Metabolic dysfunction underlying autism spectrum disorder and potential treatment approaches. *Frontiers in Molecular Neuroscience*.

Ruskin D.N., Murphy M.I.*, Slade S.L.*, Masino S.A. (2017) Ketogenic diet improves behaviors in a maternal immune activation model of autism spectrum disorder. *PLOS ONE*. 12(2):e0171643.

Ruskin D.N., Fortin J.A.*, Bisnauth S.N.*, Masino S.A. (2017) Ketogenic diets improve behaviors associated with autism spectrum disorder in a sex-specific manner in the EL mouse. *Physiol Behav*. 168:138-145.

Kawamura M.J., Ruskin D.N., Masino S.A. (2016) Metabolic Therapy for Temporal Lobe Epilepsy in a Dish: Investigating Mechanisms of Ketogenic Diet using Electrophysiological Recordings in Hippocampal Slices. *Front Mol Neurosci*. 9:112.

Lusardi T.A., Akula K.K., Coffman S.Q., Ruskin D.N., Masino S.A., Boison D. (2015) Ketogenic diet prevents epileptogenesis and disease progression in adult mice and rats. *Neuropharmacology*. 99:500-9.

Blaise J.H., Ruskin D.N., Koranda J.L.*, Masino S.A. (2015) Effects of a ketogenic diet on hippocampal plasticity in freely moving juvenile rats. *Physiol Reports* 2015 May;3(5). pii: e12411. doi: 10.14814/phy2.12411.

Masino S.A, Kawamura M.Jr, Ruskin D.N. (2014) Adenosine receptors and epilepsy: current evidence and future potential. *International Review of Neurobiology*. 119:233-55.

Kawamura M.Jr, Ruskin D.N, Geiger J.D, Boison D., Masino S.A.(2014) Ketogenic diet sensitizes glucose control of hippocampal excitability. *Journal of Lipid Research* 55(11):2254-60.

Smith J.D., Rho J.M, Masino S.A, Mychasiuk R. (2014) Inchworming: a novel motor stereotypy in the BTBR T+Itpr3tf/J mouse model of autism. *J Vis Exp*. 2014 Jul 5;(89). doi: 10.3791/50791.

Boison, D., Sandau, U.S., Ruskin, D.N., Kawamura, M. Jr. & Masino, S.A. (2013) Homeostatic control of brain function - new approaches to understand epileptogenesis." *Frontiers in Cellular Neuroscience* 7 (109): http://www.frontiersin.org/Cellular_Neuroscience/10.3389/fncel.2013.00109/abstract

Ruskin, D.N., Svedova, J.*, Cote, J.L.*, Sandau, U.S., Rho, J.M., Kawamura, M. Jr., Boison, D. & Masino, S.A. (2013) Ketogenic diet improves core symptoms of autism in BTBR mice." *PLOS ONE* 8 (6): <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0065021>

Masino, S.A. & Ruskin, D.N. (2013) Ketogenic diets and pain. *Journal of Child Neurology* 28(8): 993-1001.

Ruskin, D. N., Suter, T. A.*, Ross, J. L.*, & Masino, S.A. (2013) Ketogenic diets and thermal pain: dissociation of hypoalgesia, elevated ketones, and lowered glucose in rats. *Journal of Pain* 14 (5): 467-74.

Masino, S.A., Kawamura, M. Jr., Cote, J.L.*, Williams, R.B. & Ruskin, D.N. (2013) Adenosine and autism: a spectrum of opportunities. *Neuropharmacology* 68: 116-21.

Masino, S.A. & Rho, J.M. (2012) Mechanisms of ketogenic diet action. In: *Jasper's Basic Mechanisms of the Epilepsie, 4th Edition*. Editors: Jeffrey L Noebels, Massimo Avoli, Michael A Rogawski, Richard W Olsen, and Antonio V Delgado-Escuetas.

Hui, L., Chen, X., Bhatt, D., Rosenberger, T., Haughey, N.J., Masino, S.A. & Geiger, J.D. (2012) Ketone body protection against HIV-1 Tat-induced neurotoxicity. *Journal of Neurochemistry* 122(2): 382-91.

Ruskin, D.N. & Masino, S.A. (2012) The nervous system and metabolic dysregulation: emerging evidence converges on ketogenic diet therapy. *Frontiers in Neuroscience* 6(33):1-12.

Dulla, C.G. & Masino, S.A. (2012) Physiologic and metabolic regulation of adenosine – mechanisms. In: *Adenosine: A Key Link Between Metabolism and Central Nervous System Activity*. Editors Susan A. Masino and Detlev Boison, Springer, New York, NY. Chapter 5.

Svedova, J., Eigsti, I-M. & Masino, S.A. (2012) Adenosine and autism: Physiological symptoms and metabolic opportunities. In Susan A. Masino and Detlev Boison, eds. *Adenosine: A Key Link Between Metabolism and Central Nervous System Activity*. Springer, New York, NY. Chapter 24.

Rho, J.M., Beth Zupiec-Kania, B. and Masino, S.A. (2012) Ketogenic Diet and epilepsy: the role of adenosine. In Susan A. Masino and Detlev Boison, eds. *Adenosine: A Key Link Between Metabolism and Central Nervous System Activity*. Springer, New York, NY. Chapter 27.

Masino S.A., Kawamura, M., Jr., Ruskin D.N., Geiger J.D., Fredholm, B.B. & Boison D. (2011) Purines and neuronal excitability: links to the ketogenic diet. *Epilepsy Research*, Epub August 29.

Masino, S.A., Svedova, J.*, Kawamura, M. Jr., DiMario, F.D. Jr. & Eigsti, I-M. (2011). Adenosine and Autism - Recent Research and a New Perspective, Autism - A Neurodevelopmental Journey from Genes to Behaviour, Dr. Valsamma Eapen (Ed.), ISBN: 978-953-307-493-1, InTech, Available from: <http://www.intechopen.com/books/autism-a-neurodevelopmental-journey-from-genes-to-behaviour/adenosine-and-autism-recent-research-and-a-new-perspective>

Masino S.A., Kawamura M. Jr., Plotkin L.M.*, Svedova J.*, Dimario F.J. Jr. & Eigsti I.-M. (2011) The relationship between the neuromodulator adenosine and behavioral symptoms of autism. *Neuroscience Letters*, 500(1):1-5. (highlighted as a "Plenary Article")

- Koranda, J.*, Ruskin, D.N., Masino, S.A. & Blaise, J.H. (2011) A ketogenic diet reduces hippocampal long-term potentiation in freely behaving adult rats. *Journal of Neurophysiology* 106(2): 662-666.
- Masino, S.A., Li, T., Theofilas, P., Sandau, U.S., Ruskin D.N., Fredholm, B.B., Geiger, J.D., Aronica, E. & Boison D. (2011) A ketogenic diet suppresses seizures in mice through adenosine A₁ receptors. *Journal of Clinical Investigation*, 121(7): 2679-2683. Featured on the cover and in accompanying commentary: <http://www.jci.org/articles/view/58391>
- Boison, D., Masino S.A. & Geiger J.D. (2011) Homeostatic bioenergetic network regulation – a novel concept to avoid pharmacoresistance in epilepsy. *Expert Opinion in Drug Development*, 6(7):713-724
- Ruskin, D.N., Ross, J.*, Kawamura, M. Jr., Ruiz, T.*, Geiger, J.D. & Masino, S.A. (2011) A ketogenic diet delays weight loss and does not impair working memory or motor function in the R6/2 1J mouse model of Huntington’s Disease. *Physiology and Behavior*, 103(5): 501-507.
- Masino, S.A. & Rho, J.M. (2010) Mechanisms of ketogenic diet action. *Epilepsia*, 51 (s5): 85.
- Masino, S.A., Ruskin, D.N., Kawamura, M. Jr, Jeremy Gawryluk, J., Chen. X. & Geiger, J.D. (2010) Purines and the anti-epileptic actions of ketogenic diets. *The Open Neuroscience Journal*, 4: 58-63.
- Kawamura M., Ruskin D.N. & Masino S.A. (2010) Metabolic autocrine regulation of neurons involves cooperation among pannexin hemichannels, adenosine receptors and K_{ATP} channels. *Journal of Neuroscience*, 30(11):3886-95 (highlighted as a *Faculty of 1000* paper and “This Week in the Journal”).
- Hoffman A.F., Laaris N., Kawamura M., Masino S.A. & Lupica C.R. (2010) Control of cannabinoid CB1 receptor function on glutamate axon terminals by endogenous adenosine acting at A₁ receptors. *Journal of Neuroscience*, 30(2):545-55. (the “Hot Paper” March 2010 at the National Institute on Drug Abuse).
- Ruskin D.N., Kawamura M., Jr. & Masino S.A. (2009) Reduced pain and inflammation in juvenile and adult rats fed a ketogenic diet. *PLOS ONE*, 4(12):e8349.
- Masino, S.A., Kawamura, M., Wasser, C.D.*, Pomeroy, L.T.* & Ruskin, D.N. (2009) Adenosine, ketogenic diet and epilepsy: the emerging therapeutic relationship between metabolism and brain activity. *Current Neuropharmacology*, 7(3), 257-268.
- Dulla, C.G., Frenguelli, B.G., Staley, K.J. & Masino, S.A. (2009) Intracellular acidification causes adenosine release during states of hyperexcitability in the hippocampus. *Journal of Neurophysiology*, 102: 1984-1993.
- Masino, S.A. & Geiger, J.D. (2009) The ketogenic diet and epilepsy: Is adenosine the missing link? *Epilepsia*, 50(2): 332-333.
- Masino, S.A. & Geiger, J.D. (2008) Are purines mediators of the anticonvulsant/neuroprotective effects of ketogenic diets? *Trends in Neurosciences*. 6: 273-278.
- Koranda, J.*, Masino, S.A. & Blaise, J.H. (2008) Bidirectional synaptic plasticity in the awake freely behaving mouse. *Journal of Neuroscience Methods*, 167: 160-166. (Epub August 2007)
- Giménez-Llort, L.#, Masino, S.A.#, Diao, L., Fernández-Teruel, A., Tobeña, A., Halldner-Henriksson, L. & Fredholm, B.B. (2005) Mice lacking the adenosine A₁ receptor have normal spatial learning and plasticity in the CA1 region of the hippocampus, but they habituate more slowly. *Synapse* (# denotes equal contribution), 57(1):8-16.
- Dulla, C.G., Dobelis, P., Pearson, T., Frenguelli, B.G., Staley, K.J. & Masino, S.A. (2005) Adenosine and ATP link P_{CO2} to cortical excitability. *Neuron*, 48: 1011-1023. Editor’s choice, highlighted by *Science*.
- Fredholm BB, Chen JF, Masino SA, Vaugeois JM. (2005) Actions of adenosine at its receptors: insights from knockouts and drugs. *Annual Review of Pharmacology and Toxicology*, 45:385-412

Masino, S.A. (2003) A quantitative comparison between functional imaging and single unit spiking in rat barrel cortex. *Journal of Neurophysiology*, 89: 1702-1712.

Fredholm, B.B., Halldner, L., Johansson, C., Schulte, G., Lovdahl, C., Thoren, P., Dunwiddie, T.V., Masino, S.A., Poelchen, W., Diao, L., Illes, P., Zahniser, N. R., Valen, G., Tokuno, S., Sommerschild, H., Gimenez-Llort, L., Fernandez-Teurel, A., Eschorihuela, R.M., Wiesenfeld-Hallin, Z., Xu, X.-J., Hardemark, A., Herlenius, E., Pekny, M., Gebre-Mdhin, S., Brown, R., Ollerstam, A., Persson, A.E. G., Skott, O. & Johansson, B. (2003) Consequences of eliminating adenosine A₁ receptors in mice. *Drug Development Research*, 58: 350-353.

Masino, S.A., Diao, L., Illes, P., Zahniser, N.R., Larson, G.A., Johansson, B., Fredholm, B.B. & Dunwiddie, T.V. (2002) Modulation of hippocampal glutamatergic transmission by ATP is dependent on adenosine A₁ receptors. *Journal of Pharmacology and Experimental Therapeutics*, 303(1): 356-363.

Dunwiddie T.V. & Masino S.A. (2001) The role and regulation of adenosine in the central nervous system. *Annual Reviews of Neuroscience*. 24: 31-55.

Masino, S.A., Latini, S., Bordoni, F., Pedata, F., & Dunwiddie, T.V. (2001) Changes in hippocampal adenosine efflux, ATP levels, and synaptic transmission induced by increased temperature. *Synapse*, 41(1): 58-64. Featured on the cover.

Johansson, B., Halldner, L., Dunwiddie, T. V., Masino, S. A., Poelchen, W., Giménez-Llort, L., Escorihuela, R.M., Fernández-Teruel, A., Zsuzsanna Wiesenfeld-Hallin, Z., Xu, X-J., Herlenius, E., Hårdemark, A., Betsholtz, C. & Fredholm, B. B. (2001) Hyperalgesia, increased anxiety and decreased hypoxic neuroprotection in mice lacking the adenosine A₁ receptor. *Proceedings of the National Academy of Science USA*, 98(16): 9407-9412.

Masino, S.A. & Dunwiddie, T.V. (2000) A transient increase in temperature induces persistent potentiation of synaptic transmission in rat hippocampal slices. *Neuroscience*, 101: 907-912.

Masino, S.A. & Dunwiddie, T.V. (1999) Temperature-dependent modulation of excitatory transmission in hippocampal slices is mediated by extracellular adenosine. *Journal of Neuroscience*, 19: 1932-1939.

Masino, S.A., Mesches, M.H., Bickford, P.C., & Dunwiddie, T.V. (1999) Acute peroxide treatment of rat hippocampal slices induces adenosine-mediated inhibition of excitatory transmission in area CA1. *Neurosci Letters*, 274: 91-94.

Masino, S.A. & Frostig, R.D. (1996) Quantitative long-term imaging of the functional representation of a whisker in rat barrel cortex. *Proceedings of the National Academy of Science USA*, 93: 4923-4927.

Bakin, J.S., Kwon, M.C., Masino, S.A., Weinberger, N.M., & Frostig, R.D. (1996) Suprathreshold auditory cortex activation visualized by intrinsic signal optical imaging. *Cerebral Cortex*, 6: 120-130.

Chen, C.H., Kwon, M.C., Masino, S.A., & Frostig, R.D. (1996) Areal extent quantification of functional representation using intrinsic signal optical imaging. *Journal of Neuroscience Methods*, 68: 27-37.

Schwartz, J.H., Masino, S.A., Nichols, R.D. & Alexander, E.A. (1994) Intracellular modulation of acid secretion in rat inner medullary collecting duct cells. *American Journal Physiology*, 266(1 Pt 2): F94-101.

Sheridan, A.M., Schwartz, J.H., Kroschian, V.M., Tercyak, A.M., Laraia, J., Masino, S. & Lieberthal, W. (1993) Renal mouse proximal tubular cells are more susceptible than MDCK cells to chemical anoxia. *American Journal Physiology*, 265(3 Pt 2):F342-50.

Masino, S.A., Kwon, M.C., Dory, Y. & Frostig, R.D. (1993) Characterization of functional organization within rat barrel cortex using intrinsic signal imaging through a thinned skull. *Proceedings of the National Academy of Science USA*, 90: 9998-10002.

GENERAL EXAM AND DISSERTATION COMMITTEES (2007-present):

Marwa Elawin, M.S. Laboratory of Dr. Paola Sachetti, Department of Biology, University of Hartford
Joshua Meidenbauer, Ph.D., Laboratory of Dr. Thomas Seyfried, Department of Biology, Boston College
David Butler, Ph.D., Laboratory of Dr. Ben Bahr, Department of Pharmacology and Toxicology
University of Connecticut, Storrs, CT
Andrew Ferrar, Ph.D, Laboratory of Dr. John Salamone, Department of Psychology
University of Connecticut, Storrs, CT

COMMUNITY OUTREACH (recent, ongoing and selected)

2017-present Old Growth Forest Coordinator, Hartford County
2012-present Simsbury Grange, #197
2009-present Laboratory tours and experiences for high school and middle school students – Manchester Science Day, Hartford Magnet Trinity College Academy, and others
2004-present Keep the Woods (Leader and Spokesperson)
2010-2015 Chair - Safe Routes to School – Tootin’ Hills Elementary School
2013 Hometown Hero, Simsbury, CT
2011 National Society of the Daughters of the American Revolution Conservation Committee Award, (Recognition of Outstanding Achievement for Environmental Awareness)
2011 Invited presentation, CT Conference for Women in Transportation: “Future Transportation” (based on Safe Routes to School Program)
2008 Invited public lecture, Lifelong Learning Series, McLean Care, Simsbury, CT: “Food for Thought”
2009 Poster judge, NEURON, New York City, Hunter College.
2007 Farmington River Watershed Association Volunteer of the Year
2007 Farmington Valley Trout Unlimited, Chapter High Honor Society
2007 CT State General Assembly Citation