CURRICULUM VITAE

J. Harry Blaise, Ph.D.

EDUCATION:

Ph.D.	Biomedical Engineering, University of Connecticut, Storrs, CT, 1996–2001. Dissertation: *"Ontogeny of Frequency-dependent Synaptic Plasticity in the Dentate Gyrus of the Immature and Adult Rodent Brain"*.
M.S.	Electrical Engineering, Rensselaer Polytechnic Institute-Hartford, Troy, NY, 1994–1995.
B.S.	Engineering (Concentration: Biomedical Engineering), Trinity College, Hartford, CT, 1990–1994.

PROFESSIONAL EXPERIENCE:

Associate Professor	Department of Engineering, Trinity College, Hartford, CT, 2007–Present.
Assistant Professor 2007.	Department of Engineering, Trinity College, Hartford, CT, 2001–
Pre-doctoral Fellow	Dept. of Electrical and Computer Engineering, University of Connecticut, Storrs, CT, 1997–2001.
Teaching Assistant	Department of Electrical and Computer Engineering, University of Connecticut, Storrs, CT, 1996–2001.

COURSES TAUGHT: † = new course developed
ENGR-116-01 Introduction to Biomedical Engineering †
ENGR-316 Neural Engineering†
ENGR-401-01 Introduction to Biomedical Engineering
ENGR-312 Automatic Control Systems
ENGR-307L Semiconductor & Electronics I
ENGR-212L Linear Circuit Theory
ENGR-484 Senior Design Seminar
ENGR-221L Digital Circuits and Systems
NESC-301 Introduction to Neuroscience Methodology
ISP-117-01 Beyond the Decade of the Brain†
FYSM-220 Decade of the Brain†
NESC-201 Principles of Neuroscience
FYSM-177 Minds Behind the Brain†
ENGR-311 Electrophysiology of the Central Nervous System
The Brain: A Voyage across Time † (Academy of Lifelong Learning for adult learners)

SOCIETY MEMBERSHIPS:
Institute of Electrical and Electronics Engineers
IEEE-Engineering in Medicine and Biology Society

Society for Neuroscience
Biomedical Engineering Society
International Society for Development Neuroscience
National Society of Black Engineers
IEEE Computer Society
American Society for Engineering Education
American Physiological Society
American Chemical Society

NATIONAL PANELS AND COMMITTEES

- Reviewer for American Society for Engineering Education (ASEE) Annual Conferences, 2002-Present.
- Reviewer for National Science Foundation (NSF), 2004-Present.
- Reviewer for Oxford University Press Series in Electrical and Computer Engineering, 2005-Present.
- Reviewer for *Synapse* (scholarly journal), 2006-Present.
- Reviewer for Journal of Neuroscience Methods (scholarly journal), 2008-Present.
- Reviewer for Brain Research Bulletin (scholarly journal), 2009-Present.
- Reviewer for Neuron Glia Biology (scholarly journal), 2009-Present.
- Reviewer for Advances in Neuroscience (scholarly journal), 2014-Present.
- Reviewer for the Mathematics of Information Technology and Complex Systems, (MITACS), the Canadian grant funding agency, 2015-Present.

RESEARCH FUNDING:

PI	Trinity College Faculty Research Grant to support undergraduate research, $3,500, 2004.
Co-PI	National Science Foundation Bioengineering Division Award # BES-0451285, $69,291, September 1, 2004-August 31, 2005.
PI	Trinity College Faculty Research Grant to support undergraduate research, $7,000, 2005.
PI	HHMI Grant to Trinity College Summer Research Scholars Grant, $7,800, 2005.
PI	HHMI Grant to Trinity College Summer Research Scholars Grant, $15,600, 2006.
PI	Trinity College Faculty Research Grant to support undergraduate research, $7,000, 2006.
PI	NASA EpSCOR Grant, $12,500, 2006-2007.
PI	NASA CT Space Grant Consortium Faculty Research Grant, $6,000, 2007-2008.
PI	Trinity College Faculty Research Expense Grant, $11,932, 2008-2010.
PI	Trinity College Faculty Research Grant to support undergraduate research, $3,500, 2011.
Co-PI	NIH R15 Grant 1R15NS066392-01A1, $230,656, Sept. 2010 - June 2012.
PI	NASA CT Space Grant Consortium Faculty Research Grant, $6,000, 2011-2012.
PI	Trinity College Faculty Research Grant to support undergraduate research, $14,000, 2013.
PI	NASA CT Space Grant Consortium Curriculum Development Grant, $7,500, 2014.

PI	Trinity College Faculty Research Grant to support undergraduate research, $10,500, 2015.
PI	Connecticut Health and Education Facilities Authority (CHEFA) grant to support biomedical engineering curriculum development at the middle school level in the State of Connecticut, $55,931, 2016.

SERVICE:

Member	Campaign for Community Committee, Trinity College, 2015.
Member	Academic Affairs Committee, Trinity College, 2014.
Mentor	The Posse Foundation's College Access and Leadership Development Program, 2012-Present.
Member	Health Professions Advisory Committee (HPAC), Trinity College, 2007-Present.
Member	Trinity College Institutional Animal Care and Use Committee, 2001-Present.
Chair	Trinity College Institutional Animal Care and Use Committee, 2009-2012.
Campus Dir.	CT NASA Space Grant Consortium, 2002-2012
Secretary	CT Chapter, Society for Neuroscience, 2008-Present
Member	Board of Directors Connecticut Pre-Engineering Program, Inc. (CPEP), 2002-Present
Vice-Pres.	Board of Directors Connecticut Pre-Engineering Program, Inc. (CPEP), 2006-2007
Secretary	Board of Directors Connecticut Pre-Engineering Program, Inc. (CPEP), 2007-2008)
President	Board of Directors Connecticut Pre-Engineering Program, Inc. (CPEP), 2008-Present
Sr. Member	Institute of Electrical and Electronics Engineers, Inc., (Member: 2001-2008); (elected Sr. Member 2008-Present)
Member	Admissions and Financial Aid Committee, Trinity College, 2005–2006.
Panelist	National Science Foundation Review Panel in Bioengineering, 2005-Present
Member	Trinity College Science Facilities Planning Committee, 2005.
Advisor	Trinity Student Chapter of the Institute of Electrical and Electronics Engineers, 2004-Present.
Advisor	Trinity Student Branch of the National Society of Black Engineers, 2002-Present.
Member	Admissions and Financial Aid Committee, Trinity College, 2004, 2005-2007.
Member	Cornerstone Project: Experiential Education Committee, Trinity College, Fall 2004.
Chair	Advisory Committee on Fraternities & Sororities, Trinity College, Fall 2004.
Member	Advisory Committee on Fraternities & Sororities, Trinity College, 2002–2005.
Member	UTCEI/TIER2 Advisory Committee, Engineering Dept, Trinity College, 2001–2004.
Vice Chair	Institutional Animal Care and Use Committee, Trinity College, 2005–Present.
Session Chair	30th Annual IEEE-EMBS Northeast Bioengineering Conference, 2004.
Member	Institutional Animal Care and Use Committee, Trinity College, 2001–Present.
Member	Psychobiology/Neuroscience Search Committee, Trinity College, 2002.
Member	Engineering Search Committee, Trinity College, 2002.
Member	Neuroscience Coordinating Committee, Trinity College, 2001–Present.
Panelist	Careers in Education, Career Services Office, Trinity College, 2002.

Advisor	Connecticut Science Fair, 2002–Present.
Advisor	New England Board of Higher Education, Science Network Meeting at MIT, 1994–Present.
Member	Program Committee, 30th and 31st Annual IEEE-EMBS Northeast Bioengineering Conference, 2004-2005.
Judge	Student Paper Competition, 28th Annual Northeast Bioengineering Conference, Drexel University, 2002.

Undergraduate Student Senior Theses Supervised at Trinity College:

Phuc V. Dinh, 2002, Engineering
Richard Wesley Downe, 2003, Engineering
Jessica Koranda, 2005, Neuroscience
Rebecca Bell, 2005, Engineering
Rachel Hartman, 2005, Engineering
Natalie Phouyaphone, 2006, Neuroscience
Adrian K. Arnett, 2006, Neuroscience
Emily C. Dorward, 2006, Neuroscience
Katrina Voorhees, 2006, Engineering
Kristin Nassar, 2006, Engineering
Robert A. Hill, 2007, Neuroscience
Hannah C. Knipple, 2007, Neuroscience
David DuPaul, 2007, Engineering
Willis Read-Button, 2008, Engineering
Katherine Blanton, 2008, Engineering
Dan Maturi, 2008, Engineering
Amanda F. Rao, 2008, Engineering
Kaitlin Haines, 2009, Biology
Urey Chow, 2009, Neuroscience
Kaitlin Gaffney, 2009, Neuroscience
Joshua Caplan, 2009, Engineering
Joao DeOliveira, 2009, Engineering
Evan Daley, 2009, Engineering
Christopher Palatucci, 2010, Engineering
Clayton R. St. Dennis, 2010, Engineering
Kathryn Smith-Petersen, 2011, Engineering
Peter Soliman, 2011, Engineering
Benjamin Rosenblum, 2011, Engineering
Andrew Zoller, 2011, Engineering
Jeffrey Hebert, 2013, Engineering
Chislon Richardson, 2013, Engineering
Carlton McLendon, 2014, Engineering
Osama Khan, 2014, Engineering
Christian T. Firsching, 2015, Engineering
Benjamin C. Williams, 2015, Engineering
Jenna Park, 2015-2016, Biology

Catherine Poirier, 2016-2017, Engineering
Jessica Voight, 2016-2017, Engineering

PUBLICATIONS:

Articles in Refereed Scholarly Journals:
(* indicates undergraduate student co-authors)

Blaise JH, Park JE, Bellas NJ, Gitchell TM, Phan V. Caffeine Consumption Disrupts Hippocampal Long-Term Potentiation in Freely Behaving Rats. Physiological Reports 6, no. 5 (2018): e13632.

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. *Physiological Repor*ts, 3:5, e12411.

Blaise, J. Harry. Long term potentiation of perforant pathway-dentate gyrus synapse in freely behaving mice. *Journal of Vis. Experiments*, 29;(81). doi: 10.3791/50642, 2013.

Blaise, J. Harry, Rachel A. Hartman*. Stimulation of Perforant Path Fibers Induces LTP Concurrently in Amygdala and Hippocampus in Awake Freely Behaving Rats. *Neural Plasticity*, vol. 2013, Article ID 565167, 6, doi:10.1155/2013/565167, 2013.

Koranda*, Jessica L., David .N. Ruskin, Susan .A. Masino, J. Harry Blaise. A ketogenic diet reduces long-term potentiation in the dentate gyrus of freely-behaving rats. *J Neurophysiol* 106: 662–666, 2011.

Blaise, J. Harry, Jessica L. Koranda*, Urey Chow*, Kaitlin E. Haines*, Emily C. Dorward*. Neonatal isolation stress alters bidirectional long-term synaptic plasticity in amygdalo-hippocampal synapses in freely behaving adult rats. *Brain Research*, 1193:25-33, 2008.

Koranda*, Jessica L., Susan .A. Masino, J. Harry Blaise. Bidirectional synaptic plasticity in the dentate gyrus of the awake freely behaving mouse. *Journal of Neuroscience Methods*, 167:160-166, 2008.

Yorns*, Williams R., J. Harry Blaise, and Joseph D. Bronzino. Frequency dependent changes in the paired pulse index in the hippocampus of the freely moving adult male rat. *Experimental Neurology*, 186:104-108, 2004.

Blaise, J. Harry and Joseph D. Bronzino. Effects of Stimulus Frequency and Age on Bidirectional Synaptic Plasticity in the Dentate Gyrus of Freely Moving Rats. *Experimental Neurology*, 182:497-506, 2003.

Blaise, J. Harry and Joseph D. Bronzino. Modulation of paired-pulse responses in the dentate gyrus: Effects of normal maturation and vigilance state. *Annals of Biomedical Engineering*, 28:128-34, 2000.

Bronzino, Joseph D., J. Harry Blaise, David Mokler, Janina Galler and Peter J. Morgane. Modulation of paired-pulse responses in the dentate gyrus: Effects of prenatal protein malnutrition. *Brain Research*, 849:45-57, 1999.

Bronzino, Joseph D., J. Harry Blaise, David Mokler, and Peter J. Morgane. Dentate granule cell modulation in freely moving rats: vigilance state effects. *Developmental Brain Research* 114:143-148, 1999.

Bronzino, Joseph D., J. Harry Blaise and Peter .J. Morgane. Paired pulse index: A measure of hippocampal dentate granule cell modulation. *Annals of Biomedical Engineering*. 25:870-873, 1997.

Bronzino, Joseph D., J. Harry Blaise, Robert J. Austin-LaFrance and Peter J. Morgane. Studies of dentate granule cell modulation: Paired-pulse responses in freely moving rats at three ages. *Developmental Brain Research* 277-280, 1996.

CONFERENCE PROCEEDINGS & ABSTRACTS:

(*indicates undergraduate student co-authors)

P. Dahal, M. Avagyan, P. S. Skardal, J.H. Blaise and T. Ning, "Characterizing chaotic behavior of REM sleep EEG using Lyapunov exponent," 2017 10th International Congress on Image and Signal Processing, BioMedical Engineering and Informatics (CISP-BMEI), Shanghai, China, 2017, pp. 1-6.
doi: 10.1109/CISP-BMEI.2017.8302215

J. H. Blaise and T. Ning, "Application of independent component analysis to remove linear dependencies in EEG recorded in hippocampus," 2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Orlando, FL, 2016, pp. 3171-3174.
doi: 10.1109/EMBC.2016.7591402

T. Ning, J. H. Blaise, M. Avagyan and P. Dahal, "Developmental differences of dimension complexity of hippocampal EEG during REM sleep," 2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Orlando, FL, 2016, pp. 2851-2854.
doi: 10.1109/EMBC.2016.7591324

Jee Eun Park, Nicholas Bellas, Thomas Gitchell, and Vy Phan. In Vivo study of the effects of chronic caffeine consumption on synaptic efficacy in the hippocampus of freely moving rodents. Northeast Undergraduate Research in Neuroscience, Quinnipiac University, Hamden, CT. Feb. 28, 2016.

Blaise, J. Harry. Stress-related cognitive deficits: implications for anxiety disorders. *Proceedings of the 2015 Annual Meeting of the American Society of Clinical Psychopharmacology, Miami, FL, June 22-25, 2015.*

Blaise, J. Harry. An alternative model to study the effects of early-life stress on developmental neural plasticity in rodents. *Abstracts to the 20th Biennial Meeting of the International Society for Developmental Neuroscience*, Montreal, Canada, July 19-24, 2014.

Blaise, J. Harry. Attenuation of long term synaptic plasticity following application of a restraint stressor. Neural Engineering (NER), 2013 6th International IEEE/EMBS Conference on Neural Engineering, San Diego, CA, November 2013.

Blaise, J. Harry, Melis Sunay*. Acute stress disrupts emotional memories. *Proceedings of the 2011 Annual Biomedical Engineering Society (BMES) Fall Meeting*, October 12-14, Hartford, CT, CD-ROM, 2011.

Ruskin David N., Jessica L. Koranda*, Susan A. Masino, and J. Harry Blaise. Very-low carbohydrate diet reduces long-term potentiation in the dentate gyrus of freely-behaving rats. *Proceedings of the 2011 Annual Biomedical Engineering Society (BMES) Fall Meeting*, October 12-14, Hartford, CT, CD-ROM, 2011.

Blaise, J. Harry, Melis Sunay*. Acute stress disrupts LTP of amygdalo-hippocampal synapses in neonatally isolated adult rats. *Society for Neuroscience Annual Meeting*, November 13-17, 2010, San Diego, CA.

Blaise, J. Harry, Rachel M. Clark*, Kaitlin E. Haines*. Role of early life stress in corticolimbic plasticity. *Society for Neuroscience Annual Meeting*, October 17-21, 2009, Chicago, IL.

Blaise, J. Harry, Stress in Neonates Changes Plasticity in Adult Hippocampo-Amygdalar Neural Circuits, *Abstracts to the 17th Biennial Meeting of the International Society for Developmental Neuroscience*, Asilomar, CA, June 1-5, 2008

Chow*, Urey, Kaitlin E. Haines*, Jessica L. Koranda, J. Harry Blaise. Effects of neonatal isolation on amygdalo-hippocampal synaptic efficacy in freely behaving rats. *Society for Neuroscience Annual Meeting*, San Diego, CA, November 3-7, 2007.

Hernandez*, Connie L.; Daisy M. Ramos*, Jessica L. Koranda, Joseph D. Bronzino, J. Harry Blaise. Theta-burst and paired-pulse analysis of the dentate gyrus-CA3 synapse in freely moving rats. *Society for Neuroscience Annual Meeting*, San Diego, CA, November 3-7, 2007.

Koranda, Jessica L., Robert A. Hill, Natalie X. Phouyaphone, J. Harry Blaise, Susan A. Masino. Stimulation frequency-dependent transition from LTD to LTP in freely behaving mice. *Society for Neuroscience Annual Meeting*, San Diego, CA, November 3-7, 2007.

Blaise, J. Harry and Adrian K. Arnett. Long-Term Potentiation Alters the Hippocampal Paired-Pulse Index in the Freely Behaving Neonatal Rat. *Proceedings of the 2006 28th Annual International Conference of the IEEE Engineering in Medicine & Biology Society*, New York City, August 30-Sept. 3, 2006.

Blaise, J. Harry and Hannah C. Knipple*. Characterization of short- and long-term plasticity in the reciprocal dentate gyrus-entorhinal cortex synapse in freely behaving rats. *Society for Neuroscience Annual Meeting*, Atlanta, Georgia, October 14-18, 2006.

Susan A. Masino, Jessica L. Koranda, Natalie X. Phouyaphone*, Bertil B. Fredholm, and J. Harry Blaise. Long-term potentiation and long term depression recorded in the awake, freely behaving adenosine A1 receptor knockout mouse. *Society for Neuroscience Annual Meeting*, Atlanta, Georgia, October 14-18, 2006.

Blaise, J. Harry, Katrina Voorhees*, Kristin Nassar*. A Simulink-based computational model of a neuron using multi-compartmental approach. *Proceedings of the 2nd Annual World Association of Modeling: Biologically Accurate Modeling Meeting*, March 23-25, San Antonio, TX, 2006.

Arnett*, Adrian K., Jessica L. Koranda, J. Harry Blaise. Effects of LTP Induction on Hippocampal Cellular Excitability in the Freely Behaving Developing Rat Brain. *Proceedings of the IEEE 32nd Annual Northeast Bioengineering Conference*, April 1-2, Easton, PA, CD-ROM, 2006.

Dorward*, Emilie C., J. Harry Blaise. Effects of neonatal isolation on bidirectional plasticity of the basolateral amygdala-dentate gyrus synapse in freely behaving rats. *Proceedings of the IEEE 32nd Annual Northeast Bioengineering Conference*, April 1-2, Easton, PA, CD-ROM, 2006.

Nassar*, Kristin, Katrina Voorhees*, J. Harry Blaise. Mathematical modeling of an active neural network using MATLAB and SIMULINK. *Proceedings of the IEEE 32nd Annual Northeast Bioengineering Conference*, April 1-2, Easton, PA, CD-ROM, 2006.

Phouyaphone*, Natalie X, Jessica L. Koranda, J. Harry Blaise, Susan A. Masino, Joseph D. Bronzino. Effect of adenosine a1r receptor deficiency on induction of long-term depression in freely behaving mice. *Proceedings of the IEEE 32nd Annual Northeast Bioengineering Conference*, April 1-2, Easton, PA, CD-ROM, 2006.

Blaise, J. Harry, Rachel A. Hartman*. Concurrent induction of long-term potentiation in the basolateral amygdala and in the dentate gyrus in freely behaving animals. Program No. 42.7. 2005 Abstract Viewer/Itinerary Planner. Washington, DC: *Society for Neuroscience*, 2005.

Blaise, J. Harry, Rebecca Bell*. Hippocampal LTD is reliably induced by low frequency stimulation in freely behaving neonatal rats. *Proceedings of the IEEE 31st Annual Northeast Bioengineering Conference*, April 2-3, Hoboken, NJ, CD-ROM, 2005.

Koranda*, Jessica L., J. Harry Blaise, Susan A. Masino, Joseph D. Bronzino. Adenosine A1R receptor deficiency enhances hippocampal long-term potentiation in freely moving mice. *Proceedings of the IEEE 30th Annual Northeast Bioengineering Conference*, April 2-3, Hoboken, NJ, CD-ROM, 2005.

Hartman*, Rachel A., J. Harry Blaise. Linkages between emotion and memory: Simultaneous neuronal responses in the amygdala and the hippocampus. *Proceedings of the IEEE 30th Annual Northeast Bioengineering Conference*, April 2-3, Hoboken, NJ, CD-ROM, 2005.

Blaise, J. Harry. Long-term depression is reliably induced in rats at 30 days of age. *Proceedings of the 2004 26th Annual International Conference of the IEEE Engineering in Medicine & Biology Society*, San Francisco, September 1-5, 2004.

Greten-Harrison*, Becket, Susmita Bandhari*, Abigail Garrity*, and J. Harry Blaise. hippocampal plasticity is dependent on stimulus frequency in 30-day old rats. *Proceedings of the 2004 Annual Biomedical Engineering Society (BMES) Fall Meeting*, October 13-16, Philadelphia, CD-ROM, 2004.

Koranda*, Jessica L., Jesse L. Turcotte*, Joshua Griffis, J. Harry Blaise, Susan A. Masino, and Joseph D. Bronzino. Electrophysiological study of LTP induction in the dentate gyrus of freely-moving mice lacking adenosine A1 receptors. *Proceedings of the 2004 Annual Biomedical Engineering Society (BMES) Fall Meeting*, October 13-16, Philadelphia, CD-ROM, 2004.

Shepherd*, Daniel, Jessica L. Koranda*, Emily C. Dorward*, Emily Reisner, Joshua W. Griffis, J. Harry Blaise, and Joseph D. Bronzino. Effects of varying basolateral amygdala prestimulation protocols on synaptic plasticity in the dentate gyrus of the hippocampus in freely-moving adult rats. *Proceedings of the 2004 Annual Biomedical Engineering Society (BMES) Fall Meeting*, October 13-16, Philadelphia, CD-ROM, 2004.

Blaise, J. Harry and Joseph D. Bronzino. Effects of amygdala prestimulation on neuroplasticity in the hippocampus. *Proceedings of the IEEE 30th Annual Northeast Bioengineering Conference*, April 17-18, Springfield, MA, CD-ROM, 2004.

Griffis*, Joshua W., J. Harry Blaise, and Joseph D. Bronzino. Improved methodology to facilitate the recording of bioelectric events in the neonatal rat brain. *Proceedings of the IEEE 30th Annual Northeast Bioengineering Conference*, April 17-18, Springfield, MA, CD-ROM, 2004.

Blaise, J. Harry and Joseph D. Bronzino. Priming of basolateral amygdala enhances induction of hippocampal LTP in freely moving rats, *Society for Neuroscience Abstracts*, 30:Abstract No. 854.11, 2004.

Blaise, J. Harry and Joseph D. Bronzino. Characterization of hippocampal synaptic plasticity in the freely behaving neonatal rat. *Proceedings of the IEEE 29th Annual Northeast Bioengineering Conference*, March 22-23, Newark, NJ, CD-ROM, 2003.

Griffis*, Joshua W., J. Harry Blaise, and Joseph D. Bronzino. Novel miniaturization of surgical techniques to permit recording of electrophysiological data in the developing rat brain. *Proceedings of the IEEE 29th Annual Northeast Bioengineering Conference*, March 22-23, Newark, NJ, CD-ROM, 2003.

Downe*, Richard W., J. Harry Blaise, and Joseph D. Bronzino. Design of a digital radio-frequency telemetry system for recording of electrophysiological data in freely moving rats. *Proceedings of the IEEE 29th Annual Northeast Bioengineering Conference*, March 22-23, Newark, NJ, CD-ROM, 2003.

Robinson*, Andrew A., Shyam S. Gouri-Suresh*, David .J. Aloi, Dale .A. Fortin, J. Harry Blaise, Joseph D. Bronzino. A GUI software suite for data acquisition and analysis of evoked field potentials: Applications in biomedical and electrophysiological research. *Proceedings of the IEEE 28th Annual Northeast Bioengineering Conference*, April 20-21, Philadelphia, PA, p. 123-124, 2002.

Blaise, J. Harry and Joseph D. Bronzino. Age and stimulation frequency affect the transition from long-term depression to long-term potentiation in the freely moving rat. *Proceedings of the 2002 IEEE 24th Annual International Conference of IEEE Engineering in Medicine & Biology Society and the 2002 Annual Fall Meeting of the Biomedical Engineering Society (2nd Joint EMBS/BMES Meeting)*, Houston, GA, Oct 23-26, 2002.

Blaise, J. Harry and Joseph D. Bronzino. Transition from long-term depression to long-term potentiation as a function of stimulation frequency in the freely moving rat. *Proceedings of the IEEE 28th Annual Northeast Bioengineering Conference*, April 20-21, Philadelphia, PA, p. 41-42, 2002.

Blaise, J. Harry and Joseph D. Bronzino. Effect of stimulation frequency on synaptic plasticity in the rat hippocampus. *Abstracts of the Annual Fall Meeting of the Biomedical Engineering Society*, 2002.

Blaise, J. Harry and Joseph D. Bronzino. BCM-like transition from long-term depression to long-term potentiation in the dentate gyrus of the freely behaving rat at two ages of development, Program No. 648.11. Washington, DC: *Society for Neuroscience*, 2002.

Blaise, J. Harry and Joseph D. Bronzino. Effect of stimulation frequency on synaptic plasticity in the rat hippocampus. *Abstracts of the Annual Fall Meeting of the Biomedical Engineering Society*, Oct. 4-7, Durham, NC, 2001.

Blaise, J. Harry and Joseph D. Bronzino. In vivo examination of homosynaptic long-term depression in the hippocampus: studies of anesthetized and freely moving animals. *Society for Neuroscience Abstracts*, 27:1025, 2001.

Blaise, J. Harry, and Joseph D. Bronzino. Frequency-dependent examination of homosynaptic long-term depression in the freely moving rat. *Digest of Papers of the 2000 World Congress on Medical Physics and Biomedical Engineering and the Proceedings of the 22nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, July 23-28, Chicago, IL, p. 1429-1430, 2000.

Blaise, J. Harry and Joseph D. Bronzino. Neuroplastic alterations accompanying long-term depression in the anesthetized rat hippocampus. *Proceedings of the IEEE 26th Annual Northeast Bioengineering Conference*, Storrs, CT, April 8-9, p. 99-100, 2000.

Blaise, J. Harry and Joseph D. Bronzino. Long-term depression of the lateral perforant path/dentate gyrus synapse in the freely moving rat. *Society for Neuroscience Abstracts*, 26:Abstract No.-334.8, 2000.

Blaise, J. Harry and Joseph D. Bronzino. Homosynaptic long-term depression of the lateral perforant pathway/dentate gyrus synapse. *Proceedings of the1999 IEEE 21tst Annual International Conference of IEEE Engineering in Medicine & Biology Society and the 1999 Annual Fall Meeting of the Biomedical Engineering Society (1st Joint BMES/EMBS Meeting)* , Atlanta, GA, Oct 13-16, p. 363, 1999.

Blaise, J. Harry, and Joseph D. Bronzino. Quantification of homosynaptic long-term depression measures in the anesthetized rat hippocampal formation. *Proceedings of the IEEE 25th Annual Northeast Bioengineering Conference*, Hartford, CT, April 8-9, p 129-120, 1999.
Blaise, J.H. and J.D. Bronzino. Frequency-dependent changes in homosynaptic long-term depression in the anesthetized rat lateral perforant path/dentate gyrus synapse. *Society for Neuroscience Abstracts*, 25:462, 1999.

Blaise, J. Harry and Joseph D. Bronzino. Ontogeny of paired-pulse responses in the dentate gyrus. *Proceedings of the 1998 20th Annual International Conference of the IEEE Engineering in Medicine & Biology Society*, Hong Kong, Oct 29-Nov 1, p 3008-3011,1998.

Blaise, J. Harry., Joseph D. Bronzino and P.J. Morgane. Modulation of paired-pulse response in the dentate gyrus: Vigilance state effects. *Proceedings of the IEEE 24th Annual Northeast Bioengineering Conference, Hershey, PA, Apr 8-9, pp. 1-2, 1998.*

Blaise, J. Harry, Joseph D. Bronzino, David Mokler, and Peter J. Morgane. Effects of prenatal protein malnutrition on modulation of paired-pulse responses in the dentate gyrus. *Society for Neuroscience Abstracts*, 24:46,1998.

Bronzino, Joseph D., J. Harry Blaise, David Mokler, and Peter J. Morgane. Effects of normal maturation and vigilance state on modulation of paired-pulse responses in the dentate gyrus. *Society for Neuroscience Abstracts*, 24:46,1998.

Blaise, J. Harry, Joseph D. Bronzino and Peter .J. Morgane. Prenatal protein malnutrition and vigilance state modulation of paired pulse response in the dentate gyrus. *Society for Neuroscience Abstracts*, 23:1154, 1997.

Blaise, J. Harry and Joseph D. Bronzino. Effects of age and vigilance state on modulation of the dentate gyrus paired-pulse response. *Abstracts of the Biomedical Engineering Society 1996 Annual Fall Meeting*, p.68, 1996.

Bronzino, Joseph D. and J. Harry Blaise. The Paired Pulse Index: A measure of vigilance state-dependent changes during maturation. *Proceedings of the 1998 18th Annual International Conference of the IEEE Engineering in Medicine & Biology Society*, Amsterdam, Netherlands, Oct 31-Nov 3, p 1562-1563, 1996.

Blaise, J. Harry, Robert J. Austin-LaFrance and Joseph D. Bronzino. Development of inhibitory and facilitatory modulation in the rat dentate gyrus. *Proceedings of the IEEE 22nd Annual Northeast Bioengineering Conference*, New Brunswick, NJ, Mar 14-15, pp. 89-90,1996.

Blaise, J. Harry, Robert J. Austin-LaFrance, Peter J. Morgane and Joseph D. Bronzino. Development of vigilance state-dependent modulation of the hippocampal paired-pulse response. *Society for Neuroscience Abstracts*, 22:1975, 1996.

Bronzino, Joseph D., J. Harry Blaise, Robert J. Austin-LaFrance and Peter J. Morgane. Prenatal protein malnutrition alters vigilance state-dependent paired-pulse response in adult rats. *Society for Neuroscience Abstracts*, 22:1222, 1996.

Blaise, J. Harry and Joseph D. Bronzino. Ontogeny of the paired pulse index: A measure of dentate granule cell modulation. *Abstracts of the Biomedical Engineering Society 1995 Annual Fall Meeting*, p.84, 1995.

Bronzino, Joseph D., J. Harry Blaise, Robert J. Austin-LaFrance and Peter J. Morgane. Ontogeny of the paired-pulse index: A measure of dentate granule cell modulation. *Proceedings of the 1995 17th Annual International Conference of the IEEE Engineering in Medicine & Biology Society and 21st Canadian Medical and Biological Engineering Conference*, Montreal, Canada, Sep 20- 23, p 1537-1538, 1995.

Bronzino, Joseph D., J. Harry Blaise, Robert J. Austin-LaFrance and Peter J. Morgane. Ontogeny of the paired-pulse index: A measure of the development of hippocampal dentate granule cell modulation. *Society for Neuroscience Abstracts*, 21:2022, 1995.

Blaise, J. Harry and Joseph D. Bronzino. A field potential analysis study of the effects of prenatal protein malnutrition on maturation of the dentate granule cell response. *Proceedings of the IEEE 24th Annual Northeast Bioengineering Conference*, Springfield, MA, Mar 17-18, p 106-107, 1994.

INVITED NATIONAL LECTURES

Guest Speaker, Impact of Bioengineering on Society, *Compact for Faculty Diversity Annual Meeting*, New Orleans, LA, 1998.

INVITED CAMPUS LECTURES:

- Guest Lecturer, *Learning and memory research approaches in rodents*, Trinity College, Hartford, CT 2015 (NESC 201 Principles of Neuroscience).
- Guest Lecturer, *memory formation, storage and retrieval during childhood*, Trinity College, Hartford, CT, 2011 (NESC 101 The Brain).

- Guest Lecturer, *What do biomedical engineers do?* Trinity College, Hartford, CT, 2004-Present (yearly lecture given to Dave Ahlgren's ENGR-120 Introduction to Engineering Design).
- Guest Lecturer, *Studies of synaptic activity in the freely-moving animal model*, Trinity College, Hartford, CT, February 2004.
- Guest Lecturer, *A computational model of a local neural circuit involved in learning and memory*. Trinity College Center for Teaching and Research, Hartford, CT, April 2003.
- Guest Speaker, *Toward a better understanding of memory*. Family Weekend, Trinity College, Hartford, CT, September, 2002.
- Guest Lecturer, *Synaptic plasticity in the rodent brain*. Trinity College, Hartford, CT, April, 2001.
- Guest Lecturer, *Synaptic changes due to stimulation frequency in the rat brain*. Trinity College, Hartford, CT, November, 2000.