

Curriculum Vitae

July 2019

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Education:

The Pennsylvania State University, University Park, PA

Ph.D. in Experimental Psychology, 1992. Dissertation: *Autonomic characteristics of panic and blood phobia*. Advisor: Julian F. Thayer

Minor in Health Psychology

M.S. in Experimental Psychology, 1989

Case Western Reserve University, Cleveland, OH

B.A. in Psychology with Honors, cum laude, 1985 (Minor in English)

Academic Employment:

Virginia Tech, Blacksburg, VA:

Associate Professor, Department of Psychology, Developmental and Biological Psychology Area, 2003-present

Assistant Professor, Department of Psychology, Psychological Sciences Area, 1997-2003

Visiting Assistant Professor, Department of Psychology, 1996-1997

Director and Founder, Mind-Body Lab, Department of Psychology, 1997-present

Washington University, St. Louis, MO

Research Associate and Lecturer, Department of Psychology, 1994-1996

Postdoctoral Research Fellow, Foundation for Idiodynamics and the Creative Process, 1994-96 Mentor: Saul Rosenzweig

University of Pittsburgh, Pittsburgh, PA

Postdoctoral Training Fellow, Western Psychiatric Institute and Clinic, 1992-1994.

Mentor: Michael T. Allen

The Pennsylvania State University, University Park, PA:

Research Associate, Stress and Anxiety Disorders Institute, Department of Psychology, 1991-1992

Graduate Instructor, Department of Psychology, 1992 (Research Methods)

Graduate Instructor, Department of Continuing Education, 1986-1992 (Introductory Psychology)

Research Interests: The psychophysiology of anxiety, autism, emotion, stress, and personality; the mind-body relationship in health and disease; heart rate variability analysis and autonomic nervous system activity; idiodynamics and the empirical study of individuals

Publications

Peer-reviewed journal articles

Pace-Schott, E.F., Amole, M., Aue, T., Balconi, M., Bylsma, L.M., Critchley, H., Demaree, H.A., Friedman, B.H., Gooding, A.E.K., Gosseries, O., Jovanovic, T., Kirby, L.A.J., Kozłowska, K., Laureys, S., Lowe, L., Magee, K., Marin, M-F., Merner, A., Robinson J.L., Smith, R.C., Spangler, D., Van Overveld, M., VanElzakker, M.B. (2019). Physiological feelings. *Neuroscience & Biobehavioral Reviews*, 103, 267-304. <https://doi.org/doi:10.1016/j.neubiorev.2019.05.002> (co-author listing based on alphabetical order)

Patriquin, M.A., Hartwig, E.M., Friedman, B.H., & Porges, S.W., & Scarpa, A. (2019). Autonomic response in autism spectrum disorder: Relationship to social and cognitive functioning. *Biological Psychology*.145, 185-197. <https://doi.org/10.1016/j.biopsycho.2019.05.004>

Grant, S.S., Magruder, K.P., & Friedman, B.H. (2018). Controlling for caffeine in cardiovascular research: A critical review. *International Journal of Psychophysiology*, 133, 193-201. doi:10.1016/j.ijpsycho.2018.07.001

Condy, E.E., Scarpa, A., & Friedman, B.H. (2017). Respiratory sinus arrhythmia predicts restricted repetitive behavior severity. *Journal of Autism and Developmental Disorders*, 47, 2795–2804. doi:10.1007/s10803-017-3193-2

McGinley, J.J., & Friedman, B.H. (2017). Autonomic specificity in emotion: The induction method matters. *International Journal of Psychophysiology*, 18, 48–57. doi: 10.1016/j.ijpsycho.2017.06.002

Spangler, D.P., & Friedman, B.H. (2017). A little goes a long way: Low working memory load is associated with optimal distractor inhibition and increased vagal control under anxiety. *Frontiers in Human Neuroscience*, 11, 1-15.

Yang, X., & Friedman, B.H. (2017). Individual differences in behavioral activation and cardiac vagal control influence affective startle modification. *Physiology & Behavior*, 172, 3-11.

Yang, X., Jennings, J.R., & Friedman, B.H. (2017) Exteroceptive stimuli override interoceptive state in reaction time control. *Psychophysiology*, 54, 1940-1950. DOI: 10.1111/psyp.12958

- Allen, B., & Friedman, B.H. (2016). Threatening the heart and mind of gender stereotypes: can imagined contact influence the physiology of stereotype threat? *Psychophysiology*, 53, 105-112. Featured article at Society for Psychophysiological Research website, October 2017.
- Thayer, J.F., Sollers III, J.J., Friedman, B.H., & Koenig, J. (2016). Gender differences in the relationship between resting heart rate variability and 24-hour blood pressure variability. *Blood Pressure*, 25, 58-62.
- McGinley, J.J., & Friedman, B.H. (2015). Autonomic responses to lateralized cold pressor and facial cooling tasks. *Psychophysiology*, 52, 416-424.
- Spangler, D.P., & Friedman, B.H. (2015). Effortful control and resiliency exhibit different patterns of cardiac autonomic control. *International Journal of Psychophysiology*, 96, 95-103.
- Friedman, B.H., Stephens, C.L., & Thayer, J.F. (2014). Redundancy analysis of autonomic and self-reported responses to induced emotions. *Biological Psychology*, 98, 19-28.
- Patriquin, M.A., Scarpa, A., Friedman, B.H., & Porges, S.W. (2013). Respiratory sinus arrhythmia: A marker for positive social functioning and receptive language skills in children with autism spectrum disorders. *Developmental Psychobiology*, 55 (2), 101-112.
- Allen, B., & Friedman, B.H. (2012). Positive emotion reduces dyspnea during slow paced breathing. *Psychophysiology*, 49, 690-696.
- Friedman, B.H. (2010). Feelings and the body: The Jamesian perspective on autonomic specificity of emotion. *Biological Psychology*, 84, 383-393.
- Friedman, B.H., & Kreibig, S.D. (2010). The biopsychology of emotion: Current theoretical, empirical, and methodological perspectives. *Biological Psychology*, 84, 381-382.
- Stephens, C.L., Christie, I.C., & Friedman, B.H. (2010). Autonomic specificity of basic emotions: evidence from pattern classification and cluster analysis. *Biological Psychology*, 84, 463-473.
- Vella, E.J., & Friedman, B.H. (2009). Hostility and anger-in: Cardiovascular reactivity and recovery to mental arithmetic stress. *International Journal of Psychophysiology*, 72, 253-259.
- Fox, E.A., Andrews, C., Fan, W., Jiao, J., Kassahun, A., Lu, S-C., Ma, Y., North, C., Ramakrishnan, N., Scarpa, A., Friedman, B.H., Sheetz, S.D., Shoemaker, D., Srinivasan, V., Yang, S., & Boutwell, L. (2008). A digital library for recovery, research, and learning from April 16, 2007 at Virginia Tech. *Traumatology*, 14, 64-84.
- Knepp, M.M., & Friedman, B.H. (2008). Cardiovascular activity during laboratory tasks in women with high and low worry. *Biological Psychology*, 79, 287-293.
- Wan, L., Friedman, B.H., Boutros, N.N., & Crawford, H.J. (2008). P50 sensory gating and attentional performance. *International Journal of Psychophysiology*, 67, 91-100.
- Wan, L., Friedman, B.H., Boutros, N.N., & Crawford, H.J. (2008). Smoking status affects men and women differently on schizotypal traits and cognitive failures. *Personality and Individual Differences*, 44, 425-435.

- Friedman, B.H. (2007). An autonomic flexibility-neurovisceral integration model of anxiety and cardiac vagal tone. *Biological Psychology*, 74, 185-199.
- Vella, E.J., & Friedman, B.H. (2007). Autonomic characteristics of defensive hostility: Reactivity and recovery to active and passive stressors. *International Journal of Psychophysiology*, 66, 95-101.
- Christie, I.C., & Friedman, B.H. (2004) Autonomic specificity of discrete emotion and dimensions of affective space: A multivariate approach. *International Journal of Psychophysiology*, 51, 143-153.
- Friedman, B.H., Christie, I.C., Sargent, S.L., & Weaver, J.B. (2004). Self-reported sensitivity to continuous non-invasive blood pressure monitoring via the radial artery. *Journal of Psychosomatic Research*, 57, 119-121.
- Friedman, B.H. (2003). Idiodynamics vis-a-vis psychophysiology: An idiodynamic portrayal of cardiovascular activity. *Journal of Applied Psychoanalytic Studies*, 5, 425-441.
- Friedman, B.H., & Santucci, A.K. (2003). Idiodynamic profiles of cardiovascular activity: A p-technique approach. *Integrative Physiological and Behavioral Science*, 38, 295-315.
- Friedman, B.H., Allen, M.T., Christie, I.C., & Santucci, A.K. (2002). Validity concerns of common heart-rate variability indices: Addressing quantification issues in time- and frequency-domain measures of HRV. *IEEE Engineering in Medicine and Biology*, 21(4), 35-40.
- Thayer, J.F., & Friedman, B.H. (2002). Stop that! Inhibition, sensitization, and their neurovisceral concomitants. *Scandinavian Journal of Psychology*, 43, 123-130.
- Friedman, B.H., Thayer, J.F., & Borkovec, T.D. (2000). Explicit memory bias for threat words in generalized anxiety disorder. *Behavior Therapy*, 31, 745-756.
- Thayer, J.F., Friedman, B.H., Borkovec, T.D., Molina, S., & Johnsen, B.H. (2000). Phasic heart period reactions to cued threat and non-threat stimuli in generalized anxiety disorder. *Psychophysiology*, 37, 361-368.
- Friedman, B.H., & Thayer, J.F. (1998). Anxiety and autonomic flexibility: A cardiovascular approach. *Biological Psychology*, 49, 303-323.
- Friedman, B.H., & Thayer, J.F. (1998). Autonomic balance revisited: Heart rate variability and panic anxiety. *Journal of Psychosomatic Research*, 44, 133-151.
- Muth, E.R., Thayer, J.F., Stern, R.M., Friedman, B.H., & Drake, C. (1998). The effect of autonomic nervous system activity on gastric myoelectric activity: Does the spectral reserve hypothesis hold for the stomach? *Biological Psychology*, 47, 265-278.
- Thayer, J.F., Smith, M., Rossy, L.A., Sollers, J.L., & Friedman, B.H. (1998). Heart period variability and depression: gender differences. *Biological Psychiatry*, 304-306.
- Friedman, B.H., Thayer, J.F., & Tyrrell, R.A. (1996). Spectral characteristics of heart period variability during cold face stress and shock avoidance in normal subjects. *Clinical Autonomic Research*, 6, 147-152.
- Thayer, J.F., Friedman, B.H., & Borkovec, T.D. (1996). Autonomic characteristics of generalized anxiety disorder and worry. *Biological Psychiatry*, 39, 255-266.

- Tyrrell, R.A., Thayer, J.F., Friedman, B.H., Leibowitz, H.W., & Francis, E.L. (1995). A behavioral link between the oculomotor and cardiovascular system. *Integrative Physiological and Behavioral Science*, 30, 46-67.
- Friedman, B.H., Thayer, J.F., & Borkovec, T.D., Tyrrell, R.A., Johnsen, B.H., & Colombo, R. (1993). Autonomic characteristics of nonclinical panic and blood phobia. *Biological Psychiatry*, 34, 298-310.
- Friedman, B.H., & Thayer, J.F. (1991). Facial muscle activity and EEG recordings: Redundancy analysis. *Electroencephalography and Clinical Neurophysiology*, 79, 358-360.

Book

- Stephens, C., Allen, B., & Thompson, N. (2009). *Psychophysiology/Cognitive Neuroscience Lab Manual* (B. Friedman, Contributing Editor). Dubuque, IA: Kendall Hunt Publishing.

Book Chapters and Conference Proceedings

- Grant, S. S., Huskey, A., Faunce, J. A., & Friedman, B. H. (in press). Negative memory biases in health and psychiatric disorders. To appear in T. Aue & H. Okon-Singer (Eds.), *Cognitive biases in health and psychiatric disorders*. Amsterdam, Netherlands: Elsevier.
- Patriquin, M.A., Scarpa, A., & Friedman, B.H. (2013). Physiological assessment. In B.D. McLeod, A. Jensen-Doss, & T.H. Ollendick (Eds.), *Diagnostic and behavioral assessment in children and adolescents* (pp. 219-239). New York, NY: Guilford Press.
- Wilhelm, F.H., Schneider, S. & Friedman, B.H. (2006). Psychophysiological assessment. In M. Hersen (Ed.), *Clinician's handbook of child behavioral assessment* (pp. 201- 231). Burlington, MA: Elsevier
- Thayer, J.F., & Friedman, B.H. (2004). A neurovisceral integration model of health disparities in aging. In N.B. Anderson, R.A. Bulatao, & B. Cohen (Eds.), *Critical perspectives on racial and ethnic differences in health in late life* (pp. 567-603). National Academy Press, Washington, D.C.
- Thayer, J.F., & Friedman, B.H. (2000). The design and analysis of experiments in engineering psychophysiology. In R.W. Backs & W. Boucsein (Eds.), *Engineering psychophysiology: Issues and applications* (pp. 59-78). Mahwah, NJ: Lawrence Erlbaum & Associates, Inc.
- Thayer, J.F., & Friedman, B.H. (1997). The heart of anxiety: A dynamical systems approach. In A. Vingerhoets, F. van Bussel, & J. Boelhouwer (Eds.), *The (non) expression of emotions in health and disease* (pp. 39-49). Tilburg, The Netherlands: Tilburg University Press.
- Thayer, J.F., & Friedman, B.H. (1993). Assessment of anxiety using heart rate nonlinear dynamics. In W. Ditto (Ed.), *Chaos in Biology and Medicine: Proceedings of the International Society for Optical Engineering*, 2036, 42-48.

Manuscripts Submitted for Publication

- Condy, E.E., Scarpa, A., & Friedman, B.H. *Restricted repetitive behaviors in autism spectrum disorder: A systematic review from the neurovisceral integration perspective.*
- Grant, S., Kim, K., & Friedman, B.H. *How long is long enough? Controlling for acute caffeine intake in cardiovascular research.*
- Friedman, B.H., & Thayer, J.F. *Is emotion physiology more compatible with discrete, dimensional or appraisal accounts? An historical overview and dynamic systems perspective.*
- Lewis, M.W., Friedman, B.H., & Jones, R.T. *Heterogeneity in fear acquisition: A latent class growth analysis.*

Manuscripts in Preparation/Progress

- Condy, E.E., Friedman, B.H., & Gandjbakhche, A. *Examining the Neurovisceral Integration Model through fNIRS*
- Spangler, D.P., Gamble, K.R., Thayer, J.F., Brooks, J.R., & Friedman, B.H. *Interplay between induced anxiety, heart rate variability, and cognition: An ex-Gaussian analysis of response times.*
- Yang, X., & Friedman, B.H. *Differentiation between the effects of physical and psychosocial stress on a feedback-based learning task.*

Abstracts

- Condy, E., Friedman, B.H., & Gandjbakhche, A. (in press). RSA reactivity relates to performance on a Go/No-Go behavior inhibition task. *Psychophysiology*, (Suppl. 1).
- Faunce, J. A., Lewis, M.W., Friedman, B.H., & Jones, R. T. (in press). Phobic fear does not predict sensitization to acoustic startle stimuli during habituation. *Psychophysiology*, (Suppl. 1).
- Dike, J., Faunce, J.A., Lewis, M.L., Friedman, B.H., & Jones, R.T. (in press). Complex PTSD symptom effects and cardiac response to startle stimuli during fear conditioning. *Psychophysiology*, (Suppl. 1).
- Huskey, A., & Friedman, B.H. (in press). Fear inhibition as a learning measure of generalized unsafety. *Psychophysiology*, (Suppl. 1).
- Kissel, H.A., Faunce, J.A., Friedman, B.H. (in press). The heart can be unpredictable: examining EMG and cardiac startle responses during fear conditioning. *Psychophysiology*, (Suppl. 1).
- Nackley, B., Lewis, M.W., Huskey, A., & Friedman, B.H. (in press). What's blood got to do with it? Cardiac response to startle and fear conditioning in blood phobia. *Psychophysiology*, (Suppl. 1).
- Yang, X, Jennings, J.R., & Friedman, B.H. (in press). Electromyographic activity mediates accessory stimulus effect but not cardiac timing effect. *Psychophysiology*, (Suppl. 1).

- Grant, S.S., Van Orden, C.S., Derosier, N.K., Brewer, N.K., Rosazza, C.A., & Friedman, B.H. (2018). Dimensions of cardioception in relation to heart rate, high-frequency heart rate variability, and trait anxiety. *Psychophysiology*, 55 (Suppl. 1), S58.
- Huskey, A., Van Orden, C., Lewis, M., Mohnsen, M., Johannsen, P., & Friedman, B.H. (2018). Affect dysregulation predicts blunted startle response. *Psychophysiology*, 55 (Suppl. 1), S100.
- Kissel, H.A., Huskey, A., Friedman, B.H., & Lewis, M. (2018). Worry, cumulative trauma, and very low frequency HRV predict somatic symptoms: Support for the GUTS model. *Psychophysiology*, 55 (Suppl. 1), S98.
- Lewis, M.W., Jones, R.T., Huskey, A.M., Reyes, M.M., Van Orden, C., & Friedman, B.H. (2018). Latent class growth analysis, electromyography, and heterogeneity in fear learning: methodological considerations and theoretical implications. *Psychophysiology*, 55 (Suppl. 1), S56.
- Nackley, B., Lewis, M., Huskey, A., & Friedman, B.H. (2018). Is high-frequency heart rate variability always a marker for adaptive responding? *Psychophysiology*, 55 (Suppl. 1), S131.
- Yang, X., Nackley, B., & Friedman, B.H. (2018). Physical and psychosocial stress differentially affect feedback-based learning. *Psychophysiology*, 55 (Suppl. 1), S76.
- Grant, S., Kissel, H., & Friedman, B. (2018). Differential mechanisms associated with caffeine-induced blood pressure increases for women and men. *Psychosomatic Medicine*, 80, A52.
- Yang, X., Jennings, J.R., & Friedman, B.H. (2017). Feel the heart, feel the fear: Interoceptive accuracy modulates the valence effect of accessory stimuli. *Psychophysiology*, 54 (Suppl. 1), S81.
- Yang, X., Spangler, D.P., Myers, B., Friedman, B.H., & Jennings, J.R. (2017). Heart rate variability and body mass index are associated with very slow choice response times during cardiac diastole. *Psychophysiology*, 54 (Suppl. 1), S114.
- Condy, E.E., & Friedman, B.H. (2016). Increased respiratory sinus arrhythmia during recovery predicts social awareness deficits. *Psychophysiology*, 53 (Suppl. 1), S55.
- Grant, S.S, Friedman, B.H, Huskey, A., White, J., & Kim, K (2016). How long is long enough? Heart rate variability, heart rate, and blood pressure responses following a six hour caffeine abstention. *Psychophysiology*, 53 (Suppl. 1), S54.
- Simon, T., Berger, K., Friedman, B.H., & McGinley, J.J. (2016). Autonomic differentiation for emotions? How about autonomic differentiation for emotion-eliciting tasks? *Psychophysiology*, 53 (Suppl. 1), S27.
- Spangler, D.P., Hummer, L., Braunstein, L., Yang, X., & Friedman, B.H. (2016). A little goes a long way: low working memory load is associated with optimal distractor inhibition and increased vagal control under anxiety. *Psychophysiology*, 53 (Suppl. 1), S18.

- Yang, X., Jennings, J.R., Friedman, B.H., Braunstein, L., Vohra, H., Garcia, O., & Huskey, A. (2016). Exteroceptive stimulus overrides interoceptive state in control of reaction speed. *Psychophysiology*, 53 (Suppl. 1), S49.
- McGinley, J.J., Choi, H., & Friedman, B.H. (2016). Autonomic expression to negative emotions: The context matters. *Annals of Behavioral Medicine*, 50 (Suppl.1), S122.
- Grant, S., Friedman, B., McGinley, J., Condry, E., Yang, X., Banister, M., White, J., & Kim, K. (2016). Controlling for caffeine in cardiovascular research: Heart rate, HRV, and blood pressure responses to a 6-hour abstinence. *Annals of Behavioral Medicine*, 50 (Suppl.1), S122.
- Condry, E.E., Spangler, D.P., & Friedman, B.H. (2015). Atypical pre-ejection period responses in Generalized Anxiety Disorder. *Psychophysiology*(Suppl. 1), S56.
- Grant, S., Friedman, B.H., McGinley, J.J., Condry, E.E., Yang, X., Banister, M., White, J.B., & Kim, K. (2015). Controlling for caffeine in cardiovascular reactivity research: Heart rate and blood pressure responses following a 6 hour abstinence. *Psychophysiology*(Suppl. 1), S56.
- McGinley, J.J., Choi, H., Friedman, B.H. (2015). Univariate autonomic responses to discrete emotion manipulations continue to vary across different methods of manipulation. *Psychophysiology*(Suppl. 1), S121.
- Spangler, D.S., Bell, M.A., Deater-Deckard, K., & Friedman, B.H. (2015). Emotion suppression moderates the quadratic association between RSA and executive function. *Psychophysiology*(Suppl. 1), S56.
- McGinley, J.J., Lee, E. A., & Friedman, B.H. (2014). RMSSD and high frequency power are highly correlated, but are they measuring the same thing? *Psychophysiology*(Suppl. 1), S23.
- Spangler, D.P., & Friedman, B.H (2014). Effortful control & ego-resiliency: The role of cardiac autonomic regulation. *Annals of Behavioral Medicine* (Suppl.), 47, s195 (Meritorious Poster winner, Society of Behavioral Medicine.)
- Spangler, D.P., & Friedman, B.H (2014). Measuring trait emotion regulation with heart rate variability: A SEM approach. *Psychophysiology*(Suppl. 1), S23.
- Spangler, D.P., Yang, X., & Friedman, B.H. (2014). Activation control: Heightened or blunted cardiac sympathetic regulation? *Psychosomatic Medicine*, 76, A16.
- Yang, X., Spangler, D.P., McGinley, J.J., & Friedman, B.H. (2014). Individual differences in attentional control influence affective startle modification. *Psychophysiology*(Suppl. 1), S22.
- Allen, B., Spangler, D.P., Morrill, A.R., Magruder, K., & Friedman, B.H. (2012). Coactivation of the parasympathetic and sympathetic nervous system during eyes-closed imagination. *Psychophysiology*(Suppl. 1), S39.
- McGinley, J.J., Magruder, K., Morrill, A.R., Worthen, J., Flamini, M., & Friedman, B.H. (2012). Cardiovascular responses to lateralized facial cooling and foot cold pressor tasks: implications for ANS regulation models. *Psychophysiology*(Suppl. 1), S86.

- Patriquin, M.A., Scarpa, A., Friedman, B.H., White, S.W., & Kishida, K.T. (2012). Autism spectrum disorders through a neurophysiological lens. *Psychophysiology*(Suppl. 1), S7.
- Spangler, D.P., Allen, B., Yang, X., & Friedman, B.H. (2012). Cardiac responses to stress during menstruation. *Psychophysiology*(Suppl. 1), S44.
- Allen, B., Powles, R., & Friedman, B.H. (2011). Vagally mediated beat-to-beat fluctuations in heart rate improve pulmonary gas exchange efficiency. *Psychophysiology*, 48(Suppl. 1), S35.
- McGinley, J.J., Morrill, A., Worthen, J., Spangler, D., Powles, R. & Friedman, B.H. (2011). Cardiovascular responses to lateralized hand cold pressor. *Psychophysiology*, 48(Suppl. 1), S29.
- McGinley, J.J., Powles, R., Mooney, M., & Friedman, B.H. (2011). Cardiovascular responses to lateralized warm water hand submersion. *Psychophysiology*, 48(Suppl. 1), S74.
- Spangler, D.P., McGinley, J.J., Friedman, B.H., & Powles, R. (2011). Approach-avoidance temperament and cardiac responses to hand cold pressor. *Psychophysiology*, 48(Suppl. 1), S74.
- Allen, B., & Friedman, B.H. (2010). Positive emotion reduces affective and sensory dimensions of dyspnea during slow paced breathing. *Psychophysiology*, 47(Suppl. 1), S39.
- Allen, B., Pardikes, T.J., & Friedman, B.H. (2010). The presence of high frequency power during slow paced breathing. *Psychophysiology*, 47(Suppl. 1), S39.
- Pardikes, T.J., Friedman, B.H., Allen, B., Mooney, M.K, Mabrouk, H., & McGinley, J.J. (2010). The effects of meditative practice on autonomic activity in a dual task paradigm. *Psychophysiology*, 47(Suppl. 1), S66.
- Allen, B., Pardikes, T.J., & Friedman, B.H. (2009). Tidal volume during slow paced breathing is related to several cardiac indices. *Psychophysiology*, 46(Suppl. 1), S34.
- Pardikes, T.J., Allen, B., & Friedman, B.H. (2009). Effects of respiration rate on four metrics of RSA during a quiet rest and dual stressor task. *Psychophysiology*, 46(Suppl. 1), S34.
- Allen, B., Pardikes, T.J., Friedman, B.H., & Stephens, C.L (2008). Impulsivity, gender, and differential sympathetic activity. *Psychophysiology*, 45(Suppl. 1), S41.
- Christie, I.C., & Friedman, B.H. (2008). Vagal rebound in response to orthostatic challenge relates to Big 5 personality variables. *Psychophysiology*, 45(Suppl. 1), S99.
- Pardikes, T.J., Friedman, B.H., Allen, B., Stephens, C.L., Ramsey, R.E., & Tiffin, L.E. (2008). Exploring voluntary and involuntary autonomic responses. *Psychophysiology*, 45(Suppl. 1), S35.
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- Knepp, M.M., Moore, M.E., Carpenter, J.G., & Friedman, B.H. (2007). The effects of trait worry, state anxiety, and task difficulty on heart rate. *Psychophysiology*, 44(Suppl. 1), S40.
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- Friedman, B.H., Blough, K.L., & Stephens, C.L. (2006). Neuroticism and heart rate variability in response to emotion elicitation. *Psychophysiology*, 43(Suppl. 1), S40.
- Vella, E.J., & Friedman, B.H. (2006). Hostility and anger in: Low frequency power reactivity and recovery to mental arithmetic stress with harassment. *Annals of Behavioral Medicine*, 31(Suppl 1), S100.
- Wan, L., Friedman, B.H., & Crawford, H.J. (2006). Monoamine oxidase activity (MAO) and sensory gating in female teenage smokers. *Psychophysiology*, 43(Suppl. 1), S104.
- Christie, I. C., Friedman, B. H., Blough, K. L., Sweet, M. L., & Stephens, C. L. (2005). Behavioral inhibition/activation and cardiac reactivity across and within autonomically diverse tasks. *Psychophysiology*, 42(Suppl. 1), S44.
- Friedman, B.H., Lozier, L.M., & Vella, E.J. (2005). Gender differences in cardiovascular responses to lateralized hand cold pressor. *Psychophysiology*, 42(Suppl. 1), S56.
- Vella, E.J., Friedman, B.H., Elcano, J., Evans, T., & Sweet, M. (2005). Hostility and anger out: Cardiovascular reactivity and recovery to mental arithmetic stress with harassment. *Psychophysiology*, 42(Suppl. 1), S126.
- Christie, I.C., & Friedman, B.H. (2004). Heart period variability during discrete emotion: additional analyses and a methodological recommendation regarding standardization of repeated measurements. *Psychophysiology*, 41(Suppl. 1), S39.
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- Friedman, B.H. & Christie, I.C. (2003). Sex differences in relationships among measures of heart period and blood pressure variability. *Psychophysiology*, 40(Suppl. 1), S41.
- Hurley, J.D., Scarpa, A., Friedman, B.H., & Ollendick, T.H. (2003). Treatment of specific phobias in children: Effect on salivary cortisol. *Psychophysiology*, 40(Suppl. 1), S49.
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- Tyrrell, R.A., Thayer, J.F., Friedman, B.H., Leibowitz, H.W., & Francis, E.L. (1993). The ANS links oculomotor and cardiovascular activity and suggests a mechanism for visually induced cardiovascular stress. *Psychosomatic Medicine*, 55, 109-110.
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- Friedman, B.H., & Thayer, J.F. (1990). Facial muscle activity and EEG recordings II: Redundancy analysis. *Psychophysiology*, 27(Suppl. 4A), S33.
- Friedman, B.H., & Thayer, J.F. (1989). Pattern classification of EEG responses to induced emotion: Site and frequency specificities. *Psychophysiology*, 26(Suppl. 4A), S27.
- Friedman, B.H., & Thayer, J.F. (1988). Pattern classification and covariation of electrocortical, somatic, and self-report measures of emotion. *Psychophysiology*, 25, 448.
- Landy, F.J., Colvin, C., Thayer, J.F., & Friedman, B.H. (1987a). Behaviorally anchored rating scales for the measurement of time urgency. *Psychophysiology*, 24, 597
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Invited Addresses

- Friedman, B.H. (2018, October). Presenter, Distinguished Career Award to Julian Thayer, annual meeting of the Society for Psychophysiological Research, Quebec City, Quebec, Canada.
- Friedman, B.H. (2014, September). *Adaptability and autonomic flexibility: A neurovisceral integration approach*. Keynote address, Adaptability Research Symposium, Center for Chiropractic Progress, Chicago, IL.

Friedman, B.H. (2000, May). *Idiodynamic profiles of cardiovascular activity*. Rosenzweig Jubilee: A symposium to honor Saul Rosenzweig. Department of Psychology, Washington University, St. Louis, MO.

Conference Presentations

Friedman, B.H. (2019, September). Discussant. In *Beyond observation: Transcutaneous vagus nerve stimulation in psychophysiological research* (J. Koenig, Chair). Symposium to be presented at the annual meeting of the Society for Psychophysiological Research, Washington, DC.

Lewis, M., Jones, R.T., Huskey, H., Reyes, M., Van Orden, C., & Friedman, B.H. (2018, November). *Heterogeneity in fear acquisition: A latent class growth analysis*. Poster presented at the annual meeting of the International Society for Traumatic Stress Studies, Washington, D.C.

Courtney, R., Brice, P., & Friedman, B.H. (2018, October). *Personality and exercise as predictors of perceived stress*. Poster presented at the Annual Conference of the Association for Applied Sport Psychology, Toronto, Canada.

Friedman, B.H. (2018, October). Chair, *The heart of emotion regulation: implications of cardiac measures in emotion regulation research*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, Quebec City, Canada.

Spangler, D.P., Yang, X., & Friedman, B.H. (2018, October). Cardiac vagal control is associated with cognitive mechanisms of emotion regulation. In B.H. Friedman (Chair), *The heart of emotion regulation: implications of cardiac measures in emotion regulation research*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, Quebec City, Canada.

Yang, X., Spangler, D.P., & Friedman B.H. (2018, April). Individual differences in reappraisal influence effects of affective images on working memory performance. In I. Yaroslavsky (Chair), *From the benchside to the bedside: Connecting biological and behavioral pathways for depression risk across laboratory and daily life setting*. Symposium presented at the annual meeting of the Midwestern Psychological Association, Chicago IL.

Grant, S., Friedman, B., Huskey, A., White, J., & Kim, K. (2016, May). *How long is long enough? Heart rate variability, heart rate, and blood pressure responses following a 6-hour abstention*. Poster presented at the Mid-Atlantic PREP/IMSD Research Symposium, Virginia Commonwealth University, Richmond, VA.

Condy, E.E., & Friedman, B.H. (2016, May). *Baseline respiratory sinus arrhythmia predicts restricted repetitive behavior severity*. Poster presented at the International Meeting for Autism Research, Baltimore, MD.

Yang, X., Spangler, D.P., McGinley, J.J., Grant, S., Condy, E.E., Fleming, L., & Friedman, B.H. (2015, May). *Activation control influences acoustic startle habituation*. Poster presented at the annual meeting of the Association for Psychological Science, New York, NY.

- Condy, E.E., Patriquin, M.A., Scarpa, A., & Friedman, B.H. (2015, May). *Respiratory sinus arrhythmia: A moderator of emotion regulation and social motivation deficits in ASD*. Poster presented at the International Meeting for Autism Research, Salt Lake City, UT.
- Fleming, L.L., & Friedman, B.H. (2014, November). *Heart song: The autonomic specificity of musically-induced emotions*. Poster presented at the Annual Biomedical Research Conference for Minority Students, San Antonio, TX.
- Lee, E.A., Friedman, B.H. (2014, April). *Implicit race bias and intergroup social anxiety effects on cardiovascular reactivity*. Poster presented at the Virginia Tech Undergraduate Research Conference, Blacksburg, VA.
- McGinley, J.J., Baldner, C., Tallman, C. W., & Friedman, B.H. (2014, May). *Comparative analyses of cognitive and affective scales of empathy questionnaires*. Poster presented at the annual meeting of the Association for Psychological Science, San Francisco, CA.
- Yang, X., Lee, E., Grant, S., Condy, E., Tallman, C., Fleming, L., & Friedman, B.H. (2014, May). *Better control, less startled: Individual differences in motivation and attention influence startle modification*. Poster presented at the Mid-Atlantic PREP/IMSD Research Symposium, UNC-Chapel Hill, NC.
- Yang, X., Lee, E., Grant, S., Condy, E., Tallman, C., Fleming, L., & Friedman, B.H. (2014, May). *Individual differences in motivation and attention influence startle modification*. Poster presented at the annual meeting of the Association for Psychological Science, San Francisco, CA.
- McGinley, J.J., Cauley, N.S., & Friedman, B.H. (2013, May). *Comparison and predictive validity of two self-report generalized anxiety disorder questionnaires*. Poster presented at the annual meeting of the Association for Psychological Science, Washington D.C.
- Spangler, D.P., Cauley, N.S., & Friedman, B.H. (2013, May). *Effortful control predicts individual differences in cardiac vagal regulation*. Poster presented at the annual meeting of the Association for Psychological Science, Washington, D.C.
- Spangler, D.P., Cauley, N., & Friedman, B.H. (March, 2013). *Effortful control predicts individual differences in cardiac vagal regulation*. Poster presented at the Central Virginia Chapter of the Society for Neuroscience Symposium, Virginia Tech Carilion Research Institute, Roanoke, VA.
- Friedman, B.H. (2012, September). Chair, *New developments in the psychophysiology of autism spectrum disorders*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, New Orleans, LA.
- Patriquin, M.A., Scarpa, A., Friedman, B.H. & Porges, S.W. (2012, June). Correlates of respiratory sinus arrhythmia in autism spectrum disorders: Impact on social development changes. In A.V. Van Hecke (Chair), *Cardiovascular regulation and social behavior in typically developing and at-risk infants and children*. Symposium presented at the International Conference on Infant Studies. Minneapolis, MN.

- Patriquin, M.A., Scarpa, A., Friedman, B.H., & Porges, S.W. (2012, May). *Respiratory sinus arrhythmia in children with ASD: A biomarker for positive functioning*. Paper presented at the International Meeting for Autism Research. Toronto, Canada.
- McGinley, J.J., Magruder, K., Morrill, A., Worthen, J., Yang, X., Klineburger, P. & Friedman, B.H. (2012, May). *Bilateral electrodermal responses to lateralized stimuli presentations*. Poster presented at the annual meeting of the Association for Psychological Science, Chicago, IL.
- McGinley, J.J., Powles, R., Allen, B., Friedman, B.F., & Spangler, D. (2011, May). *The warm water conundrum: an examination of cardiovascular responses*. Poster presented at the annual meeting of the Association for Psychological Science, Washington, D.C.
- Patriquin, M.A., Scarpa, A., Friedman, B.H., & Porges, S.W. (2011, May). *Respiratory sinus arrhythmia: A marker of positive functioning in children with autism spectrum disorders*. Poster presented at the annual International Meeting for Autism Research, San Diego, CA.
- Knepp, M.M., Friedman, B.H., & Mooney, M.K. (2010, May). *Blood pressure differences related to body positioning in low and high worriers*. Poster presented at the annual meeting of the Association for Psychological Science, Boston, MA.
- McGinley, J.J. Knepp, M.M., & Friedman, B.H., (2010, May). *Heart rate variability differences between female alcohol users and non-drinkers*. Poster presented at the annual meeting of the Association for Psychological Science, Boston, MA.
- Allen, B., Pardikes, T.J., Friedman, B.H., & Stephens, C.L. (2008, May). *Impulsivity and sympathetic nervous system activity*. Poster presented at the annual meeting of the Association for Psychological Science, Chicago, IL.
- Friedman, B.H. (2008, October). Chair, *The psychophysiology of anxiety and worry: A symposium in honor of the contributions of Thomas D. Borkovec*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, Austin, TX.
- Friedman, B.H., & Knepp, M.M. (2008, March). *Autonomic reactivity in high and low trait worry*. Poster presented at the annual meeting of the American Psychosomatic Society, Baltimore, MD.
- Knepp, M.M., & Friedman, B.H., (2008, October). Cardiac reactivity in high and low trait worry women. In B.H. Friedman (Chair), *The psychophysiology of anxiety and worry: A symposium in honor of the contributions of Thomas D. Borkovec*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, Austin, TX.
- Pardikes, T.J., Allen, B., Friedman, B.H., & Stephens, C.L. (2008, May). *Exploring involuntary and voluntary autonomic actions*. Poster presented at the annual meeting of the Association for Psychological Science, Chicago, IL.
- Pardikes, T.J., Allen, B., Stephens, C.L., & Friedman, B.H. (2008, March). Stress and sympathetic reactivity. *Psychosomatic Medicine*. Poster presented at the annual meeting of the American Psychosomatic Society, Baltimore, MD.

- Stephens, C.L., Allen, B., Friedman, B.H., & Ramsey, R.E. (2008, May). *Autonomic differentiation of emotions via multivariate statistics*. Poster presented at the annual meeting of the Association for Psychological Science, Chicago, IL.
- Christie, I.C., Stephens, C.L., & Friedman, B.H. (2007, October). Shrinking the elephant: The utility of multivariate statistical tools and the impact of methodology on the generation of and integrated affect model. In S. Kreibig (Chair), *William James' legacy: The present state of autonomic response specificity of emotion*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, Savannah, GA.
- Friedman, B.H. (2007, October). Feelings and the body: William James and autonomic specificity of emotion. In S. Kreibig (Chair), *William James' legacy: The present state of autonomic response specificity of emotion*. Symposium presented at the annual meeting of the Society for Psychophysiological Research, Savannah, GA.
- Knepp, M.M., Stephens, C.L., & Friedman, B.H. (2007, May). *Daily habits, physical wellbeing and mental health and relationships with trait worry*. Poster presented at the annual meeting of the Association for Psychological Science, Washington D.C.
- Patriquin, M.A., Knepp, M. M., Wells, A.O., Scarpa, A., & Friedman, B. H. (2007, May). *The effect of internet use on autonomic responses in undergraduates*. Poster presented at the annual meeting of the Association for Psychological Science, Washington D.C.
- Stephens, C.L., Knepp, M.M., & Friedman, B.H. (2007, May). *Empirical validation of music excerpts for investigations of emotion and emotion elicitation*. Poster presented at the annual meeting of the Association for Psychological Science, Washington D.C.
- Friedman, B.H., Lozier, L.M., Stephens, C.L., Knepp, M.M., Pardikes, T.J., & Vella, E.J. (2006, May). *Gender and hemispheric differences in cardiovascular responses to lateralized hand cold pressor*. Poster presented at the annual meeting of the Association for Psychological Science, New York, NY.
- Vella, E.J., & Friedman, B.H. (2006, May). *Hostility, anger, and harassment: cardiovascular reactivity and recovery to mental arithmetic stress*. Poster presented at the annual meeting of the Association for Psychological Science, New York, NY.
- Friedman, B.H. (2005, December). *Feelings and the Body: The Impact of William James' Theory of Emotion*. Paper presented at the interdisciplinary symposium, The Mind Project: Intersections of Philosophy, Humanities, and Human Science, 1876-1920, Virginia Tech.
- Davis, T.E. III, Friedman, B.H., Ollendick, T.H., Sirbu, C., Chelf, M., & Öst, L.-G. (2005, November). *Cognitive-behavioral therapy for specific phobia in children: physiological outcomes and mediators*. Poster presented at the annual meeting of the American Academy for Behavior Therapy, Washington, D.C.
- Christie, I.C., Stephens, C.L., & Friedman, B.H. (2005, May). *Behavioral inhibition/activation and heart period variability response to challenge: Implications of task selection*. Poster presented at the annual meeting of the American Psychological Society, Los Angeles, CA.

- Santucci, A.K., & Friedman, B.H. (2004, May). *Adult temperament and emotional responses to stressor tasks*. Poster presented at the annual meeting of the American Psychological Society, Chicago IL.
- Christie, I.C., & Friedman, B.H. (2003, June). *Discrete emotions in a dimensional landscape: Further support for a valence-activation circumplex*. Poster presented at the annual meeting of the American Psychological Society, Atlanta, GA.
- Vella, E.J., Friedman, B.H., Lozier, L., & Laskey, G. (2003, June). *Defensive hostility differentially predicts cardiovascular reactivity and recovery to active and passive stressors in male subjects*. Poster presented at the annual meeting of the American Psychological Society, Atlanta, GA.
- Vella, E.J., & Friedman, B.H. (2003, March). *The autonomic characteristics of defensive hostility*. Poster presented at the annual meeting of the American Psychosomatic Society, Phoenix, AZ.
- Friedman, B.H. (2002, October). Chair, *The psychophysiology of anxiety: Basic findings and clinical applications*. Symposium conducted at the annual meeting of the Society for Psychophysiological Research, Washington, D.C.
- Friedman, B.H., & Pumphrey, B.G. (2002, July). *Autonomic nervous system correlates of the Rosenzweig Picture-Frustration Study*. Paper presented at the meeting of the International Society for Research on Aggression, Montreal, Canada.
- Christie, I.C., Friedman, B.H., Sargent, S.L., & Weaver, J.B. (2001, June). *Velten mood induction does not appear to elicit affect-specific autonomic changes*. Poster presented at the annual meeting of the American Psychological Society, Toronto, ON, Canada.
- Santucci, A.K., Friedman, B.H., & Kyrgos, E.C. (2001, June). *Autonomic and cognitive characteristics of anxiety, depression, and co-morbid anxiety-depression*. Poster presented at the annual meeting of the American Psychological Society, Toronto, ON, Canada.
- Friedman, B.H. (2000, October). Chair, *Psychophysiology and neuroscience: Crossroads and convergences*. Symposium conducted at the annual meeting of the Society for Psychophysiological Research, San Diego, CA.
- Friedman, B.H. (1999, October). Discussant, *Worry, rumination, and health* (J.F. Brosschot & J.F. Thayer, chairs). Symposium conducted at the annual meeting of the Society for Psychophysiological Research, Granada, Spain.
- Friedman, B.H., Takayama, E., Long, D.L., & Thayer, J.F. (1997, May). *Affective and cardiac reactions to quiet rest, shock avoidance, facial cooling, and combined shock*. Poster presented at the annual meeting of the American Psychological Society, Washington, D.C.
- Friedman, B.H. (1996, January). *Idiodynamics and the boundaries of the self*. Paper presented at the meeting of the International Association of Spiritual Psychiatry/ Foundation for Religious Resources in Psychotherapy, St. Louis, MO.

- Thayer, J.F., Borkovec, T.D., & Friedman, B.H. (1995, July). Phasic heart rate reactions to cued threat and non-threat stimuli in generalized anxiety disorder. In J.F. Thayer (Chair), *Attentional regulation and psychological dysfunction*. Symposium conducted at the annual meeting of the World Congress of Behavioral Cognitive Therapy, Copenhagen, Denmark.
- Friedman, B.H. (1995, May). *Reactivity reconceptualized: Cardiovascular idiodynamics*. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago IL.
- Thayer, J.F., Collins, D.J., & Friedman, B.H. (1994, July). *Individual differences in the structural stability of heart rate regulation*. Paper presented at the annual meeting of the International Congress of Behavioral Medicine, Amsterdam, The Netherlands.
- Friedman, B.H., Thayer, J.F., Borkovec, T.D., & Lyonfield, J.D. (1993, April). *Psychophysiological assessment of generalized anxiety disorder*. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Friedman, B.H., Thayer, J.F., & Borkovec, T.D. (1992, April). *Autonomic components of panic and blood phobia*. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Thayer, J.F., Friedman, B.H., & Colombo, R.C. (1992, September). *Inter- and intra-individual differences in heart rate nonlinear dynamics*. Paper presented at the annual meeting of the International Organization of Psychophysiology, Berlin, Germany.
- Friedman, B.H., & Thayer, J.F. (1991, June). *Redundancy analysis of multisite-multiband EEG data*. Poster presented at the annual meeting of the American Psychological Society, Washington, D.C.
- Miller, M.L., Thayer, J.F., & Friedman, B.H. (1991, April). *The multidimensionality of social competence*. Paper presented at the Annual Meeting of the Western Psychological Association, San Francisco, CA.
- Friedman, B.H. (1989, May). Pattern classification of electrocortical responses to induced affective states. In J. S. Tanaka (Chair), *Contextual factors in the experience of negative affect*. Symposium conducted at the annual meeting of the Midwestern Psychological Association, Chicago, IL.
- Thayer, J.F., Friedman, B.H., & Tait, E. (1988, April). *Differences among depressives and schizophrenics in response to affective visual and auditory stimuli*. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.

Awards & Grants

- 2019: Virginia Tech ICAT Student SEAD Grant; “Wireless Psychophysiological Recording in the Augmented Reality Environment” (Faculty advisor to student PI Brittany Nackley) Total Costs: \$2210.
- 2018: Virginia Tech College of Science Dean’s Discovery Fund “Long-Term Neurobehavioral and Psychosocial Impacts of the Virginia Tech Shootings.” *Role: Principal Investigator* (Co-PI: Russell Jones, Ph.D). Total Costs: \$20,000.

2017: Virginia Tech Adaptive Brain and Behavior Destination Area “Long-Term Neurobehavioral and Psychosocial Adaptations Following the Virginia Tech Shootings: A Ten-year Follow-up.” *Role: Co-Principal Investigator* (Co-PIs: Russell Jones, Ph.D., Michael Hughes, Ph.D., Tina Savla, Ph.D., Andrew Smith, Ph.D., Kye Kim, M.D.). Total Costs: \$10,000.

2017: Virginia Tech International Travel Supplemental Grant (\$1500).

2016: Virginia Tech College of Science Research Assignment Leave (Spring semester).

2015: VT Center for Autism Student Research Award “Heartbeat interoception in autism spectrum disorder.” *Role: Faculty Sponsor* (Emma Condry, M.S., recipient; \$1000).

2014: VT Center for Autism Student Research Award “Autonomic arousal in autism.” *Role: Faculty Sponsor* (Emma Condry, M.S., recipient; \$925).

2014: Carilion Clinic Research Acceleration Program “The confound of caffeine: controlling caffeine in cardiovascular reactivity research.” *Role: Principal Investigator* (Co-PIs: Kye Kim, M.D., Justin White, M.D.) Total Costs: \$14,050.

2011: Virginia Tech Institute for Society, Culture and Environment (ISCE), Virginia Tech: Summer Scholars Program (NIMH R21) “Neurophysiological underpinnings of social and behavioral challenges in autism spectrum disorders.” *Role: Research Team Member*.

2008: Virginia Tech College of Science Research Assignment Leave (Spring semester).

2007, June: Virginia Tech Scholar of the Week

2007: Virginia Tech Grant Writing Institute (Summer salary stipend).

2001 - 2006: NIMH RO1 "One session treatment of phobias in Children." *Role: Co-Investigator* (PIs: Thomas Ollendick, Ph.D., Lars Goran-Ost, Ph.D.) Total Costs: \$1.6 million.

2000: Virginia Tech College of Arts & Sciences "Millennium Grant". *Role: Principal Investigator*. Total Costs: \$6000.

2000: Virginia Tech ASPIRES "Laboratory for the Study of Human Thought & Action." *Role: Co-Investigator* (PIs: James B. Weaver III, Ph.D., Catherine Eckel, Ph.D.). Total Costs: \$40,000.

1999: Virginia Tech International Travel Supplemental Grant (\$700).

1998: Virginia Tech Center for Excellence in Undergraduate Teaching/University Office of International Programs International Faculty Fellow "Internationalizing the Psychology Curriculum: The Culture of Emotion." *Role: Principal Investigator* (Co-PI: Angela Scarpa, Ph.D.). Total Costs: \$10,000

1997-1999: Virginia Tech College of Arts and Sciences Small Projects Grant "Idiodynamic profiles of cardiovascular activity." *Role: Principal Investigator*. Total Costs: \$3000.

1988-1989: The Pennsylvania State University College of Liberal Arts Research Fellowship.

1985: Case Western Reserve University Steven J. Bednarik Memorial Award for Achievement in Psychology

1984: Case Western Reserve University Mather Alumnae Award for Excellence in Psychology

Professional Activities

Professional Societies: Current Membership

Society for Psychophysiological Research

Professional Societies: Past Membership

Association for Psychological Science

American Psychosomatic Society

Society for Behavioral Medicine

Professional Service Committees

Advisory Board, The Human Affectome Project, 2015 – present

Board of Directors, Society for Psychophysiological Research, 2015 – 2018

Chair, Education and Training Committee, Society for Psychophysiological Research, 2014 - 2015

Education and Training Committee, Society for Psychophysiological Research, 2008 - 2017

Student Poster Award Committee, annual meeting of the Society for Psychophysiological Research, 2007, 2010, 2012, 2015

Colloquia, Lectures, & Symposia:

Physiology of Stress and Trauma Project: How stress changes the way you learn.

2019 Transdisciplinary Communities Research Symposium, Virginia Tech, April 2019.

How long is long enough? Controlling for caffeine in cardiovascular research. Virginia Tech Carilion School of Medicine Psychiatry Grand Rounds, Roanoke, VA, April 2018.

Exploring grading philosophies. Teaching Brown Bag Seminar series, Department of Psychology, Virginia Tech, November 2016.

Feelings and the Body: The enduring influence of the James-Lange theory of emotion.

Fundamentals of Brain and Cognitive Science (TBMH 5014), Virginia Tech Carilion Research Institute, March 2015.

The psychophysiology of defensive responding: implications for psychopathology and health.

Department of Human Nutrition, Foods and Exercise, Virginia Tech, April 2013.

Anxiety, heart rate variability, and autism spectrum disorders. Center for Autism Research conference, Virginia Tech, Blacksburg, VA August 2012

The psychophysiology of defensive responding in anxiety and autism spectrum disorders.

Neurocognitive seminar series, Salem VA Medical Center, Salem, VA May 2012.

Feelings and the body: The Jamesian perspective on autonomic specificity of emotion.

Department of Psychology, Clemson University, Clemson, SC, April 2012.

An autonomic flexibility-neurovisceral integration model of defensiveness in anxiety and autism. Virginia Tech Carilion School of Medicine Psychiatry Grand Rounds, Roanoke, VA, March 2012.

Autonomic flexibility-neurovisceral integration meets Polyvagal theory: Anxiety, autism, & functional psychopathology. ICSE Summer Scholars meeting, Virginia Tech, Blacksburg, VA, May, 2011

Biopsychology, neuroscience, and the Mind-Body Lab. Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, September, 2010.

Psychophysiological measures of stress. Education and Curriculum Instruction graduate seminar, “Mind-Body Practices for Health and Wellness”, Virginia Polytechnic Institute and State University, Blacksburg, VA, April 2009.

The psychophysiology of anxiety & worry. Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, September, 2008.

Stress, trauma & community Health. Undergraduate Honors Seminar, “A Digital Library Related to 4/16/07 at Virginia Tech”, Virginia Polytechnic Institute and State University, Blacksburg, VA, April 2008.

William James' legacy: Autonomic specificity of emotion & the Mind-Body Lab. Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, February, 2008.

An autonomic flexibility-neurovisceral integration model of anxiety and cardiac vagal tone. Department of Psychology, University of Virginia, Charlottesville, VA, March, 2007.

Gender differences in cardiovascular responses to lateralized hand cold pressor. Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, November, 2006.

Psychophysiology and neuroscience: Distinct paradigms. Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, October 2000.

Idiodynamic profiles of cardiovascular activity. Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, May, 2000.

Internationalizing the psychology curriculum: The culture of emotion. International Symposium for Summer Faculty fellows, University Office of International Programs, Virginia Polytechnic Institute and State University, Blacksburg, VA, November 1998.

The responsibility of the graduate program to the student. Symposium participant, 2nd annual Virginia Collegiate Psychology Conference, Virginia Polytechnic Institute and State University, Blacksburg, VA, April 1998.

Subjects vs. participants in psychological research. Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, January 1997.

Anxiety and autonomic flexibility: A cardiovascular approach. Department of Psychology, California State University at Fresno, Fresno, CA, March 1996.

Freud, Reich, and the social implications of libido theory. Foundation for Idiodynamics and the Creative Process, St. Louis, MO, March 1996.

Anxiety and autonomic flexibility. Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA, March 1996.

Anxiety, spirituality, and the body. Care and Counseling, St. Louis, MO, January 1996.

Experiential, cognitive, physiological and situational components of emotion. Department of Behavioral Science and Leadership, United States Air Force Academy, Colorado Springs, CO, January 1996.

Wilhelm Reich's psychosomatic model of personality and psychopathology. Department of Psychology, Lindenwood College, St. Charles, MO, November 1994.

Autonomic characteristics of anxiety: Worry, panic, and fainting. Center for Health Behavior Research, Washington University, St. Louis, MO, November 1994.

Reactivity reconsidered: an idiodynamic approach to the cardiovascular system. Foundation for Idiodynamics and the Creative Process, St. Louis, MO, October 1994.

Anxiety and autonomic nervous system flexibility. University of Oklahoma Health Sciences Center, Oklahoma City, OK, June 1994.

Emotion, somatic patterning, and health. Department of Psychology, Indiana University Northwest, Gary, IN, March 1994.

Anxiety and autonomic flexibility: Parallels of mind and body. Department of Psychology, University of New Orleans, New Orleans, LA, February 1994.

Heart rate variability measures in anxiety research. Department of Psychology, University of Wuppertal, Wuppertal, Germany, October 1993.

Autonomic balance and cardiac control: Anxiety and the rhythms of the heart. Western Psychiatric Institute and Clinic, University of Pittsburgh, Pittsburgh, PA, January 1993.

Anxiety and heart rate variability: Panic and blood phobia. Department of Psychology, Southern Methodist University, Dallas, TX, February 1992.

Anxiety and autonomic cardiac control. Department of Psychology, The Pennsylvania State University, University Park, PA, February 1992.

Systems relationships in models of emotions: Pattern classification of physiological and experiential indices of affect. Department of Psychology, Central Michigan University, Mt. Pleasant, MI, May 1990.

Editorial Board:

Associate Editor, *Biological Psychology*, 2009-present

Managing Guest Editor, *Biological Psychology*, Special Issue: "The Biopsychology of Autism Spectrum Disorders" (2017 – present)

Managing Guest Editor, *Biological Psychology*, Special Issue (2010, Vo. 84, Issue 3): "The Biopsychology of Emotion: Current Theoretical and Empirical Perspectives"

Research Center Membership

Affiliate, Virginia Tech Center for Autism Research, 2012-present

Ad hoc Grant Reviews:

Society for Psychophysiological Research Training Award, 2010, 2012, 2015 - 2017

National Science Foundation, 2004

Social Sciences and Humanities Research Council of Canada, 1997, 2000, 2003.

Other activities/appointments:

Affiliate Member, Department of Psychology, Faculty of Graduate Studies, University of Victoria, British Columbia, Canada, 2019 - 2024

External reviewer, Dissertation of Melanie Cochrane, Department of Psychology, University of Victoria, British Columbia, Canada, 2018

Membership endorser, National Institutes of Health (NIH) Mechanisms of Emotion, Stress, and Health (MESH) Panel, 2017

Ad hoc Journal Reviews:

Acta Psychiatrica Scandinavica

American Journal of Psychiatry

Anxiety, Stress, & Coping

Archives of General Psychiatry

Behaviour Research & Therapy

Behavior Therapy

Biological Psychiatry

Biological Psychology

Brain and Cognition

Cognition & Emotion

Cognitive Brain Research

Depression & Anxiety

Emotion

European Journal of Neuroscience

Frontiers in Human Neuroscience

Health Psychology

International Journal of Psychology

International Journal of Psychophysiology

Journal of Abnormal Psychology

Journal of Applied Psychoanalytic Studies

Journal of Behavior Therapy and Experimental Psychiatry

Journal of Child Psychology and Psychiatry

Journal of Clinical Child and Adolescent Psychology

Journal of Personality

Journal of Psychiatric Research

Journal of Psychosomatic Research
Journal of Psychophysiology (Consulting Editor)
Motivation & Emotion
Non-Linearity in Biology, Toxicology and Medicine
Patient Education and Counseling
Physiology & Behavior
PLOS ONE
Psychological Science
Psychiatry Research
Psychophysiology (Consulting Editor)
Psychosomatic Medicine
Psychosomatics
Social Biology
Social Cognitive and Affective Neuroscience
Social Neuroscience
Stress

Book Reviewer:

R.W. Backs & W. Boucsein (Eds.) (2000). Engineering psychophysiology: Issues and applications. Mahwah, NJ: Lawrence Erlbaum.

Kalat, J. (2001). Biological Psychology (7th ed.). Pacific Grove, CA: Brooks/Cole.

Academic Service

Director, Biological Psychology area, Department of Psychology, Virginia Tech, 2013 - present

Director, Developmental & Biological Psychology area, Department of Psychology, Virginia Tech, 2009 - 2013

Interim Director, Developmental & Biological Psychology area, Department of Psychology, Virginia Tech, Fall 2008

Evaluator, Virginia Tech Carilion School of Medicine 4th-year med student research presentations, Fall 2013

Service Committees

Adaptive Brain and Behavior Destination Area Faculty Design Team, Virginia Tech, 2016-2017.

Colloquium Committee, Department of Psychology, Virginia Tech, 2015 – present

Search Committee, faculty position in Neuroscience, Department of Psychology, Virginia Tech, 2013-2015

Search Committee, faculty position in Cardiovascular/Cerebrovascular science, Virginia Tech Carilion Research Institute, 2011

Doctoral Admissions Committee, Department of Psychology, Virginia Tech, 2008-present

Undergraduate Curriculum Committee, Department of Psychology, Virginia Tech, 2008-present

Reviewer, Graduate Research Development Project, Graduate Student Assembly, Virginia Tech, 2006

Clinical Health Psychology search committee, Department of Psychology, Virginia Tech, 2006-2007

Mind and Body interdisciplinary undergraduate core course series, Virginia Tech, 2005-2006

Reviewer, Graduate Research Development Project, Graduate Student Assembly, Virginia Tech, 2005

Reviewer, College of Science Scholarship Committee, Virginia Tech, 2005

Departmental Committee for the Institute for Biomedical and Public Health Sciences, Virginia Tech, 2003-present

Research and Scholarship Committee, Department of Psychology, Virginia Tech, 2001-2002

Interdisciplinary Graduate Neurosciences Initiative, Virginia Tech, 1996-2004

Undergraduate Activities Committee (Faculty Advisor to Psi Chi/Psychology Club), Department of Psychology, Virginia Tech, 1997-present

Liaison Committee with the Office of Occupational Health and Safety, Department of Psychology, Virginia Tech, 1996-97

Academic Integrity Committee, Department of Psychology, The Pennsylvania State University, 1986-1990

Graduate Committees: Department of Psychology, Virginia Tech

Spring 2019:

Dissertation: Alleyne Broomell (defense); Alisa Huskey (Chair, proposal): “Associative Learning Models of Generalized Unsafety”; Ashley Muskett (proposal)

Doctoral preliminary examination: Derek Burns (proposal & defense); Alex Faunce (Chair, proposal); Michael Lewis (defense)

Master’s Thesis: Heather Kissel (Chair, proposal): “The physiology of the communication of emotion via touch”; Brittany Nackley (Chair, proposal): “Temporal dynamics of the defense cascade”

Fall 2018:

Doctoral preliminary examination: Ashley Muskett (defense); Michael Lewis (proposal)

Spring 2018:

Dissertation: Alleyne Broomell (proposal); Emma Condly (Chair, defense):

“Examining the neurovisceral integration model through fNIRS”; Shara Grant (Chair, defense): “Multidimensional cardioception & trait anxiety: Potential clues from baroreflex sensitivity”

Doctoral preliminary examination: Ashley Muskett (proposal)

Master’s Thesis: Derek Burns (defense); Michael Lewis (defense)

Fall 2017:

Dissertation: Emma Condry (Chair, proposal); Shara Grant (Chair, proposal)

Doctoral preliminary examination: Alisa Huskey (Chair; defense)

Master’s Thesis: Jessica Gladfelter (defense); Ashley Muskett (defense)

Spring 2017:

Dissertation: Xiao Yang (Chair, defense): “Differentiation between the effects of physical and psychosocial stress on a feedback-based learning task”

Doctoral preliminary examination: Alleyne Broomell (proposal & defense); Alisa Huskey (Chair; proposal); Deanna Swain (defense); Bryce Torian (proposal)

Master’s Thesis: Jessica Gladfelter (proposal); Michael Lewis (proposal); Ashley Muskett (proposal)

Fall 2016:

Doctoral preliminary examination: Emma Condry (Chair, proposal & defense); Shara Grant (Chair, proposal & defense); Deanna Swain (proposal)

Spring 2016:

Dissertation: Derek Spangler (Chair; defense): “Working memory load under anxiety: Quadratic relations to cardiac vagal control and Inhibition of distractor interference”; Jonathon Waldron (defense); Xiao Yang (Chair; proposal)

Master’s Thesis: Derek Burns (proposal); Emma Condry (Chair, defense: “Respiratory sinus arrhythmia and restricted repetitive behaviors in autism spectrum disorder”); Shara Grant (Chair, defense): “Controlling for acute caffeine in cardiovascular reactivity research”

Spring 2015:

Dissertation: Jared McGinley (Chair, defense): “Autonomic Patterns of Emotion across Multiple Contexts”

Fall 2014:

Dissertation: Derek Spangler (Chair; proposal)

Doctoral preliminary examination: Xiao Yang (Chair; proposal & defense)

Master’s Thesis: Emma Condry (Chair, proposal)

Spring 2014:

Dissertation: Bryan Higgs (Department of Transportation Infrastructure and Systems Engineering; defense); Jared McGinley (Chair; proposal); Jonathon Waldron (proposal)

Master's Thesis: Shara Grant (Chair, proposal)

Fall 2013

Dissertation : Bryan Higgs (Department of Transportation Infrastructure and Systems Engineering; proposal); Joy Wu (defense)

Doctoral preliminary examination: Derek Spangler (Chair; proposal & defense)

Master's Thesis: Xiao Yang (Chair, defense): "The Influence of Behavioral Inhibition and Approach on Affective Modification of the Startle Response"

Spring 2013:

Dissertation: Lauren Golden (defense); Michelle Patriquin (defense) ; Zhe Wang (defense)

Doctoral preliminary examination: Bryan Higgs (Department of Transportation Infrastructure and Systems Engineering; proposal and defense); Jared McGinley (Chair; defense); Jonathon Waldron (proposal & defense)

Master's Thesis: Derek Spangler (Chair, defense): "Resiliency and Autonomic Control of Cardiac Responses to Stress"; Xiao Yang (Chair; proposal)

Fall 2012

Dissertation: Zhe Wang (proposal); Joy Wu (proposal)

Doctoral preliminary examination: Jared McGinley: Chair (proposal)

Spring 2012

Dissertation: Ben Allen (Chair, defense): "Threatening the Heart and Mind of Stereotypes with Imagination: Can Imagined Contact Change Threatening Physiology During Stereotype Threat?"

Doctoral preliminary examination: Zhe Wang (defense); Joy Wu (defense)

Master's Thesis: Sabrina Hu (defense); Jared McGinley (Chair, defense): "Lateralized Induction of Cardiovascular Responses: Exploring Asymmetric Autonomic Regulation"; Derek Spangler (Chair; proposal)

Fall 2011

Dissertation: Ben Allen: (Chair proposal); Joe Carmona (defense); Lauren Golden (proposal)

Doctoral preliminary examination: Zhe Wang (proposal); Joy Wu (proposal)

Spring 2011

Dissertation: Michelle Patriquin (proposal)

Doctoral preliminary examination: Ben Allen (Chair; defense); Lauren Golden (proposal & defense)

Master's Thesis: Jared McGinley (Chair; proposal); Joy Wu (defense)

Fall 2010

Doctoral preliminary examination: Ben Allen: (Chair; proposal); Michelle Patriquin (proposal & defense)

Master's Thesis: Sabrina Hu (proposal)

Spring 2010

Dissertation: Michael Knepp (Chair, defense): “Cardiovascular activity during laboratory tasks in individuals with high and low worry”; Thomas Pardikes (Chair, defense): “Voluntary inhibition of reflex: Effects of consistent meditative practice”

Master's Thesis: Ben Allen (Chair, defense): “What Resonates with you? Methods of Induced Cardiovascular Resonance”; Michelle Patriquin (defense)

Fall 2009

Master's Thesis: Joy Wu (proposal)

Spring 2009

Dissertation: Thomas Pardikes (Chair; proposal); Robert Walters (defense)

Master's Thesis: Ben Allen (Chair; proposal); Michelle Patriquin (proposal)

Fall, 2008:

Dissertation: Michael Knepp (Chair; proposal)

Doctoral preliminary examination: Thomas Pardikes (Chair; proposal & defense); Chad Stephens (Chair; proposal & defense)

Spring 2008:

Master's Thesis: Thomas Pardikes (Chair, defense); “Measuring the relationship between reflexive and intentional ANS response”

Fall, 2007:

Doctoral preliminary examination: Michael Knepp (Chair; proposal & defense)

Master's Thesis: Chad Stephens (Chair): “Autonomic differentiation of emotions: A cluster analysis approach” (defense)

Spring, 2007:

Dissertation: Kate Holland (proposal); Robert Walters (proposal)

Doctoral preliminary examination: Sara Valentino (proposal)

Master's Thesis: Michael Knepp (Chair): “Cardiovascular activity during laboratory tasks in individuals with high and low worry” (defense); Thomas Pardikes (Chair; proposal)

Fall, 2006:

Dissertation: David Cox (proposal)

Doctoral preliminary examination: Robert Walters (defense)

Master's Thesis: Michael Knepp (Chair; proposal); Joe Carmona (defense)

Spring, 2006:

Dissertation: Li Wan (Chair): “Further hypotheses and analysis of the Teenage Smokers Project: Monamine Oxidase levels” (proposal and defense); Joe McArdle (defense); Gina Mollet (defense)

Doctoral preliminary examination: David Cox (defense); Kate Holland (proposal and defense); Robert Walters (proposal)

Master's Thesis: Chad Stephens (Chair; proposal); Akiho Tanaka (defense); Maria Whitmore (defense)

Fall, 2005:

Doctoral preliminary examination: Li Wan: (Chair; defense); David Cox (proposal)

Master's Thesis: Akiho Tanaka (proposal)

Spring, 2005:

Dissertation: Israel Christie (Chair, defense): “Behavioral inhibition/activation and autonomic control of the heart: Extending the autonomic flexibility model”; Thompson Davis (defense); Gina Mollet (proposal); Elizabeth Vella (Chair, defense): “Anger management style & hostility: Cardiovascular reactivity and recovery to mental stress with harassment”

Doctoral preliminary examination: Gina Mollet (defense); Li Wan (Chair; proposal)

Master's Thesis: Joe Carmona (proposal); Robert Walters (defense)

Fall, 2004:

Dissertation: Elizabeth Vella (Chair; proposal)

Doctoral preliminary examination: Gina Mollet (proposal)

Spring, 2004:

Dissertation: Israel Christie (Chair; proposal); Sara Haden (proposal); Paul Foster (defense); Liz Van Voorhees (defense)

Master's Thesis: Gina Mollet (defense), Maria Whitmore (proposal)

Fall, 2003:

Dissertation: Thompson Davis (proposal), Joe McArdle (proposal)

Doctoral preliminary examination: Elizabeth Vella: Chair (proposal/defense); Sara Haden (defense)

Master's Thesis: Gina Mollet (proposal)

Spring, 2003:

Dissertation: Aimee Santucci (Chair, defense): “Individual differences in adult self-report of negative affect and effortful control: Consequences for physiology, emotion, and behavior during regulatory tasks”

Doctoral preliminary examination: Thompson Davis (proposal/defense); Christie Wolf (defense); Sara Haden (proposal)

Master's Thesis: Elizabeth Vella (Chair, defense): “Autonomic characteristics of defensive hostility: Reactivity and recovery to active and passive stressors”; Megan McIlreavy (defense)

Fall, 2002:

Dissertation: Aimee Santucci (Chair; proposal)

Doctoral preliminary examination: Israel Christie (Chair; defense); Alexandra Park (defense)

Spring 2002:

Dissertation: Keryl Cosenzo (defense), Liz Van Voorhees (proposal)

Master's Thesis: Israel Christie (Chair, defense): "Multivariate discrimination of emotion-specific autonomic nervous system activity"

Fall 2001:

Dissertation: Tim Butcher (defense); Paul Foster (proposal)

Doctoral preliminary examination: Aimee Santucci (Chair; defense); Paul Foster (defense); Liz Van Voorhees (defense)

Master's Thesis: Elizabeth Vella: (Chair; proposal); Megan McIlreavy (proposal)

Spring 2001:

Dissertation: Jonathon Roberts (defense)

Doctoral preliminary examination: Joe McArdle (defense)

Master's Thesis: Aimee Santucci (Chair, defense): "Cognitive biases and autonomic responding in anxiety and depression"

Fall 2000:

Doctoral preliminary examination: Keryl Cosenzo (defense)

Spring 2000:

Doctoral preliminary examination: Jonathon Roberts (defense); Teresa Edwards (Department of Near Environments/defense)

Fall 1999:

Dissertation: Eric Laws (defense)

Master's Thesis: Keryl Cosenzo (defense)

Spring 1999:

Dissertation: Joe Shevlin (defense)

Doctoral preliminary examination: Jamie Cooper (defense)

Fall 1998:

Dissertation: Rebecca Columbus (defense)

Master's Thesis: Jamie Cooper (defense)

Spring 1998:

Dissertation: Trina Doran (defense); Jennifer Vendemia (defense)

Fall 1997:

Doctoral preliminary examination: Jason McCartney (defense)

Spring 1997:

Doctoral preliminary examination: Rebecca Columbus (defense); Jason McCartney (defense)

Undergraduate research

Honors thesis supervisor:

Leah Lozier: "Lateralized autonomic control of cardiovascular activity and the cold pressor task" (2004-2005)

Ezra Wegbreit: "Caffeine and selective attention in college students: A behavioral study" (2004-2005)

Benjamin Pumphrey: "Theories of frustration-aggression and the Rosenzweig Picture-Frustration study" (2000-2001)

Erin Curtis: "Physiological patterning and emotion" (2000-2001)

Honors theses committee member:

Kate Magruder: "Examining the Association Between Using Marijuana for Coping Motives and Experiencing More Marijuana-Related Problems" (2012)

Michelle Patriquin: "The effect of internet use on frustration sensitivity in undergraduate college students" (2006-2007)

Independent study project supervisor:

Kate Magruder: "The effects of caffeine on cardiovascular reactivity: A review" (2012)

Ralph Emerson: "Audio-Visual entrainment harmonics with heart rate variability" (2006-2007)

Kristina Blough: "Neuroticism and heart rate variability in response to emotion elicitation" (2005-2006)

Mamata Khatri: "The role of physiological patterns in theories of emotion" (1999)

Diversity promotion

Research Mentor:

Shara Grant: graduate scholar, VT Initiative to Maximize Student Development (VT-IMSD) (2013-present)

Leland Fleming: postbaccalaureate scholar, VT-PREP (2013-2014)

Erica Lee: undergraduate scholar, VT-IMSD (2012-2014)

Professional Development

Adaptive Brain and Behavior Workshop, Virginia Tech, April 2018

Title IX and Retaliation workshop: Department of Human Resources, Virginia Tech, January 2015

Conflicts of Interest Training: Office of the Vice President for Research, Virginia Tech, October 2014

Roundtable Discussion on Heart Rate Variability Assessment: Annual meeting of the Society for Psychophysiological Research, Atlanta, GA, September 2014

Search Committee Charge Meeting: Department of Human Resources, Office of Equity and Access, Virginia Tech, October 2013 & October 2015

Family Educational Rights and Privacy Act (FERPA) workshop: Office of the University Registrar, Virginia Tech, April 2013

Roundtable Discussion on Blood Pressure Assessment: Annual meeting of the Society for Psychophysiological Research, Boston, MA, September 2011

Harassment Prevention and Complaint Handling training workshop: VT Office for Equity and Access, April 2011

VT Faculty Development Institute (FDI) & Networked Learning Initiatives (NLI) workshops:

“Security Awareness Training” May 2015

“Strategies for Mindful Teaching & Learning” May 2015

“Building Scholar Courses” Spring 2011

“The Art of the Question” Spring 2008

“Furthering Your Research Agenda,” Spring 2005

“Building the NIH Grant Proposal,” February 2003

“Basic Web Course Development” June 2001

“Teaching and Learning with Computers” June 1997

Center for Excellence in Undergraduate Teaching workshop: "Student evaluations of faculty teaching", February 2001

Courses Taught

Graduate: Psychophysiology; Biopsychology of Emotion; Biopsychology of Stress & Trauma; Emotion, Stress, & Health; Polyvagal Theory

Undergraduate: History and Systems in Psychology, Nervous Systems and Behavior, Physiological Psychology, Psychology of Personality, Developmental Psychology

Outreach

“Lighten up the winter blues.” Interview in the *Collegiate Times*, January 30, 2014.

“The Mind-Body Lab: Yesterday, Today, and Tomorrow”. Presentation at the Blacksburg Lions Club (June 4, 2008)

Radio interview with Mark Elfstrand, host of WMBI’s (Chicago) Morning Program, regarding VT’s response to the campus shootings of 4-16-07 (April 18, 2007)