

# Application for Continuing Professional Education Oklahoma Psychological Association

| *Please send TYPED application and attachments via email to Robin Aupperle, PhD ( <u>raupperle@laureateinstitute.org</u> ;<br>918-502-5744) or Glenna Stumblingbear-Riddle, PhD ( <u>gstumblingbear@potawatomi.org</u> ; (405) 214-5101).   |
|---|
| Title of Presentation:Neuroimaging Research related to PTSD: Implications for Treatment   |
| Sponsor:Laureate Institute for Brain Research   |
| Contact Person:Robin Aupperle   |
| Address:6655 S. Yale Ave., Tulsa, OK 74136  |
| Phone:918-502-5744   Email:raupperle@laureateinstitute.org  |
| Is the sponsor representative an OPA member? (annual dues must be paid in full) Yes No  |
| Name(s) of speaker and credentials: _Robin Aupperle, PhD, clinical and research psychologist  |
| Date and Time of Presentation:Monday, April 20, 2014, 9-11:30am   |
| <b>Location of Presentation:</b> Laureate Conference Center, Laureate Psychiatric Hospital and Clinic (LPCH), 6655 S. Yale Ave., Tulsa, OK 74136  |
| <b>Targeted audience:</b> Clinical psychologists, research psychologists, licensed clinical social workers, licensed professional counselors, students in psychology-related fields   |
| Participant Fees for Attending Presentation:Free  |
| <b>Number of hours of continuing professional education (CPEs) requested:</b> 2<br>*Time allotted for registration and breaks will not be counted   |
| <ul> <li>Please attach the following to your application (please see example application packet provided): <ol> <li>Biographical description of the presenter's qualifications.</li> <li>CV of the presenter</li> <li>Description of the educational objectives of the presentation or workshop.</li> <li>Program evaluation form to be used (please see example provided).</li> <li>Application fee to be mailed to: PO Box 18991, OKC, OK 73154</li> <li>\$40 if sponsor is an OPA member and not affiliated with a private corporation.</li> <li>\$100 if sponsor is not an OPA member and not affiliated with a private corporation.</li> </ol> </li> </ul> |
| *Consideration for CPE credits will only be given to those completing this application 60 days prior to the date of the presentation. If you have questions or need additional information, contact Robin Aupperle or Glenna Stumblingbear-Riddle (contact information above) or OPA at 405-655-9903 or PO Box 18991, Oklahoma City, OK 73154-8991.   |

# Example Application for Continuing Professional Education

# Presenter Biography:

Dr. Robin Aupperle obtained her Ph.D. in clinical psychology at the University of Kansas (KU; mentor: Dr. Cary Savage; 2002-2009), where her training focused on neuropsychological assessment, treatment of anxiety disorders, and neuroimaging research. She completed clinical internship at the VA San Diego Healthcare System (VASDHS; 2008-2009) where her training focused on the treatment of posttraumatic stress disorder (PTSD) and neuropsychological assessment and cognitive rehabilitation of traumatic brain injury (TBI). She stayed at VASDHS for a postdoctoral fellowship (mentors: Drs. Murray Stein and Martin Paulus; 2009-2011), during which her training and research focused on the use of neuroimaging to understand PTSD, anxiety, and related treatments. Dr. Aupperle is currently on faculty at the Laureate Institute for Brain Research (LIBR) and her laboratory is focused on using neuroimaging and behavioral methodologies to inform the treatment of anxiety and PTSD. Dr. Aupperle has obtained grant funding for her neuroscientific research on PTSD and has numerous publications relevant to this topic (see CV; Aupperle et al., 2011, 2012, 2013).

# **ROBIN L. AUPPERLE, PH.D.**

6655 S. Yale Ave., Tulsa, OK 74136 <u>Email</u>: raupperle@laureateinstitute.org <u>Phone</u>: 918-502-5744 <u>www.aupperlelab.org</u>

#### **EDUCATION**

PH.D., UNIVERSITY OF KANSAS, LAWRENCE, KS
Clinical Psychology
Dissertation: An fMRI study examining the effects of acute D-cycloserine administration on brain activations and cognitive functioning in spider phobia.
Chair: Douglas Denney, Ph.D. Co-Chair: Cary Savage, Ph.D.
Committee: Rick Ingram, Ph.D., John Colombo, Ph.D., Lisa Hale, Ph.D.

- M. A., UNIVERSITY OF KANSAS, LAWRENCE, KS MAY, 2005
  Clinical Psychology
  Thesis: Omega-3 Fatty Acids and Multiple Sclerosis: Examination of the Relationship between Fatty Acids and Depression in MS.
  Chair: Douglas Denney, Ph.D.
  Committee: Sharon Lynch, M.D., Debra Sullivan, Ph.D.; Susan Carlson, Ph.D.
- B. A., OKLAHOMA STATE UNIVERSITY, STILLWATER, OK Major: Psychology, with honors; Minor: Philosophy MAY, 2002

### LICENSURE

Licensed as Psychologist in the state of Missouri (#2011033099)

### POSITIONS

| 2014 – present                   | Assistant Professor (tenure track), Laureate Institute for Brain Research (LIBR) and the<br>University of Tulsa (TU) School of Community Medicine<br><u>Responsibilities</u> : Establish and manage a research laboratory focused on the<br>neurocognitive aspects of anxiety and trauma at LIBR, and mentor TU graduate<br>and undergraduate student research.                |
|----------------------------------|--|
| 2011-2014                        | Assistant Professor (tenure track, research), Department of Psychology, University of Missouri-Kansas City (UMKC).<br><u>Responsibilities</u> : Established a research laboratory focused on the neurocognitive aspects of anxiety and trauma, taught two classes per semester (one graduate and one undergraduate), and mentored graduate and undergraduate student research. |
| 2012 – present<br>Kansa City, MC | Fee-basis employee, Kansas City VA Hospital, Compensation and Pension Department,  |
|                                  | <u>Responsibilities</u> : Conducted mental health examinations for veterans applying for compensation and pension, with a particular focus on posttraumatic stress disorder (PTSD).  |

| 2012 – present<br>(KUMC) | Adjunct Faculty, Department of Psychiatry, University of Kansas Medical Center   |
|--------------------------|--|
|                          | <u>Responsibilities</u> : Conducted neuroimaging research in collaboration with KUMC Hoglund Brain Imaging Center and other faculty within the Department of Psychiatry and Department of Neurology.   |
| 2009-2011                | Postdoctoral Fellow, Mental Illness Research and Education Clinical Center (MIRECC),<br>San Diego VA Healthcare System, San Diego, CA and Department of Psychiatry,<br>University of California – San Diego (UCSD).<br><u>Mentors</u> : Murray Stein, M.D., M.P.H. and Martin Paulus, M.D.<br><u>Clinical Supervisor</u> : Ariel Lang, Ph.D. and Sonya Norman, Ph.D.<br><u>Focus</u> : Neuroimaging and decision-making in PTSD and anxiety disorders;<br>empirically-based treatment of PTSD. |
| 2008-2009                | <ul> <li>Psychology Resident, San Diego VA Healthcare System, San Diego, CA</li> <li><u>Supervisors</u>: Amy Jak, Ph.D., Dawn Schiehser, Ph.D., Keylly Hughes, Ph.D.,</li> <li>Steven Thorp, Ph.D., Dean Delis, Ph.D., Vincent Filoteo, Ph.D., Mark Bondi,</li> <li>Ph.D.</li> <li><u>Focus</u>: Neuropsychology, cognitive rehabilitation for traumatic brain injury,</li> <li>empirically-supported treatment of posttraumatic stress disorder (PTSD)</li> </ul>                             |
| 2005-2008                | <ul> <li>Therapist, Kansas City Center for Anxiety Treatment, Kansas City, KS</li> <li><u>Supervisor</u>: Lisa Hale, Ph.D.</li> <li><u>Focus</u>: Obtained training and experience in implementing_exposure-based therapies for anxiety disorders, including obsessive-compulsive disorder, social anxiety disorder, panic disorder, and generalized anxiety disorder.</li> </ul>  |
| 2003-2008                | Neuropsychometrician and research assistant, Hoglund Brain Imaging Center, University<br>of Kansas Medical Center, Kansas City, KS<br><u>Mentors</u> : William Brooks, Ph.D. (PI) and Cary Savage, Ph.D.<br><u>Focus</u> : neuropsychological testing and data analyses for an R01-funded project<br>examining proton magnetic resonance spectroscopy (H-MRS) predictors of<br>recovery from traumatic brain injury.   |
| 2006                     | Neuropsychometrician, VA Kansas City Healthcare System<br><u>Supervisor:</u> Dean Skadeland, Psy.D.<br><u>Focus:</u> Neuropsychological assessment for variety of patient populations  |
| 2005                     | Instructor, Brain and Pathology, University of Kansas, Lawrence, KS  |
| 2004-2005                | Therapist, Health Psychology, University of Kansas Medical Center, KC, KS<br><u>Supervisors</u> : Mike Rapoff, Ph.D., Martha Barnard, Ph.D., and Eve-Lynn Nelson,<br>Ph.D., Robert Twillman, Ph.D., Bill Stiers, Ph.D.<br><u>Rotations</u> : Pediatrics, Telemedicine, Pain Management, and Neuropsychology  |
| 2004-2005                | Therapist, Weight Management Program, University of Kansas, Lawrence, KC<br><u>Supervisor</u> : James Grobe, Ph.D.<br><u>Focus:</u> provided psycho-education and group therapy as part of broader weight<br>management research project.  |

| 2003-2004<br>KS | Therapist, University of Kansas Psychological Clinic, University of Kansas, Lawrence,   |
|-----------------|---|
|                 | <u>Supervisors</u> : Doug Witt, Ph. D., Cynthia Schnake, Ph. D., Raymond Higgins, Ph.D., and Sarah Kirk, Ph.D.  |
|                 | <u>Focus:</u> building general psychotherapy skills; introduction to variety of therapy orientations  |
| 2002-2003       | Neuropsychometrician, University of Kansas Medical Center; Kansas City, KS<br>Supervisor: Sally Frutiger, Ph. D.  |
|                 | Focus: Neuropsychological assessment for variety of neurologic populations  |
| 2001-2002       | Research Assistant, Neuropsychology Research Lab, University of Oklahoma Health<br>Sciences Center, Oklahoma City, OK<br><u>Mentor</u> : William Beatty, Ph.D.                                    |
|                 | <u>Focus</u> : Conducted assessment and assistant with data analysis and manuscript preparation for neuropsychological investigations of multiple sclerosis.                                      |
| 2001-2002       | Research Assistant, Child Behavior Research Laboratory, Oklahoma State University (OSU)   |
|                 | <u>Mentor</u> : Maureen Sullivan, Ph.D.<br><u>Focus</u> : Recruitment of participants, data collection, and data entry for research<br>projects examining child temperament and parenting styles. |

## HONORS AND AWARDS

| 2012                   | Anxiety Disorders Association of America (ADAA) Career Development Award               |
|------------------------|--|
| 2006-2007              | PEO National Scholar Fellowship  |
| 2007                   | American Psychological Foundation (APF) Graduate Research Scholarship                  |
| 2002-2006              | University of Kansas Madison and Lila Self Doctoral Fellowship                         |
| 2006                   | B. Kent Houston Award for Excellence in Health Psychology                              |
| 2006                   | American Psychological Association (APA) Dissertation Research Award                   |
| 2005                   | Outstanding Masters Thesis in the College of Arts and Sciences, University of Kansas   |
| 2005                   | David Schulman Award for Excellence in Clinical Psychology, University of Kansas       |
| 2001                   | Wentz Research Project Scholarship, Oklahoma State University, Stillwater, OK          |
| 2001                   | Corre Anding Stegall Nation wide Leadership Award                                      |
| 2001                   | Student Travel Award, Oklahoma Center for Neuroscience, Oklahoma City, OK              |
| 2001                   | Top 10 Graduating Senior, Arts and Sciences, Oklahoma State University, Stillwater, OK |
| 2001<br>Stillwater, OK | Top 2 Graduating Senior, Psychology Department, Oklahoma State University,             |

### **RESEARCH OVERVIEW**

My research focuses on the use of translational and neurobiological methods to enhance our understanding of anxiety and posttraumatic stress disorder (PTSD). I am particularly interested in (1) the intersect between cognitive and emotional processing and how these together influence decision-making

and (2) how knowledge from neuroscientific research may be used to enhance treatment of anxiety and PTSD. In regards to the former, I have conducted research related to neuropsychological correlates of PTSD and subclinical anxiety and have developed an emotional decision-making task (the Approach-Avoidance Conflict [AAC] task) to better understand behavioral, physiological, and neural correlates of anxiety. In regards to the latter, I have been involved in research investigating behavioral and neural mechanisms of current pharmacologic and behavioral treatments for anxiety and PTSD, and the investigation of novel cognitive-based interventions (e.g., cognitive training).

#### **RESEARCH GRANTS**

#### Pending

No NumberPI: Robin Aupperle, PhD2015-2020National Institute of Mental Health (NIMH)Mentored Patient-Oriented Research Career Development AwardApproach-Avoidance Conflict - a multi-level predictor for exposure therapy responseRole: PITo be reviewed June, 2015

### CURRENT:

PT100018PI: Amy Jak, Ph.D.2011-2015Department of Defense Congressionally Directed Medical Research ProgramEnhanced Cognitive Rehabilitation to Treat Comorbid TBI and PTSD.Role: Co-Investigator at time of funding (prior to leaving awarded institution for current position)Total costs: \$2,162,552

### COMPLETED:

No NumberPI: Robin Aupperle, Ph.D.2012-2014University of Missouri Research Board (UMRB)Cognitive Training in PTSD: Effects on cognitive and emotional functioning.Total costs: \$42,000

No NumberPI: Ashley Stillman, PhD.2013-2014University of Missouri - Kansas City Chancellor's Fellowship2013-2014Cardiovascular Function and Combat-PTSDRole: MentorTotal Costs: \$10,000 towards student stipend1000 towards student stipend

No NumberPI: Cary Savage, Ph.D.2006-2007University of Kansas Medical Center – Research Institute, FY2006 Clinical PilotAn fMRI Investigation of D-Cycloserine in Specific Phobia.Role: Co-PITotal costs: \$35,000

UL1TR000001PI: Robin Aupperle, Ph.D.2012-2013Frontiers: The Heartland Institute for Clinical and Translational Research<br/>Pilot and Collaborative Studies Funding Program2012-2013

*Cognitive Training in PTSD: Effects on brain function and emotional processing.* July, 2012 – February, 2013 Total costs: \$30,000

No NumberPI: Robin Aupperle, PhD2014-2016Frontiers: The Heartland Institute for Clinical and Translational Research<br/>Career Development (KL2) Training ProgramEmotional trauma in older age: Relationship to hippocampal volume and cognitive function.Total Costs: \$230,225Awarded in March, 2014, but withdrew due to leaving institution.

#### **PUBLICATIONS**

\*Mentor on student manuscript

- \*Stillman, A.N., Youngren, W., Sisante, J.V., Billinger, S.A., Taylor, C., and **Aupperle, R.L.** (in preparation). Approach-avoidance responses to positive affective stimuli for combat-related PTSD.
- \*Stillman, A.N., **Aupperle, R.L**., Francisco, A.F., Bruce, J., Martin, L., McDowd, J. (in preparation). Cognitive dysfunction in combat veterans is related to attenuated dorsal ACC activation during interference processing.
- Aupperle, R.L., Ramsawh, H., Flagan, T., Sullivan, S., Fonzo, G., Letamendi, A., Simmons, A.N., Paulus, M.P., Stein, M.B. (in preparation). Neural Substrates of Anticipatory Processing in Generalized Anxiety and Panic Disorder: Predictors of Cognitive Behavioral Therapy Treatment Response.
- Aupperle, R.L., Stillman, A.N., Simmons, A.N., Paulus, M.P., Stein, MS. (under review). Intimate Partner Violence PTSD and Neural Correlates of Inhibition.
- \*Stillman, A.N., **Aupperle, R.L.**, Sisante, J.V., Wilson, D., Billinger, S.A. (under review). Heart of a soldier: Combat, PTSD and cardiovascular health in veterans.
- Boyd, B., Rodgers, C., **Aupperle, R.L.**, Jak, A.J., (under review). Case Report on the Effects of Cognitive Processing Therapy on Psychological, Neuropsychological, and Speech Symptoms in Comorbid PTSD and TBI.
- McFadden, B.R., Lusk, J.L., Crespi, J.M., Cherry, J.B.C., Martin, L.E., **Aupperle, R.L.,** Bruce, A.S. (in press). Can Neural Activation in Dorsolateral Prefrontal Cortex Predict Responsiveness to Information? An Application to Egg Production Systems and Proposition 2 Advertising. *PLoS One.*
- \*Stillman, A.N., Aupperle, R.L. (invited chapter, in press). Neuroanatomical correlates of PTSD: Risk, Resiliency, and Sequelae. In C.R. Martin, C. P. Preedy, and V. D. Patel (Eds.), *Comprehensive Guide to Post-Traumatic Stress Disorder*. London: Kings College London.
- Lim, S.L., Bruce, A.S., Aupperle, R.L. (2014). The influence of a working memory task on affective perception of facial expressions. *PLoS One*, 9(10):e11-74. doi: 10.1371/journal.pone.0111074 PMCID: PMC4210225

- Aupperle. R.L, Melrose, A., Francisco, A., Paulus, M.P., Stein, M.B. (2014). Neural substrates of approach-avoidance conflict decision-making. *Human Brain Mapping*, 36(2):449-62. doi:10.1002/hbm.22639 PMCID: PMC4300249
- Ness, A. Martin, L., Bruce, A., Lepping R., Patrician, T. Hancock, L., O'Toole, K., Aupperle, R.L., Bruce, J. (2014). Pre-surgical cortical activation to food pictures is associated with weight loss following bariatric surgery. *Surgery for Obesity and Related Diseases*, 10(6), 188-195. doi: 10.1016/j.soard.2014.06.005 PMID: 25443066
- Taylor, C., Simmons A.N., Aupperle, R.L., Amir, N., Stein, M.B., Paulus, M.P. (2013). Neural correlates of a computerized attention modification program in anxious subjects. *Social, Cognitive, and Affective Neuroscience.* doi: 10.1093/scan/nst128
- Aupperle, R.L., Connolly, C.G., Stillman, A., May, A.C., Paulus, M.P. (2013). Deployment and Postdeployment Experiences in OEF/OIF Veterans: Relationship to Gray Matter Volume. *PLoS ONE* 8(9): e75880. doi:10.1371/journal.pone.0075880
- Aupperle, R.L., Allard, C.B., Grimes, E.M., Simmons, A.N., Flagan, T., Cissell, C.H., Thorp, S.R., Norman, S.B., Paulus, M.P., Stein, M.B. (2013). Neural responses during emotional processing before and after cognitive trauma therapy for battered women. *Psychiatry Research: Neuroimaging*, 214(1): 48-55. doi: 10.1016/j.pscychresns.2013.05.001
- Mano, Q.R., Brown, G. G., Bolden, K., Aupperle, R., Sullivan, S., Paulus, M.P., Stein, M.B. (2012). Curvilinear relationship between phonological working memory load and socioemotional modulation. *Cognition and Emotion.* doi: 10.1080/02699931.2012.712948
- Aupperle, R.L., Allard, C.B., Grimes, E.M., Simmons, A.N., Flagan, T., Cissell, C.H., Thorp, S.R., Norman, S.B., Paulus, M.P., Stein, M.B. (2012). Neural systems dysfunction during anticipation in women with posttraumatic stress disorder related to intimate partner violence. *Archives of General Psychiatry*, 69(4), 360-371. doi:10.1001/archgenpsychiatry.2011.153
- Aupperle, R.L., Tankersley, D., Ravindran, L., Stein, N.R., Stein, M.B., Paulus, M.P. (2012). Pregabalin effects on amygdala and insula activation during emotional face processing. *Frontiers of Human Neuroscience*, 6, 1-14. doi: 10.3389/fnhum.2012.00042
- Aupperle, R.L., Sullivan, S.R., Melrose, J., Stein, M.B., Paulus, M,P. (2011). A reverse translational approach to quantify approach-avoidance conflict in humans. *Behavioural Brain Research*, 225(2), 455-463. doi:10.1016/j.bbr.2011.08.003
- Aupperle, R.L., Melrose, J., Stein, M.B, Paulus, M.P (2011). Executive function and PTSD: Disengaging from trauma. *Neuropharmacology*, *62*(*2*):686-94. doi:10.1016/j.neuropharm.2011.02.008
- Aupperle, R.L., Lakshmi, R., Tankersley, D., Flagan, T., Simmons, A.N., Stein, M.S., Paulus, M.P. (2011). Pregabalin influences amygdala and insula activation during anticipation. *Neuropsychopharmacology* 36(7), 1466–1477. doi:10.1038/npp.2011.32
- Aupperle, R.L., Paulus, M.P. (2010). Neural systems underlying approach and avoidance in anxiety disorders. Review. *Dialogues of Clinical Neuroscience*, *12*(4): 517-531.

- Aupperle, R.L., Hale, L.R., Chambers, R.J., Cain, S.E, Barth, F.X., Sharp, S.C., Hall, S.B., Denney, D.R., Savage, C.R. (2009). An fMRI study examining effects of acute D-cycloserine during symptom provocation in spider phobia. *CNS Spectrums*, 14:556-571.
- Aupperle, R.L., Denney, D.R., Lynch, S.G. (2008). Omega-3 fatty acids and multiple sclerosis: Relationship to depression. *Journal of Behavioral Medicine*, 31: 127-135. doi: 10.1007/s10865-007-9139-y
- Aupperle, R., Beatty, W., Shelton, F., Gontvoskey, S. (2002). Three screening batteries to detect cognitive impairment in Multiple Sclerosis. *Multiple Sclerosis*, 8: 382-389. doi: 10.1191/1352458502ms8320a.
- Beatty, W., Aupperle, R. (2002). Sex differences in cognitive impairment in Multiple Sclerosis. *Clinical Neuropsychologist*, *16*: 472-480. doi: 10.1076/clin.16.4.472.13904

#### **ORAL RESEARCH PRESENTATIONS**

- Aupperle, R.L., Stillman, A.N., Francisco, A.F., Bruce, J., Martin, L., McDowd, J. (2015, April). Cognitive dysfunction in combat veterans is related to attenuated dorsal ACC activation during interference processing. Part of larger symposium presented at the Anxiety Disorders Association of America (ADAA) in Miami, FL.
- Aupperle, R.L. (2015, February). Executive function and PTSD: Disengaging from Trauma. Invited presentation at the University of New Mexico Health Sciences Center Psychiatry Grand Rounds.
- Aupperle, R.L. Neuroscientific perspective on trauma research and treatment (2015, November). Presented as a part of a panel response to keynote speech at the Oklahoma Psychological Association annual conference, Tulsa, OK.
- Aupperle, RL, Simmons, AN, Paulus, MP, Stein, MB (2014, April). *Response Inhibition and PTSD: Neural Correlates and Potential Implications for Anxiety Disorders*. Part of larger symposium presented at the Anxiety Disorders Association of America (ADAA) in Chicago, IL.
- Ball, T.M., Aupperle, R.L., Ramsawh, H., Flagan T., Sullivan, S., Fonzo, G., Letamendi, A., Simmons, A.N., Paulus, M.P., Stein, M.B. (2014, April). *Neural Predictors of Cognitive Behavioral Therapy Treatment Response for Generalized Anxiety Disorder and Panic Disorder*. Part of larger symposium presented at the Anxiety Disorders Association of America (ADAA) in Chicago, IL.
- Aupperle, R.L, Simmons, A.N., Paulus, M.P., Stein, M.B. (2014, April). *Insula Responsivity as a Potential Biomarker of PTSD and Treatment Response*. Part of larger symposium presented at the Anxiety Disorders Association of America (ADAA) in Chicago, IL.
- Aupperle, R.L., Allard, C.B., Grimes, E.M., Simmons, A.N., Flagan, T., Cissell, C.H., Thorp, S.R., Norman, S.B., Paulus, M.P., Stein, M.B. (2012, April). *Neural System Function Predicts Response to Cognitive Trauma Therapy in Women with Domestic Violence-Related PTSD*. Part of larger symposium presented at the Anxiety Disorders Association of America (ADAA) in Arlington, Virginia.
- Aupperle, R.L., Allard, C.B., Grimes, E.M., Simmons, A.N., Flagan, T., Cissell, C.H., Thorp, S.R., Norman, S.B., Paulus, M.P., Stein, M.B. (2011, November). *Executive Function in PTSD:*

*Relationship to Neural Responses during Affective Anticipation.* Part of larger symposium presented at the International Society for Traumatic Stress Studies in Baltimore, MD.

- Aupperle, RL, Ramsawh, H., Flagan, T., Sullivan, S., Fonzo, G., Letamendi, A., Simmons, A.N., Paulus, M.P., Stein, M.B. (2011, November). *Neural Substrates of Anticipatory Processing in Generalized Anxiety and Panic Disorder: Predictors of Cognitive Behavioral Therapy Treatment Response*. Part of larger symposium presented at the Association for Behavioral and Cognitive Therapies (ABCT) in Toronto, Canada.
- Paulus, M.P., Aupperle, R.L., Flagan, T., Jain, K., Simmons, A.N., Stein, M.B. (2011, May). Individuals With Combat-related PTSD Show Attenuated Error Processing In A Simple Decision-making Paradigm. Presented at the Society of Biological Psychiatry annual conference, San Francisco, CA.
- **Aupperle, R.L.,** Sullivan, S., Melrose, A.J., Paulus, M.P., Stein, M.B. (2011, April). *Reverse Translation of Approach-Avoidance Conflict Models for Human Research.* Presented at the University of California San Diego Department of Psychiatry annual junior faculty and postdoctoral fellow research symposium, La Jolla, CA.
- Aupperle, R.L., Sullivan, S.R., Melrose, J., Stein, M.B., Paulus, M,P. (2011, March). *Reverse Translation of Approach-Avoidance Conflict Models for Human Research*. Presented at the Anxiety Disorders Association of America (ADAA) annual conference, New Orleans, LA.
- Aupperle, R.L., Allard, C.B., Grimes, E.M., Simmons, A.N., Flagan, T., Cissell, C.H., Thorp, S.R., Norman, S.B., Paulus, M.P., Stein, M.B. (2010, March). *Neural Systems Dysfunction during Anticipation in Women with Posttraumatic Stress Disorder Related to Intimate Partner Violence*. Presented at the Anxiety Disorders Association of America (ADAA) annual conference, Baltimore, MD.
- Aupperle, R.L., Hale, L.R., Chambers, R.J., Cain, S.E, Barth, F.X., Sharp, S.C., Denney, D.R., & Savage, C.R. (2008, May). An fMRI investigation of D-cycloserine and Symptom Provocation in Spider Phobia. Presented at the Society of Biological Psychiatry (SOBP) annual conference in Washington, D.C.
- Aupperle, R.L., Hale, L.R., Denney, D.R., Chambers, R.J., Cain, S.E, Barth, F.X., Sharp, S.C., Savage, C.R. (2007, March). An fMRI study investigating the effects of D-cycloserine on brain activations during verbal memory recognition. Presented at Neuroscience (SfN) annual conference in San Diego, CA.
- Aupperle, R.L., Savage, C.R. (2007, March). Repeated Symptom Provocation in Spider Phobia: D-Cycloserine, Preliminary Results. Presented at the Social Neuroscience Winter Institute (SNWI) in Bethel, ME.

#### **POSTER RESEARCH PRESENTATIONS**

\*Mentor on student presentations

Thelen, J., Stillman, A.N., Francisco, A.S., **Aupperle, R.L.**, (2015, April). Characteristics of Combat Veterans with PTSD who Follow-Through with Cognitive Training. Presented at the Anxiety Disorders Association of America (ADAA) annual conference, Miami, FL.

\*Stillman, A.N., Aupperle, R.L., Sisante, J.V., Wilson, D., Billinger, S.A. (2015, April). Heart of a

Solider: Relationships Between Combat Exposure, PTSD, Autonomic Regulation, and Cardiovascular Health in Veteran Populations. Presented at the Anxiety Disorders Association of America (ADAA) annual conference, Miami, FL.

- Aupperle, R.L., Stillman, A.N., Simmons, A.N., Francisco, A.S., Bruce, J., Martin, L., McDowd, J. (2014, December). Cognitive dysfunction in combat veterans is related to attenuated dorsal ACC activation during interference processing. Presented at the American College of Neuropsychopharmacology annual conference, Phoenix, AZ.
- \*Stillman, A.N., **Aupperle, R.L.**, Sisante, J.V., Wilson, D., Billinger, S.A. (2014, November). Heart of a Solider: Relationships Between Combat Exposure, PTSD, Autonomic Regulation, and Cardiovascular Health in Veteran Populations. Presented at the Oklahoma Psychological Association annual conference, Tulsa, OK.
- \*Stillman, A.N., Francisco, A.S., **Aupperle, R.L.** (2014, April). Combat related PTSD in OEF/OIF veterans: Effects on neural circuitry during cognitive inhibition. Presented at the Anxiety Disorders Association of America (ADAA) annual conference, Chicago, IL.
- \*Francisco, A.J., Stillman, A.N., **Aupperle, R.L.** (2014, April). Psychophysiological responses during approach-avoidance decision making. Presented at the Anxiety Disorders Association of America (ADAA) annual conference, Chicago, IL.
- Aupperle, R.L., May, A.C., Melrose A., Paulus, M.P., Stein, M.B. (2013, April). *PTSD and Approach-Avoidance Conflict: Behavioral and Neural Responses*. Presented at the Anxiety Disorders Association of America (ADAA) annual conference, San Diego, CA.
- \*Francisco, A.J., Shropshire, B., Taylor, C., **Aupperle, R.L.** (2013, April). Relationship Between Attentional Bias and Emotional Decision-Making. Presented at the Anxiety Disorders Association of America (ADAA) annual conference, San Diego, CA.
- Aupperle. R.L, Sullivan, S., Melrose, A., Paulus, M.P., Stein, M.B. (2012, December). A Novel Task Probing Neural Substrates of Approach-Avoidance Conflict: Implications for Understanding Anxiety Disorders. Presented at the American College of Neuropsychopharmacology annual conference, Hollywood, FL.
- Aupperle. R.L, Sullivan, S., Melrose, A., Paulus, M.P., Stein, M.B. (2012, April). A Novel Task Probing Neural Substrates of Approach-Avoidance Conflict: Implications for Understanding Anxiety Disorders. Presented at the Anxiety Disorders Association of America (ADAA) annual conference, Arlington, VA.
- Aupperle, R.L., Allard, C.B., Grimes, E.M., Simmons, A.N., Flagan, T., Cissell, C.H., Thorp, S.R., Norman, S.B., Paulus, M.P., Stein, M.B. (2011, December). *Predictors and Consequences of Cognitive Therapy for PTSD: Neural Responses to Emotional Anticipation*. Presented at the American College of Neuropsychopharmacology (ACNP) annual conference, Waikaloa Beach, Hawaii.
- Flagan, T.M., **Aupperle, R.L.,** Simmons, A.N., Paulus, M.P., Stein, M.B. (2011, May). *Trait Anxiety influences Neural Systems underlying Risky Decision Making*. Presented at the Society of Biological Psychiatry annual conference, San Francisco, CA.

- McCurdy, D.P., Aupperle, R.L., Flagan, T.M., Grenesko-Stevens, E., Wagner, A., Paulus, M.P., Kaye, W.H. (2011, May). *Neurobiology of Eating Disorders: An fMRI Investigation of Tastes to Sucrose*. Presented at the Society of Biological Psychiatry annual conference, San Francisco, CA.
- Aupperle, R.L., Allard, C.B., Grimes, E.M., Simmons, A.N., Flagan, T., Cissell, C.H., Thorp, S.R., Norman, S.B., Paulus, M.P., Stein, M.B. (2010, December). *Unique influence of PTSD symptom clusters on Neural Activations during Anticipatory Processing*. Presented at the American College of Neuropsychopharmacology (ACNP) annual conference, Miami Beach, FL.
- Aupperle, R.L., Ramsawh, H., Flagan, T., Sullivan, S., Fonzo, G., Letamendi, A., Simmons, A.N., Paulus, M.P., Stein, M.B. (2010, November). *Generalized Anxiety Disorder, Social Anxiety Disorder, and Panic Disorder: Common and Unique Neural Substrates of Anticipation*. Presented at the Society for Neuroscience (SfN) annual conference, San Diego, CA.
- Flagan, T.M., Aupperle, R.L., Gillis, K., Simmons, A.N., Swain J.L., Paulus, M.P. (2010, November). Attenuated Insula Activation during Non-hypercapnic Breathing Restriction: Evidence for More Eefficient Neural Processing in Elite Performers in Extreme Environments. Society for Neuroscience Annual Meeting, San Diego, CA.
- Aupperle, R.L., Ravindran, L., Tankersley, D., Flagan, T., Simmons, A.N., Stein, M.B., Paulus, M.P. (2010, May). *Neural Effects of Pregabalin in Healthy Controls during Anticipation*. Presented at the Society of Biological Psychiatry (SOBP) annual conference, New Orleans, LA.
- Nelson, C.A., Hale L., **Aupperle, R.L**.; Hamilton, N.A.; Savage, C.R. (2009, November). *Memory Confidence, Source Memory Accuracy, and Obsessive-Compulsive Symptoms.* Presented at the Association of Behavioral and Cognitive Therapies (ABCT) annual conference in New York.
- Nelson, C.A., Hale L., Aupperle, R.L., Hamilton, N.A., Savage, C.R. (2008, November). Organizational Strategies and Memory in Individuals with Subclinical Obsessive-Compulsive Symptoms. Presented at the Association of Behavioral and Cognitive Therapies (ABCT) in Orlando, FL, November, 2008.
- Aupperle, R.L., Hale, L.R., Nelson. C.R., Chambers, R.J., Cain, S.E, Barth, F.X., Sharp, S.C., Hall, S.B., Denney, D.R., Savage, C.R. (2007, March). A double-blind, placebo-controlled, fMRI investigation of D-cycloserine and Symptom Provocation in Spider Phobia: Preliminary results. Presented at the Anxiety Disorders Association of America (ADAA) annual conference in St. Louis, MO.
- Brooks, W.M., Hall, S.B., Lierman, J.L., Schmitt, A.L., Ladeseich, L.R., Malone, T.M., Aupperle, R.L., Savage, C.R. (2006, May). *Magnetic Resonance Spectroscopic Imaging is Sensitive to Severity in Traumatic Brain Injury*. Presented at the International Society for Magnetic Resonance (ISMRM) in Medicine, Seattle, WA.
- Aupperle, R.L., Savage, C.R., Lierman, J.A., Schmitt, A., Ladesich, L., Varghese, G., Malone, T.M., Hall, S.B., Brooks, W.M. (2005, November). *Magnetic Resonance Spectroscopic Imaging and Psychological Symptoms 3 months Post-Traumatic Brain Injury*. Presented at Neuroscience (SfN) conference, Washington, D.C.
- Aupperle, R.L., Denney, D., Lynch, S. (2005, September). Omega-3 Fatty Acid Levels in Multiple Sclerosis: Correlation of Diet, Disability, and Depression. Presented at the annual convention of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS) and the American Committee for Treatment and Research in Multiple Sclerosis (ACTRIMS), Thessalonika, Greece.

- Aupperle, R.L., Savage, C.R., Lierman, J.A., Schmitt, A., Ladesich, L., Varghese, G., Malone, T.M., Hall, S.B., Brooks, W.M. (2004, April). *Proton Magnetic Resonance Spectroscopy at 3-tesla and Cognitive Function in Traumatic Brain Injury*. Presented at the Kansas City Life Sciences Institute (KCLSI) Conference, Kansas City, KS.
- Gontkovsky, S.T., Aupperle, R.L., Shelton, F., Beatty, W.W. (2002, February). *Relationship between Depression and Attentional/Memory Processes in Multiple Sclerosis*. Presented at the American Neuropsychiatric Association (ANPA), 2002.
- Gontkovsky S, Beatty W, McDonald N, **Aupperle R** (2002). *Factors Affecting the Employment Status of Patients with Multiple Sclerosis*. Archives of Clinical Neuropsychology, 17: 723. Presented at the National Academy of Neuropsychology.
- Aupperle, R.L., Beatty, W.W., Shelton, F., & Gontvoskey, S. (2002, February). Three Screening Batteries to Detect Cognitive Impairment in Multiple Sclerosis. Presented at the International Neuropsychological (INS) Conference, Toronto, Canada.

#### INVITED RESEARCH AND CLINICAL PRESENTATIONS

Aupperle, R.L. (2013). *Post Traumatic Stress Disorder: Unraveling the Mystery*. Training workshop on PTSD presented to the Johnson County, Kansas Fire and Police Departments, Shawnee, KS.

Aupperle, R.L. (2013). *Neuroimaging Research and PTSD Treatment*. Presented as part of the VA Research Day at the VA Eastern Kansas Healthcare System (VAEKHS), Leavenworth, KS.

**Aupperle, R.L.** (2013). *Comorbid PTSD and TBI: Implications for Treatment*. Presented to the VAEKHS Behavioral Health Clinical Seminar, Leavenworth, KS.

**Aupperle, R.L.** (2013). *Anxiety Disorders and Cardiovascular Health*. Presented as part of the Translational Discovery Forum, University of Kansas Medical Center (KUMC), Kansas City, KS.

**Aupperle, R.L**. (2012). *Neuroimaging and PTSD Treatment*, Presented to the Greater Kansas City Psychological Association (GKCPA), Kansas City, MO.

**Aupperle, R.L.** (2012). *Using Neuroimaging to Inform Treatment Development for PTSD*. Presented at the Heartland Institute for Clinical and Translational Research for the Clinical and Translational Research Seminars (CTRS), KUMC, Kansas City, KS.

**Aupperle, R.L**. (2012). *Using Neuroimaging to Inform Treatment Development for PTSD*. Presented at the Clinical and Translational Research Seminar series, KUMC, Kansas City, KS.

**Aupperle, R.L.** (2011). *Combining Research and Clinical Practice*. Presented to the VAEKHS Behavioral Health Clinical Seminar, Leavenworth, KS.

**Aupperle, R.L**. (2011). *Neural substrates of avoidance and approach processes: Clinical Implications for PTSD*. Presented to the University of Kansas (KU) Health Psychology Proseminar, Lawrence, KS.

**Aupperle, R.L.** (2010). *Neural systems dysfunction in PTSD*. Presented to the VA San Diego Heatlhcare System (VASDHS) PTSD Clinic, San Diego, CA.

Aupperle, R.L. (2007). *Brain Structure and Function*. Presented to the National Alliance of Mental Illness (NAMI), Lawrence, KS.

Aupperle, R.L., Bui, T.G. (2007). Assessment and Treatment of Obsessive-Compulsive Disorder. Presented to the Greater Kansas City Psychological Association (GKCPA), Kansas City, MO. Aupperle, R.L. (2005). *Exposure Therapy for Specific Phobia*. Presented as part of a larger workshop related to the assessment and treatment of anxiety disorders, conducted by the Kansas City Center for Anxiety Treatment clinical team (led by Dr. Lisa Hale). Presented to the Johnson County Community Mental Health Center (JCMH), Overland Park, KS.

#### **PROFESSIONAL MEMBERSHIPS**

Oklahoma Psychological Association: 2014-present Anxiety and Depression Association of America: 2005-present Association for Behavioral and Cognitive Therapies: 2005-2011 Society for Neuroscience: 2005-2012 American Psychological Association: 2002-2011

#### SERVICE/VOLUNTEER

UNIVERSITY/COMMUNITY:

2013-present: Early Career Travel Award Mentoring Committee, Anxiety and Depression Association of America (ADAA)

2015: Tech Trek Tulsa (University of Tulsa STEM camp for 8<sup>th</sup> grade girls); Neuroscience Workshop Organizer

2013-2015: Early Career Special Interest Group (SIG) Chair, Anxiety and Depression Association of America (ADAA)

2014: Behavioral Processes Workgroup Leader, Laureate Institute for Brain Research (LIBR), Tulsa, OK

2012 – 2014: Campus-wide KC-BANCS leadership committee, University of Missouri - Kansas City (UMKC)

\*KC-BANCS is a team dedicated to encouraging and supporting veterans and individuals with disabilities to enter and advance in careers in the science, technology, engineering, and math (STEM) fields.

2012 - 2014: Psychology Department Clinical Comps Committee, UMKC

2012 - 2014: Psychology Department Clinical Graduate Curriculum Committee, UMKC

2011-2012: Psychology Department Admissions Committee, UMKC

2011-2012: Reviewer, Students Engaged in Artistic and Academic Research (SEARCH) Student Grant Proposals, UMKC

2011-2014: Supervisor, Psychology Undergraduate Subject Pool, UMKC

2011 – 2-14: Graduate Cohort Mentor for 2011 entering Clinical Psychology doctoral class, UMKC

#### M.A. THESIS AND DISSERTATION COMMITTEES:

Ness, Abigail (2013). *Baseline cortical activation to food pictures associated with weight change following bariatric surgery*. [UMKC Department of Psychology; M.A. thesis committee member]

Thelen, Joan (2013). *Polypharmacy in patients with multiple sclerosis: Effect on fatigue, perceived cognition, and objective cognitive performance.* [UMKC Department of Psychology; M.A. thesis committee member]

- Moreno, Jose (2013). *Smoking Differences and Predictors of ART Adherence*. [UMKC Department of Psychology; M.A. thesis committee member]
- Pollack, Lauren (2013). *The quality of life in individuals with eating disorders*. [UMKC Department of Psychology; M.A. thesis committee member]
- Sena Moore, Kymberly (2013). Preparation of three reviews: (1) A History of Emotion Theories and Their Contributions to an Emerging Understanding of Music and Emotions: An Integrative Review; (2) Development, Attachment, and Stress: A Conceptual Foundation for Understanding Emotion Regulation Development; (3) The Therapeutic Function of Music for Musical Contour Regulation Facilitation: A Model to Facilitate Emotion Regulation Development in Typically Developing Preschoolers (integrative PhD comprehensive exam committee member)
- Stillman, Ashley (proposed 2013). Relationships between combat exposure, PTSD, and cardiovascular health in veteran populations. [UMKC Department of Psychology; M.A. thesis committee chair]
- Roberg, Brandon (proposed 2013). *Theory of Mind in Multiple Sclerosis: Disease Subtype Differences and Association with Measures of Social Functioning*. [UMKC Department of Psychology; M.A. dissertation committee member]
- Elmore, Wade (proposed 2013). *The effect of violent video game exposure on emotion modulation of startle and aggression*. [UMKC Department of Psychology; M.A. dissertation committee member]
- Moreno, Jose (in preparation). [UMKC Department of Psychology; M.A. dissertation committee member]
- Francisco, Alex (in preparation). *Skin conductance responses during approach-avoidance conflict decision-making*. [UMKC Department of Psychology; M.A. thesis committee chair]
- Gessner, Stacia (in preparation). [UMKC Department of Psychology; M.A. dissertation committee member]

#### NATIONAL/INTERNATIONAL:

2012-present: Chair, Early Career Special Interest Group (SIG), Anxiety and Depression Association of America (ADAA)

2012: Board Nominations Committee for the Anxiety and Depression Association of America (ADAA)

2011-2012: Mentorship Program Committee for the Anxiety and Depression Association of America (ADAA)

#### SELECTED EDITORIAL REFEREE EXPERIENCE:

Anxiety and Depression Association of America Conference Abstracts Archives of Clinical Neuropsychology Archives of General Psychiatry Behavioral Brain Research Behavioral Research and Therapy Biological Psychiatry Biology of Mood and Anxiety Disorders Brain Research Cognitive, Affective, & Behavioral Neuroscience Depression and Anxiety International Society for Traumatic Stress Studies Conference Abstracts Journal of Affective Disorders Journal of Clinical Psychiatry Journal of the International Neuropsychological Society Journal of Traumatic Stress Neuroimage Neuropharmacology PLoS ONE Psychological Medicine Psychoneuroendocrinology

**GRANT REVIEWS:** 

University of Missouri Research Board Pilot Awards Frontiers Clinical and Translational Research Pilot Awards European Research Council Executive Agency

## TEACHING

Fall, 2011 – 2014 (semester basis): University of Missouri-Kansas City (UMKC) Department of Psychology

Instructor, undergraduate course PSYCH 418 Brain and Behavior (mean instructor rating = 4.5 / 5.0)

Spring, 2011 – 2014 (yearly basis): University of Missouri-Kansas City (UMKC) Department of Psychology

Instructor, graduate course PSYCH 5518, Advanced Biopsychology (mean instructor rating = 4.25 / 5.0)

Spring, 2012 – 2014 (semester basis): University of Missouri-Kansas City (UMKC) Department of Psychology

Instructor, undergraduate course PSYCH 490, Directed Research Experience

Summer, 2013: University of Missouri – Kansas City (UMKC) Department of Psychology <u>Instructor</u>, Voluntary workshop on using Analysis of Functional NeuroImages (AFNI) software for analyses.

Fall, 2012: University of Missouri-Kansas City (UMKC) Department of Psychology Clinical Psychology Practicum Supervisor, KC-CARE Clinic

2012 : University of Missouri - Kansas City (UMKC) Medical School <u>Guest Lecturer</u>, Neuroscience Course; Title of Lecture: *The Limbic System* 

2012: University of Missouri - Kansas City (UMKC) Department of Psychology <u>Guest Lecturer</u>, Health Psychology Interventions Title of Lecture: Approach and Avoidance Processes in Anxiety: Neural Substrates and Clinical Implications

Spring, 2010 – Spring, 2011: University of California, San Diego Department of Psychology <u>Student Mentor</u>, supervised undergraduate students while working within the research lab for course credit

2010: University of California – San Diego (UCSD) Department of Psychology <u>Guest Lecturer</u>, undergraduate Honors Psychology course Title of Lecture: *Clinical Psychology Career Paths* 

Fall, 2009 and Fall, 2010: University of California, San Diego Department of Neuroscience

<u>Guest Lecturer</u>, 'Neuroscience Bootcamp' for incoming neuroscience graduate students Lectures: Basics of functional Magnetic Resonance Imaging (MRI), paradigm development, data analyses.

Summer, 2005: University of Kansas Department of Psychology Instructor, undergraduate course Brain and Pathology

Spring, 2001: Oklahoma State University Department of Psychology <u>Teaching Assistant</u>, undergraduate course, Quantitative Methods in Psychology

# Educational Objectives of the Presentation

- 1. Identify the different neuroimaging methodologies currently being used to investigate the development and treatment of PTSD.
- 2. Understand the brain networks implicated in the emotional and cognitive symptoms of PTSD.
- 3. Discuss the potential implications of neuroimaging research to the future treatment of PTSD.

# Presentation Agenda/Outline

- 9:15 9:30: Check in, breakfast
- 9:15 10:15 am
  - I. Diagnostic criteria and associated symptoms of PTSD.
  - II. Prevalence of PTSD and effectiveness of current therapeutic treatments.
  - III. Methodologies used in current neuroscientific research on PTSD.
  - IV. Networks currently implicated in the various symptoms of PTSD.
- 10:15 10:30: Break
- 10:30 11:30 am
  - V. Effects of psychotherapy on brain activations in PTSD
  - VI. Neuroimaging predictors of response to psychotherapy in PTSD
  - VII. Implications for current and future treatment of PTSD
  - VIII. Exercise: Practice explaining the neurobiology of PTSD and how psychotherapy can influence this to your neighbor.
  - IX. Future Directions of Neuroimaging Research in PTSD

Example References:

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: Author.

Richardson, L. K., Frueh, B. C., & Acierno, R. (2010). Prevalence estimates of combatrelated post-traumatic stress disorder: critical review. Aust N Z J Psychiatry, 44(1), 4-19.

Schottenbauer, M.A., Glass, C.R., Arnkoff, D.B., Tendick, V., Gray, S.H. (2008). Nonresponse and dropout rates in outcome studies on PTSD: review and methodological considerations. Psychiatry 71, 134–168.

Francati, V., Vermetten, E., & Bremner, J. D. (2007). Functional neuroimaging studies in posttraumatic stress disorder: review of current methods and findings. Depression and anxiety, 24(3), 202-218.

*Etkin, A., & Wager, T. D. (2007). Functional neuroimaging of anxiety: a metaanalysis of emotional processing in PTSD, social anxiety disorder, and specific phobia.* 

Aupperle, R. L., Allard, C. B., Simmons, A. N., Flagan, T., Thorp, S. R., Norman, S. B., ... & Stein, M. B. (2013). Neural responses during emotional processing before and after cognitive trauma therapy for battered women. Psychiatry Research: Neuroimaging, 214(1), 48-55.

Thomaes, K., Dorrepaal, E., Draijer, N., Jansma, E. P., Veltman, D. J., & van Balkom, A. J. (2014). Can pharmacological and psychological treatment change brain structure and function in PTSD? A systematic review. Journal of psychiatric research, 50, 1-15.

Etkin, A., Pittenger, C., Polan, H. J., & Kandel, E. R. (2014). Toward a neurobiology of psychotherapy: basic science and clinical applications.

# "Neuroimaging Research related to PTSD: Implications for Treatment" Evaluation Form April 24, 2015; Laureate Conference Center

| General Evaluation   |               |                |               |      |           |
|--|---------------|----------------|---------------|------|-----------|
|  | Excellent     | Good           | Fair          | Poor | Very Poor |
| 1. Rate the amount of new information you gained from this presentation  |               |                |               |      |           |
| 2. Rate the overall quality of the presentation.   |               |                |               |      |           |
| 3. Rate the level of knowledge of the topic covered BEFORE attending this session.   |               |                |               |      |           |
| 4. Rate the level of knowledge of the topic covered AFTER attending this session.  |               |                |               |      |           |
| 5. Rate the level of assistance you received from this presentation for enhancing patient care.  |               |                |               |      |           |
| Relationship of objective to ov  | verall propos | sed goal(s) of | the activity. |      |           |
|  | . н<br>Г. н   |                |               | P    | 17 D      |
| 6. Identify the different neuroimaging<br>methodologies currently being used to<br>investigate the development and<br>treatment of PTSD. |               |                |               |      |           |
| 7. Understand the brain networks implicated in the emotional and cognitive symptoms of PTSD.   |               |                |               |      |           |
| 8. Discuss the potential implications of<br>neuroimaging research to the future<br>treatment of PTSD.                                    |               |                |               |      |           |
| Robin Aupperle, PhD – Speake   | er Effectiven | <b>PCC</b>     |               |      |           |
|  | Excellent     | Good           | Fair          | Poor | Very Poor |
| 10. Robin Aupperle, PhD: Speaker's<br>knowledge of subject and use of<br>effective examples and illustrations.                           |               |                |               |      |           |
| 11. Speaker's organization of material   |               |                |               |      |           |
| 12. Speaker's ability to stimulate participation through discussion, question/answer periods, etc.                                       |               |                |               |      |           |
| 13. Speaker's handouts and audiovisual<br>(Powerpoint, videos, etc.) were effective<br>and conducive to learning.                        |               |                |               |      |           |

|  | Yes | No |
|--|-----|----|
| 13. Will the information obtained from<br>this presentation alter your<br>practice/procedures? |     |    |
| 14. This session met its stated objective(s).  |     |    |
| 15. The content was objective, balanced,<br>and evidence-based.                                |     |    |
| 16. The type and source of evidence was identified.  |     |    |
| 17. Was this presentation free of commercial bias?   |     |    |

# 18. What will you do differently in the care of your patients?

19. Are there any additional comments you have about this workshop?