Alexander J. Shackman

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Academic Appointments

8/2019—present	Associate Professor (Clinical and CNS area groups) Department of Psychology, University of Maryland, College Park
8/2013—7/2019	Assistant Professor Department of Psychology, University of Maryland, College Park
8/2013—present	Core Faculty Maryland Neuroimaging Center, University of Maryland, College Park
6/2013—present	Faculty Member Neuroscience and Cognitive Science (NACS) Program, University of Maryland, College Park
6/2013—8/2013	Visiting Assistant Professor Department of Psychology, University of Maryland, College Park
8/2011—7/2013	Postdoctoral Scientist Department of Psychiatry, University of Wisconsin—Madison Supervisor: Ned H. Kalin, MD
1/2010—8/2011	Postdoctoral Scientist Departments of Psychology and Psychiatry, University of Wisconsin—Madison Supervisor: Bradley R. Postle, Ph.D.
9/2008—12/2009	Postdoctoral Scientist Department of Psychology, University of Wisconsin—Madison Supervisor: Richard J. Davidson, Ph.D.

Education

2008	Ph.D., Biological Psychology (Distributed Minor in Neuroscience) University of Wisconsin—Madison
1997	Bachelor of Arts, *cum laude*, Psychology (Honors) University of Wisconsin—Madison

Research Sketch

Major Interests

Affective, translational, and clinical neuroscience; dimensional models of psychopathology; emotion; fear, anxiety, and their role in anxiety and trauma disorders, depression, addiction, and psychosis; temperament/personality; cognition

× emotion interactions (cognitive control, working memory); developmental psychopathology; extended amygdala; cingulate; prefrontal cortex.

Major Methods

Multimodal neuroimaging (MRI, PET); Experience sampling/ecological momentary assessment (EMA) methods; Meta-analysis (imaging/ALE, random effects); Clinical assessments (SCID, MINI, C-IRLE).

Sponsored Research

Current

January 2021—November 2025	Faculty mentor. *The Mid-Atlantic Neuroscience Diversity Scholars (MINDS) program*. NINDS R25 NS119644.
December 2020—November 2025	Co-I. *A prospective-longitudinal investigation of the biopsychosocial predictors of loneliness across adolescence in autism and typical development.* NIMH R01 MH125370. $3,643,779 in total costs.
June 2020—April 2025	Co-PI. *Using multimodal neuroimaging and real-world experience sampling to understand negative affect and paranoid ideation in psychosis.* NIMH R01 MH121409. $3,701,474 in total costs.
April 2016—January 2022	PI. *Prospective determination of neurobehavioral risk for the development of emotion disorders.* NIMH R01 MH107444. $3,384,218 in total costs.
September 2019—September 2021	Consultant. *A behavioral economics approach to understanding the association between ADHD and alcohol problems in college.* NIAAA F31. AA027937.

Prior

May 2018—May 2019	Co-PI. *Understanding the role of negative affect in psychosis using multimodal imaging and wearable sensors.* Brain and Behavior Initiative Seed Grant, University of Maryland. XX. $49,880 in total costs.
July 2016—June 2019	PI. *The role of anxiety-related brain circuits in tobacco dependence and withdrawal*. NIDA R21 DA040717. $418,000 in total costs.
July 2015—June 2017	Co-PI. *The role of anxiety-related brain circuits in tobacco dependence and withdrawal*. Dean's Research Initiative Level II Seed Grant. College of Behavioral and Social Sciences, University of Maryland. $20,000 in total costs.
June 2014—July 2015	PI. *Dissecting the functional organization and significance of the neural circuitry of pain*. Dean's Research Initiative Level II Seed Grant. College of Behavioral and Social Sciences, University of Maryland. $19,500 in total costs.

Publications (Google Scholar Metrics | total publications: 86)

* equal authorship contribution
† mentored trainee

Book

[1] Fox, A. S., Lapate, R. C., **Shackman, A. J.** & Davidson, R. J. (2018). *The nature of emotion. Fundamental questions* (2nd edition). New York: Oxford University Press. **PDF** **Amazon**

Peer-Reviewed Articles

[57] Gee, D. G.*, DeYoung, K. M. †, McLaughlin, K. A., Tillman, R. M. †, Barch, D. M., Forbes, E. E., Krueger, R. F., Strauman, T. J., Weierich, M. A. & **Shackman, A. J.*** (*accepted pending minor revisions*). Training the next generation of clinical psychological scientists: A data-driven call to action. *Annual Review of Clinical Psychology.* *equal contributions. [] PDF DATA

[56] Hur, J. †, Kuhn, M. †, Grogans, S. E. †, Anderson, A. S. †, Islam, S. †, Kim, H. C. †, Tillman, R. M. †, Fox, A. S., Smith, J. F., DeYoung, K. A. † & **Shackman, A. J.** (*in press*). Anxiety-related fronto-cortical activity is associated with dampened stressor reactivity in the real world. ***Psychological Science.*** PDF NeuroVault ANiC ENIGMA

[55] Conway, C. C., Forbes, M. K., South, S. C., Bornovalova, M., Chan, R., Chmielewski, M., Clark, L. A., Dalgleish, T., Dick, D., Dretsch, M., Eaton, N., Fornito, A., Goghari, V., Haltigan, J. D., Hankin, B., Hopwood, C., Jonas, K., Kotov, R., Krueger, R. F., Latzman, R., Lyman, D., Martin, E., Michelini, G., Miller, J., Moffitt, T. E., Mullins-Sweatt, S., Naragon-Gainey, K., Olino, T., Patrick, C. J., Pincus, A. L., Rodriguez-Seijas, C., Samuel, D., Sellbom, M., **Shackman, A. J.**, Stanton, K., Tiego, J., Waldman, I., Waszczuk, M., Watson, D., Watts, A. L., Waugh, M., Wilson, S., Wright, A. G. C., Young, J. & Zald, D. H. (*in press*). A Hierarchical Taxonomy of Psychopathology (HiTOP) primer for mental health researchers. ***Clinical Psychological Science.*** [NIHMSID1718450] **PDF** **DATA**

[54] Krueger, R. F., Kotov, R., Watson, D., Forbes, M. K., Eaton, N. R., Ruggero, C. J., Simms, L. J., Widiger, T. A., Achenbach, T. M., Bach, B., Bagby, R. M., Bornovalova, M. A., Carpenter, W. T., Chmielewski, M., Cicero, D. C., Clark, L. A., Conway, C., DeClercq, B., DeYoung, C. G., Docherty, A. R., Drislane, L. E., First, M. B., Forbush, K. T., Hallquist, M., Haltigan, J. D., Hopwood, C. J., Ivanova, M. Y., Jonas, K. G., Latzman, R. D., Markon, K. E., Miller, J. D., Morey, L. C., Mullins-Sweatt, S. N., Ormel, J., Patalay, P., Patrick, C. J., Pincus, A. L., Regier, D. A., Reininghaus, U., Rescorla, L. A., Samuel, D. B., Sellbom, M., **Shackman, A. J.**, Skodol, A., Slade, T., South, S. C., Sunderland, M., Tackett, J. L., Venables, N. C., Waldman, I. D., Waszczuk, M. A., Waugh, M. H., Wright, A. G. C., Zald, D. H. & Zimmermann, J. (2021). Les progrès dans la réalisation de la classification quantitative de la psychopathologie. ***Annales Médico-Psychologiques****, 179*, 95-106. [NIHMSID1721484] **PDF**

[53] Doorley, J. D., Goodman, F. R., Disabato, D. J., Kashdan, T. B., Weinstein, J. S. † & **Shackman, A. J.** (2021). The momentary benefits of positive events for individuals with elevated social anxiety. ***Emotion***, *21*, 595-606. [NIHMSID1062502] **PDF** **DATA**

[52] Alfini, A. J., Won, J., Weiss, L. R., Nyhuis, C. C., Spira, A. P., Liu-Ambrose, T., **Shackman, A. J.** & Smith, J. C. (2020).

Impact of exercise on older adults' mood is moderated by sleep and mediated by altered brain connectivity. ***Social Cognitive and Affective Neuroscience,*** *15,* 1238-1251. [PMC7745152] **PDF** **NeuroVault**

[51] Hur, J. †, Smith, J. F., DeYoung, K. A. †, Anderson, A. S. †, Kuang, J. †, Kim, H. C. †, Tillman, R. M. †, Kuhn, M. †, Fox, A. S., & **Shackman, A. J.** (2020). Anxiety and the neurobiology of temporally uncertain threat anticipation. ***Journal of Neuroscience,*** *40,* 7949-7964. [PMC7548695] **PDF** **NeuroVault** **ANiC** ENIGMA (*in process*)

[50] Hur, J. †, DeYoung, K. A. †, Islam, S. †, Anderson, A. S. †, Barstead, M. G. †, & **Shackman, A. J.** (2020). Social context and the real-world consequences of social anxiety. ***Psychological Medicine****, 50,* 1989-2000. [NIHMS1038817] **PDF** **DATA**

[49] Doorley, J. D., Volgenau, K. M., Kelso, K. C., Kashdan, T. B., & **Shackman, A. J.** (2020). Do people with elevated social anxiety respond differently to digital and face-to-face communications? Two daily diary studies with null effects. ***Journal of Affective Disorders****, 276,* 859-865. [NIHMSID1609452] **PDF** **DATA** **PREREGISTRATION**

[48] Hamilton, K. R., Smith, J. F., Gonçalves, S. F., Nketia, J. A., Tasheuras, O. N., Yoon, M., Rubia, K., Chirles, T. J., Lejuez, C. W. & **Shackman, A. J.** (2020). Striatal bases of temporal discounting in early adolescents. ***Neuropsychologia***, *144*, 107492. [NIHMSID1592542] **PDF** **NeuroVault**

[47] Latzman, R. D., DeYoung, C. G., & The HiTOP Neurobiological Foundations Workgroup [Afzali, M. H., Allen, T. A., Althoff, R. R., DeYoung, C. G., Docherty, A. R., Dretsch, M., Eaton, N. R., Goghari, V. M., Grazioplene, R. G., Hallquist, M. N., Haltigan, J. D., Heller, A. S., Holmes, A. J., Kotov, R., Krueger, R. F., Latzman, R. D., Martin, E. A., Michelini, G., Patrick, C. J., Ruocco, A. C., **Shackman, A. J.**, Tackett, J. L., Treadway, M. T., Venables, N. C., Waldman, I. D., Zald, D. H.] (2020). Using empirically-derived dimensional phenotypes to accelerate clinical neuroscience: The Hierarchical Taxonomy of Psychopathology (HiTOP) framework. ***Neuropsychopharmacology****, 45,* 1083-1085. [PMC7235031] **PDF**

[46] Waszczuk, M. A., Eaton, N. R., Krueger, R. F., **Shackman, A. J.**, Waldman, I. D., Zald, D. H., Lahey, B. B., Patrick, C. J., Conway, C. C., Ormel, J., Hyman, S. E., Fried, E. I., Forbes, M. K., Docherty, A., Althoff, R. R., Bach, B., Chmielewski, M., DeYoung, C. G., Forbush, K. T., Hallquist, M., Hopwood, C. J., Ivanova, M., Jonas, K. G., Latzman, R. D., Markon, K. E., Mullins-Sweatt, S. N., Pincus, A. L., Reininghaus, U., South, S. C., Tackett, J. L., Watson, D., Wright, A. G. C. & Kotov, R. (2020). Redefining phenotypes to advance psychiatric genetics: Implications from the Hierarchical Taxonomy of Psychopathology. ***Journal of Abnormal Psychology****, 129*, 143-161. [NIHMSID1051067] **PDF**

[45] Ruggero, C. J., Kotov, R., Hopwood, C., First, M., Clark, L. A., Skodol, A., Mullins-Sweatt, S. N., Patrick, C. J., Bach, B., Cicero, D., Docherty, A., Simms, L. J., Bagby, M., Krueger, R. F., Callahan, J., Chmielewski, M., Conway, C., DeClercq, B. J., Dornbach-Bender, A., Eaton, N., Forbes, M., Forbush, K., Haltigan, J. D., Miller, J. D., Morey, L. C., Patalay, P., Regier, D., Reninghaus, U., **Shackman, A. J.**, Shteynberg, Y., Waszczuk, M. A., Watson, D., Wright, A. G. C. & Zimmerman, J. (2019). Integrating the Hierarchical Taxonomy of Psychopathology (HiTOP) into clinical practice. ***Journal of Consulting and Clinical Psychology***, *87*, 1069-1084. [NIHMSID1050894] **PDF**

[44] Hur, J. †, Stockbridge, M. D. †, Fox, A. S. & **Shackman, A. J.** (2019). Dispositional negativity, cognition, and anxiety disorders: An integrative translational neuroscience framework. ***Progress in Brain Research****, 247,* 375-436. [PMC6578598] **PDF**

[43] Conway, C. C., Forbes, M. K., Forbush, K. T., Fried, E. I., Hallquist, M. N., Kotov, R., Mullins-Sweatt, S. N.,

Shackman, A. J., Skodol, A. E., South, S. C., Sunderland, M., Waszczuk, M. A., Zald, D. H., Afzali, M. H., Bornovalova, M. A., Carragher, N., Docherty, A. R., Jonas, K. G., Krueger, R. F., Patalay, P., Pincus, A. L., Tackett, J. L., Reininghaus, U., Waldman, I. D., Wright, A. G. C., Zimmerman, J., Bach, B., Bagby, R. M., Chmielewski, M., Cicero, D. C., Clark, L. A., Dalgleish, T., DeYoung, C. G., Hopwood, C. J., Ivanova, M. Y., Latzman, R. D., Patrick, C. J., Ruggero, C. J., Samuel, D. B., Watson, D. & Eaton, N. R. (2019). A hierarchical taxonomy of psychopathology can transform mental health research. ***Perspectives on Psychological Science***, *14,* 419-436*.* [PMC6497550] **PDF**

[42] **Shackman, A. J.** & Wager, T. D. (2019). The emotional brain: Fundamental questions and strategies for future research. ***Neuroscience Letters****, 693*, 68-74. [PMC6370519] **PDF**

[41] Fox, A. S. * & **Shackman, A. J.** * (2019). The central extended amygdala in fear and anxiety: Closing the gap between mechanistic and neuroimaging research. ***Neuroscience Letters***, 693, 58-67. [PMC5976525] **PDF**

[40] Hur, J. †, Kaplan, C. M. †, Smith, J. F., Bradford, D. E., Fox, A. S., Curtin, J. J. & **Shackman, A. J.** (2018). Acute alcohol administration dampens central extended amygdala reactivity. ***Scientific Reports***, *8*, 16702. [PMC6232084] **PDF** **NeuroVault**

[39] Fox, A. S., Oler, J. A., Birn, R. M., **Shackman, A. J.**, Alexander, A. L., & Kalin, N. H. (2018). Functional connectivity within the primate extended amygdala is heritable and predicts early-life anxious temperament. ***Journal of Neuroscience****, 38,* 7611–7621. [PMC6113902] **PDF**

[38] Krueger, R. F., Kotov, R., Watson, D., Forbes, M. K., Eaton, N. R., Ruggero, C. J., Simms, L. J., Widiger, T. A., Achenbach, T. M., Bach, B., Bagby, R. M., Bornovalova, M. A., Carpenter, W. T., Chmielewski, M., Cicero, D., Clark, L. A., Conway, C., DeClercq, B., DeYoung, C. G., Docherty, A. R., Drislane, L. E., First, M. B., Forbush, K. T., Hallquist, M., Haltigan, J. D., Hopwood, C. J., Ivanova, M. Y., Jonas, K. G., Latzman, R. D., Markon, K. E., Miller, J. D., Morey, L. C., Mullins-Sweatt, S. N., Ormel, J., Patalay, P., Patrick, C. J., Pincus, A. L., Regier, D. A., Reininghaus, U., Rescorla, L. A., Samuel, D. B., Sellbom, M., **Shackman, A. J.**, Skodol, A., Slade, T., South, S. C., Sunderland, M., Tackett, J. L., Venables, N. C., Waldman, I. D., Waszczuk, M. A., Waugh, M. H., Wright, A. G. C., Zald, D. H. & Zimmerman, J. (2018). Progress in achieving empirical classification of psychopathology. ***World Psychiatry***, 17, 282-293. [PMC6172695] **PDF** ** ***Focus of nine accompanying commentaries*** **PDF**

[37] **Shackman, A. J.**, Weinstein †, J., Hudja †, S.N., Bloomer, C. †, Barstead, M. G. †, Fox, A. S. & Lemay, E. P., Jr. (2018). Dispositional negativity in the wild: Social context governs momentary emotional experience. ***Emotion***, *18*, 707-724. [PMC5726948] **PDF** **DATA**

[36] Gorka, A. X., Torrisi, S., **Shackman, A. J.**, Grillon, C. & Ernst, M. (2018). Intrinsic functional connectivity of the central nucleus of the amygdala and bed nucleus of the stria terminalis. ***Neuroimage***, *168*, 392-402. [PMC5630489] **PDF**

[35] Tillman, R. M. †, Stockbridge, M. D. †, Nacewicz, B. M., Torrisi, S., Fox, A. S., Smith, J. F. & **Shackman, A. J.** (2018). Intrinsic functional connectivity of the central extended amygdala. ***Human Brain Mapping***, 39, 1291-1312. [PMC5807241] **PDF** **DATA** **NeuroVault**

[34] Nusslock, R., **Shackman, A. J.**, McMenamin, B. W., Greischar, L. L., Davidson, R. J. & Kovacs, M. (2018). Comorbid anxiety moderates the relationship between depression history and prefrontal EEG asymmetry. ***Psychophysiology****, 55*, e12953. [PMC5732031] **PDF**

[33] Stout, D. M. *, **Shackman, A. J. ***, Pedersen, W. S., Miskovich, T. A., & Larson, C. L. (2017). Neural circuitry governing anxious individuals' mis-allocation of working memory to threat. ***Scientific Reports***, 7, 8742. [PMC5562789] **PDF** **NeuroVault**

[32] **Shackman, A. J.**, Fox, A. S., Oler, J. A., Shelton, S. E., Oakes, T. R., Davidson, R. J. & Kalin, N. H. (2017). Heightened extended amygdala metabolism following threat characterizes the early phenotypic risk to develop anxiety-related psychopathology, ***Molecular Psychiatry***, *22*, 724-32. [PMC5332536] **PDF**

[31] **Shackman, A. J.**, Stockbridge, M. D. †, Tillman, R. M. †, Kaplan, C. M. †, Tromp, D. P. M., Fox, A. S., & Gamer, M. (2016). The neurobiology of dispositional negativity and attentional biases to threat: Implications for understanding anxiety disorders in adults and youth. ***Journal of Experimental Psychopathology,*** *7,* 311-42 [Special issue focused on "Risk and resilience in anxiety: Exploring the roles of attentional bias and attentional control in development" (J. A. Hadwin, L. Visu-Petra, C. MacLeod, N. Derakshan & P. Muris, Editors)]. [PMC5130287] **PDF**

[30] **Shackman, A. J.**, Tromp, D. P. M., Stockbridge, M. D. †, Kaplan, C. M. †, Tillman, R. M. †, & Fox, A. S. (2016). Dispositional negativity: An integrative psychological and neurobiological perspective. ***Psychological Bulletin***, *142*, 1275-1314. [PMC5118170] **PDF**

[29] **Shackman, A. J.** & Fox, A. S. Contributions of the central extended amygdala to fear and anxiety. (2016). ***Journal of Neuroscience***, *36*, 8050-63. [PMC4971357] **PDF**

[28] Bradford, D. E., Starr, M. J., **Shackman, A. J.** & Curtin, J. J. (2015) Empirically based comparisons of the reliability and validity of common quantification approaches for eyeblink startle potentiation in humans. ***Psychophysiology****, 52,* 1669-81. [PMC4715694] **PDF**

[27] Fox, A. S., Oler, J. A., **Shackman, A. J.**, Shelton, S. E., Alexander, A. L., Davidson, R. J., Blangero, J., Rogers, J. & Kalin, N. H. (2015). Intergenerational neural mediators of early-life anxious temperament. ***Proceedings of the National Academy of Sciences USA****, 112*, 9118-22. [PMC4517228] **PDF** **NeuroVault**

[26] Cavanagh, J. F.***** & **Shackman, A. J. ***(2015). Frontal midline theta reflects anxiety and cognitive control: Meta-analytic evidence. ***Journal of Physiology Paris****, 109*, 3-15. Special issue focused on "Neural circuits for the adaptive control of behaviour," edited by Jerome Sallet, Sebastien Bouret, Mark Laubach, and Dan Shulz. [PMC4213310] **PDF**

[25] Stout, D. M., **Shackman, A. J.**, Johnson, J. S. & Larson, C. L. (2015). Worry is associated with impaired gating of threat from working memory. ***Emotion***, 15, 6-11. [PMC4324005] **PDF**

[24] Okon-Singer, H. *, Hendler, T., Pessoa, L. & **Shackman, A. J. *** (2015). The neurobiology of emotion-cognition interactions: Fundamental questions and strategies for future research. ***Frontiers in Human Neuroscience***, *9*, 58. [PMC4344113]

[23] Roseboom, P. H., Nanda, S. A., Fox, A. S., Oler, J. A., **Shackman, A. J.**, Shelton, S. E., Davidson, R. J. & Kalin, N. H. (2014). Neuropeptide Y receptor gene expression in the primate amygdala predicts anxious temperament and brain metabolism. ***Biological Psychiatry***, *76*, 850-857. [PMC4022724] **** Focus of an accompanying**

commentary: Dumont, Y. & Quirion, R. (2014). Neuropeptide Y pathways in anxiety-related disorders. *Biological Psychiatry*. PDF

[22] Birn, R. M. *, **Shackman, A. J.***, Oler, J. A., Williams, L. E., McFarlin, D. R., Rogers, G. M., Shelton, S. M., Alexander, A. L., Pine, D. S., Slattery, M. J., Davidson, R. J., Fox, A. S. & Kalin, N. H. (2014). Evolutionarily conserved prefrontal-amygdalar dysfunction in early-life anxiety. ***Molecular Psychiatry**, 19*, 915-922. [PMC4111803] **PDF**

[21] Birn, R. M. *, **Shackman, A. J. ***, Oler, J. A., Williams, L. E., McFarlin, D. R., Rogers, G. M., Shelton, S. M., Alexander, A. L., Pine, D. S., Slattery, M. J., Davidson, R. J., Fox, A. S. & Kalin, N. H. (2014). Extreme early-life anxiety is associated with an evolutionarily conserved reduction in the strength of intrinsic functional connectivity between the dorsolateral prefrontal cortex and the central nucleus of the amygdala. ***Molecular Psychiatry**, 19*, 853. [PMC4657549] **PDF**

[20] Weng, H. Y., Fox, A. S., **Shackman, A. J.**, Stodola, D. E., Caldwell, J. Z. K., Olson, M. C., Rogers, G. M. & Davidson, R. J. (2013). Compassion training alters altruism and the neural responses to suffering. ***Psychological Science**, 24*, 1171-80. [PMC3713090] **PDF**

[19] **Shackman, A. J.**, Fox, A. S., Oler, J. A., Shelton, S. E., Davidson, R. J., & Kalin, N. H. (2013). Neural mechanisms underlying heterogeneity in the presentation of anxious temperament. ***Proceedings of the National Academy of Sciences USA***, *110*, 6145-50. [PMC3713090] **PDF**

[18] Stout, D. M., **Shackman, A. J.**, & Larson, C. L. (2013). Failure to filter: Anxious individuals show inefficient gating of threat from working memory. ***Frontiers in Human Neuroscience***, 7: 58. [PMC3586709] **PDF**

[17] Guller, Y., Ferrarelli, F., **Shackman, A. J.**, Sarasso, S., Peterson, M. J., Langheim, F. J., Meyerand, M. E., Tononi, G. & Postle, B. R. (2012). Probing thalamic integrity in schizophrenia using concurrent transcranial magnetic stimulation and functional magnetic resonance imaging. ***Archives of General Psychiatry***, 69, 662-671. [PMC3411883] **PDF**

[16] Nusslock, R., **Shackman, A. J.**, Coan, J. A., Harmon-Jones, E., Alloy, L. B. & Abramson, L. Y. (2011). Cognitive vulnerability and frontal brain asymmetry: Common predictors of first prospective depressive episode. ***Journal of Abnormal Psychology***, *120,* 497-503. [PMC3130533] **PDF**

[15] **Shackman, A. J.**, Salomons, T. V., Slagter, H. A., Fox, A. S., Winter, J. J. & Davidson, R. J. (2011). The integration of negative affect, pain and cognitive control in the cingulate cortex. ***Nature Reviews Neuroscience**, 12,* 154-167. [PMC3044650] **PDF** **NeuroVault**

[14] **Shackman, A. J.**, Maxwell, J. S., McMenamin, B. W., Greischar, L. L. & Davidson, R. J. (2011). Stress potentiates early and attenuates late stages of visual processing. ***Journal of Neuroscience**, 31,* 1156-1161. [PMC3037336] **PDF**

[13] McMenamin, B. W.*, **Shackman, A. J.***, Greischar, L. L. & Davidson, R. J. (2011). Electromyogenic artifacts and electroencephalographic inferences revisited, ***Neuroimage**, 54,* 4-9. [PMC2962711] **PDF**

[12] **Shackman, A. J.**, McMenamin, B. W., Maxwell, J. S., Greischar, L. L. & Davidson, R. J. (2010). Identifying robust and sensitive frequency bands for interrogating neural oscillations. ***Neuroimage**, 51*, 1319-1333. [PMC2871966] **PDF**

[11] McMenamin, B. W. *, **Shackman*, A. J. ***, Maxwell, J. S., Bachhuber, D. R. W., Koppenhaver, A. M., Greischar, L.L. & Davidson, R. J. (2010). Validation of ICA-based myogenic artifact correction for scalp and source-localized EEG. ***Neuroimage**, 49*, 2416-2432. [PMC2818255] **PDF**

[10] Heller, A. S., Johnstone, T., **Shackman, A. J.**, Light, S., Peterson, M. J., Kolden, G. G., Kalin, N. H. & Davidson, R. J. (2009). Reduced capacity to sustain positive emotion in major depression reflects diminished maintenance of fronto-striatal brain activation. ***Proceedings of the National Academy of Sciences USA**, 106*, 22445-22450. [PMC2796908] **PDF**

[9] **Shackman, A. J.**, McMenamin, B. W., Maxwell, J. S., Greischar, L. L. & Davidson, R. J. (2009). Right dorsolateral prefrontal cortical activity and behavioral inhibition. ***Psychological Science,** 20*, 1500-1506. [PMC2858783] **PDF**

[8] **Shackman, A. J.**, McMenamin, B. W., Slagter, H. A., Maxwell, J. S., Greischar, L. L. & Davidson, R. J. (2009). Electromyogenic artifacts and electroencephalographic inferences. ***Brain Topography**, 22*, 7-12. [PMC2712576] **PDF**

[7] Lee, H., **Shackman, A. J.**, Jackson, D. C. & Davidson, R. J. (2009). Test-retest reliability of voluntary emotion regulation. ***Psychophysiology**, 46*, 874-879. [PMC2706917] **PDF**

[6] McMenamin, B. W., **Shackman, A. J.**, Maxwell, J. S., Greischar, L. L. & Davidson, R. J. (2009). Validation of regression-based myogenic correction techniques for scalp and source-localized EEG. ***Psychophysiology**, 46*, 578-592. [PMC2677703] **PDF**

[5] Peterson, C. K., **Shackman, A. J.** & Harmon-Jones, E. (2008). The role of asymmetrical frontal cortical activity in aggression. ***Psychophysiology**, 45*, 86-92. **PDF**

[4] Shackman, J. E., **Shackman, A. J.** & Pollak, S. D. (2007). Physical abuse amplifies attention to threat and increases anxiety in children. ***Emotion**, 7*, 838-852. **PDF**

[3] Salomons, T. V., Johnstone, T., Backonja, M. M., **Shackman, A. J.** & Davidson, R. J. (2007). Individual differences in the effects of perceived controllability on pain perception: Critical role of the prefrontal cortex. ***Journal of Cognitive Neuroscience**,19*, 993-1003. **PDF**

[2] **Shackman, A. J.**, Sarinopoulos, I., Maxwell, J. S., Pizzagalli, D. A., Lavric, A., & Davidson, R. J. (2006). Anxiety selectively disrupts visuospatial working memory. ***Emotion**, 6*, 40-61. **PDF**

[1] Maxwell, J. S., **Shackman, A. J.** & Davidson, R. J. (2005). Unattended facial expressions asymmetrically bias the concurrent processing of non-emotional information. ***Journal of Cognitive Neuroscience**, 17*, 1386-1395. **PDF**

Letters, Commentaries, and Editorials

[11] **Shackman, A. J.** & Fox, A. S. (2021). Two decades of anxiety neuroimaging research: New insights and a look to the future. ***American Journal of Psychiatry**, 178,* 106-109. [PMC7863577] **PDF**

[10] Hur, J. †, Tillman, R. M. †, Fox, A. S., & **Shackman, A. J.** (2019). The value of clinical and translational

neuroscience approaches to psychiatric illness. ***Behavioral and Brain Sciences,*** *42,* e11**.** [NIHMS956664] **PDF**

[9] **Shackman, A. J.** & Wager, T. D. (2019). Introduction to the special issue on functional neuroimaging of the emotional brain. ***Neuroscience Letters****, 693,* 1-2 [NIHMS991933] **PDF**

[8] **Shackman, A. J.** & Fox, A. S. (2018). Getting serious about variation: Lessons for clinical neuroscience. ***Trends in Cognitive Sciences***, *22*, 368-369*.* [NIHMS948477] **PDF**

[7] **Shackman, A. J.** & Fox, A. S. (2016). Response from Dual Perspective Companion Authors [Commentary on Gungor & Paré]. ***Journal of Neuroscience***, *26*, 8045. **PDF**

[6] Wager, T. D., Atlas, L. Y., Botvinick, M., Chang, L., Coghill, R. C., Davis, K. D., Ianetti, G. D., Poldrack, R. A., **Shackman, A. J.**, & Yarkoni, T. (2016). Pain in the ACC? ***Proceedings of the National Academy of Sciences USA****, 113*, E2474-75. [PMC4983860] **PDF**

[5] **Shackman, A. J.**, Fox, A. S. & Seminowicz, D. A. (2015). The cognitive-emotional brain: Opportunities and challenges for understanding neuropsychiatric disorders. ***Behavioral and Brain Sciences,*** *38*, e86. **PDF**

[4] Okon-Singer, H. *****, Hendler, T., Pessoa, L. & **Shackman, A. J. *** (2015). Introduction to the special research topic on the neurobiology of emotion-cognition interactions. ***Frontiers in Human Neuroscience****, 8*, 1051. **PDF**

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[2] Davidson, R. J., **Shackman, A. J.** & Maxwell, J. S. (2004). Asymmetries in face and brain related to emotion. ***Trends in Cognitive Sciences****, 8*, 389-391. **PDF**

[1] Davidson, R. J., Maxwell, J. S. & **Shackman, A. J.** (2004). The privileged status of emotion in the brain. ***Proceedings of the National Academy of Sciences USA****, 101*, 11915-11916. **PDF**

Book Chapters

[17] Richter, T., **Shackman, A. J.**, Aue, T. & Okon-Singer, H. (2019). The neurobiology of emotion-cognition interactions. In Baune, B. & Harmer, C. (Eds.). *Cognitive dimensions of Major Depressive Disorder: Cognitive, emotional and social cognitive processes* (pp. 171-182). New York: Oxford University Press. **PDF**

[16] Fox, A. S. *****, Lapate, R. C., Davidson, R. J. & **Shackman, A. J.** *. (2018). The nature of emotion: A research agenda for the 21st century. In A. S. Fox, R. C. Lapate, A. J. Shackman, & R. J. Davidson (Eds.), *The nature of emotion. Fundamental questions* (2nd ed., pp. 403-417). New York: Oxford University Press. **PDF**

[15] Lapate, R. C. & **Shackman, A. J.** (2018). Afterword: What develops in emotional development? In Fox, A. S., Lapate, R. C., Shackman, A. J. & Davidson, R. J. (Eds.). *The nature of emotion. Fundamental questions* (2nd ed., pp. 399-401). New York: Oxford University Press. **PDF**

[14] Fox, A. S. & **Shackman, A. J.** (2018). Afterword: How are emotions physically embodied? In Fox, A. S., Lapate, R. C., Shackman, A. J. & Davidson, R. J. (Eds.). *The nature of emotion. Fundamental questions* (2nd ed., pp. 307-310). New York: Oxford University Press. **PDF**

[13] Fox, A. S. & **Shackman, A. J.** (2018). Afterword: How are emotions embodied in the social world? In Fox, A. S., Lapate, R. C., Shackman, A. J. & Davidson, R. J. (Eds.). *The nature of emotion. Fundamental questions* (2nd ed., pp. 237-239). New York: Oxford University Press. **PDF**

[12] **Shackman, A. J.** & Lapate, R. C. (2018). Afterword: How do emotion and cognition interact? In Fox, A. S., Lapate, R. C., Shackman, A. J. & Davidson, R. J. (Eds.). *The nature of emotion. Fundamental questions* (2nd ed., pp. 209-211). New York: Oxford University Press. **PDF**

[11] Okon-Singer, H. *, Stout, D. M., Stockbridge, M. D. †, Gamer, M., Fox, A. S. & **Shackman, A. J.** * (2018). The interplay of emotion and cognition. In Fox, A. S., Lapate, R. C., Shackman, A. J. & Davidson, R. J. (Eds.), *The nature of emotion. Fundamental questions* (2nd ed., pp. 181-186). New York: Oxford University Press. **PDF**

[10] **Shackman, A. J.** & Lapate, R. C. (2018). Afterword: How are emotions regulated by context and cognition? In Fox, A. S., Lapate, R. C., Shackman, A. J. & Davidson, R. J. (Eds.). *The nature of emotion. Fundamental questions* (2nd ed., pp. 177-179). New York: Oxford University Press. **PDF**

[9] **Shackman, A. J.** & Fox, A. S. (2018). Afterword: How are emotions organized in the brain? In Fox, A. S., Lapate, R. C., Shackman, A. J. & Davidson, R. J. (Eds.). *The nature of emotion. Fundamental questions* (2nd ed., pp. 125-127). New York: Oxford University Press. **PDF**

[8] **Shackman, A. J.** & Lapate, R. C. (2018). Afterword: What is the added value of studying the brain for understanding emotion? In Fox, A. S., Lapate, R. C., Shackman, A. J. & Davidson, R. J. (Eds.). *The nature of emotion. Fundamental questions* (2nd ed., pp. 91-92). New York: Oxford University Press. **PDF**

[7] **Shackman, A. J.** & Fox, A. S. (2018). Afterword: What are the dimensions and bases for lasting individual differences in emotion? In Fox, A. S., Lapate, R. C., Shackman, A. J. & Davidson, R. J. (Eds.). *The nature of emotion. Fundamental questions* (2nd ed., pp. 73-75). New York: Oxford University Press. **PDF**

[6] **Shackman, A. J.**, Stockbridge, M. D. †, Lemay, E. P., & Fox, A.S. (2018). The psychological and neurobiological bases of dispositional negativity. In Fox, A. S., Lapate, R. C., Shackman, A. J. & Davidson, R. J. (Eds.), *The nature of emotion. Fundamental questions* (2nd ed., pp. 67-71). New York: Oxford University Press. **PDF**

[5] **Shackman, A. J.**, Lapate, R. C., & Fox, A. S. (2018). Afterword: How are emotions, mood, and temperament related? In Fox, A. S., Lapate, R. C., Shackman, A. J. & Davidson, R. J. (Eds.). *The nature of emotion. Fundamental questions* (2nd ed., pp. 58-60). New York: Oxford University Press. **PDF**

[4] Lapate, R. C. & **Shackman, A. J.** (2018). Afterword: What is an emotion? In Fox, A. S., Lapate, R. C., Shackman, A. J. & Davidson, R. J. (Eds.). *The nature of emotion: Fundamental questions* (2nd ed., pp. 38-43). New York: Oxford University Press. **PDF**

[3] Oler, J. A., Fox, A. S., **Shackman, A. J.** & Kalin, N. H. (2016). The central nucleus of the amygdala is a critical substrate for individual differences in anxiety. In D. G. Amaral & R. Adolphs (Eds.), *Living without an amygdala* (pp. 218-251). New York: Guilford Press. **PDF**

[2] Pizzagalli, D., **Shackman, A. J.**, & Davidson, R. J. (2003). The functional neuroimaging of human emotion: Asymmetric contributions of cortical and subcortical circuitry. In K. Hughdal and R.J. Davidson (Eds.), *Brain Asymmetry* (2nd edition) (pp. 511-532). Cambridge, MA: MIT Press. **PDF**

[1] **Shackman, A. J.** (2000). Anterior cerebral asymmetry, affect, and psychopathology: Commentary on the withdrawal-approach model. In R. J. Davidson (Ed.), *Anxiety, depression, and emotion* (pp. 109-132). New York: Oxford University Press. **PDF**

Manuscripts Under Review

[2] DeYoung, C. G., Beaty, R. E., Genç, E., Latzman, R. E., Passamonti, L., Servaas, M. N., **Shackman, A. J.**, Smillie, L. D., Spreng, R. N., Viding, E., & Wacker, J. (*in prep.*), Personality neuroscience: An emerging field with bright prospects.

[1] DeYoung, C. G., Latzman, R. D., Grazioplene, R. G., Haltigan, J. D., Kotov, R., Michelini, G., Venables, N. C., Docherty, A. R., Goghari, V. M., Martin, E. A., Palumbo, I. M., Patrick, C. J., **Shackman, A. J.**, Tobin, K. E. & The HiTOP Neurobiological Foundations Workgroup (*under review*). The Hierarchical Taxonomy of Psychopathology (HiTOP) can aid discovery of the neurobiological substrates of mental illness.

Manuscripts in Preparation

[5] Orth, R. D., Hur, J., Jacome, A. M., Savage, C. L. G., Grogans, S. G., Kim, Y.-H., Choe, E. K., **Shackman, A. J.**, & Blanchard, J. J. (*in prep.*) The role of affect and social context on paranoid ideation in real-world settings for individuals with psychosis

[4] Bas-Hoogendam, J. M., Bernstein, R., Benson, B. E., Buss, K. A., Gunther. K. E., Pérez-Edgar, K., Salum, G. A., Pan, P. M., Jackowski, A. P., Bressan, R. A., Zugman, A., Degnan, K. A., Filippi, C. A., Fox, N. A., Henderson, H. A., Tang, A., Zeytinoglu, S., Harrewijn, A., Hillegers, M. H. J., Jansen, P. W., Muetzel, R. L., White, T. J. H., Schwartz, C., Rauch, S. L., Felicione, J. M., Biederman, J., Rosenbaum, J. F., Hirshfeld-Becker, D. R., DeYoung, K. A., **Shackman, A. J.**, Smith, J. F., Tillman, R. M. †, Hill, S. Y., Battaglia, M., Tettamanti. M., Dougherty, L. R., Jen, F. J., Klein, D. N., Leung, H.-C., Avery, S. N., Blackford, J. U., Clauss, J. A., Hayden, E. P., Liu, P., Vandermeer, M. R. J., Goldsmith, H. H., Nichols, T. E., Thompson, P. M., Westenberg, P. M, van der Wee, N. J. A., Groenewold, N. A., Stein, D. J., Winkler, A. M., Pine, D. S., & the ENIGMA-Anxiety Working Group. Structural brain correlates of childhood inhibited temperament: an ENIGMA-Anxiety mega-analysis [Registered Report]. ***Journal of the American Academy of Child and Adolescent Psychiatry.***

[3] DeYoung, K. A. †, Barstead, M. G & **Shackman, A. J.** The state of graduate student mental health in the United States: Eleven years and 200,000 students.

[2] Barstead, M. G. †, DeYoung, K. A. †, Anderson, A. S. †, Islam, S., Weinstein, J. S. †, Hur, J. †, Grogans, S. E. †, Smith, J. F., Kuhn, M. †, Fox, A. S. & **Shackman, A. J.** Dispositional negativity and the momentary challenges of daily life and the laboratory: Dissecting the pathways underlying pervasive misery.

[1] **Shackman, A. J.**, Furman, A. J., Keaser, M. L., Payano Sosa, J. S., Stockbridge, M. D. **†,** Padmala, S., Fox, A. S., Pessoa, L., Smith, J. F., Woo, C.-W., Wager, T. D., & Seminowicz, D. A. The integration of negative affect, pain and cognitive control in the midcingulate cortex.

File Drawer

[4] Fox, A. S., **Shackman, A. J.**, Destiche, D. J., Vack, N. J., Rosenkranz, M. A., MacCoon, D. S., Lutz, A. & Davidson, R. J. Scalable archival approach suggests that extended amygdala morphometry is associated with the real-world experience of dispositional negativity 2-4 years later.

[3] Alfini, A. A., Won, J., Weiss, L. R., Nyhuis, C. C., Zipunnikov, V., Spira, A. P., Liu-Ambrose, T., **Shackman, A. J.**, & Smith, J. C. Cardiorespiratory fitness as a moderator of sleep-related associations with hippocampal volume and cognition.

[2] Fox, A. S. *, Lapate, R. C., Davidson, R. J., & **Shackman, A. J. *** (2018)**.** Challenges and opportunities for the affective sciences. ***Preprint available at PsyArXiv.org*** **PDF**

[1] Smith, J. F., Hur, J. †, Kaplan, C. M. † & **Shackman, A. J.** (2018). The impact of spatial normalization for functional magnetic resonance imaging data analyses revisited. ***Preprint available at bioRxiv.org*** **PDF**

Blog Post

Shackman, A. J. (2015). The importance of respecting variation in cingulate anatomy: Comment on Lieberman & Eisenberger 2015 and Yarkoni. ***Archived at FigShare.*** **PDF**

Honors, Awards, and Fellowships

2020	Fellow, Association for Psychological Science
2014	Career Development Leadership Program Fellowship, Anxiety & Depression Association of America
2013	NIH-Sponsored Summer Institute in Cognitive Neuroscience Fellowship (*declined*)
2012	NIH-Sponsored Conference on the *Determinants of Executive Function & Dysfunction* Poster Award, University of Colorado (M. Banich, Director)
2012	NIH-Sponsored Conference on the *Determinants of Executive Function & Dysfunction* Travel Award, University of Colorado (M. Banich, Director)
2011	NIH-Sponsored Summer Institute in Cognitive Neuroscience ('Brain Camp') Fellowship (M. Gazzaniga and G.R. Mangun, Directors)
2006	Graduate Student Mentoring Award, Graduate School, University of Wisconsin
2001—2003	NIH Predoctoral Fellowship, Training Program in Emotion Research (T32-MH018931)
1998—2001	NSF Graduate Research Fellowship (NSF-GRF)
1997—1998	Distinguished Graduate Fellowship, Graduate School, University of Wisconsin
1996—1997	Hilldale Senior Thesis Research Fellowship, College of Letters & Sciences, University of Wisconsin
1996	Phi Beta Kappa

Editorial Duties and Reviewing

Guest Editor/Special Issues

[2] Co-Editor of a Special Issue of ***Neuroscience Letters***, "Functional imaging of the emotional brain," (2019) Tor Wager (Boulder) and **Alexander J. Shackman**.

[1] Co-Editor of a Special Issue of ***Frontiers in Human Neuroscience***, "The neurobiology of emotion-cognition

interactions," (2015) Talma Hendler (Tel Aviv University), Hadas Okon-Singer (University of Haifa and the Max Planck Institute for Human Cognitive and Brain Sciences), Luiz Pessoa (University of Maryland) & **Alexander J. Shackman**.

Associate Journal Editor

2018—present	*Neuropsychologia (Section Editor, Emotion and Social Neuroscience)*
2014—2019	*Frontiers in Psychology*
2013—present	*Cognition and Emotion*
2013—2015	*Frontiers in Human Neuroscience*

Editorial Board/Consulting Journal Editor

2019—present	*eLife* (Board of Reviewing Editors)
2019—present	*Affective Science* (Member of the founding Editorial Board)
2019—2021	*Scientific Reports* (Board of Handling Editors)
2017—2021	*Personality Neuroscience* (Member of the founding Editorial Board)
2015—2019	*Frontiers in Human Neuroscience*
2014—2017	*Emotion* (Editorial Board)
2013—present	*Cognitive, Affective & Behavioral Neuroscience* (Editorial Board)
2013—2019	*Frontiers in Neuropsychiatric Imaging and Stimulation*
2012—2019	*Frontiers in Integrative Neuroscience*

Ad Hoc Reviewer

Journals

Acta Psychologica; Affective Science; Alcoholism: Clinical and Experimental Research; American Journal of Psychiatry (AJP); Basic and Applied Social Psychology; Behavioral Neuroscience; Biological Psychiatry; Biological Psychology: Cognitive Neuroscience and Neuroimaging; Biological Psychology; BMC Psychiatry; Brain and Neuroscience Advances; Brain Research Bulletin (BRB); Brain Topography; Canadian Journal of Experimental Psychology/Revue canadienne de psychologie expérimentale; Cerebral Cortex; Clinical Psychological Science (CPS); Clinical Psychology Review (CPR); Cognitive, Affective, and Behavioral Neuroscience (CABN); Cognition and Emotion; Computational Psychiatry; Computers in Biology and Medicine; Cortex; Current Biology; Depression and Anxiety; eLIFE; Emotion; Developmental Cognitive Neuroscience (DCN); Developmental Psychobiology; Developmental Science; Development and Psychopathology; European Neurology; Frontiers in Human Neuroscience; Frontiers in Integrative Neuroscience; Harvard Review of Psychiatry (HRP); Human Brain Mapping (HBM); IEEE Journal of Biomedical and Health Informatics; International Journal of Psychophysiology (IJP); JAMA Psychiatry; Journal of Abnormal Psychology; Journal of Affective Disorders; Journal of Applied Developmental Psychology; Journal of Clinical Child and Adolescent Psychology (JCCAP); Journal of Cognitive Neuroscience (JCN); Journal of Cognitive Psychology; Journal of Consulting and Clinical Psychology (JCCP); Journal of Neuroscience; Journal of Neuroscience Methods; Journal of Personality and Social Psychology (JPSP); Journal of Pharmaceutical Technology & Drug Research; Journal of Physiology (Paris); Journal of Visualized Experiments (JoVE); Laterality; Nature Communications; Nature Human Behaviour; Neural Computing and Applications; Neurocase; Neuroimage; Neuroimage: Clinical; Neuroinformatics; Neuropsychologia; Neuropsychology; Neuropsychopharmacology; Neuroscience & Biobehavioral Reviews (NBR); Neuroscience Letters; The Neuroscientist; Personality Disorders: Theory, Research, and Treatment; Physiology & Behavior; Perspectives on Psychological Science; Plos Biology; Plos ONE; PNAS USA; Progress in Neurobiology (PIN); Psychological Medicine; Psychological Review; Psychological

Science; Psychology of Addictive Behaviors; Psychoneuroendocrinology; Psychonomic Bulletin & Review (PB&R); Psychophysiology; Quarterly Journal of Experimental Psychology (QJEP); Science; Science Advances; Scientific Reports; Social Cognitive and Affective Neuroscience (SCAN); Social Neuroscience; Trends in Cognitive Sciences (TiCS)

Funding Agencies and Foundations

National Institutes of Health (NIH) (*ad hoc*)

- Adult Psychopathology and Disorders of Aging (APDA), Standing Member, 2021-2025
- Mechanisms of Emotion, Stress and Health Study Section (MESH)
- Neural Basis of Psychopathology, Addictions and Sleep Disorders (NPAS)
- Special Emphasis Panel on the Development of Psychosocial Therapeutic and Preventive Interventions for Mental Disorders (ZMH1 ERB-D)
- Special Emphasis Panel on Mechanistic Studies to Optimize Mind and Body Interventions (ZAT1 PJ-02)
- Special Emphasis Panel on Methodology and Measurement in the Behavioral and Social Sciences (ZRG1 PSE-A)
- Special Emphasis Panel on Biobehavioral and Behavioral Processes (ZRG1 BBBP-Y)
- Special Emphasis Panel on Fellowships: Learning and Memory, Language, Communication and Related Neurosciences (ZMH1 ERB-L-02 R)
- Special Emphasis Panel on Early Phase Clinical Trials of Natural Products (ZAT1 SH-01)
- Special Emphasis Panel on Collaborative Applications: Clinical Studies of Mental Illness (ZRG1 BBBP-S-60-C)

National Science Foundation (NSF)

- Various, including Graduate Research Fellowship (GRF)

Deutsche Forschungsgemeinschaft (DFG), German Research Foundation
Israeli Science Foundation
Medical Research Council, UK
Arizona Institute for Mental Health Research
Center for Translational and Basic Research, Hunter College, City University of New York
Commonwealth of Kentucky Science and Engineering Foundation
Dean's Research Initiative, College of Behavioral and Social Sciences, University of Maryland
MPower Seed Grant Program, University of Maryland
Neurological Foundation of New Zealand
San Antonio Life Sciences Institute
Undergradate Researcher of the Year Award, University of Maryland
U.S. Army Research Office
Waterloo Foundation, Cardiff, Wales
UMD-UMB Research and Innovation Seed Grant Program, University of Maryland

Scientific Societies/Meetings

Anxiety and Depression Association of America (ADAA) Annual Meeting
Organization for Human Brain Mapping (OHBM) Annual Meeting
Society of Biological Psychiatry (SOBP) Annual Meeting

Publishers

Harvard University Press

Oxford University Press
Sinauer Associates

Invited Lectures and Colloquia

[35] **Shackman, A. J.** (May 5, 2022). The nature and neurobiology of anxiety. *Department of Psychology,* ***Brock University*** *(St. Catherine's, Ontario, Canada).*

[34] **Shackman, A. J.** (November 30, 2021). The nature and neurobiology of anxiety. ***Central Institute of Mental Health (Mannheim, Germany).***

[33] **Shackman, A. J.** (October 26, 2021). The nature and neurobiology of anxiety. *Brain Health Research Institute****, Kent State University.***

[32] **Shackman, A. J.** (August 18, 2021). The nature and neurobiology of anxiety. *Center for Neuromodulation in Depression and Stress, Perelman School of Medicine,* ***University of Pennsylvania.***

[31] **Shackman, A. J.** (April 16, 2021). The nature and neurobiology of anxiety. ***Maryland Psychiatric Research Center.***

[30] **Shackman, A. J.** (March 25, 2021). The nature and neurobiology of anxiety. *Department of Psychology,* ***Uppsala University*** *(Uppsala, Sweden).*

[29] **Shackman, A. J.** (March 24, 2021). The nature and neurobiology of anxiety. *Department of Psychology,* ***University of Oslo*** *(Oslo, Norway).*

[28] **Shackman, A. J.** (August 5, 2020). The nature and neurobiology of anxiety. ***National Institute of Mental Health.***

[27] **Shackman, A. J.** (March 6, 2020). The nature and neurobiology of anxiety. *Department of Psychology,* ***Rutgers University.***

[26] **Shackman, A. J.** (January 31, 2020). The nature and the neurobiology of anxiety. *Interdisciplinary workshop on 'Threat perception in dangerous times: Conflicts, climate change, and worry,'* ***Philipps-Universität (Marburg, Germany).***

[25] **Shackman, A. J.** (October 30, 2019). The neurobiology of anxiety. *Department of Psychology,* ***American University.***

[24] **Shackman, A. J.** (June 19, 2019). The neurobiology of anxiety. *Donders Center for Cognitive Neuroimaging,* ***Radboud University (Nijmegen, The Netherlands).***

[23] **Shackman, A. J.** (December 14, 2018). The neurobiology of dispositional negativity. *Department of Psychology,* ***University of Arizona.***

[22] **Shackman, A. J.** (March 29, 2018). The neurobiology of dispositional negativity. *Department of Psychology,* ***Vanderbilt University.***

[21] **Shackman, A. J.** (January 25, 2018). The neurobiology of dispositional negativity. *Department of Psychology and Neuroscience,* ***Duke University.***

[20] **Shackman, A. J.** (November 17, 2017). The neurobiology of dispositional negativity. *Department of Psychology Neuroscience Seminar Series,* ***Yale University.***

[19] **Shackman, A. J.** (October 27, 2017). The neurobiology of dispositional negativity. *Department of Psychological and Brain Sciences,* ***University of Iowa.***

[18] **Shackman, A. J.** (April 14, 2016). Anxiety, pain, and cognition are integrated in the brain. Fifth annual Maryland Neuroimaging Retreat (*Pain Neuroimaging—Advances & Controversies*), ***University of Maryland, Baltimore.***

[17] **Shackman, A. J.** (November 30, 2016). The neurobiological bases of dispositional negativity—*Implications for psychopathology*. *Counseling Center Research and Development Seminar Series,* ***University of Maryland, College Park.***

[16] **Shackman, A. J.** (June 15, 2016). The neurobiology of dispositional anxiety. ***McLean Hospital/Harvard Medical School.***

[15] **Shackman, A. J.** (March 18, 2016). The neurobiology of dispositional anxiety. *Department of Psychology,* ***University of Virginia*.**

[14] **Shackman, A. J.** (February 23, 2016). The neurobiology of early-life anxiety. *Department of Psychiatry and Behavioral Sciences,* ***Johns Hopkins University*.**

[13] **Shackman, A. J.** (December 4, 2015). The neurobiology of dispositional anxiety. *Department of Psychology,* ***North Dakota State University*.**

[12] **Shackman, A. J.** (September 8, 2015). The role of the extended amygdala in early-life anxiety. ***National Institute of Mental Health*.**

[11] **Shackman, A. J.** (August 8, 2014). Understanding the neurobiology of dispositional anxiety. NIDA-sponsored symposium, *At the intersection of neuroscience and addictions: Treatment development,* ***University of Maryland, College Park.***

[10] **Shackman, A. J.** (February 24, 2014). Understanding the neurobiology of dispositional anxiety. *Center for Addictions, Personality, and Emotion Research; Department of Psychology,* ***University of Maryland, College Park.***

[9] **Shackman, A. J.** (February 5, 2014). Understanding the neurobiology of dispositional anxiety. *Center for Children, Relationships, and Culture and NICHD Training Program in Social Development, Department of Human Development,* ***University of Maryland, College Park.***

[8] **Shackman, A. J.** (December 6, 2013). Anxiety and the brain. *Department of Psychology,* ***University of Virginia***.

[7] **Shackman, A. J.** (November 26, 2013). Dissecting the neurobiology of dispositional anxiety. *Department of Neural Pain Sciences, School of Dentistry,* ***University of Maryland, Baltimore.***

[6] **Shackman, A. J.** (November 20, 2013). Dissecting the neurobiology of dispositional anxiety. *Developmental Area Group, Department of Psychology,* ***University of Maryland, College Park.***

[5] **Shackman, A. J.** (October 4, 2013). Dissecting the neurobiology of dispositional anxiety*, Neuroscience and Cognitive Science Program Annual Retreat,* ***University of Maryland, College Park****.*

[4] **Shackman, A. J.** (December 6, 2012). Dissecting the neurobiology of dispositional anxiety*, Department of Psychology,* ***University of Maryland, College Park****.*

[3] **Shackman, A. J.** (November 13, 2012). The neurobiology of individual differences in anxious temperament*, Department of Medicine,* ***University of Wisconsin School of Medicine and Public Health****.*

[2] **Shackman, A. J.** (March 28, 2012). Individual differences reveal the deep structure of anxiety and its neurobiology*, Department of Psychology,* ***University of Alabama at Birmingham****.*

[1] **Shackman, A. J.** (November 21, 2011). The interaction and integration of anxiety and cognition. *Department of Human Development,* ***Cornell University****.*

Conference Presentations

Chaired Conference Symposia and Panels

[10] Larson, C. L. & **Shackman, A. J.** (2019). New frontiers in negative affect: From microcircuits in mouse to machine learning-derived macrocircuits in humans. Panelists: Luke Chang, Jonathan Fadok, Christine Larson, Daniel Pine, Daniela Schiller, & **Alexander Shackman**. Symposium co-chaired at the annual meeting of the ***Association for Psychological Science***, Washington, DC.

[9] **Shackman, A. J.** (2018). New frontiers in anxiety: From basic neurogenetic mechanisms to psychopathology. Panelists: Robin Aupperle, Dylan Gee, Antonia Kaczkurkin, & **Alexander Shackman**. Symposium chaired at the annual meeting of the ***Society for Research in Psychopathology***, Indianapolis, IN.

[8] **Shackman, A. J.** & Gee, D. (2018). Training the next generation of clinical scientists: Challenges and opportunities. Panelists: Deanna Barch, Michelle Craske, Erika Forbes, Bob Krueger, Tim Strauman, and Bob Levenson (Moderator). Roundtable discussion chaired at the annual of the ***Society for Research in Psychopathology***, Indianapolis, IN.

[7] **Shackman, A. J.** (2018). Transdiagnostic neuromarkers of emotion: From bench to bedside, across species & development. Panelists: Dylan Gee, **Alexander Shackman**, Wani Woo, Conor Liston, and Amit Etkin (Discussant). Symposium chaired at the annual meeting of the ***Society of Biological Psychiatry***, New York, NY.

[6] **Shackman, A. J.** (2018). New frontiers in early-life anxiety: From basic neurogenetic mechanisms to pediatric psychopathology. Panelists: Jennifer Blackford, Dylan Gee, **Alexander Shackman**, Lisa Williams,

and Ned Kalin (Discussant). Symposium chaired at the annual meeting of the ***Anxiety and Depression Association of America***, Washington, DC.

[5] **Shackman, A. J.** & Etkin, A. (2016). New frontiers in adaptive control: From basic mechanisms to novel therapeutics. Panelists: **Alexander Shackman**, Amit Etkin, Robert Reinhart, and Tor Wager. Symposium chaired at the annual meeting of the ***Society of Biological Psychiatry***, Atlanta, GA.

[4] **Shackman, A. J.** (2015). Adaptive control: Neuro-computational substrates and implications for understanding neuropsychiatric disorders. Panelists: James Cavanagh, Clay Holroyd, Greg Hajcak, and Amitai Shenhav. Symposium chaired at the annual meeting of the ***Society for Psychophysiological Research***, Seattle, WA.

[3] Fox, A.S., **Shackman, A. J.**, & Koob, G. F. *(*2015). Extended amygdala circuits in anxiety and addiction: cross-species molecular, anatomical, and functional insights. Panelists: Andrew Fox, **Alexander Shackman**, Julie Fudge, Thomas Kash, and George Koob (Discussant). Symposium chaired at the annual meeting of the ***Society of Biological Psychiatry***, Toronto, Canada.

[2] **Shackman, A. J.** & Kalin, N.H. (2014). The neurobiology of pervasive anxiety: The role of circuits centered on the extended amygdala. Panelists: Talma Hendler, Ned Kalin, Luiz Pessoa, **Alexander Shackman** & Leah Somerville. Symposium chaired at the annual meeting of the ***Society of Biological Psychiatry***, NY, NY.

[1] **Shackman, A. J.** & Fox, A. S. (2014). The neurobiology of early-life anxiety. Panelists: Jennifer Blackford, Andrew Fox, Ned Kalin & Daniel Pine, **Alexander Shackman**, and Nim Tottenham. Symposium chaired at the annual meeting of the ***Anxiety and Depression Association of America***, Chicago, IL.

Society Invited Talks

[6] **Shackman, A. J.** (2019). Fearful and anxious states, traits, and disorders. Annual meeting of the ***Association for Psychological Science***, Washington, DC. Symposium on *New frontiers in negative affect: From microcircuits in mouse to machine learning-derived macrocircuits in humans* organized by C. Larson & **A.J. Shackman**.

[5] Barstead, M. G. † & **Shackman, A. J.** (2019). A roadmap for linking dispositional risk for psychopathology to momentary emotional experience. Annual meeting of the ***Association for Psychological Science***, Washington, DC. Symposium on *Novel analytic approaches to clinical science data over time* organized by E. Page-Gould and J. Tackett.

[4] **Shackman, A. J.** (2015). The integration of emotion and cognition in the brain. Annual meeting of the ***Society for Psychophysiological Research***, Seattle, WA.

[3] **Shackman, A. J.** (2015). The integration of emotion and cognition in the brain. Annual meeting of the ***Social & Affective Neuroscience Society***, Boston, MA.

[2] **Shackman, A. J.** (2015). The integration of emotion and cognition in the brain. Annual meeting of the ***Society for Affective Science***, San Francisco, CA.

[1] **Shackman, A. J.** (2013). Dissecting the neurobiology of dispositional anxiety. Annual DFG Symposium on *Fear,*

Anxiety & Anxiety Disorders (sponsored by the German National Research Foundation [DFG] and organized by C. Buechel and H.-C. Pape), *Institute for Systems Neuroscience & Center for Experimental Medicine*, ***University of Hamburg, Germany***.

Society Invited Discussant/Panelist

[2] **Shackman, A. J.** (2018). Authorship models. Roundtable discussion (Chair). Annual meeting of the ***Hierarchical Taxonomy of Psychopathology Consortium***, Indianapolis, IN.

[1] **Shackman, A. J.** (2018). Predicting psychopathology using large-scale brain imaging datasets. Panelists: Hugh Garavan, Aaron Heller, Hedy Kober, Helen Mayberg & **Alexander Shackman**. ***Clinical Neuroscience Pre-Conference***. Annual meeting of the ***Social & Affective Neuroscience Society***, New York, NY.

Talks

[19] **Shackman, A. J.** (2019). Neurogenetic bases of dispositional negativity and extreme anxiety. Talk presented at the annual meeting of the ***Society for Psychophysiological Research*** (Symposium on *Fear and loathing in D.C.—The psychophysiology of various reasons of maladaptive threat processing*, chaired by E. Müller & M. Wieser), Washington, DC.

[18] **Shackman, A. J.** (2019). The Neurobiology of fear and anxiety. Talk presented at the annual meeting of the ***Dutch Neuroscience Society*** (Symposium on *The extended amygdala: on the interface of anxiety and (generalized) fear,* chaired by D. van der Geugten & J. M. P. Baas, Lunteren, The Netherlands.

[18] **Shackman, A. J.** (2018). Neurogenetic bases of extreme anxiety. Talk presented at the annual meeting of the ***Society for Research in Psychopathology*** (Symposium on *New frontiers in anxiety: From basic neurogenetic mechanisms to psychopathology,* chaired by **A. J. Shackman**), Indianapolis, IN.

[17] **Shackman, A. J.** (2018). Neurogenetic bases of extreme early-life anxiety. Talk presented at the annual meeting of the ***Society of Biological Psychiatry*** (Symposium on *Transdiagnostic neuromarkers of emotion: From bench to bedside, across species & development,* chaired by **A. J. Shackman**), New York, NY.

[16] **Shackman, A. J.** (2018). Neural bases of extreme early-life anxiety. Talk presented at the annual meeting of the ***Anxiety and Depression Association of America*** (Symposium on *New Frontiers in Early-Life Anxiety: From basic neurogenetic mechanisms to pediatric psychopathology,* chaired by **A. J. Shackman**), Washington, DC.

[15] **Shackman, A. J.** (2017). Neural systems underlying extreme early-life anxiety. Talk presented at the annual meeting of the ***Society for Social Neuroscience*** (Symposium on *Anxiety and responding to threat: Neurobiological and contextual contributions to development,* chaired by H. Meffert and K. Michalska), Washington, DC.

[14] **Shackman, A. J.** (2017). The neurobiology of dispositional negativity. Talk presented at the first bi-annual meeting of the ***World Association for Stress-Related and Anxiety Disorders*** (Symposium on *Stress, fear, and individual differences in negative emotionality—Human research,* chaired by C. Büchel and T. Lonsdorf), Würzburg, Germany.

[13] **Shackman, A. J.** (2017). Brain bases of individual differences in dispositional negativity. Talk presented at

the annual meeting of the ***Association for Research in Personality*** (Symposium on *Personality among the primates: A phylo-genetic and neurobiological excursion,* chaired by R. Latzman and C. DeYoung), Sacramento, CA.

[12] **Shackman, A. J.** (2017). Dispositional negativity in the wild: Social context governs momentary emotional experience. Talk presented at the annual meeting of the ***Association for Psychological Science*** (Symposium on New Directions on the *Affective consequences of interpersonal relationships: mechanisms, individual differences, and relationship characteristics*, chaired by E. P. Lemay & R. Venaglia), Boston, MA.

[11] **Shackman, A. J.** (2016). Neurobiological bases and markers of early-life anxiety. Talk presented at the annual meeting of the ***Society for Psychophysiological Research*** (Symposium on *Biomarkers for anxiety*, chaired by A. Kaczkurkin & J.J.B. Allen), Minneapolis, MN.

[10] **Shackman, A. J.** (2016). The neural bases and translational relevance of adaptive control. Talk presented at the annual meeting of the ***Society of Biological Psychiatry*** (Symposium on *New frontiers in adaptive control: From basic mechanisms to novel therapeutics*, chaired by **A.J. Shackman** & A. Etkin), Atlanta, GA.

[9] **Shackman, A. J.** (2015). Neural mechanisms underlying similarities and differences in the presentation of early-life anxiety. Talk presented at the annual meeting of the ***Society for Psychophysiological Research*** (Symposium on *Using biobehavioral profiles to decrease heterogeneity, improve specificity and prediction of risk,* chaired by K. Buss), Seattle, WA.

[8] **Shackman, A. J.**, Fox, A. S., Oler, J. A., Weinstein, J. S., Martinez-Cancino, R., Oakes, T. R., Shelton, S. E., Smith, J. F., Pessoa, L., Gamer, M., Davidson, R. J. & Kalin, N. H. (2015). The extended amygdala is a key substrate for sustained anxiety. Talk presented at the annual meeting of the ***Society of Biological Psychiatry*** (Symposium on *Extended amygdala circuits in anxiety and addiction: cross-species molecular, anatomical, and functional insights,* chaired by A. S. Fox, **A. J. Shackman,** & G. F. Koob), Toronto, Canada.

[7] **Shackman, A. J.** (2015). The central extended amygdala is a key substrate for early-life anxiety. Talk presented at the annual meeting of the ***Anxiety and Depression Association of America*** (Symposium on *Imaging the anxious brain at rest*, chaired by A. Roy), Miami, FL.

[6] **Shackman, A. J.** (2014). The integration of emotion, pain, and cognition in the brain. Talk presented at the annual meeting of the ***Society for Neuroscience*** (Mini-symposium on *Characterizing the roles of fronto-cingulo-subcortical circuits in pain, emotion, and cognition,* chaired by D. Seminowicz), Washington, DC.

[5] **Shackman, A. J.**, Fox, A. S., Oler, J. A., Birn, R. M., Williams, L. E., Oakes, T. R., Shelton, S. E., Davidson, R. J. & Kalin, N. H. (2014). The extended amygdala is a key substrate for extreme anxiety early in life. Talk presented at the annual meeting of the ***Society of Biological Psychiatry*** (Symposium on *The neurobiology of pervasive anxiety: The role of circuits centered on the extended amygdala,* chaired by **A. J. Shackman** & N. H. Kalin), NY, NY.

[4] **Shackman, A. J.**, Fox, A. S., Oler, J. A., Birn, R. M., Williams, L. E., Oakes, T. R., Shelton, S. E., Davidson, R. J. & Kalin, N. H. (2014*).* The extended amygdala is a key substrate for extreme anxiety early in life. Talk presented at the annual meeting of the ***Anxiety and Depression Association of America*** (Symposium on *The neurobiology of early-life anxiety,* chaired by **A. J. Shackman** & A. S. Fox), Chicago, IL.

[3] **Shackman, A. J.**, Fox, A. S., Oler, J. A., Shelton, S. E., Davidson, R. J. & Kalin, N. H. (2012). A common neural phenotype underlies diversity in the expression of anxiety. Talk presented at the annual meeting of the ***Society for Neuroscience*** (Nanosymposium on *Neural mechanisms underlying pain perception and anxiety,* chaired by I. Strigo), New Orleans, LA.

[2] **Shackman, A. J.,** Maxwell, J. S., McMenamin, B. W., Fox, A. S., Greischar, L. L. & Davidson, R. J. (2011). Neural circuitry mediating the impact of anxiety on cognition. ***Psychophysiology****, 48*, S8. (Symposium on the *Interaction between anxiety and cognition: Behavioral, psychophysiological, and neural perspectives,* chaired by C. Grillion).

[1] **Shackman, A. J.**, Maxwell, J. S., Skolnick, A. J., Schaefer, H. S. & Davidson, R. J. (2003). Exploiting individual differences in the prefrontal asymmetry of approach-related affect: Hemodynamic, electroencephalographic, and psychophysiological evidence. Program No. 444.6. Abstract Viewer/Itinerary Planner. Washington, DC: ***Society for Neuroscience***.

Symposium Discussant

† indicates mentored trainee project

[1] Hur, J. † (2019). New directions in fear and anxiety. Panelists: Juyoen Hur †, Tina Lonsdorf, Christine Larson & Martin Paulus (replaced by George Buzzell due to flooding in Oklahoma); Discussant: **Alexander J. Shackman**. Symposium at the annual meeting of the ***Association for Psychological Science***, Washington, DC.

Posters and Co-Authored Talks

† indicates mentored trainee

[83] Grogans, S. E. †, Hur, J. †, Barstead, M. G., Anderson, A. S. †, Islam, S. †, Kim, H. C. †, Kuhn, M. †, Tillman, R. M. †, Fox, A. S., Smith, J. F., DeYoung, K. A., & **Shackman, A. J.** (2021). Neuroticism/negative emotionality is associated with increased reactivity to uncertain threat in the bed nucleus of the stria terminalis. Poster presented at the annual meeting of the ***Society for Neuroscience***.

[82] Kim, H. C. †, Smith, J. F., Islam, S. †, Anderson, A. S. †, Kaplan, C. M. †, DeYoung, K. A., Grogans, S. E. †, Fox, A. S., Bradford, D. E., Curtin, J. J., & **Shackman, A. J.** (2021). The role of the central extended amygdala in acute nicotine abstinence. Poster presented at the annual meeting of the ***Society for Neuroscience***.

[81] Anderson, A. S. †, DeYoung, K. A., Grogans, S. E. †, Wedlock, J. †, Islam, S. †, Barstead, M. G., **Shackman, A. J.** (2021). BIPOC undergraduate students' experiences with microaggressions and discrimination: Prevalence and associations with mental illness. Poster presented at the annual meeting of the ***Society for Research in Psychopathology***.

[80] Anderson, A. S. †, Grogans, S. E. †, Wedlock, J. †, DeYoung, K. A. †, **Shackman, A. J.** (2021). Microaggressions experienced by Black undergraduates across the United States: Risk and resilience. Poster presented at the annual meeting of the ***Association for Behavioral and Cognitive Therapies.***

[79] Baez, L., Grogans, S. E. †, Craig, L. E. †, Wedlock, J. C. †, Anderson, A. S. †, Islam, S. †, DeYoung, K. A., Conway, C. C., Heller, A. S., & **Shackman, A. J.** (2021). Using affective dynamics to predict dysphoria over 30 months: A

partial least squares regression analysis. Poster presented at the annual meeting of the ***Wisconsin Symposium on Emotion.***

[78] Grogans, S. E. †, Hur, J., Anderson, A. S. †, Islam, S. †, Kim, H. C. †, Kuhn, M. †, Tillman, R. M. †, Fox, A. S., Smith, J. F., DeYoung, K. A., & **Shackman, A. J.** (2021). Neuroticism/Negative Emotionality is associated with elevated activation in the bed nucleus of the stria terminalis during uncertain-threat anticipation. Poster presented at the annual meeting of the ***Wisconsin Symposium on Emotion.***

[77] Newsome, P. †, Grogans, S. E. †, Barstead, M. G., Wedlock, J. †, DeYoung, K. A., & **Shackman, A. J**. (2021). Dispositional negativity and intolerance of uncertainty: The real-world consequences of temperament. Poster presented at the annual meeting of the ***Association for Psychological Science.***

[76] Anderson, A. S. †, Grogans, S. E. †, Wedlock, J. †, DeYoung, K. A. †**,** & **Shackman, A. J.** (*submitted*). Microaggressions experienced by black undergraduates across the United States: Risk and resilience. Poster presented at the annual meeting of the ***Association for Behavioral and Cognitive Therapies.***

[75] Boumaiz †, Y. Rogers †, M., Grogans †, S., Kim †, H. C. & **Shackman, A. J.** (2020). Neuroticism predicts negative reinforcement tobacco smoking motives. ***Annual Undergraduate Research Day. Maryland Center for Undergraduate Research***, College Park, MD.

[74] Kuhn, M.* †, Kaplan, C. M.* †, Hur, J. †, Bradford, D. E., Fox, A. S., Curtin, J. J., Smith, J. F., & **Shackman, A. J.** (*meeting canceled*). Neural systems underlying the anxiolytic effects of ethyl alcohol in humans. Poster presented at the annual ***European Meeting of Human Fear Conditioning***, Bochum, Germany.

[73] Wedlock, J. C. †, Craig, L. E. †, Hur, J. †, Grogans, S. E. †, DeYoung, K. A. †, & **Shackman, A. J.** (2020). The mediating effect of social support on the relationship between intolerance of uncertainty and social anxiety. Poster presented at the annual meeting of the ***American Psychological Association***, Washington, DC.

[72] Hur, J. †, Smith, J. F., DeYoung, K. A. †, Kuang, J. †, Anderson, A. A. †, Tillman, R. M. †, Kim, H. C. †, & **Shackman, A. J.** (2019). The neurobiological substrates of uncertain and certain threat. Poster presented at the annual meeting of the ***Society of Biological Psychiatry***, Chicago, IL.

[71] Kim, H. C. †, Hur, J. †, Smith, J. F., DeYoung, K. A. †, Kuang, J. †, Anderson, A. A. †, Tillman, R. M. †, & **Shackman, A. J.** (2019). Neurobiological reactivity to uncertain and certain threat. Poster presented at the annual meeting of the ***Social and Affective Neuroscience Society***, Miami, FL.

[70] Hur, J. †, Smith, J. F., DeYoung, K. A. †, Kuang, J. †, Anderson, A. A. †, Tillman, R. M. †, Kim, H. C. †, & **Shackman, A. J.** (2019). The neurobiology of anticipating uncertain and certain threat. Poster presented at the annual meeting of the ***Anxiety and Depression Association of America***, Chicago, IL.

[69] Blanchard, J. B., Choe, E. K., Andrea, A. M., DeYoung, K. A. †, Orth, R. D., Smith, J. F., Bennett, M., Anticevic, A., Kim, Y.-H., Chundury, P. & **Shackman, A. J.** (2018). Understanding the role of negative affect in psychosis using multimodal imaging and wearable sensors. Talk presented at the annual ***Brain and Behavior Institute Seed Grant Symposium***, College Park, MD.

[68] Hur, J. †, Smith, J. F., DeYoung K. A. †, Kuang, J. †, Anderson, A. A. †, Tillman, R. M. †, Kim, H. C. †, & **Shackman, A. J.**

(2018). The neurobiology of anticipating uncertain and certain threat. Poster presented at the annual meeting of the ***Anxiety and Depression Association of America***, Washington, DC.

[67] Anderson, A. S. †, Barstead, M. G. †, DeYoung, K. A. † & **Shackman, A. J.** (2018). Risky patterns of alcohol use alter the emotional impact of daily events in the real world. Poster presented at the annual meeting of the ***Association for Behavioral and Cognitive Therapies***, Washington, DC.

[66] Islam, S. †**,** Hur, J. †, Anderson, A. A. †**,** Limon, D. †, DeYoung, K. A. †, Barstead, M. G. †, & **Shackman, A. J.** (2018). Social context as a key determinant of socially anxious individuals' real-world emotion. Poster presented at the annual meeting of the ***Association for Behavioral and Cognitive Therapies***, Washington, DC.

[65] Waszczuk, M. A., Eaton, N. R., Krueger, R. F., **Shackman, A. J.**, Waldman, I. D., Zald, D. H., Lahey, B. B., The HiTOP Consortium & Kotov, R. (2018). Redefining phenotypes to advance psychiatric genetics: Implications from Hierarchical Taxonomy of Psychopathology. Talk presented at the annual meeting of the ***Behaviour Genetics Association***, Boston, MA.

[64] Islam, S. †, DeYoung, K. A. †, Barstead, M. G. †, Kim, H. C. †, & **Shackman, A. J.** (2018). Perceived social support and coping self-efficacy predict depression in first-year university students. Poster presented at the annual meeting of the ***Anxiety and Depression Association of America***, Washington, DC.

[63] Hur, J. †, Kaplan, C. M. †, Bradford, D. E., Curtin, J. J., Smith, J. F., & **Shackman, A. J.** (2018). Acute alcohol administration dampens threat-related activation in the central extended amygdala. Poster presented at the annual meeting of the ***Anxiety and Depression Association of America***, Washington, DC.

[62] Stockbridge, M. D. †, Furman, A. J., Keaser, M. L., Sosa, J. S. P., Padmala, S., Fox, A. S., Pessoa, A. S., Smith, J. F., Seminowicz, D. A. & **Shackman, A. J.** (2017). Negative affect, pain, and cognition are integrated in the cingulate cortex. Poster presented at the annual meeting of the ***Society for Neuroscience***, Washington, DC.

[61] Doorley, J. D., Kashdan, T. B., Weinstein, J. S. † & **Shackman, A. J.** (2017). Dissecting the lives of people with social anxiety disorder: Assessing the best and worst of every hour using ecological momentary assessment. Talk presented at the annual meeting of the ***Association for Behavioral and Cognitive Therapies***, San Diego, CA.

[60] Anderson, A. S. †, Barstead, M. G. †, DeYoung, K. D. † & **Shackman, A. J.** (2017). Ecological momentary assessment provides new insights into the interaction of neuroticism and daily events. Poster presented at the annual meeting of the ***Association for Behavioral and Cognitive Therapies***, San Diego, CA.

[59] Kovner, R., Souaiaia, T., Lu, J., Dong, Y. Fathi, A., Tao, Y., French, D., Roseboom, P., **Shackman, A. J.**, Oler, J. A., Fudge, J., Bhattacharyya, A., Zhang, S.-C., Knowles, J., Kalin, N. H. (2017). Neuroplasticity in the primate central amygdala: regional distribution and physiological effects of neurotrophic kinase receptor, type 3. Poster presented at the annual ***Wisconsin Alumni Research Foundation Discovery Challenge*** meeting, Madison, WI.

[58] Tillman, R. M. †, Stockbridge, M. D. †, Nacewicz, B. M., Smith, J. F. & **Shackman, A. J.** (2017). Functional architecture of central extended amygdala networks. ***Biological Psychiatry****, 81*, S52. [NIHMS876194]

[57] Fox, A. S., Oler, J. A., **Shackman, A. J.**, Birn, R. M., Alexander, A. L., Davidson, R. J. & Kalin, N. H. (2017). The neural

substrates of anxious temperament in young rhesus monkeys. Talk presented at the biennial meeting of the Society for Research in Child Development (Symposium on *rarly risk factors for the development of internalizing and externalizing symptomatology*, chaired by K. Roelofs & H. Niermann), Austin, TX.

[56] Kaplan, C. M. †, Brinkman, M. †, Pessoa, L., Smith, J. F. & **Shackman, A. J.** (2016). The neurobiology of fear and anxiety: Circuits engaged by certain and uncertain threat. Poster presented at the annual meeting of the ***Society for Neuroscience***, San Diego, CA.

[55] Kaplan, C. M. †, Brinkman, M. †, Pessoa, L., Smith, J. F. & **Shackman, A. J.** (2016). Understanding the neurobiology of fear and anxiety. Poster presented at the annual meeting of the ***Society for Research in Psychopathology***, Baltimore, MD. ***** selected for a poster/travel Award***

[54] Fox, A. S., Birn, R. M., **Shackman, A. J.**, Oler, J. A., Raveendran, M., Alexander, A. L., Davidson, R. J., Rogers, J. & Kalin, N.H. (2016). Heritability of functional connectivity between components of the extended amygdala in young non-human primates. Poster presented at the annual meeting of the ***Society of Biological Psychiatry***, Atlanta, GA.

[53] Fox, A. S., Birn, R. M., **Shackman, A. J.**, Oler, J. A., Raveendran, M., Alexander, A. L., Davidson, R. J., Rogers, J. & Kalin, N. H. (2015). Heritability of functional connectivity between components of the extended amygdala in young non-human primates. Poster presented at the ***Cold Spring Harbor Laboratory meeting on Behavior & Neurogenetics of Nonhuman Primates***, Cold Spring Harbor, NY.

[52] Fox, A. S., **Shackman, A. J.**, Oler, J. A., Birn, R. M., Alexander, A. A., Shelton, S. E., Davidson, R.J. & Kalin, N. H. (2015). The neural substrates of anxious temperament in young rhesus monkeys. Talk presented at the annual meeting of the Society for Neuroscience, Chicago, IL.

[51] Stout, D. M., **Shackman, A. J.**, Johnson, J. S., Miskovich, T. A. & Larson, C. L. (2014). Deficits gating threat from working memory in anxiety. Poster presented at the annual meeting of the ***Society for Research in Psychopathology***, Evanston, IL.

[50] **Shackman, A.J.** & Cavanagh, J. F. (2014). The role of rostral cingulate cortex in anxiety and the adaptive control of action. Poster presented at the annual meeting of the ***Society for Affective Science***, Washington DC.

[49] Stout, D. M., **Shackman, A. J.**, Miskovich, T. & Larson, C. L. (2014). Unnecessary storage of threat in working memory: A proximal mechanism underlying anxiety and worry. Poster presented at the annual meeting of the ***Society for Affective Science***, Washington DC .

[48] **Shackman, A.J.** & Cavanagh, J. F. (2013). The role of rostral cingulate cortex in anxiety and the adaptive control of action. Poster presented at the ***Heidelberg University meeting on Neural Circuits Underlying Nociception and Pain and Their Plasticity*** (organized by Herta Flor and Rohini Kuner), Heidelberg, Germany.

[47] Fox, A. S., Tromp, D. P. M., Oler, J. A., **Shackman, A. J.**, Shelton, S. E., McKay, D. R., Davidson, R. J., Oakes, T. R., Blangero, J., Rogers, J. & Kalin, N. H. (2013). The structural and functional neural systems underlying increased genetic risk for anxiety in a large sample of nonhuman primates. ***Behavior & Neurogenetics of Nonhuman Primates Meeting*** (organized by Jeff Rogers & Nelson Freimer), Cold Spring Harbor, NY.

[46] Fox, A. S., **Shackman, A. J.**, Tromp, D. P. M., Birn, R. M., Oler, J. A., Adluru, N., Nanda, S. A., Shelton, S. E., Alexander, A. L., Davidson, R. J. & Kalin, N. H. (2013). Amygdala-prefrontal connectivity predicts anxious temperament and gene expression in the primate dorsal amygdala. Poster presented at the annual meeting of the ***Society of Biological Psychiatry***, San Francisco, CA.

[44] Williams, L. E., Tromp, D. P. M., McFarlin, D. R., Birn, R. M., **Shackman, A. J.**, Rogers, G. M., Taft, W. M., Jesson, M. A. L., Slattery, M. J., Davidson, R. J., Oler, J. A. & Kalin, N. H. (2013). Amygdala-prefrontal connectivity is altered in childhood anxiety. *Poster presented at the annual **Wisconsin Symposium on Emotion**, Madison, WI.*

[44] Kovner, R., Oler, J. A., **Shackman, A. J.**, French, D. A., Nanda, S. A., Fox, A. S., Roseboom, P. H. & Kalin, N. H. (2013). Distribution of NTRK3 and IRS2 within the primate amygdalae: Implications for novel anxiety treatments. *Poster presented at the annual **Wisconsin Symposium on Emotion**, Madison, WI.*

[43] Pedersen, W. S., **Shackman, A. J.**, Blaisdell, J. A., Belleau, E. L., Stout, D. M. & Larson, C. L. (2013). Posterior parietal cortex activation predicts working memory capacity for faces. Poster presented at the annual meeting of the ***Cognitive Neuroscience Society***, San Francisco, CA.

[42] Bocinova, A., Stout, D. M., **Shackman, A. J.**, Larson, C. L. & Johnson, J. S. (2013). Do anxious individuals have difficulty gating threat-related information from working memory? *Poster presented at the annual **Red River Psychology Conference***, Fargo, ND.

[41] Fox, A. S., Oler, J. A., **Shackman, A. J.**, Shelton, S. E., Davidson, R. J. & Kalin, N. H. (2012). The neural substrates of anxious temperament in 592 young rhesus monkeys. Talk presented at the annual meeting of the ***Society for Neuroscience*** (Nanosymposium on *Neural mechanisms underlying pain perception and anxiety*), New Orleans, LA.

[40] Tromp, D., Oler, J. A., Fox, A. S., **Shackman, A. J.**, Davidson, R. J., Birn, R. M., Alexander, A. L. & Kalin, N. H. (2012). Structural and functional connectivity of the extended amygdala in newborn monkeys. Talk presented at the annual meeting of the ***Society for Neuroscience*** (Nanosymposium on *Neural mechanisms underlying pain perception and anxiety*), New Orleans, LA.

[39] Roseboom, P. H., Oler, J. A., Nanda, S. A., Fox, A. S., Oler, J. A., **Shackman, A. J.**, Shelton, S. E. & Kalin, N. H. (2012). Serotonin 2c receptor gene expression in the rhesus amygdala predicts anxious temperament. Poster presented at the annual meeting of the ***Society for Neuroscience***, New Orleans, LA.

[38] Stout, D. M., **Shackman, A. J.**, Wamboldt, M. M. & Larson, C. L. (2012). Neural measures indicate that threat's privileged access to working memory reflects reduced attentional filtering. Poster presented at the annual meeting of the ***Society for Psychophysiological Research***, New Orleans, LA.

[37] Fox, A. S., Oler, J. A., Tromp, D. P, M., **Shackman, A. J.**, Alexander, A. L., Davidson, R. J. & Kalin, N. H. (2012). Cortisol predicts decreased cerebral cortical volume in 592 young non-human primates. Poster presented at the annual meeting of the ***International Society of Psychoneuroendocrinology***, New York, NY.

[36] Roseboom, P. H., Nanda, S. A., Fox, A. S., Oler, J. A., **Shackman, A. J.**, Shelton, S. E. & Kalin, N. H. (2012).

Neuropeptide Y system gene expression in the nonhuman primate amygdala is associated with anxious temperament. ***Biological Psychiatry****, 71*, 104S.

[35] Oler, J. A., Tromp, D., Fox, A. S., **Shackman, A. J.**, Davidson, R. J., Alexander, A. L., Birn, R. M. & Kalin, N. H. (2012). Connectivity of the extended amygdala in newborn rhesus monkeys. Poster presented at the annual ***Wisconsin Symposium on Emotion***, Madison, WI.

[34] **Shackman, A. J.**, Fox, A. S., Oler, J. A., Van Valkenberg, H. C., Shelton, S. E., Davidson, R. J., & Kalin, N. H. (2012). A common neural phenotype underlies diversity in the presentation of anxiety. Poster presented at the annual ***Wisconsin Symposium on Emotion***, Madison, WI.

[33] **Shackman, A. J.** & Cavanagh, J. F. (2012). The role of rostral cingulate cortex in the adaptive control of action. Poster presented at the annual ***Wisconsin Symposium on Emotion***, Madison, WI.

[32] **Shackman, A. J.**, Shackman, J. E., Salomons, T. V., Slagter, H. A., Fox, A. S., Winter, J. J., Jenness, J. L., Pollak, S. D. & Davidson, R. J. (2012). Anxiety and adaptive control in rostral cingulate cortex. ***University of Colorado at Boulder Annual Conference****: Determinants of executive function & dysfunction*. **** Selected as one of the top five posters.**

[31] Starr, M. J., Bradford, D. E., **Shackman, A. J.** & Curtin, J. J. (2011). An empirical comparison of commonly used methods of quantifying startle potentiation. ***Psychophysiology****, 48*, S53.

[30] Guller, Y., Ferrarelli, F., Sarasso, S., **Shackman, A. J.**, Meyerand, M. E., Tononi, G. & Postle, B. R. (2011). Disrupted TMS-evoked response in the thalamus of patients with schizophrenia as measured with fMRI. ***Biological Psychiatry****, 69*, S951.

[29] Weng, H. Y., Fox, A. S., **Shackman, A. J.**, Stodola, D. E., Caldwell, J., Olson, M. C., Rogers, G. & Davidson R. J. (2011). Alterations in neural responses to suffering after compassion training predict increased altruistic redistribution. Poster presented at the annual ***Wisconsin Symposium on Emotion***, Madison, WI.

[28] **Shackman, A. J.**, Guller, Y., Riggall, A. C., Johnson, J. S. & Postle, B. R. (2011). The role of frontal eye fields in spatial working memory and attention: A concurrent TMS-fMRI approach. Poster presented at the annual meeting of the ***Cognitive Neuroscience Society***, San Francisco, CA.

[27] Guller, Y., **Shackman, A. J.**, Feredoes, E., Ferrarelli, F., Tononi, G., Meyerand, E. M. & Postle, B. R. (2010). Using simultaneous TMS-fMRI to probe the integrity of cortico-thalamic circuits. Talk presented at the annual meeting of the ***Society for Neuroscience*** (Nanosymposium on *Genetics and Brain Imaging in Psychiatric Illness*), San Diego, CA.

[26] Guller, Y., Feredoes, E., **Shackman, A. J.**, Acheson, D. J., Riggall, A. C., Ferrarelli, F., Tononi, G., Meyerand, E. M. & Postle, B. P. (2010). Using combined TMS-fMRI to probe the integrity of the thalamic reticular nucleus. Poster presented at the annual meeting of the ***Organization for Human Brain Mapping***, Barcelona, Spain.

[25] Fox, A.S., Shelton, S.E., Alexander, A.L., Oakes, T.R., **Shackman, A. J.**, Davidson, R.J. & Kalin, N.H. (2009).

Diffusion tensor imaging (DTI) demonstrates that prefrontal-amygdala white-matter tracts relate to anxious temperament and amygdala metabolism. Poster presented at the annual meeting of the ***Organization for Human Brain Mapping***, San Francisco, CA.

[24] Salomons, T.V., **Shackman, A. J.**, Winter, J., Nacewicz, B., & Davidson, R.J. (2008). Dorsal ACC is involved in affective processing: Examining the functional subdivisions of anterior cingulate cortex using quantitative meta-analysis. Poster presented at the annual meeting of the ***Society for Neuroscience***, Washington, DC.

[23] Nusslock, R., **Shackman, A. J.**, McMenamin, B.W., Greischar, L.L., Kovacs, M. & Davidson, R.J. (2008). Anxiety moderates relations between frontal EEG alpha asymmetry and depression. ***Psychophysiology****, 45*, S77.

[22] **Shackman, A. J.**, Maxwell, J.S., McMenamin, B.W., Fox, A.S., Greischar, L.L. & Davidson, R.J. (2008). Parietal cortex mediates the selective disruption of spatial working memory by threat-induced anxiety. Poster presented at the annual meeting of the ***Cognitive Neuroscience Society***, San Francisco, CA.

[21] Nusslock, R., **Shackman, A. J.**, Greischar, L.L, McMenamin, B.W., Kovacs, M. & Davidson, R.J. (2007). Frontal EEG alpha asymmetry in depression: The role of clinical state and emotion regulation. ***Psychophysiology****, 44*, S7.

[20] Maxwell, J.S., Slagter, H.A., **Shackman, A. J.** & Davidson, R.J. (2007). Cognitive and emotional influences in dorsal anterior cingulate cortex. Poster presented at the annual meeting of the ***Cognitive Neuroscience Society***, New York, NY.

[19] Slagter, H.A., Beets, I.A.M., Johnstone, T., **Shackman, A. J.**, Van Reekum, C.M. & Davidson R.J. (2007). Threat-evoked anxiety modulates attentional resource distribution. Poster presented at the annual meeting of the ***Cognitive Neuroscience Society***, New York, NY.

[18] Maxwell, J.S., **Shackman, A. J.**, McMenamin, B.W., Greischar, L.L., Nacewicz, B.M. & Davidson, R.J. (2007). Detecting high-stakes deception. Poster presented at the ***Intelligence Community Postdoctoral Research Fellowship Colloquium***, Chantilly, VA.

[17] Norris, C. J., van Reekum, C. M., Greischar, L. L., Lapate, R. C., **Shackman, A. J.**, McMenamin, B. W., & Davidson, R. J. (2007). Activation of the ventromedial prefrontal cortex predicts psychological well-being and emotion regulation: A source localization study. Poster presented at the 2nd annual preconference on Emotion preceding the 8th annual meeting of the ***Society for Personality and Social Psychology***, Memphis, TN.

[16] Norris, C. J., van Reekum, C. M., Greischar, L. L., Lapate, R. C., **Shackman, A. J.**, McMenamin, B. W., Beguhn, G. M., Rawlings, N. B., & Davidson, R. J. (2006). Ventromedial prefrontal activation at baseline and in response to affective pictures predicts positive affective style: A source localization study. ***Psychophysiology****, 43*, S72.

[15] Nusslock, R., Coan, J.A., **Shackman, A. J.**, Abramson, L.Y., Harmon-Jones, E., Alloy, L.B., & Hogan, M.E. (2006). Frontal EEG asymmetry predicts cognitive vulnerability to depression. Poster presented at the annual meeting of the ***Society for Research in Psychopathology***, San Diego, CA.

[14] Nusslock, R., Coan, J.A., **Shackman, A. J.**, Abramson, L.Y., Harmon-Jones, E., Alloy, L.B., & Hogan, M.E. (2006). Frontal EEG Asymmetry predicts cognitive vulnerability to depression. ***Psychophysiology****, 43*, S72.

[13] Maxwell, J. S., **Shackman, A. J.**, McMenamin, B. W., Greischar, L. L. & Davidson, R. J. (2005). Threat-induced anxiety alters the visual processing of non-emotional targets. ***Psychophysiology**, 42*, S86.

[12] **Shackman, A. J.**, Maxwell, J. S. & Davidson, R. J. (2005). Measuring the impact of threat-evoked anxiety on working memory and prefrontal cortex. Poster No. E116. Abstract Viewer/Itinerary Planner. Davis, CA: ***Cognitive Neuroscience Society***.

[11] Maxwell, J. S., **Shackman, A. J.**, McMenamin, B.W. & Davidson, R. J. (2005). Threat evoked anxiety biases the visual-cognitive processing of non-emotional information. Program No. B123. Abstract Viewer/Itinerary Planner. Davis, CA: ***Cognitive Neuroscience Society***.

[10] Maxwell, J. S., **Shackman, A. J.** & Davidson, R. J. (2004). Threat evoked anxiety biases the early visual processing of non-emotional stimuli. Program No. 547.11. Abstract Viewer/Itinerary Planner. Washington, DC: ***Society for Neuroscience***.

[9] **Shackman, A. J.**, Maxwell, J. S. & Davidson, R. J. (2004). Prefrontal EEG asymmetry, corrugator EMG and self-report measures of threat-evoked anxiety. ***Psychophysiology**, 41*, S59.

[8] **Shackman, A. J.**, Maxwell, J. S. & Davidson, R. J. (2004). Predicting individual differences in threat-evoked anxiety using resting prefrontal EEG asymmetry and self-report measures of affective style. ***Psychophysiology**, 41*, S59.

[7] Greischar, L.L., Springborn, K.D., **Shackman, A. J.** & Davidson, R. J. (2004). Using independent component analysis to remove eye artefacts from high-density (256 channel) EEG recordings. ***Psychophysiology**, 41*, S99.

[6] Pizzagalli, D., Schaefer, H. S., Hendrick, A. M., Horras, K. A., **Shackman, A. J.**, Anderle, M. J., Pederson, A. J. C., Lavric, A., Sarinopoulos, I., Zhang, R. and Davidson, R.J. (2001). Amygdalar activation during acquisition of aversive conditioning is modulated by stimulus contingencies: An event-related fMRI study. ***Psychophysiology**, 38*, S77.

[5] Larson, C.L., Irwin, W., Nitschke, J.B., Navin, S.D., Ruffalo, D., **Shackman, A. J.**, & Davidson, R.J. (2000). Self-report correlates of reactivity to visual affective stimuli indexed with affect-modulated startle: specificity of a new measure. ***Psychophysiology**, 37*, S62.

[4] **Shackman, A. J.**, Slagter, H. A., Lavric, A., Irwin, W., Sarinopoulos, I., Oakes, T. R. & Davidson, R. J. (2000). Hemispheric asymmetry of verbal and spatial working memory in prefrontal cortex. Poster presented at the annual meeting of the ***Society for Neuroscience***, New Orleans, LA.

[3] Lavric, A., **Shackman, A. J.**, Sarinopoulos, I., Pederson, A. J. C. & Davidson, R. J. (2000). Effects of threat-of-shock on verbal and spatial working memory. ***Psychophysiology**, 37*, S62.

[2] **Shackman, A. J.** & Davidson, R. J. (1999). Characterizing the inhibition of anxiety: An emotion-modulated startle study. ***Psychophysiology**, 36*, S105.

[1] Sutton, S. K., **Shackman, A. J.** & Davidson, R. J. (1998). Monetary incentive and working memory load

modulate anterior brain activity. ***Psychophysiology***, *35*, S81.

Professional Consortia, Societies, and Service

Affective Neuroimaging Collaboratory

The aim of this consortium is to curate, analyze, and openly share a large, comprehensive, and high-quality database of single-subject fMRI/PET data that systematically samples key emotional and motivational domains, enabling precise and reproducible determination of shared and unique neural circuitry. **WEBSITE**

ENIGMA Consortium (Anxiety, Behavioral Inhibition, and Task-Based fMRI Workgroups)

The overarching mission of this international consortium is to pool structural and functional neuroimaging data acquired from psychiatric patients and healthy controls, enabling well-powered tests of subtle differences in brain structure/function and molecular underpinnings. **WEBSITE**

Hierarchical Taxonomy of Psychopathology (HiTOP) Consortium (Utility and Neurobiology Workgroups)

The aim of this multi-disciplinary international consortium is to nothing short of the development and dissemination of a reliable, usable dimensional model of mental illness, with the aim of improving research, diagnosis, prognosis, and treatment **WEBSITE**

Mid-Atlantic Neuroscience Diversity Scholars Program (Faculty Partner)

The aim of this NIH-sponsored multi-institutional program is to bolster the number of underrepresented minority (URM) students within the neuroscience academic pipeline and build a foundation for URM students to succeed in graduate school and beyond. **WEBSITE**

Society Memberships

Association for Psychological Science (APS)
Society for Neuroscience (SFN)
Society of Biological Psychiatry (SoBP)
World Association for Stress-related and Anxiety Disorders (WASAD)

Society Service

2014—2017	Member, Program Planning Committee Society of Biological Psychiatry
2018	Mentor, Alies Muskin Career Development Leadership Program Anxiety and Depression Association of America
2018	Participant, Neural Circuit Dysregulation Group (Chaired by Amit Etkin, Israel Liberzon, & Mohammed Milad) State of the Science Summit: Diagnosis of Trauma-Related Disorders Brain Trauma Blueprint Initiative, Cohen Veterans Bioscience
2018—2019	Member, Education Committee Society of Biological Psychiatry

Professional Development and Mentorship Roundtables

2016—2017 Mentor, Society of Biological Psychiatry Annual Meeting
2015 Mentor, Society for Psychophysiological Research Annual Meeting

Other Professional Service

2019—*present* Member, Data Safety Monitoring Board
"Examining the mechanisms of anxiety regulation using a novel, sham-controlled, fMRI-guided rTMS protocol and a translational laboratory model of anxiety" (K01-MH121777; N. Balderston, PI)
Perelman School of Medicine, University of Pennsylvania

Intramural Service

2021—2022 Chair, Faculty Search Committee (Cognitive Neuroscience)
Department of Psychology
2021 Chair, Assistant Research Scientist Promotion Committee (Dr. J. Smith)
Department of Psychology
2021—2022 Member, Graduate Admissions Committee
Neuroscience and Cognitive Science (NACS) Program
2021—2022 Faculty Liason, Social Committee
Clinical Psychology Program
Department of Psychology
2021 Reviewer, Chair's Open Science Seed Award
Department of Psychology
2021 Member, Appointment, Promotion, and Tenure Policy Committee
Department of Psychology
Developed the first revision of Department policy since 2006, with the aim of incorporating best-practices, mitigating known biases, encouraging rigorous and open scientific approaches, and facilitating the tenure and promotion of women and URM faculty
2020—*present* Director, NeuroIMaging Back-Up Server (NIMBUS)
NIMBUS provides secure off-site back-up data storage for a number of UMD investigators (Drs. Bernat, Blanchard, Fox, Gard, Hamilton, Redcay, Riggins, Shackman, and Smith. NIMBUS represents a collaborative partnership between Dr. Shackman, the Division of Information Technology (DIT), and the Office of Academic Computing Services (OACS)
2019—2019 Member, Open Science Work Group
Department of Psychology
2019 Member, Faculty Search Committee (Developmental Psychology)
Department of Psychology
2019 Chair, Ad Hoc Committee to Enhance Graduate Student Interviews
Clinical Psychology Program
Department of Psychology
2019 Chair, Ad Hoc Committee to Enhance Weekly Area Group Meetings
Clinical Psychology Program
Department of Psychology

2019	Judge, Data Challenge 2019 Research Showcase College of Information Studies
2019	Caramello Distinguished Dissertation Award Committee College of Behavioral and Social Sciences (BSOS)
2018—2019	Member, Graduate Studies Committee Department of Psychology
2018—2021	Member, Institutional Review Board Committee Department of Psychology
2016—2017	Member, Faculty Search Committee (Behavioral Neuroscience) Department of Psychology
2015—2018	Member, Executive Board Neuroscience and Cognitive Science (NACS) Program
2015—2018	Member, Faculty Hiring Strategic Planning Committee Department of Psychology

Teaching Experience

Regular Courses

Fall 2021	*Emotion: From Biological Foundations to Contemporary Debates in the Psychological Sciences*	Psychology 614 (3 cred.)	8 graduates
Spring 2021	*A Gentle Introduction to Temperament & Personality [Distance-Learning]*	Psychology 210 (3 cred.)	104 undergraduates
Fall 2020	*Emotion: From Biological Foundations to Contemporary Debates in the Psychological Sciences [Distance-Learning]*	Psychology 614 (3 cred.)	20 graduates, including 2 students from American University
	Advanced Seminar in Temperament & Personality [Distance-Learning]	Psychology 435 (3 cred.)	67 undergraduates
Fall 2019	*A Gentle Introduction to Temperament & Personality*	Psychology 210 (3 cred.)	91 undergraduates
Fall 2018	*Affective Science Perspectives on Temperament & Personality*	Psychology 612 (3 cred.) Cross-listed through NACS	17 graduates
	Advanced Seminar in Temperament & Personality	Psychology 435 (3 cred.)	48 undergraduates

Spring 2018	*A Gentle Introduction to Temperament & Personality*	Psychology 210 (3 cred.)	84 undergraduates
Fall 2017	*Affective Science Perspectives on Temperament & Personality*	Psychology 612 (3 cred.) Cross-listed through NACS	11 graduates
Fall 2016	*Graduate Seminar in Temperament & Personality*	Psychology 612 (3 cred.) Cross-listed through NACS	14 graduates
	Advanced Seminar in Temperament & Personality	Psychology 435 (3 cred.)	67 undergraduates
Spring 2016	*A Gentle Introduction to Temperament & Personality*	Psychology 210 (3 cred.)	84 undergraduates
Fall 2015	*Graduate Seminar in Temperament & Personality*	Psychology 612 (3 cred.) Cross-listed through NACS	21 graduates
	Advanced Seminar in Temperament & Personality	Psychology 435 (3 cred.)	75 undergraduates
Spring 2015	*A Gentle Introduction to Temperament & Personality*	Psychology 210 (3 cred.)	109 undergraduates
Fall 2014	*Graduate Seminar in Temperament & Personality*	Psychology 612 (3 cred.) Cross-listed through NACS	8 graduates
Spring 2014	*A Gentle Introduction to Temperament & Personality*	Psychology 210 (3 cred.)	71 undergraduates
Fall 2013	*Graduate Seminar in Temperament & Personality*	Psychology 612 (3 cred.) Cross-listed through NACS	18 graduates

Guest Lectures

Fall 2021	*The brain bases and public health relevance of fear and anxiety* NACS 641, Introduction to Neuroscience (J. Herberholz, instructor)
Fall 2020	*The brain bases and public health relevance of fear and anxiety* NACS 641, Introduction to Neuroscience (J. Herberholz, instructor)
Fall 2019	*The brain bases and public health relevance of fear and anxiety* NACS 641, Introduction to Neuroscience (J. Herberholz, instructor)
Fall 2018	*The neurobiology of dispositional negativity* NACS 641, Introduction to Neuroscience (J. Herberholz, instructor)
Fall 2017	*Fear, anxiety, and the central extended amygdala*

NACS 640, Foundational readings in Neuroscience and Cognitive Science (E. Glasper, instructor)

Fall 2014 *The integration of emotion and cognition in the midcingulate cortex*
NACS 640, Foundational readings in Neuroscience and Cognitive Science (E. Glasper, instructor)

Continuing Professional Development

Fall 2020 *Lesson Plans for Synchronous Sessions*
Teaching & Learning Transformation Center, University of Maryland

Fall 2018 *Active Learning at Scale: Techniques for Large (and Small) Classes*
Teaching & Learning Transformation Center, University of Maryland

Winter 2016 *Teaching Portfolio Workshop*
Teaching & Learning Transformation Center, University of Maryland

Spring 2016 *Improvisation for Scientists Workshop*
Alan Alda Center for Communicating Science
** 1 of 6 faculty nominated by the Dean of the College of Behavioral and Social Sciences, University of Maryland

Winter/Spring 2015 *New Faculty Teaching Workshop Series*
College of Behavioral and Social Sciences, University of Maryland

Research Supervision and Professional Mentorship

Staff Supervision

Staff Scientist

J. Smith, 2014-
M. Barstead, 2019

Postdoctoral Fellows

J. Hur, 2017-2020
Currently an Assistant Professor, Department of Psychology, Yonsei University, Seoul, South Korea. Yonsei is is 1 of the 3 SKY universities, widely considered the most prestigious in Korea.

M. Kuhn, 2019-2020
Currently a postdoctoral fellow at the Center for Depression, Anxiety, and Stress Research, McLean Hospital, Harvard Medical School

Masters-Level Project/Data Manager

K. DeYoung, 2016-

Post-Baccalaureate Fellow/Project Coordinator

A. Anderson, 2017-2018
Currently a graduate student (clinical) at Vanderbilt University

S. Islam, 2017-2019

Currently a graduate student (clinical) at the University of Pennsylvania

L. Craig, 2018-2019

Currently a project coordinator at George Mason University

J. Wedlock, 2019-

Veterans Administration Clinical Research Internship Supervision

Intern Supervisor

S. Cooper, 2018-2019

Currently a postdoctoral fellow in the Department of Psychiatry, University of Texas, Austin

Graduate Student Research Supervision

Ph.D. Supervisor

C. Kaplan (*clinical*), 2014-2017

R. Tillman (*clinical*), 2014-2021

H. Kim (*neuroscience*), 2019-

S. Grogans (*clinical*), 2019-

Ph.D. Co-Supervisor

M. Stockbridge, Department of Hearing and Speech Sciences, 2014-2018

Currently a postdoctoral fellow at the Center of Excellence in Stroke Detection, Cerebrovascular Division of Neurology, School of Medicine, Johns Hopkins University

M. Barstead, Department of Human Development and Quantitative Methodology, 2015-2018

Currently a Senior Associate Data Scientist at Capital One

Masters Co-Supervisor

K. DeYoung, Department of Family Science, 2018-2020

Neuroscience and Cognitive Science Certificate (Ph.D. Minor) Supervisor

M. Barstead, Department of Human Development and Quantitative Methodology, 2015-2018

D. Ampofo, Department of Psychology, 2017-2018

Ph.D. Committees

J. McCarthy (J. Blanchard, PI), Department of Psychology, 2013-16

D. Bryden (M. Roesch, PI), Neuroscience and Cognitive Science Program, 2015

J. Chrabaszcz (M. Dougherty, PI), Department of Psychology, 2016

A. Umemoto (C. Holroyd, PI), Department of Psychology, University of Victoria, BC, Canada, 2016

A. Alfini (C. Smith, PI), Department of Kinesiology, 2016-2017

K. Bradshaw (J. Blanchard, PI), Department of Psychology, 2016-2018

M. Stockbridge (R. Newman, PI), Department of Hearing and Speech Sciences, 2016-2018

R. Gentry (M. Roesch, PI), Neuroscience and Cognitive Science Program, 2017

O. Harari-Dahan (A. Bernstein, PI), Department of Psychology, University of Haifa, Israel, 2017-2018

M. Barstead (K. Rubin, PI), Department of Human Development and Quantitative Methodology, 2018

R. Tillman (A.J. Shackman, PI), Department of Psychology, 2018-2021

J. Ellis (E. Bernat, PI), Department of Psychology, 2018-2019

M. Hamberger (S. Iso-Ahola, PI), Department of Kinesiology, 2018-
T. Karjalainen (L. Nummenmaa, PI), Department of Psychology, University of Turku, Finland, 2019
L. Weiss (C. Smith, PI), Department of Kinesiology, 2019-2020
L. Oddo (A. Chronis-Tuscano, PI), Department of Psychology, 2021-

Ph.D. *Cum Laude* Committee

B. Bramson (K. Roelofs, PI), Faculty of the Social Sciences, Radboud University, The Netherlands, 2020

Masters Committees

M. Lipton, Department of Psychology, 2013-2014
L. Anderson, Department of Psychology, 2014-2016
R. Tillman, Chair, Department of Psychology, 2015-2016 (Chair)
M. Stockbridge, Department of Hearing and Speech Sciences, 2015-2017
N. Wolf, Department of Psychology, 2015-2017
C. Kaplan, Chair, Department of Psychology, 2015-2017 (Chair)
M. Ahmadi, Department of Psychology, 2017
M. Arenson, Department of Psychology, 2019
K. DeYoung, Co-Chair, Department of Family Science, School of Public Health, 2020
S. Grogans, Department of Psychology, 2020-2021 (Chair)
S. Walker, Neuroscience and Cognitive Science Program, 2021
R. Orth, Department of Psychology, 2021-

Qualifying Examinations Committees

Various, Clinical area group, Department of Psychology, 2013-
A. Alfini, Department of Kinesiology, 2015
M. Stockbridge, Department of Hearing and Speech Sciences, 2015
K. Crowley, iSchool, 2016-2017
K. Castellanos, Department of Government and Politics, 2017
L. Weiss, Neuroscience and Cognitive Science (NACS) Program, 2017
M. Hamberger, Department of Kinesiology, 2020
D. Holley, Department of Psychology, UC-Davis, 2020
J. Merchant, Neuroscience and Cognitive Science (NACS) Program, 2020
H. Kim, Neuroscience and Cognitive Science (NACS) Program, 2021 (Co-Chair)

Neuroscience and Cognitive Science (NACS) Student Committee

M. Ahmadi, Department of Psychology, 2016-2017
S. Walker, Department of Psychology, 2017-2018
J. Merchant, Department of Psychology, 2018-2020
H. Kim, Department of Psychology, 2019-present (Co-Chair)
K. Morrow, Department of Psychology, 2020-2021
Z. Atak, Department of Biology, 2021-

Portfolio Committee, Department of

K. Smith, Department of Human Development and Quantitative Methodology, 2018-2019

Postdoctoral and Graduate Student Mentored Fellowships and Awards

Advanced Training in Methodology and Statistics Award, Department of Psychology, University of Maryland

S. Grogans, 2019

Alies Muskin Career Development Leadership Program, Anxiety and Depression Association of America

J. Hur, 2019

Ann G. Wylie Dissertation Fellowship, University of Maryland

R. Tillman, 2019-2020

Computation and Mathematics for Biological Networks (COMBINE) Fellowship, National Science Foundation-Supported Research Traineeship Program (DGE-1632976; M. Girvan, PI)

G. Kim, 2020-2022 (2-year program / 1-year stipend)

Fellowship/Travel Award, Tools of Trade Workshop: Human Neuroimaging Methods and Best Practices (Sponsored by the NIH and Stanford Center for Reproducible Neuroscience)

R. Tillman, 2017

Flagship Fellowship, University of Maryland

S. Grogans, 2019-24

Graduate Research Fellowships, National Science Foundation (NSF)

R. Tillman (*Honorable Mention*), 2015
C. Kaplan, 2016-19
S. Grogans (*Honorable Mention*), 2019
S. Grogans (*Honorable Mention*), 2020

Graduate Student Clinical Excellence Award, Clinical Psychology Program, University of Maryland

R. Tillman, 2019-2020

Jeanette Spier Beavers Endowed Memorial Scholarship, School of Public Health, University of Maryland

K. DeYoung, 2019

Jennifer Becker-Carswell Award, Department of Family Science, School of Public Health, University of Maryland

K. DeYoung, 2020

McNair Graduate Fellowship

D. Sambrano, 2017 (*declined*)

Poster/Travel Award, Society for Research in Psychopathology (SRP)

C. Kaplan, 2016

Regular Undergraduate Student Research Supervision at the University of Maryland

† indicates co-author on a manuscript or publication

†† indicates co-author on a conference presentation

2021-22 (12 students)

M. Biskach, N. Bui, M. Chacona, K. Landry, T. Mattikalli, D. Mbulaiteye, D. Minker, N. Reddy, T. Shi, A. Ternovskaia, A. Vaysman, M. Zwally

2020-21 (17 students)

M. Biskach, M. Chacona, J.Y. Choi, J. Dixon, E. Fogam, A. Graninger, A. Kunvar, K. Landry, T. Mattikalli, D. Mbulaiteye, D. Minker, P. Newsome, M. Rogers, D. Shah, T. Shi, A. Ternovskaia, S. Turna

2019-20 (8 students)

Y. Boumaiz, J. Dixon, A. Graninger, D. Mbulaiteye, M. Rogers, J. Sandoval, L. Shapiro, H. Zawitoski

2018-19 (10 students)

M. Albedi, Y. Boumaiz, R. Hum, D. Limon, N. Kelso, G. Kim ††, M. Rogers, J. Sandoval, M. Shinnick, H. Zawitoski

2017-18 (11 students)

A. Antonacci, Y. Boumaiz, J. Furcolo, C. Grubb, R. Hum, H. Johnson, G. Kim ††, C. Okeke, J. Robinson, R. Surasinghe, M. Vogel

2016-17 (15 students)

A. Anderson †, A. Antonacci, K. Bohlke, M. Chen, M. Dib, M. Hawley, R. Hum, A. Frederique, C. Grubb, J. Furcolo, G. Kim ††, J. Kuang, J. Stimely, M. Skibniewska, M. Vogel

2015-16 (12 students)

J. Aepfelbacher, C. Bloomer, K. Bohlke, V. Bonetti, M. Brinkman ††, J. Kang, A. Silver, M. Skibniewska, J. Stimely, J. Swayambunathan, J. Vadhan, C. Zacarias

2014-15 (13 students)

J. Aepfelbacher, D. Ansah, C. Bloomer †, A. Dizik, A. Fredman, J. Kang, J. Myers (doctoral student at Howard University), S. Shah, J. Stimely, J. Swayambunathan, J. Vadhan, J. Weinstein †

2013-14 (12 students)

D. Ansah, L. Bjorkman (post-baccalaureate); C. Bloomer †, A. Dizik, T. Fedechko, A. Fredman, S. Hudja (post-baccalaureate; now a doctoral student in economics at Purdue) †, J. Kau, A. Malone, E. Qi, M. Sood, J. Weinstein †

Specialized Undergraduate Student Research Supervision at Maryland

Biological Sciences Honors Intern

A. Dizik, 2014

Integrated Life Sciences (ILS) Honors Program

J. Kang, 2014
M. Chen, 2017
Y. Boumaiz, 2018

M. Vogel, 2018

Psychology Research Empowerment Program (PREP) Scholar
J. Sandoval, 2019

Research Internship in Science and Engineering (RISE) Scholar
J. Kau, 2013-2014

Senior Honors Thesis, Department of Biology
R. Hum, 2018-2019 (*accepted with honors*)
T. Shi, 2021-2022

Snider Undergraduate Research Engagement (SURE) Fellow
A. Graninger, 2021

Summer Research Initiative (SRI) Fellow
S. Bermudez-Cruz, 2015

Specialized Undergraduate Student Research Supervision at Wisconsin

NASA Summer Scholar
U. Amadi, 2005

Research Scholars Program
S. Austin, 2005
M. Dick, 2005

Senior Theses
J. Nichols, 2004
K. Petersen, 2004
M. Long, 2004
K. Springborn, 2004
S. Blume, 2006
A. Eggleston, 2006
E. Eggleston, 2006
B. Kosobucki, 2006
B. Kelly, 2007
J. Winter, 2007

Mentored Undergraduate/Postbaccalaureate Fellowships and Awards at Maryland

Clinical Psychology Doctoral Program Visit Day Travel Award, University of Delaware
A. Anderson, 2017

Diversity in Psychology Symposium/Workshop Travel Award, University of Minnesota
A. Anderson, 2017
S. Islam, 2018

Diversity in Psychology Workshop Travel Award, University of Michigan
S. Islam, 2018

Maryland Summer Scholars Award, Maryland Center for Undergraduate Research
H. Kim, 2018-2019 (** senior thesis equivalent)

Undergraduate Researcher of the Year, College of Behavioral and Social Science
J. Weinstein, 2015

Mentored Undergraduate Fellowships and Awards at Wisconsin

Hilldale Senior Thesis Research Fellowships
J. Nichols, 2003
M. Long, 2004
B. Kosobucki, 2005

Media Coverage

January 5, 2021: https://www.theravive.com/today/post/understanding-the-neurobiology-of-anxiety-0004680.aspx
November 3, 2020: https://www.smithsonianmag.com/science-nature/anxious-about-results-heres-whats-happening-your-brain-you-wait-180976191/
October 20, 2020: https://www.technologynetworks.com/neuroscience/news/imaging-study-suggests-fear-and-anxiety-are-not-orchestrated-by-distinct-neural-networks-341806
October 20, 2020: https://www.pourquoidocteur.fr/Articles/Question-d-actu/34191-La-peur-l-anxiete-emotions-jumelles-cerveau
October 19, 2020: https://www.sciencedaily.com/releases/2020/10/201019164939.htm
October 19, 2020: https://www.earth.com/news/fear-and-anxiety-share-a-common-network-in-the-brain/
October 12, 2020: https://today.umd.edu/articles/uncovering-shared-roots-fear-and-anxiety-1a369190-8961-4077-9b77-56c9d743f578
October 1, 2020: https://www.axios.com/anxiety-uncertainty-brain-a53b5f3c-00b6-4888-b40f-da986fad4987.html
September 24, 2020: https://www.lescienze.it/mind/2020/09/24/news/paura_ansia_circuiti_cerebrali-4802441/
September 22, 2020: https://infosurhoy.com/science/contradicting-previous-theories-neuroscientists-find-overlap-between-fear-and-anxiety-brain-circuits/
September 21, 2020: https://scitechdaily.com/contradicting-previous-theories-neuroscientists-find-overlap-between-fear-and-anxiety-brain-circuits/
Septmber 21, 2020: https://neurosciencenews.com/fear-anxiety-circuits-17060/
September 21, 2020: https://medicalxpress.com/news/2020-09-overlap-anxiety-brain-circuits.html
September 21, 2020: https://www.the-scientist.com/news-opinion/brain-circuitry-for-fear-and-anxiety-is-the-same-on-fmri-67949
September 21, 2020: http://bbi.umd.edu/news/news_story.php?id=13414
September 21, 2020: https://twitter.com/SfNJournals/status/1308088873881305097
November 12, 2018: https://bsos.umd.edu/featured-content/how-alcohol-dilutes-anxiety
November 12, 2018: https://today.umd.edu/articles/how-alcohol-dilutes-anxiety-f958169c-f9ba-41eb-bc60-aa6bd24409c0
October 30, 2018: https://centerhealthyminds.org/join-the-movement/research-sheds-light-on-new-understanding-of-our-emotions

September 30, 2018: http://www.dbknews.com/2018/10/01/umd-study-anxiety-brain-circuit-hereditary-research/
September 19, 2018: https://today.umd.edu/articles/uneasy-inheritance-d52a93e8-db08-4de4-8801-af2cae55b455
August 1, 2018: https://www.medicalnewstoday.com/articles/322626.php
August 1, 2018: https://mentalfloss.com/article/552986/anxiety-might-be-inherited-condition-and-scientists-now-think-they-know-why
July 31, 2018: http://blogs.discovermagazine.com/d-brief/2018/07/31/stress-could-be-hereditary/#.W4Z7nM5KhEa
July 31, 2018: https://bsos.umd.edu/featured-content/inherited-brain-pathway
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July 30,2018: https://www.eurekalert.org/pub_releases/2018-07/sfn-tho072618.php
July 30, 2018: https://www.newsweek.com/what-causes-anxiety-we-might-inherit-mental-illness-our-parents-study-monkey-1047763
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July 30, 2018: https://neurosciencenews.com/genetic-anxiety-9634/
July 30, 2018: https://medicalxpress.com/news/2018-07-heritability-anxiety.html
September 9, 2017: http://www.psypost.org/2017/09/neuroscience-study-uncovers-threatening-information-invades-working-memory-anxious-people-49636
September 20, 2016: https://www.sciencemag.org/news/2016/09/sad-movies-help-us-bond-those-around-us-and-alleviate-pain
May 23, 2018: https://www.psychologytoday.com/intl/blog/the-athletes-way/201805/compassion-is-muscle-gets-stronger-training
December 18, 2017: https://www.psychologytoday.com/us/blog/the-athletes-way/201712/want-more-altruistic-brain-try-daily-gratitude-journaling
September 20, 2016: https://www.sciencemag.org/news/2016/09/sad-movies-help-us-bond-those-around-us-and-alleviate-pain
April 25, 2016: http://www.dbknews.com/2016/04/26/umd-receives-3-4m-grant-to-study-mental-health/
April 5, 2016: https://www.umdrightnow.umd.edu/news/umd-research-team-awarded-34-million-study-root-causes-anxiety-depression
September 18, 2015: http://emotionnews.org/amgydala/
July 13, 2015: http://www.foxnews.com/health/2015/07/13/anxious-brains-are-inherited-study-finds
July 8, 2015: http://www.examiner.com/article/ape-study-shows-anxiety-and-depression-are-inherited
July 8, 2015: http://www.iflscience.com/brain/anxiety-may-be-transferred-parent-child
July 8, 2015: http://www.independent.co.uk/life-style/health-and-families/health-news/parents-can-pass-anxiety-and-depression-on-to-their-children-study-suggests-10375509.html
July 7, 2015: http://www.thedailybeast.com/articles/2015/07/07/children-inherit-their-parents-anxiety.html
July 7, 2015: http://www.dailymail.co.uk/sciencetech/article-3151227/Anxiety-HEREDITARY-Brain-scans-reveal-anxious-parents-likely-nervous-depressed-children.html
December 2, 2014: https://www.elsevier.com/about/press-releases/research-and-journals/the-biology-of-anxious-temperament-may-lie-with-a-problem-in-an-anxiety-off-switch