

Jonathan Bradley Savitz

Laureate Institute for Brain Research • 6655 S. Yale Rd. • Tulsa, OK 74136
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EDUCATION

Ph.D. (Human Genetics) University of Cape Town 2006

Thesis Title: The molecular genetics of bipolar affective disorder: South African populations, endophenotypes, and environmental influence.

Mentors: Rajkumar Ramesar and Mark Solms

External Examiners: Robert Cloninger (Washington University), Peter McGuffin (King's College, London), and Pamela Sklar (Harvard University)

M.Sc. (Neuropsychology) University of the Witwatersrand 2001

B.Sc. (Hons) Clinical Psychology (First Class) University of the Witwatersrand 1998

B.Sc. Genetics & Psychology (First Class) University of the Witwatersrand 1997

POSITIONS

Laureate Institute for Brain Research

Principal Investigator 2009 – present

The University of Tulsa

Associate Professor (with tenure), Oxley College of Health Sciences 2017 - present

Assistant Professor, Oxley College of Health Sciences 2011-2016

National Institutes of Health

Post-Doctoral Fellow (mentor Wayne Drevets) 2006-2009

Section on Neuroimaging in Mood and Anxiety Disorders, NIMH

University of Cape Town

Post-Doctoral Fellow (mentor Dan Stein) 2006

Brain and Behaviour Initiative, Department of Psychiatry

Clinical Intern in Neuropsychology 2004-2005

Department of Neurology, Groote Schuur Hospital

Ph.D. Candidate (mentors Raj Ramesar and Mark Solms) 2002-2006

Department of Human Genetics

FELLOWSHIPS & AWARDS

Stanford University List of the World's Most Influential Researchers 2022-

Member, American College of Neuropsychopharmacology (ACNP) 2022-

Faculty of Health Sciences University of Tulsa Research Award Nominee	2019, 2020
NARSAD Young Investigator Award	2015
Associate Member, American College of Neuropsychopharmacology (ACNP)	2013-2019
Career Development Award from the NIMH	2012-2017
Awardee of the Career Development Institute for Bipolar Disorder, Univ. of Pittsburgh	2010
NARSAD Anita C. and Robert F. Mitchell Memorial Investigator	2009
Post-Doctoral Fellow, SNMAD, NIMH	2007-2009
Post-Doctoral Fellow, Brain and Behaviour Initiative, UCT	2006
University of Cape Town Research Associateship	2004
South African Medical Research Council Local Scholarship	2002-2005
Witwatersrand University Postgraduate Merit Bursary	1998-2001
Centre for Science Development Scholarship	1998
University of the Witwatersrand Postgraduate Merit Scholarship	1998
University of the Witwatersrand Council Merit Scholarship	1997

RESEARCH GRANTS

Active

Agency	Grant Number	Title	Years	Direct Costs	Effort	Role
NIMH	R01MH123652	Neural response to inflammatory challenge in major depressive disorder	2021-2026	\$2,348,454	35%	PI
NINDS	R01 NS102225	The role of neuroactive kynurenine metabolites in the chronic sequelae of concussion and contact sport exposure	2018-2022	\$1,785,448	5%	Co-I
NARSAD	YI	Immune Predictors of SARS-CoV-2 Vaccine Response in Mood and Anxiety Disorders	2022-2023	\$70,000	2.5%	Primary Mentor
NIMH	K99MH126950	In vivo inflammatory challenge to elucidate the role of the toll-like receptor 4 pathway in depression	2022-2024	\$200,000	NA	Primary Mentor

Principal Investigator (Previous)

Agency	Grant Number	Title	Years	Direct Costs
Hope for Depression Research Foundation	RGA # 8-015	Catecholamine depletion in affective illness: functional imaging and genetic correlates	2008-2009	\$100,000
NARSAD	YI	Amygdala Response to Masked Sad and Happy Faces in Major Depressive Disorder and their First-Degree Relatives: A Genetically- Driven Subliminal Processing Bias?	2009-2010	\$60,000
Oklahoma Center for the Advancement of Science and Technology	HR10-172	Neuroimaging Biomarkers of Major Depression	2011-2013	\$150,000
Oklahoma Tobacco Research Center	RS20091891-18	Smoking, Inflammation and Neuromorphometric Abnormalities	2012-2012	\$59,542
Oklahoma Tobacco Research Center	RS20122397-15	α 7 Nicotinic Receptor Function in Depression: The Impact of Smoking	2012-2015	\$219,413
NIMH	K01MH096077	Neuroimaging abnormalities in major depressive disorder: effect of inflammation	2012-2017	\$905,484
Janssen Pharmaceuticals	NA	Biomarkers in Mood	2013-2016	\$829,703
NARSAD	YI 23850	Impaired Adaptive Immunity in Depression: Relationship with herpesviruses and inflammation	2016-2018	\$70,000
NIGMS	P20GM121312 (sub # 6550)	Response to inflammatory challenge in major depressive disorder	2017-2020	\$815,128
NIMH	R21MH113871	Acute modulation of neural circuitry regulating immune function in depression	2018-2020 (NCE)	\$275,000
NIGMS	P20GM121312	Research Core of Neuroscience-based Mental Health Assessment and Prediction (NeuroMAP)	2021-2022	\$655,326

Co-Investigator (Previous)

Agency	Grant Number	Title	Years	Direct Costs
NIMH	R01MH098099	Inflammatory Transcripts, Genes and Positive Valence System Function in Anhedonia	2012-2016	\$1,601,159
Stanley Medical Research Foundation	10T-1401	Minocycline and Aspirin in the Treatment of Bipolar Depression	2012-2015	\$659,623
NINDS	R21 NS099789	Inflammation and kynurenine metabolites in the acute sequelae of concussion	2017-2019	\$246,757

PATENTS

U.S. patent. 10,213,444. Composition and Method for Treating Bipolar Disorder. Inventors: Wayne. C. Drevets, William. R. Yates, **Jonathan B. Savitz**, Sheldon H. Preskorn. Granted 02/26/2019.

PEER-REVIEWED PUBLICATIONS

~8,000 citations, H-index 44 (Web of Science)

~12,000 citations, H-index 54 (Google Scholar)

Impact Factor for Journal in Parentheses

Listed among the top 2% of cited researchers across all fields
(<https://elsevier.digitalcommonsdata.com/datasets/btchxktyw/4>)

FIRST/SENIOR AUTHOR PUBLICATIONS

(1) **Savitz, J.B** and Jansen, P. (2003). The Stroop Color-Word Interference Test as an Indicator of ADHD in Poor Readers. **Journal of Genetic Psychology**. 164, 319-333. [1.3]

(2) **Savitz, J.B** & Ramesar, R.S. (2004). Genetic Variants Implicated in Personality: A Review of the More Promising Candidates. **American Journal of Medical Genetics**. 131B, 20-32. [3.4]

(3) **Savitz, J.**, Solms, M., Pietersen, E., Ramesar, R., Flor-Henry, P. (2004). Dissociative Identity Disorder Associated with Mania and Change in Handedness. **Cognitive and Behavioral Neurology**. 17, 233-237. [1.6]

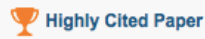
(4) **Savitz, J.B** & Jansen, P. (2005). Mainstream and Remedial School ADHD Boys: More Alike Than Different. **South African Journal of Psychology**. 35, 73-88. [1.2]

- (5) **Savitz, J.B.**, Solms, M., Ramesar, R.S. (2005). Neurocognitive function as an endophenotype for genetic studies of bipolar affective disorder. **NeuroMolecular Medicine**. 7, 275-286. [4.1]
- (6) **Savitz, J.**, Solms, M., Ramesar, R. (2005). Neuropsychological Deficits in Bipolar Affective Disorder: A Critical Opinion. **Bipolar Disorders**. 7, 216-235. [5.3]
- (7) **Savitz, J.**, Solms, M., Ramesar, R. (2006). The Molecular Genetics of Cognition: Dopamine, COMT, and BDNF. **Genes, Brain and Behavior**. 5, 311-328. [3.7]
- (8) **Savitz, J.**, Solms, M., Ramesar, R. (2006). Apolipoprotein E Variants and Cognition in Healthy Individuals: A Critical Opinion. **Brain Research Reviews**. 51, 125-135. [5.9]
- (9) **Savitz, J.B.** & Ramesar, R.S. (2006). Personality: Is it a viable endophenotype for genetic studies of bipolar affective disorder? **Bipolar Disorders**. 8, 322-337. [5.3]
- (10) **Savitz, J.B.**, Cupido, C.L., Ramesar, R.S. (2006). Trends in Suicidology: Personality as an Endophenotype for Molecular Genetic Investigations. **PLoS Medicine**. 3, e107. [11.6]
- (11) **Savitz J.**, van der Merwe, L., Solms, M., Ramesar, R. (2007). A Linkage and Family-Based Association Analysis of a Neurocognitive Endophenotype of Bipolar Disorder. **NeuroMolecular Medicine**. 9, 101-116. [4.1]
- (12) **Savitz J.**, Cupido, C.L., Ramesar, R. (2007). Preliminary Evidence for Linkage to Chromosome 1q31-32, 10q23.3 and 16p13.3 in a South African Cohort with Bipolar Disorder. **American Journal of Medical Genetics**. 144, 383-387. [3.4]
- (13) **Savitz J.** van der Merwe, L., Solms, M., Ramesar, R. (2007). A Possible Cognitive Control Deficit in an Extended Afrikaner-Ancestry Pedigree with Affective Illness. **Journal of Psychiatry and Neuroscience**. 32, 116-120. [5.7]
- (14) **Savitz, J.**, van der Merwe, L., Stein, D.J., Solms, M., Ramesar, R. (2007). Genotype and childhood sexual trauma moderate neurocognitive performance: A possible role for BDNF and ApoE variants. **Biological Psychiatry**. 62, 391-399. [12.8]
- (15) **Savitz, J.**, van der Merwe, L., Solms, M., Ramesar, R. (2007). Lateralisation of Hand-Skill in Bipolar Affective Disorder. **Genes, Brain and Behavior**. 6, 698-705. [3.7]
- (16) **Savitz, J.**, van der Merwe, L., Newman, T.K., Solms, M., Stein, D.J., Ramesar, R. (2007). The Relationship Between Childhood Abuse and Dissociation. Is it influenced by catechol-o-methyltransferase (COMT) activity? **International Journal of Neuropsychopharmacology**. 11, 149-161. [5.7]
- (17) **Savitz, J.** van der Merwe, L., Stein, D.J., Solms, M., Ramesar, R. (2008). Neuropsychological Task Performance in Bipolar Spectrum Illness: Genetics, Medication, Alcohol Abuse and Childhood Trauma. **Bipolar Disorders**. 10, 479-494. [5.3]

(18) **Savitz J.**, van der Merwe, L., Ramesar, R. (2008). Hyperthymic, Cyclothymic and Hostile Personality Traits in Bipolar Spectrum Illness: A Family Based Study. **Journal of Psychiatric Research**. 42, 920-929. [5.3]

(19) **Savitz J.**, van der Merwe, L., Ramesar, R. (2008). Dysthymic and Anxiety-Related Personality Traits in Bipolar Spectrum Illness. **Journal of Affective Disorders**. 109, 305-311. [6.5]

(20) Drevets, W.C. and **Savitz, J.**, with forward by Trimble, M. (2008). The Subgenual Anterior Cingulate Cortex in Mood Disorders. **CNS Spectrums**. 13, 663-681. [4.6]



ISI rated in 2009-2017 as top 1% of the academic field of Psychiatry & Psychology

(21) **Savitz J.**, van der Merwe, L., Ramesar, R. (2008). Personality Endophenotypes for Bipolar Affective Disorder: A Family-Based Genetic Association Analysis. **Genes Brain and Behavior**. 7, 869-876. [3.7]

(22) **Savitz, J.**, van der Merwe, L., Stein D.J., Solms, M., Ramesar, R. (2009). Neuropsychological Status of Bipolar Disorder Type I: The Impact of Psychosis. **British Journal of Psychiatry**. 194, 243-251. [10.7]

(23) **Savitz J.** and Drevets, W.C. (2009). Bipolar and Major Depressive Disorder: Neuroimaging the Developmental Degenerative Divide. **Neuroscience and Biobehavioral Reviews**. 33, 699-771. [9.1]



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(24) **Savitz J.** and Drevets, W.C. (2009). 5-HT_{1A} Receptor Function in Major Depressive Disorder. **Progress in Neurobiology**. 88, 17-31. [10.9]



ISI rated in 2010-2016 as top 1% of the academic field of Psychiatry & Psychology

(25) Stein, D.J., Horn, N., Ramesar, R., **Savitz, J.** (2009). Bipolar Disorder: Emotional Dysregulation and Neuronal Vulnerability. **CNS Spectrums**. 14, 122-126. [4.6]

(26) **Savitz J. B.** and Drevets, W.C. (2009). Imaging Endophenotypes for Major Depressive Disorder. **Neuroscience**. 164, 300-330. [3.7]

(27) **Savitz, J.**, van der Merwe, L., Newman, T.K., Stein, D.J., Ramesar, R. (2010). Catechol-o-Methyltransferase Genotype and Childhood Trauma May Interact to Impact Schizotypal Personality Traits. **Behavior Genetics**. 40, 415-423. [3.0]

(28) **Savitz, J.**, Nugent, A.C., Bogers, W., Liu, L., Sills, R., Luckenbaugh, D., Bain, E.E., Price, J.L., Zarate, C., Manji, H.K., Cannon, D.M., Marrett, S., Charney, D., Drevets, W.C. (2010). Amygdala Volume in Depressed Patients with Bipolar Disorder Assessed using High Resolution 3T MRI: The Impact of Medication. **NeuroImage**. 49, 2966-2976. [7.4]

(29) **Savitz, J.B.**, Nugent, A.C., Bogers, W., Roiser, J.P., Bain, E.E., Neumeister, A., Zarate, Jr., C.A., Manji, H.K., Cannon, D.M., Marrett, S., Henn, F., Charney, D.S., Drevets, W.C. (2011). Habenula

Volume in Bipolar Disorder and Major Depressive Disorder: A High Resolution MRI Study. **Biological Psychiatry**. 69, 336-343. [12.8]

(30) **Savitz, J.**, Bonne, O., Nugent, A.C, Vythilingam, M., Bogers, W., Charney, D.S., Drevets, W.C. (2011). Habenula Volume in Post-Traumatic Stress Disorder Measured with High-Resolution MRI. **Biology of Mood and Anxiety Disorders**. 1, 7.

(31) **Savitz, J.**, Preskorn, S.H., Teague, T.K., Drevets, D.A., Yates, W., Drevets, W.C. (2012). Minocycline and Aspirin in the Treatment of Bipolar Depression: a protocol for a proof-of-concept randomized, double-blind, placebo-controlled, 2x2, clinical trial. **BMJ Open**. 2, e000643. [3.0]

(32) **Savitz, J.**, Nugent, A.C., Cannon, D.M., Carlson, P.J., Davis, R., Rallis-Frutos, D., Fromm, S., Herscovitch, P., Drevets, W.C. (2012). Effect of arterial cannulation stress on regional cerebral blood flow in major depressive disorder. **Scientific Reports**. 2, 308. [5.0]

(33) **Savitz, J.** and Drevets, W.C. (2013). Neuroreceptor Imaging in Depression. **Neurobiology of Disease**. 52, 49-65. [7.0].

(34) **Savitz, J.**, Frank, M.B, Victor, T, Bebak, M, Marino, J.H, Bellgowan, P.S, McKinney, B.A, Bodurka, J, Teague, T.K., Drevets, W.C. (2013). Inflammation and neurological disease-related genes are differentially expressed in depressed patients with mood disorders and correlate with morphometric and functional imaging abnormalities. **Brain, Behavior and Immunity**. 31, 161-171. [19.2].

(35) **Savitz, J.**, Hodgkinson, C.A., Martin-Soelch, C., Shen, P.H., Szczepanik, J., Nugent, A., Herscovitch, P., Grace, A.A., Goldman, D., Drevets, W.C. (2013). The functional DRD3 Ser9Gly polymorphism (rs6280) is pleiotropic, affecting reward as well as movement. **PLoS ONE**. 8, e54108. [3.8].

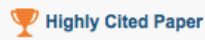
(36) **Savitz, J.B.**, Rauch, S. L., Drevets, W.C. (2013). Clinical Application of Brain Imaging for the Diagnosis of Mood Disorders: The current state of play. **Molecular Psychiatry**. 18, 528-539. [13.4].

(37) **Savitz, J.**, Nugent, A.C., Bellgowan, P.S.F., Wright, N., Tinsley, R., Zarate, Jr., C.A., Herscovitch, P., Drevets, W.C. (2013). Catecholamine Depletion in First-Degree Relatives of Individuals with Mood Disorders: an [18F]Fluorodeoxyglucose Positron Emission Tomography Study. **NeuroImage: Clinical**. 2, 341-355. [4.9].

(38) **Savitz, J.**, Hodgkinson, C.A., Martin-Soelch, C., Shen, P.H., Szczepanik, J., Nugent, A., Herscovitch, P., Grace, A.A., Goldman, D., Drevets, W.C. (2013). DRD2/ANKK1 Taq1A polymorphism (rs1800497) has opposing effects on D2/3 receptor binding in healthy controls and patients with major depressive disorder. **International Journal of Neuropsychopharmacology**. 16, 2095-2101. [5.7].

(39). **Savitz, J.B.**, Price, J.L., Drevets, W.C. (2014). Neuropathological and Neuromorphometric Abnormalities in Bipolar Disorder: View from the Medial Prefrontal Cortical Network. **Neuroscience and Biobehavioral Reviews**. 42C, 132-147. [9.1].

(40). **Savitz, J.**, Drevets, W.C., Smith, C.M., Victor, T.A., Wurfel, B.E., Bellgowan, P.S.F., Bodurka, J., Teague, T.K., Dantzer, R. (2015). Putative Neuroprotective and Neurotoxic Kynurenine Pathway Metabolites are Associated with Hippocampal and Amygdalar Volumes in Subjects with Major Depressive Disorder. **Neuropsychopharmacology**. 40, 463-471. [8.3].



ISI rated in 2016-2017 as top 1% of the academic field of Neuroscience & Behavior

(41). **Savitz, J.**, Dantzer, R., Wurfel, B.E., Victor, T.A., Ford, B.N., Bodurka, J., Bellgowan, P.S.F., Teague, T.K., Drevets, W.C. (2015). Neuroprotective kynurenine metabolite indices are abnormally reduced and positively associated with hippocampal volume in bipolar disorder. **Psychoneuroendocrinology**. 52, 200-211. [4.7].

(42). **Savitz, J.**, Drevets, W.C., Bellgowan, P.S.F., Wurfel, B.E., Ford, B.N., Victor, T.A., Teague, T.K., Dantzer, R. (2015). Reduction of kynurenic acid to quinolinic acid ratio in the remitted phase of major depressive disorder. **Brain Behavior and Immunity**. 46, 55-59. [19.2].

(43). **Savitz, J.**, Dantzer, R., Meier, T.B., Wurfel, B.E., Victor, T.A., McIntosh, S.A., Ford, B.N., Morris, H.M., Bodurka, J., Teague, T.K., Drevets, W.C. (2015). Activation of the kynurenine pathway is associated with striatal volume in major depressive disorder. **Psychoneuroendocrinology**. 62, 54-58. [4.7].

(44). Meier, T.B., Drevets, W.C., Wurfel, B.E., Ford, B.N., Morris, H.M., Victor, T.A., Bodurka, J., Teague, T.K., Dantzer, R., **Savitz, J.** (2016). Relationship between neurotoxic kynurenine metabolites and reductions in right medial prefrontal cortical thickness in major depressive disorder. **Brain Behavior and Immunity**. 53, 39-48. [19.2].

(45). Young, K.D., Drevets, W.C., Dantzer, R., Teague, T.K., Bodurka, J., **Savitz, J.** (2016). Kynurenine Pathway Metabolites are Associated with Hippocampal Activity during Autobiographical Memory Recall in Patients with Depression. **Brain Behavior and Immunity**. 56, 335-342. [19.2].

(46). Mechawar, N. and **Savitz, J.** (2016). Neuropathology of Mood Disorders: Do we see the stigmata of inflammation? **Translational Psychiatry**. 6, e946. [8.0].



ISI rated in 2017 as top 1% of the academic field of Neuroscience & Behavior

(47). Victor, T.A., Drevets, W.C., Misaki, M., Bodurka, J., **Savitz, J.** (2017). Sex Differences in Neural Responses to Subliminal Sad and Happy Faces in Healthy Individuals: Implications for Depression. **Journal of Neuroscience Research**. 95, 703-710. [4.4].

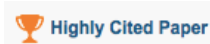
(48). Meier, M.B., Lancaster, M.A., Mayer, A.R., Teague, T.K., **Savitz, J.** (2017). Abnormalities in functional connectivity in collegiate football athletes with and without a concussion history: implications and role of neuroactive kynurenine pathway metabolites. **Journal of Neurotrauma**. 34, 824-837. [4.9].

(49). Wurfel, B.E., Drevets, W.C., Bliss, S.A., McMillin, J.R., Suzuki, H., Ford, B.N., Morris, H.M., Teague, T.K., Dantzer, R., **Savitz, J.** (2017). Serum Kynurenic Acid is Reduced in Affective Psychosis. **Translational Psychiatry**. 7, e1115. [8.0].

(50). Suzuki, H., **Savitz, J.** (*joint first authors*), Teague, T.K., Gandhapudi, S.K., Tan, C., Misaki, M., McKinney, B.A., Irwin, M.R., Drevets, W.C., Bodurka, J. (2017). Altered Populations of Natural Killer Cells, Cytotoxic T Lymphocytes, and Regulatory T Cells in Major Depressive Disorder: Association with Sleep Disturbance. **Brain, Behavior, and Immunity.** 66, 193-200. [19.2].

(51). Meier, T.B., Drevets, W.C., Teague, T.K., Wurfel, B.E., Mueller, S.C., Bodurka, J., Dantzer, R., **Savitz, J.** (2018). Kynurenic Acid is Reduced in Females and Oral Contraceptive Users: Implications for Depression. **Brain, Behavior, and Immunity.** 67, 59-64. [19.2].

(52). **Savitz J**, Teague T.K., Misaki M., Macaluso M., Wurfel B.E., Meyer M., Drevets D., Yates W., Gleason O., Drevets W.C., Preskorn S.H. (2018). Treatment of Bipolar Depression with Minocycline and/or Aspirin: An adaptive, 2 X 2 double-blind, randomized, placebo-controlled, phase IIA clinical trial. **Translational Psychiatry.** 8, e27. [8.0].



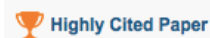
ISI rated in 2019-2021 as top 1% of the academic field of Psychiatry & Psychology

(53). **Savitz J.** and Harrison N.A. (2018). Interoception and Inflammation in Psychiatric Disorders. **Biological Psychiatry: Cognitive Neuroscience and Neuroimaging.** 3, 514–524. [6.0].

(54). Ford, B.N., Yolken, R.H., Dickerson, F.B., Teague, T.K., Irwin, M.R., Paulus, M.P., **Savitz, J.** (2019). Reduced Immunity to Measles in Adults with Major Depressive Disorder. **Psychological Medicine.** 49, 243-249. [10.6].

(55). Ford, B.N., Yolken, R.H., Aupperle, R.L., Teague, T.K., Irwin, M.R., Paulus, M.P., **Savitz, J.** (2019). Association of Early-Life Stress with Cytomegalovirus Infection in Adults with Major Depressive Disorder. **JAMA Psychiatry.** 76, 545-547. [25.9].

(56). **Savitz, J.** (2020). The Kynurenine Pathway: A Finger in Every Pie. **Molecular Psychiatry.** 25, 131-147. [13.4].



ISI rated in 2020-2022 as top 1% of the academic field of Neuroscience & Behavior



ISI rated in 2021 as top 0.1% of the academic field of Neuroscience & Behavior

(57). Meier, T.B., Nitta, M.E., Teague, T.K., Nelson, L.D., McCrea, M.A., **Savitz, J.** (2020). Prospective study of the effects of sport-related concussion on serum kynurenine pathway metabolites. **Brain, Behavior, and Immunity.** 87, 715-724. [17.2].

(58). Ford, B.N., Teague, T.K., Bayouth, M., Yolken, R. H., Bodurka, J., Irwin, M.R., Paulus, M.P., **Savitz, J.** (2020). Diagnosis-independent loss of T-cell costimulatory molecules in individuals with cytomegalovirus infection. **Brain, Behavior, and Immunity.** 87, 795-803. [19.2].

(59). Figueroa-Hall, L., Paulus, M.P., **Savitz, J.** (2020). Toll-Like Receptor Signaling in Depression. **Psychoneuroendocrinology.** 121, 104843. [4.7].

(60). Zheng, H., Ford, B.N., Bergamino, M., Kuplicki, R., Tulsa 1000 Investigators, Hunt, P.W., Bodurka, J., Teague, T.K., Irwin, M.R., Yolken, R., Paulus, M.P., **Savitz, J.** (2021). A Hidden Menace?

Cytomegalovirus Infection is Associated with Reduced Cortical Gray Matter Volume in Major Depressive Disorder. **Molecular Psychiatry**. 26, 4234-4244. [13.4].

(61). **Savitz, J.**, Ford, B.N., Yeh, W.H., Akeman, E., Cosgrove, K., Clausen, A.N., Martell, C., Kirlic, N., Santiago, J., Teague, T.K., Irwin, M.R., Paulus, M.P., Aupperle, R. L. (2022). Behavioral Activation Therapy for Depression is Associated with a Reduction in the Concentration of Circulating Quinolinic Acid. **Psychological Medicine**. 52, 2500-2509. [10.6].

(62). Meier T.B., España L.E., Nitta M.E., Teague T.K., Brett B.L., Nelson L.D., McCrea M.A., **Savitz J.** (2021). Positive association between serum quinolinic acid and functional connectivity following concussion. **Brain, Behavior, and Immunity**. 91, 531-540. [19.2].

(63). Tsuchiyagaito, A., Smith, J.L., El-Sabbagh, N., Zotev, V., Misaki, M., Al Zoubi, O., Teague, T.K., Paulus, M.P., Bodurka, J., **Savitz, J.** (2021). Real-time fMRI Neurofeedback Amygdala Training May Influence Kynurenine Pathway Metabolism in Major Depressive Disorder. **NeuroImage Clinical**. 29, 102559. [4.9].

(64). Zheng, H., Bergamino, M., Ford, B.N., Kuplicki, R., Yeh, F.C., Bodurka, J., Burrows, K., Tulsa 1000 Investigators, Hunt, P.W., Teague, T.K., Irwin, M.R., Yolken, R., Paulus, M.P., **Savitz, J.** (2021). Replicable Association between Human Cytomegalovirus Infection and Reduced White Matter Fractional Anisotropy in Major Depressive Disorder. **Neuropsychopharmacology**. 46, 928-938. [8.3].

(65). Meier, T.B. and **Savitz, J.** (2022). The kynurenine pathway in traumatic brain injury: Implications for psychiatric outcomes. **Biological Psychiatry**. 91, 449-458. [12.8].

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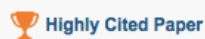


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- (5). **Savitz, J.**, Morris, H.M., Drevets, W.C. (2016). Neuroimaging Studies of Bipolar Depression: Therapeutic Implications. In: **Bipolar Depression: Molecular Neurobiology, Clinical Diagnosis and Pharmacotherapy (Second Edition)**. Manji, H.K. and Zarate, Jr., C.A. (Eds). Basel: Birkhauser, Inc.
- (6). **Savitz, J.** (2016). Role of kynurenine metabolism pathway activation in major depressive disorders. In: **Inflammation-Associated Depression: Evidence, Mechanisms, and Clinical Implications**. R. Dantzer, L. Capuron (Eds). Springer-Verlag. pp. 249-267.
- (7). Macaluso M., Krams M., **Savitz, J.**, Drevets, W.C., Preskorn S.H. (2019). New Approaches in Translational Medicine for Phase I Clinical Trials of CNS Drugs. In: **Handbook of Behavioral Neuroscience**. Nomikos, G. (Ed). Amsterdam: Elsevier. 29, pp. 81-91.
- (8). Zheng, H. and **Savitz, J.** (2022). Effect of cytomegalovirus infection on the central nervous system: implications for psychiatric disorders. In: **Microorganisms and Mental Health**. J. Savitz and R.H. Yolken (Eds). Springer-Nature. In Press.
- (9). **Savitz J.** and Yolken, R.H. (2022). Therapeutic Implications of the Microbial Hypothesis of Mental Illness. In: **Microorganisms and Mental Health**. J. Savitz and R.H. Yolken (Eds). Springer-Nature. In Press.
- (10). Ford, B.N. and **Savitz, J.** (2022). Effect of cytomegalovirus on the immune system: implications for aging and mental health. In: **Microorganisms and Mental Health**. J. Savitz and R.H. Yolken (Eds). Springer-Nature. In Press.
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FIRST/SECOND/SENIOR AUTHOR CONFERENCE ABSTRACTS/POSTERS

- (1) **Savitz, J.**, van der Merwe, L., Stein, D.J., Solms, M., Ramesar, R. (2008). Bipolar I patients with and without a history of psychosis are most clearly differentiated by degree of working memory impairment. **Annual Meeting of the Society of Biological Psychiatry (SOBP)**. Washington, DC.
- (2) **Savitz, J.**, Neumeister, A., Nugent, A., Bogers, W., Goldman, D., Drevets, W. (2008). Subgenual prefrontal cortex volume in affective illness: The impact of the serotonin transporter gene length polymorphism. **Annual Meeting of the Society of Biological Psychiatry (SOBP)**. Washington, DC.
- (3) **Savitz, J.**, Drevets, W., Nugent, A., Bogers, W., Solomon, G., Wright, N., Bonne, O. (2008). Increased left subgenual prefrontal cortex and decreased right amygdala volumes in post-traumatic stress disorder. **Annual Meeting of the Society for Neuroscience**. Washington, DC.
- (4) **Savitz, J.**, Nugent, A., Bogers, W., Liu, A., Sills, R., Bain, E., Price, J., Zarate, C., Manji, H., Cannon, D., Marrett, S., Charney, D., Drevets, W. (2008). Amygdala volume in bipolar disorder

assessed using high resolution 3T MRI: The impact of medication. **Annual Meeting of the American College of Neuropsychopharmacology (ACNP)**. Scottsdale, AZ.

(5) **Savitz, J.**, Drevets, W., Bogers, W., Wright, N., Luckenbaugh, D., Nugent, A., Bonne, O. (2009). Increased subgenual anterior cingulate and infralimbic cortex volume in PTSD. **Annual Meeting of the Organization of Human Brain Mapping (OHBM)**. San Francisco, CA.

(6) **Savitz, J.**, Nugent, A., Cannon, D., Carlson, P., Neumeister, A., Davis, R., Tinsley, R., Voak, D., Wright, N., Fromm, S., Herscovitch, P., Drevets, W. (2009). The effect of pain and stress on regional cerebral blood flow in patients with major depressive disorder and healthy controls: an ^{15}O -H $_2\text{O}$ PET study. **Annual Meeting of the American College of Neuropsychopharmacology (ACNP)**. Hollywood, FL.

(7). **Savitz, J.**, Liu, X., Neumeister, A., Nugent, A.C., Cannon, D.M., Akula, N., Bogers, W., Zarate, Jr., C.A., Charney, D.S., McMahon, F.J., Drevets, W.C. (2010). Infralimbic and Subgenual Anterior Cingulate Cortex Volumes in Healthy and Affectively Ill Carriers of the *Met* Allele of the BDNF Val66Met Variant. **Annual Meeting of the American College of Neuropsychopharmacology (ACNP)**. Miami, FL.

(8). **Savitz, J.**, Nugent, A., Neumeister, A., Bogers, W., Price, J., Cannon, D., Drevets, W. (2011). Persistent remission of unmedicated patients with major depressive disorder associated with larger subcallosal gyrus volumes. **Annual Meeting of the Society of Biological Psychiatry (SOBP)**. San Francisco, CA.

(9). **Savitz, J.**, Frank, B., McKinney, B., Teague, T.K., Drevets, W.C. (2012). Increased PBMC expression of inflammation and neurological disease-associated genes correlates with anhedonia, the BOLD response to masked happy faces and subgenual anterior cingulate cortex volume in patients with primary mood disorders. **Annual Meeting of the Psychoneuroimmunology Research Society (PNIRS)**. San Diego, CA.

(10). Misaki, M., **Savitz, J.**, Zotev, V., Phillips, R., Yuan, H., Young, K.D., Drevets, W.C., Bodurka, J. (2013). Novel combination of T1- and T2-weighted MRI images for enhancing structural contrast **Annual Meeting of the International Society for Magnetic Resonance in Medicine**. Salt Lake City, UT.

(11). **Savitz, J.**, Tan, C., Taylor, A.A., Drevets, W.C., Teague, T.K. (2013). Abnormalities in regulatory T cells and natural killer cells in major depressive disorder. **Annual Meeting of the American Association of Immunologists (AAI)**. Honolulu, HI.

(12). Victor, T., Bellgowan, P., Bodurka, J., Drevets, W., **Savitz, J.** (2013). BOLD Response to Masked Sad and Happy Faces in Healthy Subjects with a Family-History of Depression. **Annual Meeting of the Organization of Human Brain Mapping (OHBM)**. Seattle, WA.

(13). Victor, T., **Savitz, J.**, Bellgowan, P., Bodurka, J., Drevets, W. (2013). Neuroimaging Correlates of Implicit Emotional Processing Biases in Major Depressive Disorder. **Annual Meeting of the Organization of Human Brain Mapping**. Seattle, WA.

- (14). **Savitz, J.**, Drevets, W.C., Victor, T.A., Bodurka, J., Teague T. K., Dantzer, R. (2013). Neuroprotective Kynurenine Pathway Metabolites are Associated with Larger Hippocampal and Amygdalar Volumes in Patients with Major Depressive Disorder. **Annual Meeting of the American College of Neuropsychopharmacology**. Hollywood, FL.
- (15). He, H., Sui, J., Yu, Q., Du, Y., Vergara, V., Victor, T., Drevets, W., **Savitz, J.**, Calhoun, V.D. (2014). Analysis of functional network connectivity in bipolar and unipolar depression patients. **Annual Meeting of the Organization of Human Brain Mapping (OHBM)**. Hamburg, Germany.
- (16). He, H., Sui, J., Yu, Q., Du, Y., Vergara, V., Victor, T., Drevets, W., **Savitz, J.**, Calhoun, V.D. (2014). Fusion of FNC and structural MRI: an application to bipolar and unipolar depression disorders. **Annual Meeting of the Organization of Human Brain Mapping (OHBM)**. Hamburg, Germany.
- (17). **Savitz, J.**, Drevets, W.C., Victor, T.A., Bodurka, J., Teague T. K., Dantzer, R. (2014). Neuroprotective and neurotoxic kynurenine pathway metabolites are associated with hippocampal and amygdalar volumes in depression. **Annual Meeting of the International Society for Bipolar Disorders**. Washington, DC.
- (18). **Savitz, J.**, Drevets, W.C., Victor, T.A., Smith, C.A., Wurfel, B., Bellgowan, P.S.F., Bodurka, J., Teague T. K., Dantzer, R. (2014). CCL2 is associated with hippocampal and amygdala volume in females with major depressive disorder. **Biannual Meeting of the International College of Neuropsychopharmacology (CINP)**. Vancouver, Canada.
- (19). Wurfel, B., Drevets, W.C., Bliss, S.A., Teague, T.K., McMillin, J.R., Ford, B.N., Victor, T.A., Bodurka, J., Dantzer, R., **Savitz, J.** (2015). Kynurenic acid to quinolinic acid ratio in serum is decreased in affective psychosis. **Annual Meeting of the Society of Biological Psychiatry (SOBP)**. Toronto, Canada.
- (20). Victor, T.A., **Savitz, J.**, Suzuki, H., Misaki, M., Drevets, W.C., Bodurka, J. (2015). Anterior cingulate and amygdala response to subliminal positive stimuli in major depressive disorder. **Annual Meeting of the Organization of Human Brain Mapping (OHBM)**. Honolulu, HI.
- (21). **Savitz, J.**, Victor, T., Teague, T.K., Ford, B., Bodurka, J., Dantzer, R., Drevets, W. (2015). Emotional processing biases may be accentuated in depressed subjects with elevated CRP levels. Thematic meeting: "Stress, inflammation and depression: focus on novel psychotropic drug targets". **International College of Neuropsychopharmacology (CINP)**. Dublin, Ireland.
- (22). **Savitz, J.B.**, Teague, T.K., Wurfel, B.E., Meyer, M., Macaluso, M., Drevets, D., Yates, W., Gleason, O., Drevets, W.C., Preskorn, S.H. (2015). Treatment of bipolar depression with minocycline and/or aspirin: an adaptive, double-blind, randomized, placebo-controlled trial. **Annual Meeting of the American College of Neuropsychopharmacology (ACNP)**. Hollywood, FL.
- (23). Meier, T., Lancaster, M., Mayer, A., Teague, T.K., **Savitz, J.** (2016). Altered resting state functional connectivity in football players is associated with neuroactive kynurenine pathway metabolites. **Annual Meeting of the National Neurotrauma Society (NNS)**. Lexington, KY.

- (24). Cho, H.J., **Savitz, J.**, Dantzer, R., Teague, T.K., Drevets, W.C., Irwin, M.R. (2016). Sleep Disturbance and Kynurenine Metabolism in a Group of Currently Depressed, Previously Depressed, and Never Depressed Subjects. **Annual Meeting of the Psychoneuroimmunology Research Society (PNIRS)**. Brighton, UK.
- (25). Misaki, M., **Savitz, J.**, Suzuki, H., McKinney, B., Drevets, W., Bodurka, J. (2017). Low accumbens BOLD response to anticipated reward or loss associated with depression during inflammation. **Annual Meeting of the Organization of Human Brain Mapping (OHBM)**. Vancouver, Canada.
- (26). Ford, B.N., Yolken, R.H., Dickerson, F.B., Teague, T.K., Irwin, M.R., Paulus, M.P., **Savitz, J.** (2017). Increased Measles Seronegativity in Adults with Major Depressive Disorder. **Annual Meeting of the Psychoneuroimmunology Research Society (PNIRS)**. Galveston, TX.
- (27). Ford, B.N., Aupperle, R., Dickerson, F.B., Paulus, M.P., Teague, T.K., Yolken, R.H., **Savitz, J.** (2018). Early life stress and vulnerability to viral infection in mood disorders. **Annual Meeting of the Psychoneuroimmunology Research Society (PNIRS)**. Miami, FL.
- (28). Bergamino, M., Ford, B.N., Teague, T.K., Bodurka, J., Jarrett, C.J., T1000 Investigators, Yolken, R.H., Paulus, M.P., **Savitz, J.** (2018). Latent Cytomegalovirus Infection Associated with White Matter Abnormalities: A Diffusion Tensor Imaging Study. **Annual Meeting of the Society for Neuroscience (SfN)**. San Diego, CA.
- (29). Wittenberg, G., Wurfel, B.E., Greene, J.R., Sun, Y., Bliss, S.A., Rassnik, S., Teague, T.K., Drevets, W.C., **Savitz, J.** (2018). Leucine-rich, glioma inactivated 1 (LGI1) autoantibodies in mood and psychotic disorders: a cross-sectional study. **The Lancet Summit: Inflammation and Immunity in Disorders of the Brain and Mind**. Barcelona, Spain.
- (30). Bergamino, M., Ford, B.N., Teague, T.K., Bodurka, J., T1000 Investigators, Yolken, R.H., Paulus, M.P., **Savitz, J.** (2018). Latent Cytomegalovirus Infection Associated with White and Gray Matter Abnormalities in Major Depressive Disorder: A Cross-Sectional Study. **The Lancet Summit: Inflammation and Immunity in Disorders of the Brain and Mind**. Barcelona, Spain.
- (31). Ford, B.N., Yolken, R.H., Aupperle, R.L., Teague, T.K., Tulsa 1000 Investigators, Irwin, M.R., Paulus, M.P., **Savitz, J.** (2018). Early life stress is associated with increased odds of cytomegalovirus infection in individuals with major depressive disorder. **Annual Meeting of the American College of Neuropsychopharmacology (ACNP)**. Hollywood, FL.
- (32). Meier, T.B., Nitta, M.E., Teague, T.K., Hoelzle, J.B., Nelson, L.D., McCrea, M.A., **Savitz, J.** (2019). Acute effects of sport-related concussion on neuroactive kynurenine pathway metabolites and their association with post-concussion mood symptoms. **Annual Meeting of the Society for Neuroscience (SfN)**. Chicago, IL.
- (33). Ford, B.N., Teague, T.K., Bodurka, J., Paulus, M.P., Yolken, R.H., **Savitz, J.** (2019). Diagnosis-independent loss of CD27+ and CD28+ T-cell subsets in individuals with cytomegalovirus infection. **Annual Meeting of the Society of Biological Psychiatry (SOBP)**. Chicago, IL.

- (34). Ford, B.N., Yolken, R.H., Dickerson, F.B., Teague, T.K., Irwin, M.R., Bodurka, J., Paulus, M.P., **Savitz, J.** (2019). Reduced immunity to measles and rubella, but not polio in adults with major depressive disorder: a follow-up study. **Annual Meeting of the Psychoneuroimmunology Research Society (PNIRS)**. Berlin, Germany.
- (35). Wittenberg, G., Drevets, W.C., Greene, J.R., Sun, Y., Bliss, S.A., Bodurka, J., Teague, T.K., Wurfel, B.E., **Savitz, J.** (2019). Autoantibody burden in mood and psychotic disorders. **Annual Meeting of the American College of Neuropsychopharmacology (ACNP)**. Orlando, FL.
- (36). Tsuchiyagaito A., Smith J., El-Sabbagh N., Mayeli A., Zotev V., Misaki M., Paulus M., Bodurka J., **Savitz J.** (2020). fMRI Neurofeedback Amygdala Training Influences Immune Responses. **Annual Meeting of the Organization for Human Brain Mapping (OHBM)**. Montreal, Québec, Canada.
- (37). Zheng, H., Bergamino, M., Ford, B.N., Teague, T.K., T1000 Investigators, Yolken, R.H., Paulus, M.P., **Savitz, J.** (2020). A Hidden Menace? Cytomegalovirus Infection is Associated With Structural Brain Abnormalities in Major Depressive Disorder. **Annual Meeting of the Society of Biological Psychiatry (SOBP)**. New York City, NY.
- (38). Ford, B.N., **Savitz, J.**, Yeh, W.H., Akeman, E., Cosgrove, K., Clausen, A.N., Martell, C., Kirlic, N., Santiago, J., Teague, T.K., Irwin, M.R., Paulus, M.P., Aupperle, R. L. (2021). Circulating Quinolinic Acid is Reduced following Behavioral Activation Therapy in Major Depressive Disorder. **Annual Meeting of the Society of Biological Psychiatry (SOBP)**. San Diego, CA.
- (39). Zheng, H., Smith, R., Burrows, K., Kuplicki, R., Bodurka, J., Tulsa 1000 Investigators, Teague, T.K., Paulus, M., Khalsa, S., **Savitz, J.** (2021). Inflammation is Associated With Abnormal Interoceptive Processing in Major Depressive Disorder. **Annual Meeting of the Society of Biological Psychiatry (SOBP)**. San Diego, CA.
- (40). Tsuchiyagaito, A., Smith, J., El-Sabbagh, N., Zotev, V., Misaki, M., Al Zoubi, O., Teague, T.K., Paulus, M., Bodurka, J., **Savitz, J.** (2021). Effect of Left-Amygdala fMRI Neurofeedback Positive Emotion Training on Immune Mediators in Major Depressive Disorder. **Annual Meeting of the Society of Biological Psychiatry (SOBP)**. San Diego, CA.
- (41). Nitta, M.E., Hoelzle, J.B., **Savitz, J.**, Meier, T.B. (2022). Prolonged symptom duration in pediatric mTBI: Reported differences in kynurenine pathway metabolites but not inflammation. **Annual Meeting of the International Neuropsychological Society**. New Orleans, LA.
- (42). Figueroa-Hall, L.K., Burrows, K., Stewart, J.L., Alarbi, A.M., Tan, C., Kuplicki, R., Teague, T.K., McKinney, B., Ramesh, R., Paulus, M.P., Risbrough, V., **Savitz, J.** (2022). Changes in human astrocyte-enriched extracellular vesicle miRNAs after an in vivo lipopolysaccharide challenge. **Annual Meeting of the International Society for Extracellular Vesicles (ISEV)**. Lyon, France.
- (43). Zheng, H., Ford, B.N., Bergamino, M., Kuplicki, R., Yeh, F., Burrows, K., T1000 Investigators, Hunt, P.W., Teague, T.K., Irwin, M.R., R.H., Paulus, M. P., **Savitz, J.** (2022). A hidden menace?

Cytomegalovirus infection is associated with brain structural and functional alterations in major depressive disorder. **8th International Congenital CMV Conference**. Virtual Meeting.

(44). Ford, B. N., Teague, T. K., Simmons, W. K., Paulus, M., **Savitz, J.** (2022). Preliminary evidence of an interaction between sleep quality and inflammatory response on COVID-19 vaccine immunogenicity in adults with a history of mood disorder. **Annual Meeting of the Psychoneuroimmunology Research Society (PNIRS)**. Zurich, Switzerland.

(45). Zheng, H., Webster, M.J., Weickert, C.S., Beasley, C.L., Paulus, M.P., Yolken, R.H., **Savitz, J.** (2022). Cytomegalovirus antibodies are associated with mood disorders, suicide, markers of neuroinflammation, and microglia activation in postmortem brain samples. **Annual Meeting of the American College of Neuropsychopharmacology (ACNP)**. Phoenix, AZ.

(46). Figueroa-Hall, L.K., Burrows, K., Thomas, M., Kuplicki, R., Teague, T.K., Ramesh, R., Irwin, M.R., Risbough, V.B., Khalsa, S., Guinjoan, S., Paulus, M.P., **Savitz, J.B.** (2022). In Vivo Toll-like Receptor 4 Agonist Immune Challenge in Major Depressive Disorder. **Annual Meeting of the American College of Neuropsychopharmacology (ACNP)**. Phoenix, AZ.

SELECTED TALKS

(1). **Savitz, J.B.** and Jansen, P. Symptom Domains in Attention Deficit Hyperactivity Disorder (ADHD) uropsychological Task Performance. **South African Association of Learning and Educational Disabilities (SAALED)** annual Meeting. Cape Town, 15th September, 2000.

(2). **Savitz, J.** Genetics of Bipolar Disorder. **Laboratory of Neurogenetics (LNG), NIAAA**. Rockville, MD, February, 2005.

(3). **Savitz, J.**, Drevets, W., Nugent, A., Bogers, W., Solomon, G., Wright, N., Bonne, O. Increased left subgenual prefrontal cortex and decreased right amygdala volumes in post-traumatic stress disorder. **Society for Neuroscience (SfN)** annual Meeting. Washington DC, 18th November, 2008.

(4). **Savitz, J.** The Immunological Basis of Mood Disorders. Department of Psychiatry, Grand Rounds. **University of Oklahoma College of Medicine**, Tulsa, OK. 1st May, 2013.

(5). **Savitz, J.** The Immunological Basis of Mood Disorders. Department of Psychiatry, Grand Rounds. **University of Kansas School of Medicine**, Wichita, KS. 10th October, 2013.

(6). **Savitz, J.** Immune function in depression: association with neuroimaging abnormalities. Department of Psychology Colloquium Series. **University of Alabama, Birmingham**, AL. 22nd January 2014.

- (7). **Savitz, J.** Immunological and Neuroimaging Abnormalities in Depression: a unifying hypothesis. Department of Psychiatry, Grand Rounds. **University of Cincinnati**, Cincinnati, OH. 19th February 2014.
- (8). **Savitz, J.** Neuroprotective and neurotoxic kynurenine metabolites are associated with hippocampal and amygdalar volumes in depression. **International Society of Bipolar Disorders (ISBD)** annual Meeting. Seoul, South Korea. 20th March, 2014.
- (9). **Savitz, J.** Depression and "inflammation": what can we see with neuroimaging? Department of Symptom Research, **University of Texas, M.D. Anderson Cancer Center**. 25th March, 2014.
- (10). **Savitz, J.** Depression and "inflammation": what can we see with neuroimaging? Department of Psychiatry, **University of Pittsburgh**, Pittsburgh, PA. 9th April, 2014.
- (11). **Savitz, J.** Kynurenine pathway imbalance in mood disorders: association with neuromorphometric abnormalities. Department of Psychiatry. **University of Texas Health Sciences Center**, Houston, TX. 29th April, 2014.
- (12). **Savitz, J.** Association between kynurenine-pathway metabolites and gray matter volumes of the hippocampus and amygdala in patients with bipolar disorder. **American Society of Clinical Psychopharmacology** annual meeting. Hollywood, FL. 17th June, 2014.
- (13). **Savitz, J.** The tryptophan-kynurenine metabolic pathway in mood disorders: what can we see with neuroimaging? **International Society for Tryptophan Research (ISTR)** Meeting. Grand Rapids, MI. 18th September, 2015.
- (14). **Savitz, J.** Kynurenine pathway, immune system, and brain imaging in affective and psychotic disorders. **Stanley Medical Research Foundation** annual meeting. Baltimore, MD. 2nd December, 2015.
- (15). **Savitz, J.** Relationship between microglial/macrophage-derived neurotoxic kynurenine metabolites and hippocampal structure and function in depression. **Society of Biological Psychiatry (SOBP)** annual Meeting. Atlanta, GA. 12th May, 2016.
- (16). **Savitz, J.** Do neuroactive kynurenine metabolites affect brain structure and function in depression? **Psychoneuroimmunology Research Society (PNIRS)** annual Meeting. Plenary Session. Brighton, England. 9th June, 2016.
- (17). **Savitz, J.** Treatment of bipolar disorder with minocycline and/or aspirin: an adaptive, double-blind, randomized, placebo-controlled clinical trial (NCT01429272). **International Society of Bipolar Disorders (ISBD)** annual Meeting. Amsterdam, The Netherlands. 14th July, 2016.
- (18). **Savitz, J.** Relationship between neurotoxic kynurenine metabolites and hippocampal structure in bipolar disorder. **International Society of Bipolar Disorders (ISBD)** annual Meeting. Amsterdam, The Netherlands. 14th July, 2016.

- (19). **Savitz, J.** Relationship between neurotoxic kynurenine metabolites and hippocampal structure and function in depression. **SALSI Neuroscience Symposium: Translational Neuroimmunology.** San Antonio, TX., 22nd July, 2016.
- (20). **Savitz, J.** Depression and Inflammation: Etiology, Mechanism, and Treatment. Department of Psychiatry, Grand Rounds. **University of Arkansas Medical School.** Little Rock, AR. January, 12th 2017.
- (21). **Savitz, J.** Neuroimmunology of Depression. **Oklahoma Center for Neuroscience, OUHSC.** Oklahoma City, OK. March 9th, 2017.
- (22). **Savitz, J.** Immune Dysregulation in Depression. **NIAAA Laboratory of Neurogenetics.** Rockville, MD. April 10th, 2017.
- (23). **Savitz, J.** Immunophenotyping the mood disorder spectrum. **International Society of Bipolar Disorders (ISBD)** annual Meeting. Washington, DC. 6th May, 2017.
- (24). **Savitz, J.** Infectious Agents, Adaptive Immunity and Inflammation in Depression. **Society of Biological Psychiatry (SOBP)** annual Meeting. New York City, NY. May 11th 2018.
- (25). **Savitz, J.** Immune dysregulation in mood disorders. **Medical College of Wisconsin.** Milwaukee, WI. 28th June, 2018.
- (26). **Savitz, J.** Childhood abuse is associated with cytomegalovirus infection. **Anxiety and Depression Association of America (ADAA)** annual Meeting. Chicago, IL. 30th March, 2019.
- (27). **Savitz, J.** Impaired immunity to measles in adults with depression. NIH/NIGMS IDeA Meeting. Oklahoma City, OK. 14th June, 2019.
- (28). Joshua Cho (UCLA), Julie Lasselin, (Karolinska Institutet), Mats Lekander (Karolinska Institutet), **Jonathan Savitz (LIBR)**, Manfred Schedlowski (University of Duisberg-Essen). Panel Discussion. Advantages and methodological considerations of experimental endotoxemia in humans – towards a standardized procedure for its application in PNI. **Psychoneuroimmunology Research Society (PNIRS)** annual meeting. Los Angeles, CA. 21st May, 2021.

SERVICE

PROFESSIONAL SOCIETIES

Member, American College of Neuropsychopharmacology (ACNP)	2022-
Associate Member, American College of Neuropsychopharmacology (ACNP)	2013-2019
Member, Psychoneuroimmunology Research Society (PNIRS)	2016-
- Member, PNIRS Membership Committee	2021-2022

PEER REVIEW

Editorships and Editorial Board Memberships	Date	Impact Factor
Associate Editor of <i>Neuroscience Letters</i>	2015-2019	3.2
Editorial Board Member of <i>Brain, Behavior and Immunity</i>	2018-	19.2
Editorial Board Member of <i>BBI Health</i>	2018-	-
Editorial Board Member of <i>Heliyon</i>	2018-	3.8
Editorial Board Member of <i>Psychoneuroendocrinology</i>	2019-	4.7
Editorial Board Member of <i>Comprehensive Psychoneuroendocrinology</i>	2019-	-
Editorial Board Member of <i>International Journal of Molecular Sciences</i>	2020-	6.2

Journal Reviews (selected):

Acta Psychiatrica Scandinavica
 American Journal of Psychiatry
 Archives of General Psychiatry
 Biological Psychiatry
 Bipolar Disorders
 Brain, Behavior and Immunity - “outstanding reviewer” 2015, 2017
 British Journal of Psychiatry
 Cerebral Cortex
 Human Brain Mapping
 International Journal of Neuropsychopharmacology
 JAMA Psychiatry
 Journal of Abnormal Psychology
 Journal of Clinical Psychiatry
 Journal of the American Academy of Child and Adolescent Psychiatry
 Journal of Neurology, Neurosurgery and Psychiatry
 Journal of Psychiatry and Neuroscience
 Lancet Psychiatry
 Molecular Psychiatry
 NeuroImage
 Neuropsychology
 Neuropsychologia
 Neuropsychopharmacology
 Neuroscience and Biobehavioral Reviews
 Pharmacological Reviews
 Psychological Medicine
 Psychological Review
 Psychoneuroendocrinology - “outstanding reviewer” 2016
 Psychopharmacology
 Schizophrenia Bulletin
 Schizophrenia Research
 Translational Psychiatry

NATIONAL INSTITUTES OF HEALTH (NIH)

Standing Member

	Date
Neural Basis of Psychopathology, Addictions, and Sleep (NPAS), Brain Disorders	07/2022-06/2026

and Clinical Neuroscience Integrated Review Group (BDCN), CENTER FOR SCIENTIFIC REVIEW

Ad Hoc Reviewer

Biobehavioral Mechanisms of Emotion, Stress and Health (MESH)	2016
Biobehavioral Research Awards for Innovative New Scientists (BRAINS)	2017
National Cancer Institute Special Emphasis Panel (ZCA1 SRO-Q)	2017
Biobehavioral Mechanisms of Emotion, Stress and Health (MESH)	2018
Early Phase Clinical Trials of Natural Products (ZAT1 SM (45) 1)	2019
Neural Basis of Psychopathology, Addictions, and Sleep (NPAS)	2020
Neural Basis of Psychopathology, Addictions, and Sleep (NPAS)	2021
Neuropsychiatric Disorders (ZRG1 BDCN-C (02) SEP)	2021
Child Psychopathology and Developmental Disabilities (CPDD) (ZRG1 BBBP-S02 SEP)	2021
Mental Health Research in Low and Middle-Income Countries (ZMH1 ERB-N (05) R)	2022
Early Phase Clinical Trials of Natural Products (ZAT1 SH (04))	2022
Urgent Award: COVID-19 Mental Health Research (R01) B (ZMH1 ERB-L (L1) S)	2022

NATIONAL AND INTERNATIONAL AGENCIES

Ad Hoc Grant Reviewer

	Date
Prinses Beatrix Fonds, The Netherlands	2012
National Research, Development and Innovation Office, Hungary	2013
Ontario Mental Health Foundation, Canada	2014
Swiss National Science Foundation	2014
Austrian Science Fund (FWF)	2015
National Initiative Brain and Cognition, The Netherlands	2015
Chief Scientists' Office, Scotland	2016
Geneva University Hospitals and Faculty of Medicine Research Foundation	2016
KU Leuven, Belgium	2016/18
Research Foundation – Flanders, Belgium	2016
Dutch Organisation for Health Research and Development (ZonMw)	2017
Health Research Board, Ireland	2017
PSI Foundation, Canada	2017
St Vincent's Clinic Foundation, NSW, Australia	2018
Deutsche Forschungsgemeinschaft (German Research Foundation)	2022
The Netherlands Organisation for Scientific Research (NWO/ZonMw) Vidi	2022
Medical College of Wisconsin Cancer Center, Idea Award	2022

External Reviews (Promotion and Tenure):

	Date
Department of Psychiatry, University of Illinois, Chicago, IL	2017
Department of Psychiatry and Behavioral Sciences, University of Texas, Houston, TX	2020
Department of Psychiatry, University of Pittsburgh, Pittsburgh, PA	2020
Van Andel Institute, Michigan State University, Grand Rapids, MI	2020
Department of Psychiatry and Behavioral Sciences, Emory University, Atlanta, GA	2021
National Science Foundation of South Africa	2021

PhD Theses (external examiner):	Date
University of Cape Town	2013

DISSERTATION COMMITTEES

Candidate	Institution	Degree	Year
Bohan Xu	Tandy School of Computer Science, The University of Tulsa	PhD	2020-2022

INSTITUTIONAL SERVICE

	Date
College of Health Sciences Representative in The University of Tulsa Senate	2016-2017
Chair, Oxley College of Health Sciences Tenure Committee, The University of Tulsa	2017
Member, Faculty of Community Medicine, Tenure Committee, The University of Tulsa	2018-2021
Member, Oxley College of Health Sciences Tenure Committee, The University of Tulsa	2018-2021
Member, Laureate Institute for Brain Research P&T Committee	2021-

DATA SAFETY AND MONITORING BOARDS (DSMB)

Study Title	Principal Investigator	Role	Years
Experimental Model of Depression in Aging: Insomnia, Inflammation, and Affect Mechanisms	Michael R. Irwin, MD, UCLA	Member	2017-
An Experimental Treatment Approach for Inflammation-Induced Depression	Hyong-Jin Cho, M.D., Ph.D., UCLA	Chair	2018-2020
Experimental model of depression in aging: anxiety, inflammation, and reward mechanisms.	Chloe Boyle, PhD., UCLA	Safety Officer	2022-

PUBLIC LECTURES

(1). The inflamed brain. Healthy Brains for a Healthy Oklahoma Lecture Series.	2016
(2). The inflamed brain. Healthy Brains for a Healthy Oklahoma Lecture Series.	2017
(3). Immune Function in Depression. Zarrow Mental Health Symposium.	2019

MENTORING

UNDERGRADUATE STUDENTS AND RESEARCH ASSOCIATES

Primary Mentee	Years	Subsequent Position
Amritha Harikumar, The University of Tulsa	2014-2015	Graduate Student, Clinical Psychology PhD Program, Georgia State University

Caroline Ibrahim, TURC scholar, The University of Tulsa	2015-2016	Field Engineer at Schlumberger
Maria Nadeem, TURC scholar, The University of Tulsa	2015-2017	Physician Assistant Student, University of Oklahoma.
Chris Jarrett, LIBR	2017-2018	Medical Student, University of Oklahoma
Nour El-Sabbagh, LIBR	2019-2020	Medical Student, Oklahoma State University

GRADUATE STUDENTS

Primary Mentee	Year/s	Degree/Institution	Awards/Grants	Subsequent Position
Bart Ford	2015-2020	Ph.D., University of Tulsa	- Winner of the 2019 Michael Irwin Equity and Diversity Award from PNIRS - First place graduate poster presentation at 2017 Emory University-Laney Graduate School STEM Research and Career Symposium - First place oral presentation at 2018 University of Tulsa Research Colloquium	Post-Doc, LIBR

POST-DOCTORAL FELLOWS

Primary Mentee	Year/s	Awards/Grants	Subsequent Position
Leandra Figueroa-Hall	2019-	- K99MH126950 - First Place Research Pitch. 2021 END2Cancer: Emerging Nanotechnology and Drug Delivery Applications for Cancer Conference	Associate Investigator (Assistant Professor), LIBR
Haixia Zheng	2019-2021	RPL, CoBRE	Associate Investigator (Assistant Professor), LIBR
Bart Ford	2020-2021	NARSAD YI Award	Assistant Professor, Department of Pharmacology, Oklahoma State University
Soumya Munshi	2022-		NA

TEACHING

Facilitator, OU-TU School of Community Medicine

M.D. Program, "Patients, Physicians, and Society 1"

2015-2017

Ad Hoc Lecturer, The University of Tulsa

Principles of Neuroscience (BIOL 4173)

2018-2019

Ad Hoc Lecturer, University of Oklahoma College of Health Sciences

Neuroinflammation and Neuroimmunology (OCNS 6311)

2017-2018

Genetics of Mood Disorders (Psychiatry Resident Program)

2012-2013

Immunological Basis of Mood Disorders (Psychiatry Resident Program)

2014-2015

Ad Hoc Lecturer, National Institutes of Health

Post-Baccalaureate Intra-Mural Training Awardees Program

2007-2009

Tutor, University of Cape Town

MBChB (M.D.) Program

2004

Tutor, University of the Witwatersrand

Statistics and Research Methodology II, Department of Psychology

1998-1999
