

Stanford

Gregory Lee Sahlem

Assistant Professor of Psychiatry and Behavioral Sciences (General Psychiatry and Psychology)

CLINICAL OFFICE (PRIMARY)

- **Psychiatry and Behavioral Sciences**

401 Quarry Rd
MC 5723
Stanford, CA 94305

Tel (650) 498-9111 **Fax** (650) 724-9900

Bio

BIO

Dr.Sahlem is an Assistant Professor in the Department of Psychiatry and Behavioral Sciences. He is board-certified in general psychiatry and addictions medicine, as well as fellowship-trained in the research and clinical application of neuromodulation-based treatments including repetitive Transcranial Magnetic Stimulation (rTMS), electroconvulsive therapy (ECT), and vagus nerve stimulation (VNS). He additionally has advanced training in the treatment of mood and sleep disorders. In addition to being an active clinician, Dr.Sahlem is a member of the Stanford Brain Stimulation Lab and directs the Addictions Research Section of the Lab.

Major areas of study for Dr.Sahlem include: The development of rTMS as a focused treatment for addictive disorders; the development of a novel form of ECT theorized to have reduced cognitive side effects, Focal Electrically Administered Seizure Therapy (FEAST), and; the further development of rTMS for the treatment of mood disorders.

CLINICAL FOCUS

- Mood Disorders
- Addictive Disorders
- repetitive Transcranial Magnetic Stimulation (rTMS)
- Electroconvulsive Therapy (ECT)
- Vagus Nerve Stimulation (VNS)
- Psychiatry

ACADEMIC APPOINTMENTS

- Assistant Professor - University Medical Line, Psychiatry and Behavioral Sciences
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Directors Travel Award, College on Problems of Drug Dependence (CPDD) and the National Institute on Drug Abuse (NIDA) (2020)
- APA Research Colloquium for Junior Investigators Travel Award, American Psychiatric Association (APA) (2015)
- J.J. Cleckley Clinical Excellence Award, MUSC Psychiatry (2014)

- Laughlin Foundation Fellow Award, MUSC Psychiatry (2014)

PROFESSIONAL EDUCATION

- Board Certification: Addiction Medicine, American Board of Preventive Medicine (2021)
- Fellowship: Medical University of South Carolina (2015) SC
- Board Certification: Psychiatry, American Board of Psychiatry and Neurology (2014)
- Residency: Medical University of South Carolina (2014) SC
- Medical Education: State University of New York at Buffalo School of Medicine (2010) NY

Research & Scholarship

CLINICAL TRIALS

- Investigating Two rTMS Strategies to Treat Cannabis Use Disorder, Recruiting
- A Preliminary Investigation of Pre-Frontal Repetitive Transcranial Magnetic Stimulation (rTMS) for the Treatment of Cannabis Use Disorder, Not Recruiting

Publications

PUBLICATIONS

- **A Preliminary Investigation Of Repetitive Transcranial Magnetic Stimulation Applied To The Left Dorsolateral Prefrontal Cortex In Treatment Seeking Participants With Cannabis Use Disorder.** *medRxiv : the preprint server for health sciences*
Sahlem, G. L., Kim, B., Baker, N. L., Wong, B. L., Caruso, M. A., Campbell, L. A., Kaloani, I., Sherman, B. J., Ford, T. J., Musleh, A. H., Kim, J. P., Williams, N. R., Manett, et al
2023
- **Sex Differences in Cortical Thickness in Cannabis Use Disorder**
Martin, E., Thorn, K., Sahlem, G., McRae-Clark, A., Benitez, A.
ELSEVIER SCIENCE INC.2022: S106-S107
- **Varenicline as a treatment for cannabis use disorder: A placebo-controlled pilot trial.** *Drug and alcohol dependence*
McRae-Clark, A. L., Gray, K. M., Baker, N. L., Sherman, B. J., Squeglia, L., Sahlem, G. L., Wagner, A., Tomko, R.
2021; 229 (Pt B): 109111
- **TMS and CBT-I for comorbid depression and insomnia. Exploring feasibility and tolerability of transcranial magnetic stimulation (TMS) and cognitive behavioral therapy for insomnia (CBT-I) for comorbid major depressive disorder and insomnia during the COVID-19 pandemic.** *Brain stimulation*
Norred, M. A., Haselden, L., Sahlem, G. L., Wilkerson, A. K., Short, E. B., McTeague, L. M., George, M. S.
2021
- **Sleep and substance use disorder treatment: A preliminary study of subjective and objective assessment of sleep during an intensive outpatient program.** *The American journal on addictions*
Wilkerson, A. K., Simmons, R. O., Sahlem, G. L., Taylor, D. J., Smith, J. P., Book, S. W., McRae-Clark, A. L.
2021
- **NMDA-Receptor Agonist Reveals LTP-like Properties of 10-Hz rTMS in the Human Motor Cortex.** *Brain stimulation*
Brown, J. C., Yuan, S., DeVries, W. H., Armstrong, N. M., Korte, J. E., Sahlem, G. L., Carpenter, L. L., George, M. S.
2021
- **A two-site, open-label, non-randomized trial comparing Focal Electrically-Administered Seizure Therapy (FEAST) and right unilateral ultrabrief pulse electroconvulsive therapy (RUL-UBP ECT).** *Brain stimulation*
Sahlem, G. L., McCall, W. V., Short, E. B., Rosenquist, P. B., Fox, J. B., Youssef, N. A., Manett, A. J., Kerns, S. E., Dancy, M. M., McCloud, L., George, M. S., Sackeim, H. A.
2020; 13 (5): 1416-1425
- **Treatment of Adults with Autism and Major Depressive Disorder Using Transcranial Magnetic Stimulation: An Open Label Pilot Study.** *Autism research : official journal of the International Society for Autism Research*
Gwynette, M. F., Lowe, D. W., Henneberry, E. A., Sahlem, G. L., Wiley, M. G., Alsarraf, H., Russo, S. B., Joseph, J. E., Summers, P. M., Lohnes, L., George, M. S.

2020; 13 (3): 346-351

- **NMDA receptor partial agonist, d-cycloserine, enhances 10 Hz rTMS-induced motor plasticity, suggesting long-term potentiation (LTP) as underlying mechanism.** *Brain stimulation*

Brown, J. C., DeVries, W. H., Korte, J. E., Sahlem, G. L., Bonilha, L., Short, E. B., George, M. S.

2020; 13 (3): 530-532

- **A case series exploring the effect of twenty sessions of repetitive transcranial magnetic stimulation (rTMS) on cannabis use and craving.** *Brain stimulation*

Sahlem, G. L., Caruso, M. A., Short, E. B., Fox, J. B., Sherman, B. J., Manett, A. J., Malcolm, R. J., George, M. S., McRae-Clark, A. L.

2019; 13 (1): 265-266

- **Insomnia severity during early abstinence is related to substance use treatment completion in adults enrolled in an intensive outpatient program** *JOURNAL OF SUBSTANCE ABUSE TREATMENT*

Wilkerson, A. K., Sahlem, G. L., Bentzley, B. S., Lord, J., Smith, J. P., Simmons, R. O., Uhde, T. W., Book, S. W.

2019; 104: 97-103

- **Transcranial electrical and magnetic stimulation (tES and TMS) for addiction medicine: A consensus paper on the present state of the science and the road ahead.** *Neuroscience and biobehavioral reviews*

Ekhtiari, H., Tavakoli, H., Addolorato, G., Baeken, C., Bonci, A., Campanella, S., Castelo-Branco, L., Challet-Bouju, G., Clark, V. P., Claus, E., Dannon, P. N., Del Felice, A., den Uyl, et al

2019; 104: 118-140

- **Tolerability and feasibility of accelerated repetitive transcranial stimulation for reduction of nicotine craving.** *Brain stimulation*

Friedrich, D., Li, X., Hartwell, K. J., Short, E. B., Sahlem, G. L., George, M. S.

2019; 12 (5): 1315-1316

- **Repetitive transcranial magnetic stimulation (rTMS) administration to heavy cannabis users.** *The American journal of drug and alcohol abuse*

Sahlem, G. L., Baker, N. L., George, M. S., Malcolm, R. J., McRae-Clark, A. L.

2018; 44 (1): 47-55

- **Impact of cannabis legalization on treatment and research priorities for cannabis use disorder.** *International review of psychiatry (Abingdon, England)*

Sahlem, G. L., Tomko, R. L., Sherman, B. J., Gray, K. M., McRae-Clark, A. L.

2018; 30 (3): 216-225

- **Neurogenic Pulmonary Edema Complicating ECT.** *The journal of ECT*

Fryml, L., Fox, J., Manett, A. J., Sahlem, G., Short, E. B.

2018; 34 (2): 78

- **Biological correlates of self-reported new and continued abstinence in cannabis cessation treatment clinical trials.** *Drug and alcohol dependence*

Baker, N. L., Gray, K. M., Sherman, B. J., Morella, K., Sahlem, G. L., Wagner, A. M., McRae-Clark, A. L.

2018; 187: 270-277

- **The role of rTMS for patients with severe PTSD and depression.** *Evidence-based mental health*

Fryml, L. D., Sahlem, G., Fox, J., Short, E. B.

2018; 21 (1): 39-40

- **Transcranial magnetic stimulation of the dorsal lateral prefrontal cortex inhibits medial orbitofrontal activity in smokers.** *The American journal on addictions*

Li, X., Sahlem, G. L., Badran, B. W., McTeague, L. M., Hanlon, C. A., Hartwell, K. J., Henderson, S., George, M. S.

2017; 26 (8): 788-794

- **Simultaneous aerobic exercise and rTMS: Feasibility of combining therapeutic modalities to treat depression.** *Brain stimulation*

Ross, R. E., VanDerwerker, C. J., Newton, J. H., George, M. S., Short, E. B., Sahlem, G. L., Manett, A. J., Fox, J. B., Gregory, C. M.

2017; 11 (1): 245-246

- **Repetitive transcranial magnetic stimulation (rTMS) of the dorsolateral prefrontal cortex reduces resting-state insula activity and modulates functional connectivity of the orbitofrontal cortex in cigarette smokers.** *Drug and alcohol dependence*

Li, X., Du, L., Sahlem, G. L., Badran, B. W., Henderson, S., George, M. S.

2017; 174: 98-105

- **The Role of Amantadine Withdrawal in 3 Cases of Treatment-Refactory Altered Mental Status.** *Journal of psychiatric practice*

- Fryml, L. D., Williams, K. R., Pelic, C. G., Fox, J., Sahlem, G., Robert, S., Revuelta, G. J., Short, E. B.
2017; 23 (3): 191-199
- **Unilateral ultra-brief pulse electroconvulsive therapy for depression in Parkinson's disease** *ACTA NEUROLOGICA SCANDINAVICA*
Williams, N. R., Bentzley, B. S., Sahlem, G. L., Pannu, J., Korte, J. E., Revuelta, G., Short, E. B., George, M. S.
2017; 135 (4): 407-411
 - **Neuroversion: using electroconvulsive therapy as a bridge to deep brain stimulation implantation** *NEUROCASE*
Williams, N. R., Sahlem, G., Pannu, J., Takacs, I., Short, B., Revuelta, G., George, M. S.
2017; 23 (1): 26-30
 - **Optimization of epidural cortical stimulation for treatment-resistant depression.** *Brain stimulation*
Williams, N. R., Bentzley, B. S., Hopkins, T. n., Pannu, J. n., Sahlem, G. L., Takacs, I. n., George, M. S., Nahas, Z. n., Short, E. B.
2017
 - **Five Year Follow-Up of Bilateral Epidural Prefrontal Cortical Stimulation for Treatment-Resistant Depression** *BRAIN STIMULATION*
Williams, N. R., Short, E. B., Hopkins, T., Bentzle, B. S., Sahlem, G. L., Pannu, J., Schmidt, M., Borckardt, J. J., Korte, J. E., George, M. S., Takacs, I., Nahas, Z.
2016; 9 (6): 897-904
 - **Expanded Safety and Efficacy Data for a New Method of Performing Electroconvulsive Therapy: Focal Electrically Administered Seizure Therapy.** *The journal of ECT*
Sahlem, G. L., Short, E. B., Kerns, S., Snipes, J., DeVries, W., Fox, J. B., Burns, C., Schmidt, M., Nahas, Z. H., George, M. S., Sackeim, H. A.
2016; 32 (3): 197-203
 - **Unilateral ultra-brief pulse electroconvulsive therapy for depression in Parkinson's disease.** *Acta neurologica Scandinavica*
Williams, N. R., Bentzley, B. S., Sahlem, G. L., Pannu, J., Korte, J. E., Revuelta, G., Short, E. B., George, M. S.
2016
 - **Reward circuit DBS improves Parkinson's gait along with severe depression and OCD** *NEUROCASE*
Williams, N. R., Hopkins, T. R., Short, E. B., Sahlem, G. L., Snipes, J., Revuelta, G. J., George, M. S., Takacs, I.
2016; 22 (2): 201-204
 - **Oscillating Square Wave Transcranial Direct Current Stimulation (tDCS) Delivered During Slow Wave Sleep Does Not Improve Declarative Memory More Than Sham: A Randomized Sham Controlled Crossover Study** *BRAIN STIMULATION*
Sahlem, G. L., Badran, B. W., Halford, J. J., Williams, N. R., Korte, J. E., Leslie, K., Strachan, M., Breedlove, J. L., Runion, J., Bachman, D. L., Uhde, T. W.,
Borckardt, J. J., George, et al
2015; 8 (3): 528-534
 - **Adjunctive triple chronotherapy (combined total sleep deprivation, sleep phase advance, and bright light therapy) rapidly improves mood and suicidality in suicidal depressed inpatients: An open label pilot study** *JOURNAL OF PSYCHIATRIC RESEARCH*
Sahlem, G. L., Kalivas, B., Fox, J. B., Lamb, K., Roper, A., Williams, E. N., Williams, N. R., Korte, J. E., Zuschlag, Z. D., El Sabbagh, S., Guille, C., Barth, K. S.,
Uhde, et al
2014; 59: 101-107
 - **Safe management of a bipolar depressed patient with prefrontal repetitive transcranial magnetic stimulation (rTMS) Over 7 years and >2 million stimuli.** *Brain stimulation*
Li, X., Fryml, L., Rodriguez, J. J., Taylor, J., Borckardt, J. J., Short, B., Sahlem, G., Roberts, D., George, M. S.
2014; 7 (6): 919-21