

Danielle D. DeSouza

Casual - Non-Exempt, Adult Neurology

Bio

PROJECTS

- Functional MRI and sensory evaluation of central mechanisms of chronic pain associated with Lyme disease - Stanford University (2018 - 2020)
- Investigating the role of GABA and glutamate on anterior cingulate activity associated with hypnosis - Stanford University (1/2017 - 8/2018)

Publications

PUBLICATIONS

- **Neuroimaging-based subtyping of migraine identifies clinically distinct phenotypes.** *Cephalalgia : an international journal of headache*
Sridhar, J., Babaei, M., Sanjanwala, B. M., Cowan, R. P., DeSouza, D. D.
2026; 46 (3): 3331024261433982
- **Stanford Hypnosis Integrated with Functional Connectivity-targeted Transcranial Stimulation (SHIFT): a preregistered randomized controlled trial** *NATURE MENTAL HEALTH*
Faerman, A., Bishop, J. H., Stimpson, K. H., Phillips, A., Gulser, M., Amin, H., Nejad, R., Desouza, D. D., Geoly, A. D., Kallioniemi, E., Jo, B., Williams, N. R., Spiegel, et al
2024; 2 (1)
- **Editorial: Women in science: headache.** *Frontiers in pain research (Lausanne, Switzerland)*
DeSouza, D. D., Bennett Irby, M., Hubbard, C. S.
2023; 4: 1324072
- **Three Dimensions of Association Link Migraine Symptoms and Functional Connectivity.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*
Krimmel, S. R., DeSouza, D. D., Keaser, M. L., Sanjanwala, B. M., Cowan, R. P., Lindquist, M. A., Haythornthwaite, J. A., Seminowicz, D. A.
2022
- **Altered Functional Network Connectivity in Chronic Migraine: a Replication-Extension Study**
DeSouza, D., Hindiyyeh, N., Sanjanwala, B., Krimmel, S., Seminowicz, D., Cowan, R.
LIPPINCOTT WILLIAMS & WILKINS.2021
- **Insights into chronic migraine pathophysiology - what measures of gray matter reveal.** *Cephalalgia : an international journal of headache*
DeSouza, D. D., Cowan, R. P.
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- **Association between Anterior Cingulate Neurochemical Concentration and Individual Differences in Hypnotizability.** *Cerebral cortex (New York, N.Y. : 1991)*
DeSouza, D. D., Stimpson, K. H., Baltusis, L. n., Sacchet, M. D., Gu, M. n., Hurd, R. n., Wu, H. n., Yeomans, D. C., Williams, N. n., Spiegel, D. n.
2020
- **MCADNet: Recognizing Stages of Cognitive Impairment through Efficient Convolutional fMRI and MRI Neural Network Topology Models.** *IEEE access : practical innovations, open solutions*
Sarraf, S., Desouza, D. D., Anderson, J., Saverino, C.
2019; 7: 155584-155600
- **Altered structural brain network topology in chronic migraine.** *Brain structure & function*
DeSouza, D. D., Woldeamanuel, Y. W., Sanjanwala, B. M., Bissell, D. A., Bishop, J. H., Peretz, A. n., Cowan, R. P.

2019

- **Imaging in CDH *Chronic Headache: A Comprehensive Guide to Evaluation and Management***
DeSouza, D. D., Rogachov, A.
Springer.2019; 1st: 157–168
- **High-dose spaced theta-burst TMS as a rapid-acting antidepressant in highly refractory depression.** *Brain : a journal of neurology*
Williams, N. R., Sudheimer, K. D., Bentzley, B. S., Pannu, J. n., Stimpson, K. H., Duvio, D. n., Cherian, K. n., Hawkins, J. n., Scherrer, K. H., Vyssoki, B. n., DeSouza, D. n., Raj, K. S., Keller, et al
2018
- **Transcranial Magnetic Stimulation for Disorders other than Depression** *Transcranial Magnetic Stimulation: Clinical Applications for Psychiatric Practice*
Pannu, J., DeSouza, D. D., Samara, Z., Raj, K. S., Williams, N. R., Lanocha, K. I.
American Psychiatric Association Publishing.2018: 157–172
- **Structural Magnetic Resonance Imaging Can Identify Trigeminal System Abnormalities in Classical Trigeminal Neuralgia** *FRONTIERS IN NEUROANATOMY*
DeSouza, D. D., Hodaie, M., Davis, K. D.
2016; 10
- **Individual Differences in Temporal Summation of Pain Reflect Nociceptive and Antinociceptive Brain Structure and Function.** *The Journal of neuroscience : the official journal of the Society for Neuroscience*
Cheng, J. C., Erpelding, N., Kucyi, A., DeSouza, D. D., Davis, K. D.
2015; 35 (26): 9689-700
- **Reversal of insular and microstructural nerve abnormalities following effective surgical treatment for trigeminal neuralgia.** *Pain*
DeSouza, D. D., Davis, K. D., Hodaie, M.
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- **Diffusivity signatures characterize trigeminal neuralgia associated with multiple sclerosis.** *Multiple sclerosis (Houndmills, Basingstoke, England)*
Chen, D. Q., DeSouza, D. D., Hayes, D. J., Davis, K. D., O'Connor, P., Hodaie, M.
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- **Abnormal trigeminal nerve microstructure and brain white matter in idiopathic trigeminal neuralgia.** *Pain*
DeSouza, D. D., Hodaie, M., Davis, K. D.
2014; 155 (1): 37-44
- **Sensorimotor and Pain Modulation Brain Abnormalities in Trigeminal Neuralgia: A Paroxysmal, Sensory-Triggered Neuropathic Pain.** *PLoS one*
Desouza, D. D., Moayed, M., Chen, D. Q., Davis, K. D., Hodaie, M.
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- **Developing Topics.** *Alzheimer's & dementia : the journal of the Alzheimer's Association*
DeSouza, D. D., Charvat, M., Carreon, D.
2025; 21 Suppl 7 (Suppl 7): e109022
- **OViTAD: Optimized Vision Transformer to Predict Various Stages of Alzheimer's Disease Using Resting-State fMRI and Structural MRI Data.** *Brain sciences*
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- **Screening for Generalized Anxiety Disorder From Acoustic and Linguistic Features of Impromptu Speech: Prediction Model Evaluation Study.** *JMIR formative research*
Teferra, B. G., Borwein, S., DeSouza, D. D., Rose, J.
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- **Acoustic and Linguistic Features of Impromptu Speech and Their Association With Anxiety: Validation Study** *JMIR MENTAL HEALTH*
Teferra, B., Borwein, S., DeSouza, D. D., Simpson, W., Rheault, L., Rose, J.
2022; 9 (7): e36828

- **Who does what to whom? graph representations of action-predication in speech relate to psychopathological dimensions of psychosis.** *Schizophrenia (Heidelberg, Germany)*
Nikzad, A. H., Cong, Y., Berretta, S., Hansel, K., Cho, S., Pradhan, S., Behbehani, L., DeSouza, D. D., Liberman, M. Y., Tang, S. X.
2022; 8 (1): 58
- **The burgeoning role of speech and language assessment in schizophrenia spectrum disorders.** *Psychological medicine*
DeSouza, D. D., Tang, S. X., Danilewitz, M.
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- **Brain and Physiological Markers of Autonomic Function Are Associated With Treatment-Related Improvements in Self-Reported Autonomic Dysfunction in Veterans With Gulf War Illness: An Exploratory Pilot Study.** *Global advances in health and medicine*
Mathersul, D. C., Eising, C. M., DeSouza, D. D., Spiegel, D., Bayley, P. J.
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- **Aberrant Structural Network Architecture in Chronic Migraine**
DeSouza, D. D., Woldeamanuel, Y. W., Sanajanwala, B. M., Bissell, D., Bishop, J. H., Cowan, R. P.
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- **Clinical Features Contributing to Cortical Thickness Changes in Chronic Migraine - A Pilot Study** *HEADACHE*
Woldeamanuel, Y. W., DeSouza, D. D., Sanjanwala, B. M., Cowan, R. P.
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- **High-Dose Spaced Theta-Burst Transcranial Magnetic Stimulation as a Rapid-Acting Anti-Depressant in Highly Refractory Depression**
Williams, N., Sudheimer, K., Bentzley, B., Pannu, J., Stimpson, K., Duvio, D., Cherian, K., Hawkins, J., Scherrer, K., Vyssoki, B., DeSouza, D., Raj, K., Keller, et al
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ELSEVIER SCIENCE INC.2018: S189
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- **Comparison of Diffusion-Weighted MRI Reconstruction Methods for Visualization of Cranial Nerves in Posterior Fossa Surgery.** *Frontiers in neuroscience*
Behan, B. n., Chen, D. Q., Sammartino, F. n., DeSouza, D. D., Wharton-Shukster, E. n., Hodaie, M. n.
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- **Journal Club: Exacerbation of headache during dihydroergotamine for chronic migraine does not alter outcome.** *Neurology*
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- **Journal Club: Change in brain network connectivity during PACAP38-induced migraine attacks.** *Neurology*
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- **Discriminating neural representations of physical and social pains: how multivariate statistics challenge the 'shared representation' theory of pain.** *Journal of neurophysiology*
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- **Making Sense of Gray Matter Abnormalities in Chronic Orofacial Pain-Synthesizing Divergent Findings** *JOURNAL OF NEUROSCIENCE*
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- **Use of Diffusion Tensor Imaging to Examine Subacute White Matter Injury Progression in Moderate to Severe Traumatic Brain Injury** *ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION*
Greenberg, G., Mikulis, D. J., Ng, K., DeSouza, D., Green, R. E.
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