



## Boris Heifets

Associate Professor of Anesthesiology, Perioperative and Pain Medicine (MSD) and, by courtesy, of Psychiatry and Behavioral Sciences (General Psychiatry and Psychology (Adult))

### CLINICAL OFFICE (PRIMARY)

- **Anesthesia**

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Stanford, CA 94305

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### Bio

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#### BIO

Dr. Boris Heifets, MD, PhD, is a board certified anesthesiologist who specializes in providing anesthesia for neurological surgery. He has practiced at Stanford since 2010.

After completing residency training at Stanford, Dr. Heifets completed fellowship training in neuroanesthesiology, also at Stanford. In addition to treating patients, Dr. Heifets also directs both clinical research and basic neuroscience. His research group studies how new rapid acting psychiatric therapies, like ketamine, MDMA and psilocybin, produce lasting changes in nervous system function, behavior, and therapeutic outcomes.

#### CLINICAL FOCUS

- Neuroanesthesia
- Anesthesia

#### ACADEMIC APPOINTMENTS

- Associate Professor - University Medical Line, Anesthesiology, Perioperative and Pain Medicine
- Member, Bio-X
- Member, Wu Tsai Neurosciences Institute

#### HONORS AND AWARDS

- William L. Young Neuroscience Research Award, Society for Neuroscience in Anesthesiology and Critical Care (2019)
- K08 Mentored Clinical Scientist Research Career Development Award, National Institute of Mental Health (2017-2021)
- Mentored Research Training Grant - Basic Science, Foundation for Anesthesia Education and Research (2013-2015)
- Outstanding Contributions to Anesthesia Research, Department of Anesthesiology, Pain & Perioperative Medicine (2013)
- Internal Grant Program Award, Department of Anesthesiology, Pain & Perioperative Medicine (2012)

## PROFESSIONAL EDUCATION

- Fellowship: Stanford University Anesthesiology Fellowships (2016) CA
- Fellowship, Stanford Hospital & Clinics , Research (2014)
- Residency: Stanford University Anesthesiology Residency (2013) CA
- Internship: Memorial Sloan Kettering Cancer Center Transitional Year Training (2010) NY
- Medical Education: Albert Einstein College of Medicine (2009) NY
- PhD, Albert Einstein College of Medicine , Neuroscience (2009)
- BS, Yale University , Psychobiology/Neuroscience (1999)

## LINKS

- Heifets lab website: <https://heifetslab.stanford.edu/>

## Research & Scholarship

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### CURRENT RESEARCH AND SCHOLARLY INTERESTS

Harnessing synaptic plasticity to treat neuropsychiatric disease

### CLINICAL TRIALS

- Intraoperative Ketamine Versus Saline in Depressed Patients Undergoing Anesthesia for Non-cardiac Surgery, Not Recruiting
- Induction of Dreaming With EEG and Anesthesia for Post-traumatic Stress Disorder, Not Specified

## Teaching

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### COURSES

#### 2025-26

- Current Controversies and Emerging Technologies in Applied Neuroscience: ANES 215, NBIO 215, NEPR 215 (Win)
- Psychedelic Medicine: PSYC 218 (Win)

#### 2024-25

- Current Controversies and Emerging Technologies in Applied Neuroscience: ANES 215 (Win)
- Introduction to Psychedelic Medicine: PSYC 215B (Win)

#### 2023-24

- Current Controversies and Emerging Technologies in Applied Neuroscience: ANES 215, NBIO 215, NEPR 215 (Win)
- Introduction to Psychedelic Medicine: PSYC 215B (Win)

#### 2022-23

- Current Controversies and Emerging Technologies in Applied Neuroscience: ANES 215 (Win)
- Introduction to Psychedelic Medicine: PSYC 215B (Win)

## STANFORD ADVISEES

### Med Scholar Project Advisor

Amei Shank

### Postdoctoral Faculty Sponsor

Austen Casey, Ben Deverett, Pilleriin Sikka

**Doctoral Dissertation Reader (NonAC)**

Chelsea Li

**Postdoctoral Research Mentor**

Nicholas Denomme, Rick Zirkel

**GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS**

- Anesthesia (Fellowship Program)
- Psychiatry and Behavioral Science (Fellowship Program)

**Publications**

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**PUBLICATIONS**

- **Low-Dose Buprenorphine Following Ketamine Treatment for Suicidal Ideation in Major Depressive Disorder: A Randomized, Double-Blind, Placebo-Controlled Trial.** *The American journal of psychiatry*  
Tucciarone, J. M., Bandeira, I. D., Blasey, C., Kratter, I. H., Ehrie, J., Keller, J., Pankow, H., Chang, M., Hawkins, J., Evers, A. G., Bernert, R., DeBattista, C., Truong, et al  
2026: appiajp20250840
- **R-MDDMA is a Safer Analogue of MDMA with Therapeutic Potential.** *ACS chemical neuroscience*  
Vargas, M. V., Hatzipantelis, C. J., Dunlap, L. E., Tombari, R. J., Avanes, A. A., Vaillancourt, S., Llorach, P., Salgado, J. S., Heifets, B. D., Olson, D. E.  
2026
- **Protocol and pilot results for a double-blind randomized placebo-controlled trial of ketamine under propofol sedation for chronic pain and depression.** *Pain management*  
Lii, T. R., Sikka, P., Deverett, B., Altirkawi, O. K., Heifets, B. D.  
2026: 1-11
- **General Anesthesia and Discrete Components of Ketamine Neurophysiology.** *JAMA psychiatry*  
Deverett, B., Li, D., Lii, T. R., Vlisides, P. E., Tarnal, V., Forsyth, A., Sumner, R., Sikka, P., Schatzberg, A. F., Muthukumaraswamy, S., Mashour, G. A., Heifets, B. D.  
2026
- **Is Ketamine an Opioid?** *Biological psychiatry*  
Heifets, B. D., Airan, R. D.  
2026; 99 (4): 266-268
- **Feasibility of a Multicomponent Protocol to Promote Dreaming during Surgical Anesthesia.** *Anesthesiology*  
Sikka, P., Ngo, M. C., Hu, S., Wilkerson, T. B., Shull, M., Imbordino, K., Ishii, T., Kawai, M., Deverett, B., Chow, H. S., Heifets, B. D.  
2026
- **THE ASSOCIATION OF UNCONSCIOUSNESS, DREAMING, AND SLOW WAVE ACTIVITY UNDER GENERAL ANESTHESIA**  
Ishii, T., Sikka, P., Heifets, B., Kawai, M., Chow, H.  
ELSEVIER.2026
- **No evidence of immediate or persistent analgesic effect from a single dose of psilocybin in three mouse models of pain.** *Nature communications*  
Gregory, N. S., Girard, T. E., Ram, A., Casey, A. B., Malenka, R. C., Tawfik, V. L., Heifets, B. D.  
2026
- **It's Not Just the Ketamine: Perioperative Care and Postoperative Delirium.** *Anesthesiology*  
Heifets, B. D., Meng, L.  
2026; 144 (1): 7-9
- **STRATIFYING MDMA RESPONSE USING NEGATIVE AFFECT CIRCUIT BIOTYPES WITH CLINICAL VALIDATION**

Zhang, X., Hack, L., Bertrand, C., Hilton, R., Gray, N., Boyar, L., Laudie, J., Heifets, B., Suppes, T., Van Roessel, P., Rodriguez, C. I., Deisseroth, K., Knutson, et al  
SPRINGER NATURE.2026

● **LOW DOSE BUPRENORPHINE ENHANCES THE ANTISUICIDAL EFFECTS OF KETAMINE IN MAJOR DEPRESSIVE DISORDER: A RANDOMIZED CONTROLLED TRIAL**

Bandeira, I. D., Tucciarone, J. M., Blasey, C., Kratter, I. H., Ehrie, J., Keller, J., Pankow, H., Chang, M., Hawkins, J., Evers, A. G., Bernert, R., Debattista, C., Truong, et al  
SPRINGER NATURE.2026

● **Serotonergic neuron-glioma interactions drive high-grade glioma pathophysiology.** *bioRxiv : the preprint server for biology*

Drexler, R., Yalçın, B., Mancusi, R., Rogers, A., Shamardani, K., Woo, P. J., Ravel, A., Wu, S., Yabo, Y. A., Steger, L., de Biagi-Junior, C. A., Cascio, C. L., Malenka, et al  
2025

● **PSILOCYBIN INDUCES SUSTAINED GLIOMA GROWTH THROUGH SEROTONERGIC AND TRKB PATHWAYS**

Drexler, R., Yalçın, B., Mancusi, R., Rogers, A., Shamardani, K., Woo, P., Ravel, A., Yabo, Y. A., De Biagi-Junior, C., Lo Cascio, C., Malenka, R., Heifets, B., Filbin, et al  
OXFORD UNIV PRESS INC.2025: v61-v62

● **History, pharmacology and therapeutic mechanisms of 3,4-methylenedioxymethamphetamine (MDMA).** *British journal of pharmacology*

Casey, A. B., Heifets, B. D.  
2025

● **Methodological Considerations for Interpreting Ketamine-Naltrexone Trials in Depression.** *The international journal of neuropsychopharmacology*

Bandeira, I. D., Jelen, L. A., Tucciarone, J. M., Heifets, B. D., Rodriguez, C. I., Schatzberg, A. F.  
2025

● **The psychoplastogen tabernanthalol induces neuroplasticity without proximate immediate early gene activation.** *Nature neuroscience*

Aarrestad, I. K., Cameron, L. P., Fenton, E. M., Casey, A. B., Rijsketic, D. R., Patel, S. D., Sambyal, R., Johnson, S. B., Ly, C., Viswanathan, J., Barragan, E. V., Lozano, S. A., Seban, et al  
2025

● **5-HT<sub>2C</sub> receptors in the nucleus accumbens constrain the rewarding effects of MDMA.** *Molecular psychiatry*

Pomrenze, M. B., Vaillancourt, S., Salgado, J. S., Raymond, K. B., Llorach, P., Sacai, H., Rijsketic, D. R., Hietamies, T. M., Touponse, G. C., Cardozo Pinto, D. F., Rastegar, Z., Casey, A. B., Eshel, et al  
2025

● **Psilocybin has no immediate or persistent analgesic effect in acute and chronic mouse pain models.** *bioRxiv : the preprint server for biology*

Gregory, N. S., Girard, T. E., Ram, A., Casey, A. B., Malenka, R. C., Tawfik, V. L., Heifets, B. D.  
2025

● **Conserved brain-wide emergence of emotional response from sensory experience in humans and mice.** *Science (New York, N.Y.)*

Kauvar, I., Richman, E. B., Liu, T. X., Li, C., Vesuna, S., Chibukhchyan, A., Yamada, L., Fogarty, A., Solomon, E., Choi, E. Y., Mortazavi, L., Chau Loo Kung, G., Mukunda, et al  
2025; 388 (6750): eadt3971

● **Ketamine evokes acute behavioral effects via  $\mu$ -opioid receptor expressing neurons of the central amygdala.** *Biological psychiatry*

Pomrenze, M. B., Vaillancourt, S., Llorach, P., Rijsketic, D. R., Casey, A. B., Gregory, N., Zhao, W., Girard, T. E., Mattox, K. T., Salgado, J. S., Malenka, R. C., Heifets, B. D.  
2025

● **Evaluating Augmentation of Anti-Suicidal Effects of Intravenous Ketamine by Low Oral Doses of Opioid Receptor Partial Agonism**

Tucciarone, J., Bandeira, I. D., Kratter, I. H., Ehrie, J., Pankow, H., Chang, M., Hawkins, J., Blasey, C., Heifets, B., Schatzberg, A.  
ELSEVIER SCIENCE INC.2025

● **Psilocybin Has No Analgesic Properties in Multiple Mouse Models of Acute and Chronic Pain**

Gregory, N., Girard, T., Ram, A., Casey, A., Tawfik, V., Malenka, R., Heifets, B.  
LIPPINCOTT WILLIAMS & WILKINS.2025: 652

- **Opioids Diminish the Placebo Antidepressant Response in an Anesthesia-Blinded Ketamine Trial**  
Li, T., Flohr, J., Okada, R., Cianfichil, L., Hack, L., Schatzberg, A., Heifets, B.  
LIPPINCOTT WILLIAMS & WILKINS.2025: 69-70
- **A multi-institutional investigation of psilocybin's effects on mouse behavior.** *bioRxiv : the preprint server for biology*  
Lu, O. D., White, K., Raymond, K., Liu, C., Klein, A. S., Green, N., Vaillancourt, S., Gallagher, A., Shindy, L., Li, A., Wallquist, K., Li, R., Zou, et al  
2025
- **Opioids diminish the placebo antidepressant response: Observational post hoc findings from a randomized controlled ketamine trial.** *Journal of affective disorders*  
Lii, T. R., Flohr, J. R., Okada, R. L., Cianfichi, L. J., Hack, L. M., Schatzberg, A. F., Heifets, B. D.  
2025
- **Robust Peritraumatic Immune System Activation Improves Pain Recovery Following Traumatic Stress Exposure**  
Lii, T., Salmasi, V., Heifets, B., Mackey, S.  
CHURCHILL LIVINGSTONE.2025
- **Opioid Use May Enhance the Analgesic and Antidepressant Response to Ketamine: Preliminary Findings from a Small Observational Study**  
Lii, T., Salmasi, V., Heifets, B., Mackey, S.  
CHURCHILL LIVINGSTONE.2025: 54
- **Psilocybin Has No Analgesic Properties in Multiple Mouse Models of Acute and Chronic Pain**  
Gregory, N. S., Girard, T. E., Ram, A., Casey, A. B., Malenka, R. C., Tawfik, V. L., Heifets, B. D.  
CHURCHILL LIVINGSTONE.2025
- **Negative Affect Circuit Subtypes and Neural, Behavioral, and Affective Responses to MDMA: A Randomized Clinical Trial.** *JAMA network open*  
Zhang, X., Hack, L. M., Bertrand, C., Hilton, R., Gray, N. J., Boyar, L., Laudie, J., Heifets, B. D., Suppes, T., van Roessel, P. J., Rodriguez, C. I., Deisseroth, K., Knutson, et al  
2025; 8 (4): e257803
- **Mapping of catecholaminergic denervation, neurodegeneration, and inflammation in 6-OHDA-treated Parkinson's disease mice.** *NPJ Parkinson's disease*  
Santoro, M., Lam, R. K., Blumenfeld, S. E., Tan, W., Ciari, P., Chu, E. K., Saw, N. L., Rijsketic, D. R., Lin, J. S., Heifets, B. D., Shamloo, M.  
2025; 11 (1): 28
- **Impact of noradrenergic inhibition on neuroinflammation and pathophysiology in mouse models of Alzheimer's disease.** *Journal of neuroinflammation*  
Evans, A. K., Park, H. H., Woods, C. E., Lam, R. K., Rijsketic, D. R., Xu, C., Chu, E. K., Ciari, P., Blumenfeld, S., Vidano, L. M., Saw, N. L., Heifets, B. D., Shamloo, et al  
2024; 21 (1): 322
- **Validating Potential EEG Biomarkers of Anesthesia-Induced Dream States for Future Therapeutic Application in Post-Traumatic Stress Disorder: Preliminary Results**  
Hack, L., Sikka, P., Kawai, M., Ben Deverett, Chow, H. S., Heifets, B.  
SPRINGER NATURE.2024: 117
- **Ketamine for Suicidal Behavior in Treatment-Resistant Depression: A Comparative Analysis of Antisuicidal and Antidepressant Effects**  
Bandeira, I. D., Tucciarone, J., Kratter, I. H., Heifets, B. D., Schatzberg, A. F.  
SPRINGER NATURE.2024: 191
- **Maintenance Intramuscular Ketamine-Assisted Psychotherapy, a Retrospective Chart Review of Efficacy, Adverse Events, and Dropouts from a Community Practice.** *Journal of psychoactive drugs*  
Ryan, W. C., Heifets, B. D.  
2024: 1-15
- **Widespread Muscle Pain, But Not Paw Inflammation, Reduces Motivation and Active Coping Strategies in Mice**  
Gregory, N., Heifets, B.  
LIPPINCOTT WILLIAMS & WILKINS.2024: 515-517

- **Impact of noradrenergic inhibition on neuroinflammation and pathophysiology in mouse models of Alzheimer's disease.** *Research square*  
Evans, A. K., Park, H. H., Woods, C. E., Lam, R. K., Rijsketic, D. R., Xu, C., Chu, E., Ciari, P., Blumenfeld, S., Vidano, L. M., Saw, N. L., Heifets, B. D., Shamloo, et al  
2024
- **5-HT<sub>2C</sub> receptors in the nucleus accumbens constrain the rewarding effects of MDMA.** *bioRxiv : the preprint server for biology*  
Pomrenze, M. B., Vaillancourt, S., Salgado, J. S., Raymond, K. B., Llorach, P., Touponse, G. C., Cardozo Pinto, D. F., Rastegar, Z., Casey, A. B., Eshel, N., Malenka, R. C., Heifets, B. D.  
2024
- **Mapping of catecholaminergic denervation, neurodegeneration, and inflammation in 6-OHDA-treated Parkinson's disease mice.** *Research square*  
Santoro, M., Lam, R. K., Blumenfeld, S. E., Tan, W., Ciari, P., Chu, E. K., Saw, N. L., Rijsketic, D. R., Lin, J. S., Heifets, B. D., Shamloo, M.  
2024
- **An immune signature of postoperative cognitive decline: A prospective cohort study.** *International journal of surgery (London, England)*  
Verdonk, F., Cambriel, A., Hedou, J., Ganio, E., Bellan, G., Gaudilliere, D., Einhaus, J., Sabayev, M., Stelzer, I. A., Feyaerts, D., Bonham, A. T., Ando, K., Choisy, et al  
2024
- **Opioids Diminish the Placebo Antidepressant Response: A Post Hoc Analysis of a Randomized Controlled Ketamine Trial.** *medRxiv : the preprint server for health sciences*  
Lii, T. R., Flohr, J. R., Okada, R. L., Cianfichi, L. J., Hack, L. M., Schatzberg, A. F., Heifets, B. D.  
2024
- **Ketamine, the First Associative Anesthetic? Some Considerations on Classifying Psychedelics, Entactogens, and Dissociatives.** *The American journal of psychiatry*  
Denomme, N., Heifets, B. D.  
2024; 181 (9): 784-786
- **Prevalence and characteristics of preoperative patients with depression.** *British journal of anaesthesia*  
Hietamies, T. M., Smith, A. E., Lii, T. R., Muzzall, E., Flohr, J., Okada, R. L., Andriella, Z. G., Nyongesa, C. A., Cianfichi, L. J., Hack, L. M., Heifets, B. D.  
2024
- **Neural Circuit Delineation of (±)-3,4-methylenedioxymethamphetamine (MDMA)-evoked Sociability and Fear Memory Deficits**  
Casey, A., Rijsketic, D., Zhao, W., Palmer, A., Salgado, J., Llorach, P., Wall, N., Pomrenze, M., Malenka, R., Heifets, B.  
ELSEVIER SCIENCE INC.2024: S254
- **Anesthesia as a Control for Blinding in Psychedelic Therapy**  
Hietamies, T., Casey, A., Zhao, W., Rijsketic, D., Deverett, B., Restagar, Z., Heifets, B.  
ELSEVIER SCIENCE INC.2024: S199
- **Clinical Outcomes and Biomarkers From a Randomized Trial of Ketamine Masked by Surgical Anesthesia in Depressed Patients**  
Heifets, B., Lii, T., Smith, A., Flohr, J., Nyongesa, C., Cianfichi, L., Hack, L., Schatzberg, A.  
ELSEVIER SCIENCE INC.2024: S47
- **Opioid Use Diminishes Placebo Antidepressant Response Independently of Pain in a Ketamine Depression Trial: A Post Hoc Analysis**  
Lii, T., Smith, A., Flohr, J., Okada, R., Nyongesa, C., Cianfichi, L., Hack, L., Schatzberg, A., Heifets, B.  
ELSEVIER SCIENCE INC.2024: S184-S185
- **Comparing the Antisuicidal and Antidepressant Effects of Intravenous Ketamine in Major Depressive Episodes With Suicidal Ideation**  
Bandeira, I. D., Tucciarone, J., Kratter, I. H., Heifets, B. D., Pankow, H., Chang, M., Hawkins, J., Schatzberg, A. F.  
ELSEVIER SCIENCE INC.2024: S211
- **DREAMING UNDER ANESTHESIA OCCURS DURING PRE-EMERGENCE STATE**  
Ishii, T., Kawai, M., Heifets, B., Chow, H.  
OXFORD UNIV PRESS INC.2024
- **MDMA enhances empathy-like behaviors in mice via 5-HT release in the nucleus accumbens.** *Science advances*  
Rein, B., Raymond, K., Boustani, C., Tuy, S., Zhang, J., St Laurent, R., Pomrenze, M. B., Boroon, P., Heifets, B., Smith, M., Malenka, R. C.

2024; 10 (17): eadl6554

- **Reduction in Trauma-Related Symptoms After Anesthetic-Induced Intra-Operative Dreaming.** *The American journal of psychiatry*  
Hack, L. M., Sikka, P., Zhou, K., Kawai, M., Chow, H. S., Heifets, B.  
2024: appiajp20230698
- **Opioid receptor expressing neurons of the central amygdala gate behavioral effects of ketamine in mice.** *bioRxiv : the preprint server for biology*  
Pomrenze, M. B., Vaillancourt, S., Llorach, P., Rijsketic, D. R., Casey, A. B., Gregory, N., Salgado, J. S., Malenka, R. C., Heifets, B. D.  
2024
- **Expectancy effects in psychedelic trials.** *Biological psychiatry. Cognitive neuroscience and neuroimaging*  
Szigeti, B., Heifets, B.  
2024
- **REPETITIVE CONTENT AND CLINICAL REPRODUCIBILITY OF ANESTHESIA DREAMS REPORTED IN BREAST CANCER SURGICAL PATIENTS**  
Shull, M., Strowd, S., Sikka, P., Heifets, B., Chow, H.  
ELSEVIER.2024: 40
- **Brain-Wide Activity Mapping Reveals a Required Role for the Dorsal Endopiriform Nucleus in MDMA-Evoked Prosocial Behavior**  
Heifets, B.  
SPRINGER NATURE.2023: 42-43
- **Randomized trial of ketamine masked by surgical anesthesia in patients with depression.** *Nature mental health*  
Lii, T. R., Smith, A. E., Flohr, J. R., Okada, R. L., Nyongesa, C. A., Cianfichi, L. J., Hack, L. M., Schatzberg, A. F., Heifets, B. D.  
2023; 1 (11): 876-886
- **Ketamine's acute effects on negative brain states are mediated through distinct altered states of consciousness in humans.** *Nature communications*  
Hack, L. M., Zhang, X., Heifets, B. D., Suppes, T., van Roessel, P. J., Yesavage, J. A., Gray, N. J., Hilton, R., Bertrand, C., Rodriguez, C. I., Deisseroth, K., Knutson, B., Williams, et al  
2023; 14 (1): 6631
- **An orexigenic subnetwork within the human hippocampus.** *Nature*  
Barbosa, D. A., Gattas, S., Salgado, J. S., Kuijper, F. M., Wang, A. R., Huang, Y., Kakusa, B., Leuze, C., Luczak, A., Rapp, P., Malenka, R. C., Hermes, D., Miller, et al  
2023
- **An orexigenic subnetwork within the human hippocampus** *NATURE*  
Barbosa, D. A. N., Gattas, S., Salgado, J. S., Kuijper, F., Wang, A. R., Huang, Y., Kakusa, B., Leuze, C., Luczak, A., Rapp, P., Malenka, R. C., Hermes, D., Miller, et al  
2023
- **Therapeutic mechanisms of psychedelics and entactogens.** *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology*  
Heifets, B. D., Olson, D. E.  
2023
- **UNRAVELing the synergistic effects of psilocybin and environment on brain-wide immediate early gene expression in mice.** *Neuropsychopharmacology : official publication of the American College of Neuropsychopharmacology*  
Rijsketic, D. R., Casey, A. B., Barbosa, D. A., Zhang, X., Hietamies, T. M., Ramirez-Ovalle, G., Pomrenze, M. B., Halpern, C. H., Williams, L. M., Malenka, R. C., Heifets, B. D.  
2023
- **The effects of ketamine on symptoms of depression and anxiety in real-world care settings: A retrospective controlled analysis.** *Journal of affective disorders*  
Hietamies, T. M., McInnes, L. A., Klise, A. J., Worley, M. J., Qian, J. J., Williams, L. M., Heifets, B. D., Levine, S. P.  
2023
- **Trial of Ketamine Masked by Surgical Anesthesia in Depressed Patients.** *medRxiv : the preprint server for health sciences*  
Lii, T. R., Smith, A. E., Flohr, J. R., Okada, R. L., Nyongesa, C. A., Cianfichi, L. J., Hack, L. M., Schatzberg, A. F., Heifets, B. D.

2023

- **Brain-Wide Activity Mapping Reveals a Required Role for the Dorsal Endopiriform Nucleus in MDMA-Evoked Prosocial Behavior**  
Heifets, B., Rijsketic, D., Salgado, J., Wall, N., Ramirez-Ovalle, G., Llorach, P., Lopez, R., Casey, A., Hietamies, T., Rastegar, Z., Barbosa, D., Beier, K., Malenka, et al  
ELSEVIER SCIENCE INC.2023: S57-S58
- **Ketamine's Acute Effects on Negative Brain States are Mediated Through Distinct Altered States in Humans**  
Zhang, X., Hack, L., Heifets, B., Suppes, T., Van Roessel, P., Yesavage, J., Gray, N., Hilton, R., Rodriguez, C., Deisseroth, K., Knutson, B., Williams, L.  
ELSEVIER SCIENCE INC.2023: S312
- **Acute Effects of MDMA on Negative Affective Brain Circuit Function: A Randomized Controlled Mechanistic Trial**  
Hack, L., Zhang, X., Heifets, B., Suppes, T., van Roessel, P., Yesavage, J., Gray, N., Hilton, R., Rodriguez, C., Deisseroth, K., Knutson, B., Williams, L.  
ELSEVIER SCIENCE INC.2023: S88
- **Acute Effects of MDMA on Intrinsic Functional Connectomes Associated With Altered States of Consciousness and Defensiveness**  
Zhang, X., Hack, L., Heifets, B., Suppes, T., van Roessel, P., Yesavage, J., Gray, N., Hilton, R., Rodriguez, C., Deisseroth, K., Knutson, B., Williams, L.  
ELSEVIER SCIENCE INC.2023: S87-S88
- **UNRAVELing the synergistic effects of psilocybin and environment on brain-wide immediate early gene expression in mice.** *bioRxiv : the preprint server for biology*  
Rijsketic, D. R., Casey, A. B., Barbosa, D. A., Zhang, X., Hietamies, T. M., Ramirez-Ovalle, G., Pomrenze, M., Halpern, C. H., Williams, L. M., Malenka, R. C., Heifets, B. D.  
2023
- **A Protocol for Reducing Intensive Care Utilization After Craniotomy: A 3-Year Assessment.** *Neurosurgery*  
Ruiz Colón, G. D., Ohkuma, R., Pendharkar, A. V., Heifets, B. D., Li, G., Lu, A., Gephart, M. H., Ratliff, J. K.  
2023
- **Cervical sympathectomy to treat cerebral vasospasm: a scoping review.** *Regional anesthesia and pain medicine*  
Bombardieri, A. M., Heifets, B. D., Treggiari, M., Albers, G. W., Steinberg, G. K., Heit, J. J.  
2022
- **Intraoperative Anesthetic Probes of Brain Health: Ketamine as a Canary in the Coal Mine?** *Anesthesia and analgesia*  
Reese, M., Heifets, B. D., Berger, M.  
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