

Stanford



Jennifer Hah

Associate Professor of Anesthesiology, Perioperative and Pain Medicine (Adult Pain)

CLINICAL OFFICE (PRIMARY)

- **Pain Management Clinic**

450 Broadway St

Pavilion A 1st Fl MC 5340

Redwood City, CA 94063

Tel (650) 723-6238 **Fax** (650) 721-3417

Bio

BIO

As an anesthesiologist, pain medicine specialist, and clinical epidemiologist, my research interests span development of novel psychotherapeutic interventions at the intersection of pain, prescription opioid addiction, and psychology. As an NIH-funded researcher I am working to develop novel interventions (behavioral, medical technology, medical device) to prevent continued pain and opioid use after surgery. My clinical interests include treatment of chronic pelvic pain conditions including painful bladder syndrome/interstitial cystitis, endometriosis, pelvic floor myofascial pain, pudendal neuralgia, peripheral nerve entrapments, pelvic adhesions, vulvodynia, and chronic constipation.

CLINICAL FOCUS

- Pelvic Pain
- Interstitial Cystitis
- Painful Bladder Syndrome
- Perioperative Pain Management
- Pain Medicine Ultrasonography
- Pain Medicine

ACADEMIC APPOINTMENTS

- Associate Professor - University Medical Line, Anesthesiology, Perioperative and Pain Medicine

PROFESSIONAL EDUCATION

- Board Certification: Addiction Medicine, American Board of Preventive Medicine (2020)
- Board Certification, American Board of Preventive Medicine , Addiction Medicine (2020)
- Residency: Stanford University Anesthesiology Residency (2009) CA
- Residency: Cleveland Clinic Foundation Heart Center (2007) OH
- Internship: Cleveland Clinic Foundation Heart Center (2007) OH

- Board Certification: Anesthesiology, American Board of Anesthesiology (2010)
- Fellowship: Stanford University Hospital - Pain Medicine (2010) CA
- M.S., Stanford University , Epidemiology (2013)
- Board Certification: Pain Medicine, American Board of Anesthesiology (2011)
- Medical Education: Northeastern Ohio Universities (2005) OH

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Perioperative Recovery of Opioids Mood and Pain Trial

CLINICAL TRIALS

- Motivational Interviewing and Guided Opioid Tapering Support to Promote Postoperative Opioid Cessation, Recruiting
- Low-dose Naltrexone for Bladder Pain Syndrome, Not Recruiting
- Perioperative Recovery of Moods, Opioids, and Pain Trial (PROMPT), Not Recruiting

Publications

PUBLICATIONS

- **Postoperative opioid prescribing patients with diabetes: Opportunities for personalized pain management.** *PloS one*
Zammit, A., Coquet, J., Hah, J., El Hajouji, O., Asch, S. M., Carroll, I., Curtin, C. M., Hernandez-Boussard, T.
2023; 18 (8): e0287697
- **Preoperative Versus Perioperative Risk Factors for Delayed Pain and Opioid Cessation After Total Joint Arthroplasty: A Prospective Cohort Study.** *Pain and therapy*
Hah, J. M., Vialard, J. D., Efron, B., Mackey, S. C., Carroll, I. R., Amanatullah, D. F., Narasimhan, B., Hernandez-Boussard, T.
2023
- **Review of Ultrasound-Guided Procedures in the Management of Chronic Pain.** *Anesthesiology clinics*
Aggarwal, A. K., Ottestad, E., Pfaff, K. E., Huai-Yu Li, A., Xu, L., Derby, R., Hecht, D., Hah, J., Pritzlaff, S., Prabhakar, N., Krane, E., D'Souza, G., Hoydonckx, et al
2023; 41 (2): 395-470
- **Effect of Perioperative Gabapentin on Postoperative Pain Resolution and Opioid Cessation in a Mixed Surgical Cohort: A Randomized Clinical Trial (vol 153, pg 303, 2018) JAMA SURGERY**
Hah, J., Mackey, S. C., Schmidt, P.
2022; 157 (6): 553
- **Whole Body Pain Distribution and Risk Factors for Widespread Pain Among Patients Presenting with Abdominal Pain: A Retrospective Cohort Study.** *Pain and therapy*
Hah, J. M., Aivaliotis, V. I., Hettie, G., Pirrotta, L. X., Mackey, S. C., Nguyen, L. A.
2022
- **Effect of Perioperative Gabapentin on Postoperative Pain Resolution and Opioid Cessation in a Mixed Surgical Cohort: A Randomized Clinical Trial (vol 153, pg 303, 2018) JAMA SURGERY**
Hah, J., Mackey, S. C., Schmidt, P.
2022
- **Perioperative Opioids, the Opioid Crisis, and the Anesthesiologist.** *Anesthesiology*
Larach, D. B., Hah, J. M., Brummett, C. M.
1800
- **Best Practices for Minimally Invasive Lumbar Spinal Stenosis Treatment 2.0 (MIST): Consensus Guidance from the American Society of Pain and Neuroscience (ASPEN).** *Journal of pain research*

- Deer, T. R., Grider, J. S., Pope, J. E., Lamer, T. J., Wahezi, S. E., Hagedorn, J. M., Falowski, S., Tolba, R., Shah, J. M., Strand, N., Escobar, A., Malinowski, M., Bux, et al
2022; 15: 1325-1354
- **Prescription quantity and duration predict progression from acute to chronic opioid use in opioid-naive Medicaid patients.** *PLOS digital health*
Johnson, D. G., Ho, V. T., Hah, J. M., Humphreys, K., Carroll, I., Curtin, C., Asch, S. M., Hernandez-Boussard, T.
2022; 1 (8)
 - **Management of Postoperative Pain in Patients Following Spine Surgery: A Narrative Review.** *International journal of general medicine*
Prabhakar, N. K., Chadwick, A. L., Nwaneshiudu, C., Aggarwal, A., Salmasi, V., Lii, T. R., Hah, J. M.
2022; 15: 4535-4549
 - **Consensus practice guidelines on interventions for cervical spine (facet) joint pain from a multispecialty international working group.** *Regional anesthesia and pain medicine*
Hurley, R. W., Adams, M. C., Barad, M., Bhaskar, A., Bhatia, A., Chadwick, A., Deer, T. R., Hah, J., Hooten, W. M., Kisson, N. R., Lee, D. W., McCormick, Z., Moon, et al
2021
 - **Gaps in standardized postoperative pain management quality measures: A systematic review.** *Surgery*
Joseph, J. M., Gori, D., Curtin, C., Hah, J., Ho, V. T., Asch, S. M., Hernandez-Boussard, T.
2021
 - **Early Convalescent Plasma for High-Risk Outpatients with Covid-19.** *The New England journal of medicine*
Korley, F. K., Durkalski-Mauldin, V., Yeatts, S. D., Schulman, K., Davenport, R. D., Dumont, L. J., El Kassab, N., Foster, L. D., Hah, J. M., Jaiswal, S., Kaplan, A., Lowell, E., McDyer, et al
2021
 - **Risk factors and screening for opioid misuse: current clinical implications for prescription opioid therapy.** *Pain management*
Hah, J.
2021
 - **Customizing CAT administration of the PROMIS Misuse of Prescription Pain Medication Item Bank for patients with chronic pain.** *Pain medicine (Malden, Mass.)*
You, D. S., Cook, K. F., Domingue, B. W., Ziadni, M. S., Hah, J. M., Darnall, B. D., Mackey, S. C.
2021
 - **Association of Postoperative Opioid Misuse with Prolonged Postoperative Pain, Opioid Use, and Delayed Recovery**
Nwaneshiudu, C., Cramer, E., Mackey, S., Carroll, I., Hah, J.
LIPPINCOTT WILLIAMS & WILKINS.2021: 634
 - **Acute Pain Predictors of Remote Postoperative Pain Resolution After Hand Surgery.** *Pain and therapy*
Hah, J. M., Nwaneshiudu, C. A., Cramer, E. M., Carroll, I. R., Curtin, C. M.
2021
 - **Return to work and productivity loss after surgery: A health economic evaluation.** *International journal of surgery (London, England)*
M Hah, J., Lee, E., Shrestha, R., Pirrotta, L., Huddleston, J., Goodman, S., Amanatullah, D. F., Dirbas, F. M., Carroll, I. R., Schofield, D.
2021: 106100
 - **Consensus practice guidelines on interventions for cervical spine (facet) joint pain from a multispecialty international working group.** *Pain medicine (Malden, Mass.)*
Hurley, R. W., Adams, M. C., Barad, M., Bhaskar, A., Bhatia, A., Chadwick, A., Deer, T. R., Hah, J., Hooten, W. M., Kisson, N. R., Lee, D. W., McCormick, Z., Moon, et al
2021
 - **Practice Choices in Targeted Intrathecal Drug Delivery: An Online Survey Conducted by the Polyanalgesic Consensus Committee.** *Neuromodulation : journal of the International Neuromodulation Society*
Deer, T. R., Abd-Elsayed, A., Falowski, S., Hagedorn, J. M., Abejon, D., Russo, M., Hah, J. M., Lamer, T. J., Carayannopoulos, A. G., Hunter, C., Steegers, M., Pope, J.
2020
 - **Efficacy of motivational-interviewing and guided opioid tapering support for patients undergoing orthopedic surgery (MI-Opioid Taper): A prospective, assessor-blind, randomized controlled pilot trial.** *EClinicalMedicine*

Hah, J. M., Trafton, J. A., Narasimhan, B., Krishnamurthy, P., Hilmoe, H., Sharifzadeh, Y., Huddleston, J. I., Amanatullah, D., Maloney, W. J., Goodman, S., Carroll, I., Mackey, S. C.

2020; 28: 100596

- **Opioid Prescription and Persistent Opioid Use After Ectopic Pregnancy.** *Obstetrics and gynecology*
Wall-Wieler, E., Shover, C. L., Hah, J. M., Carmichael, S. L., Butwick, A. J.
2020
- **Peripheral Nerve Stimulation for Occipital Neuralgia.** *Pain medicine (Malden, Mass.)*
Salmasi, V., Olatoye, O. O., Terkawi, A. S., Hah, J. M., Ottestad, E., Pingree, M.
2020; 21 (Supplement_1): S13–S17
- **Peripheral Nerve Stimulation for Pudendal Neuralgia: A Technical Note.** *Pain medicine (Malden, Mass.)*
Gregory, N. S., Terkawi, A. S., Prabhakar, N. K., Tran, J. V., Salmasi, V., Hah, J. M.
2020; 21 (Supplement_1): S51–S55
- **Association of State Policies Allowing Medical Cannabis for Opioid Use Disorder With Dispensary Marketing for This Indication.** *JAMA network open*
Shover, C. L., Vest, N. A., Chen, D., Stueber, A., Falasinnu, T. O., Hah, J. M., Kim, J., Mackey, I., Weber, K. A., Ziadni, M., Humphreys, K.
2020; 3 (7): e2010001
- **ASSOCIATION BETWEEN PAIN CATASTROPHIZING AND FREQUENT CRAVING FOR PRESCRIPTION OPIOIDS IN PATIENTS WITH CHRONIC PAIN**
You, D. S., Ziadni, M., Hah, J., Darnall, B. D., Mackey, S.
OXFORD UNIV PRESS INC.2020: S89
- **Clinical Profiles of Concurrent Cannabis Use in Chronic Pain: A CHOIR Study.** *Pain medicine (Malden, Mass.)*
Sturgeon, J. A., Khan, J., Hah, J. M., Hilmoe, H., Hong, J., Ware, M. A., Mackey, S. C.
2020
- **Associations between stopping prescriptions for opioids, length of opioid treatment, and overdose or suicide deaths in US veterans: observational evaluation.** *BMJ (Clinical research ed.)*
Oliva, E. M., Bowe, T., Manhapra, A., Kertesz, S., Hah, J. M., Henderson, P., Robinson, A., Paik, M., Sandbrink, F., Gordon, A. J., Trafton, J. A.
2020; 368: m283
- **Preoperative Factors Associated with Remote Postoperative Pain Resolution and Opioid Cessation in a Mixed Surgical Cohort: Post Hoc Analysis of a Perioperative Gabapentin Trial.** *Journal of pain research*
Hah, J. M., Hilmoe, H. n., Schmidt, P. n., McCue, R. n., Trafton, J. n., Clay, D. n., Sharifzadeh, Y. n., Ruchelli, G. n., Hernandez Boussard, T. n., Goodman, S. n., Huddleston, J. n., Maloney, W. J., Dirbas, et al
2020; 13: 2959–70
- **Evaluation of the Preliminary Validity of Misuse of Prescription Pain Medication Items from the Patient-Reported Outcomes Measurement Information System (PROMIS)(R)** *PAIN MEDICINE*
You, D., Hah, J. M., Collins, S., Ziadni, M. S., Domingue, B. W., Cook, K. F., Mackey, S. C.
2019; 20 (10): 1925–33
- **Evaluation of Somatic Pain Distribution Using Body Maps for Patients With Chronic Abdominal Pain Syndromes**
Aivaliotis, V. I., Hah, J. M., Pirrotta, L., Nguyen, L. A.
LIPPINCOTT WILLIAMS & WILKINS.2019: S281–S282
- **American Society for Enhanced Recovery and Perioperative Quality Initiative Joint Consensus Statement on Perioperative Opioid Minimization in Opioid-Naive Patients** *ANESTHESIA AND ANALGESIA*
Wu, C. L., King, A. B., Geiger, T. M., Grant, M. C., Grocott, M. W., Gupta, R., Hah, J. M., Miller, T. E., Shaw, A. D., Gan, T. J., Thacker, J. M., Mythen, M. G., McEvoy, et al
2019; 129 (2): 567–77
- **American Society for Enhanced Recovery and Perioperative Quality Initiative-4 Joint Consensus Statement on Persistent Postoperative Opioid Use: Definition, Incidence, Risk Factors, and Health Care System Initiatives** *ANESTHESIA AND ANALGESIA*
Kent, M. L., Hurley, R. W., Oderda, G. M., Gordon, D. B., Sun, E., Mythen, M., Miller, T. E., Shaw, A. D., Gan, T. J., Thacker, J. M., McEvoy, M. D., POQI-4 Working Grp
2019; 129 (2): 543–52

- **American Society for Enhanced Recovery and Perioperative Quality Initiative-4 Joint Consensus Statement on Persistent Postoperative Opioid Use: Definition, Incidence, Risk Factors, and Health Care System Initiatives.** *Anesthesia and analgesia*
Kent, M. L., Hurley, R. W., Oderda, G. M., Gordon, D. B., Sun, E., Mythen, M., Miller, T. E., Shaw, A. D., Gan, T. J., Thacker, J. K., McEvoy, M. D., POQI-4 Working Group
2019
- **Evaluation of the Preliminary Validity of Misuse of Prescription Pain Medication Items from the Patient-Reported Outcomes Measurement Information System (PROMIS).** *Pain medicine (Malden, Mass.)*
You, D. S., Hah, J. M., Collins, S., Ziadni, M. S., Domingue, B. W., Cook, K. F., Mackey, S. C.
2019
- **Factors Associated With Acute Pain Estimation, Postoperative Pain Resolution, Opioid Cessation, and Recovery Secondary Analysis of a Randomized Clinical Trial** *JAMA NETWORK OPEN*
Hah, J. M., Cramer, E., Hilmoe, H., Schmidt, P., McCue, R., Trafton, J., Clay, D., Sharifzadeh, Y., Ruchelli, G., Goodman, S., Huddleston, J., Maloney, W. J., Dirbas, et al
2019; 2 (3)
- **Factors Associated With Acute Pain Estimation, Postoperative Pain Resolution, Opioid Cessation, and Recovery: Secondary Analysis of a Randomized Clinical Trial.** *JAMA network open*
Hah, J. M., Cramer, E., Hilmoe, H., Schmidt, P., McCue, R., Trafton, J., Clay, D., Sharifzadeh, Y., Ruchelli, G., Goodman, S., Huddleston, J., Maloney, W. J., Dirbas, et al
2019; 2 (3): e190168
- **Effects of smoking on patients with chronic pain: a propensity-weighted analysis on the Collaborative Health Outcomes Information Registry.** *Pain*
Khan, J. S., Hah, J. M., Mackey, S. C.
2019
- **American Society for Enhanced Recovery and Perioperative Quality Initiative Joint Consensus Statement on Perioperative Opioid Minimization in Opioid-Naive Patients.** *Anesthesia and analgesia*
Wu, C. L., King, A. B., Geiger, T. M., Grant, M. C., Grocott, M. P., Gupta, R. n., Hah, J. M., Miller, T. E., Shaw, A. D., Gan, T. J., Thacker, J. K., Mythen, M. G., McEvoy, et al
2019
- **Striving for Evidence-Based Postoperative Opioid Prescribing While Optimizing Perioperative Pain Management-Shifting to Conservative Prescribing.** *JAMA network open*
Hah, J. M.
2018; 1 (8): e185432
- **Predictors of Daily Pain Medication Use in Individuals with Recurrent Back Pain** *INTERNATIONAL JOURNAL OF BEHAVIORAL MEDICINE*
Sturgeon, J. A., Hah, J. M., Sharifzadeh, Y., Middleton, S. K., Rico, T., Johnson, K. A., Mackey, S. C.
2018; 25 (2): 252–58
- **Defining Postoperative Opioid Needs Among Preoperative Opioid Users.** *JAMA surgery*
Hah, J. n., Hernandez-Boussard, T. n.
2018
- **Factors associated with prescription opioid misuse in a cross-sectional cohort of patients with chronic non-cancer pain** *JOURNAL OF PAIN RESEARCH*
Hah, J. M., Sturgeon, J. A., Zocca, J., Sharifzadeh, Y., Mackey, S. C.
2017; 10: 979-987
- **Chronic Opioid Use After Surgery: Implications for Perioperative Management in the Face of the Opioid Epidemic.** *Anesthesia and analgesia*
Hah, J. M., Bateman, B. T., Ratliff, J. n., Curtin, C. n., Sun, E. n.
2017; 125 (5): 1733–40
- **Effect of Perioperative Gabapentin on Postoperative Pain Resolution and Opioid Cessation in a Mixed Surgical Cohort: A Randomized Clinical Trial.** *JAMA surgery*
Hah, J. n., Mackey, S. C., Schmidt, P. n., McCue, R. n., Humphreys, K. n., Trafton, J. n., Efron, B. n., Clay, D. n., Sharifzadeh, Y. n., Ruchelli, G. n., Goodman, S. n., Huddleston, J. n., Maloney, et al
2017
- **Opioid Abuse And Poisoning: Trends In Inpatient And Emergency Department Discharges.** *Health affairs (Project Hope)*

Tedesco, D. n., Asch, S. M., Curtin, C. n., Hah, J. n., McDonald, K. M., Fantini, M. P., Hernandez-Boussard, T. n.

2017; 36 (10): 1748-53

- **Taking adolescent prescription opioid use in context: risk stratification in early mid-life based on medical and nonmedical use.** *Pain*
Hah, J.
2016; 157 (10): 2143-2144
- **(139) Risk factors for long-term prescription opioid therapy for chronic non-cancer pain.** *journal of pain*
Hah, J., Zocca, J., Sharifzadeh, Y., Mackey, S.
2016; 17 (4S): S10-S11
- **Pain Duration and Resolution following Surgery: An Inception Cohort Study** *PAIN MEDICINE*
Carroll, I. R., Hah, J. M., Barelka, P. L., Wang, C. K., Wang, B. M., Gillespie, M. J., McCue, R., Younger, J. W., Trafton, J., Humphreys, K., Goodman, S. B., Dirbas, F. M., Mackey, et al
2015; 16 (12): 2386-2396
- **Pain Duration and Resolution following Surgery: An Inception Cohort Study.** *Pain medicine*
Carroll, I. R., Hah, J. M., Barelka, P. L., Wang, C. K., Wang, B. M., Gillespie, M. J., McCue, R., Younger, J. W., Trafton, J., Humphreys, K., Goodman, S. B., Dirbas, F. M., Mackey, et al
2015; 16 (12): 2386-2396
- **Management of a Patient with a Thoracic Epidural After Accidental Clopidogrel Administration.** *A & A case reports*
Hah, J. M., Noon, K., Gowda, A., Brun, C.
2015; 5 (2): 18-20
- **A Review of Chronic Non-Cancer Pain: Epidemiology, Assessment, Treatment, and Future Needs** *FOCUS: Journal of Lifelong Learning in Psychiatry*
Hah, J. M., Mackey, S. C.
2015; 13 (3): 267-282
- **Factors Associated with Opioid Use in a Cohort of Patients Presenting for Surgery.** *Pain research and treatment*
Hah, J. M., Sharifzadeh, Y., Wang, B. M., Gillespie, M. J., Goodman, S. B., Mackey, S. C., Carroll, I. R.
2015; 2015: 829696-?
- **Self-Loathing Aspects of Depression Reduce Postoperative Opioid Cessation Rate** *PAIN MEDICINE*
Hah, J. M., Mackey, S., Barelka, P. L., Wang, C. K., Wang, B. M., Gillespie, M. J., McCue, R., Younger, J. W., Trafton, J., Humphreys, K., Goodman, S. B., Dirbas, F. M., Schmidt, et al
2014; 15 (6): 954-964
- **From Catastrophizing to Recovery: a pilot study of a single-session treatment for pain catastrophizing** *JOURNAL OF PAIN RESEARCH*
Darnall, B. D., Sturgeon, J. A., Kao, M., Hah, J. M., Mackey, S. C.
2014; 7: 219-226
- **Pilot study of a compassion meditation intervention in chronic pain.** *Journal of compassionate health care*
Chapin, H. L., Darnall, B. D., Seppala, E. M., Doty, J. R., Hah, J. M., Mackey, S. C.
2014; 1
- **Pilot Study of a Compassion Meditation Intervention in Chronic Pain** *Journal of Compassionate Health Care*
Chapin, H., Darnall, B., Seppala, E., Doty, J., Hah, J., Sean
2014; 1: 4
- **Perioperative Interventions to Reduce Chronic Postsurgical Pain** *JOURNAL OF RECONSTRUCTIVE MICROSURGERY*
Carroll, I., Hah, J., Mackey, S., Ottestad, E., Kong, J. T., Lahidji, S., Tawfik, V., Younger, J., Curtin, C.
2013; 29 (4): 213-222
- **Exploratory factor analysis of the beck depression inventory: predictors of delayed opioid cessation after surgery in a pilot cohort study**
Hah, J., Carroll, I., Younger, J., Mackey, S.
CHURCHILL LIVINGSTONE.2013: S25-S25
- **Analysis of preoperative measures that predict interference with sleep recovery after surgery**
Schmidt, P., Hah, J., Barelka, P., Wang, C., Wang, B., Gillespie, M., McCue, R., Younger, J., Trafton, J., Humphreys, K., Goodman, S., Dirbas, F., Whyte, et al
CHURCHILL LIVINGSTONE.2013: S19-S19

- **Local Anesthetics and Other Interventional Approaches** *Neuropathic Pain: Causes, Management and Understanding*
Carroll, I., Hah, J., Mackey, S., Ottestad, E., Kong, J., et al
Cambridge University Press.2013
- **Factors contributing to pain chronicity** *CURRENT PAIN AND HEADACHE REPORTS*
Wang, C. K., Hah, J. M., Carroll, I.
2009; 13 (1): 7-11
- **The dromedary sign - An unusual capnograph tracing** *ANESTHESIOLOGY*
Jaffe, R. A., Talavera, J. A., Hah, J. M., Brock-Utne, J. G.
2008; 109 (1): 149-150