Curriculum Vitae

Last Updated July 5, 2026

A. Identifying Data

Name	Martin S. Angst, MD
Current Position	Professor of Anesthesiology, Perioperative and Pain Medicine Stanford University School of Medicine
Phone	650 4985109
Email	ang@stanford.edu

B. Academic History

Colleges / Universities / Additional Training:

1987	MD, University of Berne, Switzerland

Residency and Fellowship Training:

1988-1990	Residency, Internal Medicine, Burgdorf Hospital, Burgdorf, Switzerland
1990-1994	Residency, Anesthesia and Intensive Care Medicine, University Hospital of Berne, Berne, Switzerland
1994-1996	Postdoctoral Fellowship, Clinical Pharmacology, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine

Board Certification:

1993	European Board, European Academy of Anesthesiology
1993	Swiss Board, Swiss Society of Anesthesiologists

C. Employment

Academic Appointments:

3/1996-10/1998	Clinical Instructor, Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine, Stanford, CA
9/1998-1/2006	Assistant Professor, Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine, Stanford, CA
2/2006-12/2010	Associate Professor, Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine, Stanford, CA

1/2011-	Professor, Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine, Stanford, CA

Other Appointments:

10/2019-9/2022	Director of Cardiovascular and Thoracic Anesthesia, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
6/2022-	Vice Chair for Strategy and Initiatives, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine

D. Teaching Responsibilities

Students / Trainees / Mentorship:

Graduate Students/Postdoctoral Scholars

7/1997-7/1998	Bhamini Rhamaswamy, MD
9/1999-8/2001	Yehuda Ginosar, MD
8/2003-7/2004	Larry F. Chu, MD, FAER Award, NIH K23 Award
9/2005-8/2007	Jason M. Cuellar, PhD, Medical Student, Stanford Scholar Fellowship Award
9/2006-8/2008	Brendan Carvalho, MD, BIRCWH Scholar, NIH K12 Award
7/2008-6/2010	Nick Phillips, BS
6/2009-8/2009	Victor Wang, BS, FAER Medical Student Fellow Award
9/2009-8/2012	David Ruau, PhD
6/2010-9/2010	Jeremy Harris, BS, Medical Scholar Fellowship Award
7/2012-6/2014	Gabi Fragiadakis, BS, BioX Graduate Fellow Award
9/2013-8/2017	Alexander Butwick, MD, NIH K-23 Award
9/2013-8/2019	Quentin Barca, MD, PhD, FARM fellow, NIH T32 Award
9/2014-8/2018	Brice Gaudilliere, MD, PhD, FARM fellow, NIH T-32 Award, NIH K-23 Award
9/2015-	Igor Feinstein, MD, PhD, FARM fellow, ADRC/NIA Award
9/2017-8/2019	Chris Rishel, MD, FARM Fellow, NIH T32 Award
6/2019-7/2021	Xiaoxiao Gao, BS
9/2019-8/2020	Karen Hirsch, MD, AHA Award
9/2019-8/2021	Jessica Brodt, MD, SCA/IARS Award
6/2020-	Tiffany McAllister, BA
9/2024-	Ayla Huhn, BA

9/2024-	Gianna Delaney, BS
3/2026	Alain Phung, Med Scholar

Major Administrative Responsibilities or Committee Assignments:

7/2000-6/2006	Admissions Panel Medical School, Stanford University School of Medicine
1/2009-6/2012	Member of Stanford Hospital Committee for Establishing ICU CNS Pharmacotherapy Guidelines, Stanford Medicine
1/2011-12/2011	Search Committee Member: Chief of Multi-Specialty Division, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
1/2011-12/2011	Search Committee Member: Research Faculty, Stanford Neuroscience Institute, Stanford University School of Medicine
1/2012-12/2012	Search Committee Member: Clinician Scientist, Critical Care Division, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
1/2013-12/2013	Search Committee Member: Clinician Scientist in Clinical Pharmacology, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
1/2014-12/2014	Search Committee Chair: Clinician Scientist in Pain Medicine, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
1/2014-12/2014	Search Committee Member: Senior Scientist, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
1/2015-12/2015	Search Committee Member: Head Bio-banking and Population-based Genetic Research, Department of Medicine, Stanford University School of Medicine
6/2015-5/2021	Appointment and Promotion Committee, Stanford University School of Medicine
1/2016-12/2016	Member High Value Care Team for Spine Surgery, Stanford Medicine
1/2016-12/2020	Stanford Biobank Working Group Member, Representative for the Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
1/2017-12/2018	Search Committee Chair: Division Chief Cardiovascular and Thoracic Anesthesia, Department of Anesthesiology, Perioperative and Pain Medicine,, Stanford University School of Medicine
1/2018-12/2021	Search Committee Member, UML Faculty Search, Department of Surgery, Stanford University School of Medicine
1/2019-	Finance Committee Member, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine

1/2019-	Governance Committee Member, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
10/2019-9/2022	CVH Operations Leadership Group Member, Stanford Cardiovascular Health Service Line
1/2020-12/2021	Multi-Organ Transplantation Quality Project Member, Stanford University School of Medicine
1/2021-	UML Search Committee Member, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
1/2022-1/2024	Data Science Initiative Committee Member, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
10/2022-6/2025	Co-chair Data Governance Committee, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
10/2022-	Executive Committee Member, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
11/2022-6/2023	Search Committee Chair: Anesthesia Division Chief of Critical Care Medicine, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
12/2024-3/2026	Search Committee Chair: Vice Chair for Perioperative Medicine, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
4/2025-2025	Search Committee Member: Anesthesia Section Chief for Liver Transplantation, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
1/1995-12/2014	Member, American Pain Society
1/1995-12/2014	Member, International Association for the Study of Pain
1/1995-	Member, American Society of Anesthesiologists
1/1995-	Member, California Society of Anesthesiologists
1/1996-	Member, International Anesthesia Research Society
1/1997-12/2000	Member, American Society for Clinical Pharmacology and Therapeutics
1/2009-	Member (elected), Association of University Anesthesiologists
1/2015-12/2022	Member, American Association of Immunologists
1/2015-12/2022	Member, Shock Society

E. Public and Professional Service

Editorial Positions:

2007-2010	Associate Editor, Anesthesia & Analgesia
2010-2012	Editor, Anesthesia & Analgesia
2010-2019	Associate Editor, European Journal of Pain
2012-2014	Section Editor, Pain and Analgesic Mechanisms, Anesthesia & Analgesia

F. Post-Degree Honors and Awards

1/1994-1995	Research Fellowship Award, Ciba-Geigy-Jubilaeumsstiftung
1/1994-1995	Research Fellowship Award, Janggen-Poehn Stiftung
1/1994-1995	Research Fellowship Award, Swiss Society of Anesthesiologists
5/1996	Research Award, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
6/1997	Best Abstract, Analgesia and Headache Section, American Society of Clinical Pharmacology and Therapeutics
5/2001, 5/2007, 5/2008, 5/2009, 5/2010	Research Award, Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine (Mentor)
6/2002	Monthly Resident Teaching Award, Department of Anesthesiology, Perioperative and Pain Medicine
7/2008	Elected Member, National Panel for Establishing Opioid Research Guidelines
6/2011	Stanford Society of Physician Scholars (SSPS) Collaborative Research Award (Mentor), Stanford University School of Medicine
6/2012	Best Abstract (Mentor), Society of Obstetric Anesthesia and Perinatology
5/2013	Kosaka Award for Best Abstract in Patient-oriented Research (Mentor), International Anesthesia Research Society
5/2013, 5/2015, 5/2017, 5/2018	Research Award (Mentor), Department of Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine
6/2013	Best Abstract of Critical Care, Trauma and Resuscitation Category (Mentor), International Anesthesia Research Society
6/2015	Best New Investigator Poster Award (Mentor), Society of Reproductive Investigations on Immunology and Women's Health
7/2017-6/2019	SPARK Scholar, SPARK, Stanford University
6/2018	Finalist Kosaka Award (Mentor), International Anesthesia Research Society
6/2018	Team Science Leadership Workshop Nomination, Stanford Medicine's Office of Faculty Development and Diversity, Stanford University School of Medicine

9/2018	Best of Meeting Abstract Award (Mentor), American Society of Regional Anesthesia
6/2019	Best of Meeting Award (Mentor), American Society of Regional Anesthesia
6/2019	Best of Meeting Award (Mentor), Society of Cardiovascular Anesthesiologists
6/2023	Best of Abstracts - Clinical Science (Mentor), American Society of Anesthesiologists
6/2025	Ellis N. Cohen Achievement Award for Exceptional Performance in Teaching, Research, Clinical Care and Administration, Stanford University School of Medicine, Department of Anesthesiology
6/2025-9/2025	StartX Professor-in-Residence, StartX Founder program
7/2025-8/2025	Invited Faculty Tutor, CA1 Tutorial Program, Departement of Anesthesiology, Perioperative and Pain Medicine
5/2026	Inaugural Sustained Excellence IMPACT Award., Department of Anesthesiology, Perioperative and Pain MedicineStanford University School of Medicine
7/2026-8/2026	Invited Faculty Tutor, CA1 Tutorial Program, Department of Anesthesiology, Perioperative and Pain Medicine

G. Research Grants and Projects

Past:

1/1995- 12/1996	Funder: Organon Inc. Title: ORG-9487 - A New Rapid Onset Muscle Relaxant Role: Co-Investigator (PI: Dyck B.) Funded
1/1996-1/1996	Funder: Neurobiological Technologies Inc. Title: Pharmacokinetics of Corticotropin-Releasing Factor in Man Role: PI Funded
1/1996- 12/1997	Funder: Abbott Inc. Title: Analgesic Action of Dexmedetomidine in Humans Role: PI Funded
1/1997- 12/2001	Funder: Knoll Pharmaceutical Company Title: Pharmacokinetics and Pharmacodynamics of Slow Release Hydromorphone in Humans Role: PI Funded
1/2000-1/2001	Funder: Department of Anesthesia, Stanford University School of Medicine Title: Experimental Model of Acute Opioid Tolerance and Withdrawal in Man Role: PI Funded

1/2000-1/2001 Funder: Cellergy Pharmaceuticals Inc.
Title: Pharmacokinetics of Anogesic in Patients with Anal Fissure
Role: Co-Investigator (PI: Drover D.)
Funded

1/2001-1/2002 Funder: Physiometrix Inc.
Title: Data Collection Study for PSA 4000 with Hypnos Software Upgrade
Role: Co-Investigator (PI: Drover D.)
Funded

1/2001-1/2002 Funder: Department of Anesthesia, Stanford University School of Medicine
Title: Gender and Rate Differences in Acute Tolerance and Withdrawal to the Analgesic, Sedative, and Respiratory Depressant Effects of Opioids
Role: PI
Funded

7/2002-6/2004 Funder: Foundation for Anesthesia Education and Research
Title: Differential Rate for the Development of Acute Tolerance to Opioid-induced Analgesia, Respiratory Depression and Sedation
Role: PI
Funded

7/2003-6/2004 Funder: Foundation for Anesthesia Education and Research
Title: Opiate-induced Tolerance and Hyperalgesia in Pain Patients
Role: Mentor (PI: Chu L.)
Funded

1/2004-1/2005 Funder: Department of Anesthesia, Stanford University School of Medicine
Title: Human Biomarkers of Inflammation and Nociception: Validation of an In-vivo Model
Role: PI
Funded

7/2004-6/2009 Funder: NIH, K23
Title: Opiate-induced Tolerance and Hyperalgesia in Pain Patients
Role: Mentor (PI: Chu L.)
Funded

1/2005-1/2006 Funder: Department of Anesthesia, Stanford University School of Medicine
Title: Effect of Nicotine on Inflammatory and Nociceptive Biomarkers in a Sunburn Model of Hyperalgesia in Healthy Volunteers
Role: PI
Funded

1/2005-1/2007 Funder: Organon Pharmaceuticals Inc.
Title: A Multi-center, Randomized, Assessor-blinded, Phase II, Parallel Dose-finding Trial to Assess the Efficacy and Safety of Org 25969
Role: Co-Investigator (PI: NA)
Funded

1/2005-1/2007 Funder: Department of Anesthesia, Stanford University School of Medicine
Title: Effects of Trans-cranial Electro-stimulation on Pain Perception, Cognition and Mood in Human Volunteers

Role: Mentor (PI: Nekhendzy V.)
Funded

1/2006-1/2008 Funder: Organon Pharmaceuticals Inc.
Title: A Multi-center, Randomized, Phase III Trial Assessing the PK/PD of Org 25969 in Subjects of Various Ages
Role: Co-Investigator (PI: NA)
Funded

7/2006-6/2008 Funder: NIH, K12
Title: Chronic Persistent Pain Following Cesarean Delivery: The Role of Wound Cytokines
Role: Mentor (PI: Carvalho B.)
Funded

1/2007-1/2008 Funder: I-Flow Corporation
Title: Continuous Administration of Bupivacaine and Ketamine to Surgical Wounds via the Follow-on Pain Buster System: Analgesic, Anti-hyperalgesia and Anti-inflammatory Effects
Role: PI
Funded

6/2007-7/2008 Funder: Department of Anesthesia, Stanford University School of Medicine
Title: Pilot-Study - Heritability of Opioid Analgesia
Role: PI
Funded

7/2007-6/2008 Funder: DARPA, W911NF0710462
7/2008-6/2011 Title: Feedback Regulated Drug Delivery System Based on Polymer Hydrogels and Vesicles
Role: Consortium Principal Investigator
Funded

1/2008-6/2009 Funder: Scientific Imaginetics Inc.
Title: Analgesic and Anti-inflammatory Effects of Electromagnetic Therapy in Humans
Role: PI
Funded

6/2008-6/2010 Funder: NIH, 1R43DA026228
Title: Naso-cerebral Administration of Peptides for Temporo-mandibular Joint Pain
Role: Consultant (PI: Trigemina Inc.)
Funded

7/2008-6/2010 Funder: Stanford Institute for Immunity, Transplantation and Infection
Title: A Systems Biology Approach for Discovery of Biomarkers for Inflammatory Pain
Role: PI
Funded

7/2008-6/2012 Funder: NIH, R01DA023063
Title: Opioid Efficacy - A Twin-study

	Role: PI Funded
7/2009-6/2010	Funder: NIH, R43DA027259 Title: Intranasal Nociceptin for the Treatment of Migraine and Head Pain Role: Consultant (PI: Trigemina Inc.) Funded
7/2012-6/2017	Funder: Department of Anesthesia, Stanford University School of Medicine Title: Mass cytometry - A Systems-based Approach for Studying Immune Health in Surgery and Anesthesia Role: PI Funded
1/2013-12/2015	Funder: March of Dimes Title: Characterizing Immune Signatures in Preterm Labor with Single Cell Mass Cytometry Role: Co-investigator (project leader) (PI: Stevenson D.) Funded
7/2013-6/2014	Funder: NIH, T32GM089626 Title: Systems Analysis of the Human Immune Response to Surgical Trauma Role: Mentor (PI: Gaudilliere B) Funded
7/2013-6/2016	Funder: Stanford UniversitySchool of Medicine, BioXGraduateFellowship Title: Systems-analysisof theHumanImmuneResponseto Surgery Role: Mentor (PI: Fragiadakis GK) Funded
7/2013-6/2017	Funder: NIH, K23HD07097201 Title: Postpartum Hemorrhage and Anemia: Epidemiologic and Cost-Effectiveness Analyses Role: Mentor (PI: Buttwick A.) Funded
1/2014-12/2016	Funder: Bill and Melinda Gates Foundation Title: Use of Molecular Features in Peripheral Blood to Understand Relationships between Microbiome and Host in the Setting of Preterm Birth Role: Co-Investigator (PI: Stevenson D) Funded
7/2014-6/2018	Funder: NIH, K23GM111657 Title: Role of Myeloid-derived Suppressor Cells in the Immune Response to Surgery Role: Mentor (PI: Gaudilliere B.) Funded
7/2014-6/2018	Funder: Stanford Neuroscience Institute Title: The Stroke Collaborative Action Network: Redefining Stroke Recovery Role: Co-Investigator (PI: Buckwalter M.) Funded

1/2016-1/2017 Funder: SomaLogic Inc.
Title: Aptamer Technology to Infer Gestational Age in the Plasma Proteome
Role: PI
Funded

7/2016-6/2017 Funder: HPI Hasso Plattner Institute
Title: Human Technology Teamwork: Enabling Clinicians to Focus on Complex Design Thinking Tasks through Advances in IT Systems Engineering: Tools to Improve Human-centered Communication between Patients and Providers
Role: Co-Investigator (PI: Berte N.)
Funded

7/2016-6/2017 Funder: Robert Butler Columbia Aging Center
Title: Plasticity in Recovery from Surgery - The Effects of Exercise Prehabilitation on Cognitive and Functional Recovery after Shoulder Replacement Surgery in Older Adults
Role: Co-Investigator (PI: Sloan R.)
Funded

7/2016-6/2019 Funder: NIH, T32GM089626
Title: The Effects of Lidocaine on Pain Trajectories and Immune Responses after Hip Arthroplasty
Role: Role: Primary Mentor (PI: Bacca Q)
Funded

1/2017-1/2018 Funder: Prematury Research Center Stanford University School of Medicine
Title: A Proteomic Signature of Preeclampsia
Role: PI
Funded

7/2017-6/2018 Funder: Lukas Center Grant, Stanford University
Title: Cognitive Decline after Cardiac Surgery: A Multimodal Magnetic Resonance Spectroscopy Approach
Role: Co-Investigator (PI: Feinstein I.)
Funded

9/2017-8/2018 Funder: SPARK Translational Research Program Stanford University
Title: Cocoa Flavanols for Modulating the Immune Response to Surgery and Accelerate Recovery
Role: PI
Funded

1/2018-12/2020 Funder: Bill and Melinda Gates Foundation
Title: Maternal and Fetal Markers for New Biology and Maternal/Fetal/Newborn Birth Risk
Role: Role: Co-investigator (project leader) (PI: Stevenson D.)
Funded

7/2018-6/2020 Funder: American Heart Association
Title: A Systems-based Mass Cytometry Approach to Study the Post-cardiac Arrest Immune Response
Role: Co-Investigator (PI: Hirsch K.)
Funded

7/2018-6/2020	Funder: NIH, R21DE027728 Title: Identifying a Systemic Immune Signature of Periodontal Disease with Mass Cytometry Role: Co-Investigator (PI: Gaudilliere B.) Funded
7/2018-6/2022	Funder: NIH, R01HL139844 Title: Preeclampsia to Cardiovascular Disease - Life Course Analysis of Biomarkers and Risks Role: Co-Investigator (PI: Hlatky M.) Funded
9/2018-6/2024	Funder: NIH, R01AG058417 Title: Dietary Modulation of Neuro-inflammation in Age-Related Memory Disorder Role: Site PI (PI: Sloan R.) Funded
9/2018-6/2024	Funder: NIH, R01AG058417-0251 Title: Dietary Modulation of Neuro-inflammation in Age-Related Memory Disorders Role: Site PI (PI: Sloan R.) Funded
3/2019-7/2022	Funder: Alkahest Inc. Title: A Randomized, Placebo-controlled Pilot Study to Evaluate the Effect of GRF6019 on Intracellular Signaling Cascades in Blood Leukocytes and Post-surgery Recovery of Participants Undergoing Primary Hip or Knee Arthroplasty Role: PI Funded
7/2019-6/2020	Funder: ITI Center for Systems Immunology and the Bill and Melinda Gates Foundation Title: Identifying a Predictive Immune Signatures of Preeclampsia Role: Co-Investigator (PI: Gaudilliere B.) Funded
7/2019-6/2020	Funder: ITI Center for Systems Immunology and the Bill and Melinda Gates Foundation Title: Machine Learning for Integrated Multiomics Analysis of Preeclampsia Role: Co-Investigator (PI: Aghaeepour N.) Funded
7/2019-6/2020	Funder: Stanford Maternal and Child Health Research Institute Title: Maternal Life Stress, Prenatal Inflammation, and the Developmental Origins of Child Temperament Role: Co-Investigator (PI: Gotlib J.) Funded
10/2019-9/2021	Funder: SCA/IARS Mid-Career Research Grant Title: Enhanced Recovery after Cardiac Surgery with Erector Spinae Plane Catheters: A Prospective, Randomized, Placebo Controlled Trial

	Role: Co-Investigator (PI: Brodt J.) Funded
7/2020-6/2021	Funder: FIDL Award Department of Anesthesiology Stanford University Title: Oxidative Stress and Surgical Outcomes Role: Co-Investigator (PI: David Clark) Funded
7/2020-6/2021	Funder: RISE Stanford COVID-19 Crisis Response Program Title: Using Micro-geographic Variability to Address Modifiable Factors Associated with COVID-19 Transmissibility, Hospitalization, and Death Role: Co-Investigator (PI: Kirsten Staudenmayer) Funded
7/2020-6/2024	Funder: NIH, R01NS117340 Title: B Lymphocyte-Mediated Autoimmunity in Pain after Trauma Role: Site PI (PI: J David Clark) Funded
9/2020-6/2025	Funder: NIH, R35GM138353 Title: Machine Learning for Integrative Modeling of the Immune System in Clinical Settings Role: Co-Investigator (PI: Nima Aghaeepour) Funded
9/2020-8/2025	Funder: NIH, R21/33AG065744 Title: Building a Platform for Precision Anesthesia for the Geriatric Surgical Patient Role: Co-Investigator (PI: David Drover) Funded
10/2021-6/2023	Funder: Bill and Melinda Gates Foundation Title: Discovery Hubs and Network-Adjuvants Role: Co-Investigator (PI: Mark Davis) Funded
1/2022-3/2026	Funder: March of Dimes Title: Immune Mechanisms and Proteomic Signatures Predicting and Determining Preterm Birth Role: Co-Investigator (PI: David Stevenson) Funded
4/2022-3/2024	Funder: ADRC Stanford and NIH, P30AG066515 Title: Comprehensive Biomarker Analysis of Perioperative Neurocognitive Disorder and its Relationship to Latent Alzheimer's Disease Pathology Role: Mentor (PI: Igor Feinstein) Funded
5/2025-5/2026	Funder: Coulter Translational Grant, Bioengineering, Stanford University Title: Introducing the NOpioid: A non-addictive opioid formulation for acute pain management Role: Co-PI (Co-PI: Martin Angst & Patrick Purdon) Funded

10/2025- 3/2026	Funder: Stanford High Impact Technology Fund, Office of Technology Licensing, Stanford University Title: Introducing the NOpioid: A non-addictive opioid formulation for acute pain management Role: Co-PI (Co-PI: Patrick Purdon & Martin Angst) Funded

Present/Pending:

9/2019-7/2026	Funder: NIH, R61NS114926 Title: Signatures of Pain Recovery in Teens (SPRINT) Role: Co-Investigator (PI: Simons L.) Funded
9/2023-8/2026	Funder: Wu Tsai Neurosciences Institute Title: Biological Determinants of Brain Resilience in Cardiac Surgery Role: PI Funded
10/2023- 9/2026	Funder: NIH, R42NS129395 Title: Developing Active Stimulation and Monitoring Technologies to Optimize Pain and Nociception Management During Regional Anesthesia, General Anesthesia, and Post-Operative Care Role: Co-Investigator (PI: Patrick Purdon) Funded
10/2025- 5/2027	Funder: National Institute on Drug Abuse Title: Characterizing Brain Dynamic Biomarkers of Fentanyl Using Intracranial and High-density Electroencephalogram in Humans Role: Co-Investigator (PI: Patrick Purdon) Funded
5/2026-8/2028	Funder: Wu Tsai Neurosciences Institute Title: Biological Determinants of Brain Resilience in Cardiac Surgery - Part III Role: PI Funded
4/2026	Funder: National Institute on Aging Title: Developing a High-resolution Cognitive Neurophysiological Phenotype for Delirium Role: Co-PI (Co-PI: Patrick Purdon) Submitted
4/2026	Funder: National Institute on Aging Title: Scalable Inference of Brain Proteomics for Population-Level AD/ADRD Prediction Role: Co-Investigator (PI: Aghaeepour N. and Montine T. (MPI)) Submitted

H. Patents

6/2012	Methods for the treatment of headaches by administration of oxytocin, US 8,202,838
6/2012	Methods for treatment of headaches by administration of oxytocin, US 8,198,240
8/2012	Methods for treatment of headaches by administration of oxytocin, US 8,252,745
9/2012	Therapy procedure for drug delivery for trigeminal pain, US 8,258,096
1/2013	Methods for the treatment of pain, US 8,551,949
8/2013	Methods for the treatment of headaches by administration of oxytocin, US 8,501,691
1/2016	Methods for the treatment of pain, US 9,238,053
6/2020	Methods and compositions for treating aging-associated conditions, US 10,688,130
9/2023	Composition and methods of predicting time to onset of labor, US 2023/0296622
1/2025	Systems and methods to generate a surgical risk score and uses thereof, US 2025/0022604
8/2025	Compositions and methods of prognosis and classification for preeclampsia, US 12,352,765

I. Service as Grant Reviewer

1/2001-12/2006	NA, Research Grants Council of Hong Kong, China
1/2006	Ad hoc Reviewer, NIH, NAIDA
1/2009	ZRG1 SBIB-V Challenge Grant Panel, NIH, NINDS
1/2011	Somatosensory and Chemosensory Systems Study Section, NIH
1/2017	Special emphasis panel NCCIH - Phased Innovation Award for Mechanistic Studies to Optimize Mind Body Interventions in NCCIH High Priority Research Topics, NIH
1/2019	Special Emphasis Panel ZRG1 IFCN-L HEAL Initiative, NIH
1/2021	Neurological Sciences and Disorders A Study Section, NIH, NINDS

J. Bibliography

Peer-Reviewed Articles: (168 Total, 6 in press)

1. Saxenhofer H, **Angst M**, Weidmann P, Shaw SG, Ferrier C. Corticosteroid-induced Stimulation of Atrial Natriuretic Peptide in Man. Acta Endocrinol (Copenh). 1988 Jun;118(2):179-186. PMID: 2968749. https://doi.org/10.1530/acta.0.1180179

2. Kahwaji R, Bevan DR, Bikhazi G, Shanks CA, Fragen RJ, Dyck JB, **Angst MS**, Matteo R. Dose-ranging Study in Younger Adult and Elderly Patients of ORG 9487, a new, rapid-onset, short-duration muscle relaxant. Anesth Analg. 1997 May;84(5):1011-1018. PMID: 9141923. https://doi.org/10.1097/00000539-199705000-00011

3. **Angst MS**, Mackey SC, Zupfer GH**, Tataru CD**, Brock-Utne JG. Reduction of propofol injection pain with a double lumen i.v. set. J Clin Anesth. 1997 Sep;9(6):462-466. PMID: 9278832. https://doi.org/10.1016/s0952-8180(97)00101-3

4. **Angst MS**, Dyck JB, Azarnoff DL, Goldblum R, Ho B, Gfroerer T, Linton EA, Glynn BP, Shafer SL. Pharmacokinetics, cortisol release, and hemodynamics after intravenous and subcutaneous injection of human corticotropin-releasing factor in humans. Clin Pharmacol Ther. 1998 Nov;64(5):499-510. PMID: 9834042. https://doi.org/10.1016/S0009-9236(98)90133-3

5. Fisher DM, Kahwaji R, Bevan D, Bikhazi G, Fragen RJ, **Angst MS**, Ornstein E, Matteo RS. Factors Affecting the Pharmacokinetic Characteristics of Rapacuronium. Anesthesiology. 1999 Apr;90(4):993-991000. PMID: 10201669. https://doi.org/10.1097/00000542-199904000-00011

6. **Angst MS**, Brose WG, Dyck JB. The Relationship between the Visual Analog Pain Intensity and Pain Relief Scale Changes during Analgesic Drug Studies in Chronic Pain Patients. Anesthesiology. 1999 Jul;91(1):34-41. PMID: 10422926. https://doi.org/10.1097/00000542-199907000-00009

7. **Angst MS**, Ramaswamy B**, Riley ET, Stanski DR. Lumbar Epidural Morphine in Humans and Supraspinal Analgesia to Experimental Heat Pain. Anesthesiology. 2000 Feb;92(2):312-324. PMID: 10691216. https://doi.org/10.1097/00000542-200002000-00011

8. Claure RE**, Drover DD, Haddow GR, Esquivel CO, **Angst MS**. Orthotopic liver transplantation for carcinoid tumour metastatic to the liver: Anesthetic Management. Can J Anaesth. 2000 Apr;47(4):334-337. PMID: 10764178. https://doi.org/10.1007/BF03020948
   Case report

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   Case report

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Gaudiliere B, Prince L, Shaw G, Stevenson D. A Proteomic Index of Prematurity Tracks Chronic Disease Risk in Adulthood. Cell Press

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Abstracts: (4 Total)

Abstracts (33 last 5 years, 97 total)

1. Bailes AH, White JN, Moayedi M, Coghill RC, Stinson J, **Angst MS**, Aghaeepour N, Gaudilliere B, Lopez-Sola M, King CD, Simons LE, Modulatory effects of physical activity on the relationship between pain processing and clinical characteristics in youth with chronic musculoskeletal pain: a cross-sectional study, USAAP 2026

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77. 4/2018 Ganio EA, Choisy B, Gaudillière D, Tsai AS, Han X, Ando K, Tingle M, McNeil L, **Angst MS**, Aghaeepour N, Gaudillière B. Systematic examination of whole blood sample handling procedure for analysis of immune cell function. CYTO 2018.

78. 4/2018 Gaudillière D, Djebali K, Culos T, Tsai AS, Ganio EA, Choi W, Ahmad A, Okada R, Tingle M, **Angst MS**, Aghaeepour N, Gaudillière B. Identifying a Peripheral Immune Signature of Chronic Periodontitis Using Mass Cytometry. CYTO 2018.

79. 4/2018 Han X , Ando K, Ghaemi S, Tsai AS, Ganio EA, Gaudillière D, Culos T, Tanada A, Shaw G, Stevenson D, Carvalho B, Tingle M, **Angst MS**, Aghaeepour N, Gaudillière B. Assessment of Maternal Peripheral Immune System by Mass Cytometry to Predict the Onset of Labor. CYTO 2018.

80. 4/2018 Spatz J, Tsai AS, Gaudillière D, Ganio EA, **Angst MS**, Hughes-Fulford M, Aghaeepour N, Gaudillière B. Immunosuppression in Space: System-level, single-cell human adaptations to microgravity. CYTO 2018.

81. 5/2018 Predictors of postoperative pain in 1,008 spine surgery patients. Baca QJ, Marti F, Gaudilliere B, Aghaeepour N, **Angst MS**. ASRA 2018.

82. 5/2018 Rishel C, **Angst MS**, Sun E. Association between preoperative opioid weaning and postoperative outcomes among chronic opioid users: a retrospective analysis. WARD 2018.

83. 1/2019 Ghaemi MS, DiGiulio DB, Contrepois K, Callahan B, Ngo TTM, Lee-McMullen B, Lehallier B, Robaczewska A, Mcilwain D, Rosenberg-Hasson Y, Wong RJ, Quaintance C, Culos A, Stanley N, Tanada A, Tsai A, Gaudilliere D, Ganio E, Han X, Ando K, McNeil L, Tingle M, Wise P, Maric I, Sirota M, Wyss-Coray T, Winn VD, Druzin ML, Gibbs R, Darmstadt GL, Lewis DB, Partovi Nia V, Agard B, Tibshirani R, Nolan G, Snyder MP, Relman DA, Quake SR, Shaw GM, Stevenson DK, Angst MS, Gaudilliere B, Aghaeepour N. Multiomics modeling of the immunome, Transcriptome, Microbiome, proteome and metabolome adaptations during human pregnancy. Bioinformatics. 2019 Jan 1;35(1):95-

9103. PMID: 30561547. PMCID: PMC6298056. https://doi.org/10.1093/bioinformatics/bty537

84. 2/2019 Ganio E, Stanley N, Einhaus J, Tsai A, Culos A, Rumer K, Fallahzadeh R, Lindberg-Larsen V, Kehlet H, **Angst MS**, Aghaeepour N, Gaudillière B. Deep Immune Profile of Preoperative Glucocorticoid Administration in Patients Undergoing Surgery. AUA/IARS 2019, Shock 2019, CYTO 2019.

85. 2/2019 Ghaemi M, Becker M, Culos A, Fallahzadeh R, Hamad GB, Hedou J, Phongpreecha T, Stanley N, Tanada A, Ando K, Baca Q, Ganio E, Gaudilliere D, Han X, Peterson L, Rumer K, Stelzer I, Tsai A, Tsai E, Wong R, Shaw G, Stevenson D, Snyder M, Relman D, Quake S, Angst MS, Gaudilliere B, Aghaeepour N. Machine Learning for Integration of Mass Cytometry with the Transcriptome, Microbiome, Proteome, and Metabolome for Prediction of Clinical Outcomes. CYTO 2019.

86. 2/2019 Stanley N, Han X, Fallahzadeh R, Ganio E, Becker M, Culos A, Hamad GB, Hedou J, Phongpreecha T, Tanada A, Ando K, Baca Q, Gaudilliere D, Peterson, Rumer K, Stelzer I, Tsai A, Tsai E, **Angst MS**, Gaudilliere B, Aghaeepour N. Multi-view Machine Learning Increases Predictive Power in Clinical Flow and Mass Cytometry Datasets. CYTO 2019

87. 3/2019 Stelzer I, Becker M, Han X, Ganio E, Tsai E, Peterson L, Shaw G, Stevenson DK, **Angst MS**, Aghaeepour N, Gaudillière. Fetal sex influences maternal immune system dynamics over the course of pregnancy. ISIR 2019.

88. 4/2019 Baca QJ, McNeil L, Okada R, Tingle M, Aghaeepour A, Gaudilliere B, **Angst MS**. Lidocaine Infusion during Hip Arthroplasty Modulates the Surgical Immune Response and Decreases Postoperative Pain. ASRA 2019.

89. 4/2019 Feinstein I, Yutsis M, Fischbein MP, Oakes DA, **Angst MS**. Investigating Cognitive Decline after Cardiac Surgery: A Magnetic Resonance Spectroscopy Approach. SCA 2019.

90. 4/2019 Tsai AS, Beneyto MM, Berry K, Ganio EA, Baca QD, Gaudillière D, Han X, Ando K, **Angst MS**, Lansberg MG, Buckwalter MS, Gaudillière B, Aghaeepour N. Systemic Immune Profile of Stroke Recovery. Cyto 2018, Shock 2019.

91. 5/2019 Rishel C, **Angst MS**, Sun E. Association between the Trajectory of Preoperative Opioid Use and Postoperative Opioid Use, Adverse Events, and Economic Outcomes: A Retrospective Analysis. IARS 2019.

92. 6/2019 Tsai ES, Rumer K, Wong KD, Warrington B, Shelton E, Ganio E, Ando K, Tsai AS, Kebebew E, Shelton A, Morris A, Kirilcuk N, Gurland B, Folk-Tolbert M, Shankar K, Kin C, **Angst MS**, Aghaeepour N, Brice G. Immune profiling to predict recovery outcomes after surgery. Shock 2019.

93. 6/2019 Han X, Ghaemi MS, Ando K, Peterson LS, Ganio EA, Tsai AS, Gaudilliere DK, Stelzer IA, Einhaus J, Bertrand B, Stanley N, Culos A, Tanada A, Hedou J, Tsai ES, Fallahzadeh R, Wong RJ, Judy AE, Winn VD, Druzin ML, Blumenfeld YJ, Hlatky MA, Quaintance CC, Gibbs RS, Carvalho B, Shaw GM, Stevenson DK, Angst MS, Aghaeepour N, Gaudilliere B. Differential Dynamics of the Maternal Immune System in Healthy Pregnancy and Preeclampsia. Front Immunol. 2019;10:1305. PMID: 31263463. PMCID: PMC6584811. https://doi.org/10.3389/fimmu.2019.01305. Epub 2019 Jun 11

94. 7/2020 Kristen Rumer K, Ganio E, Stanley N, Tsai E, Kin S, Shelton A, Morris A, **Angst MS**, Aghaeepour N, Gaudilliere B. Deep immune profiling of patients with inflammatory bowel disease reveal disordered immune cell frequencies before and in response to major abdominal surgery. Scientific Forum 2020

95. 3/2021 Marić I, Contrepois K, Moufarrej M, Stelzer I, Feyaerts D, Han X, Tang A, Stanley N, Wong RJ, Winn VD, Shaw GM, Relman DA, Quake SR, **Angst MS**, Snyder MP, Stevenson DK, Gaudilliere B, Aghaeepour N. Multiomics Data Analysis Predicts Risk of Preeclampsia. Pediatric Academic Societies 2021 Virtual Meeting.

96. 7/2021 Protocol for a multisite prospective biomarker study in adolescent chronic musculoskeletal pain. Simons L, Coghill R, Moayedi M, Stinson J, King C, Lopez-Sola M, **Angst MS**, Gaudilliere B, Aghaeepour N. NIH 2021 HEAL meeting.

97. 3/2022 Becker M, Nassar H, Espinosa CA, Stelzer IA, Feyaerts D, Berson E, Bidoki N, Chang AL, De Francesco D, Fallahzadeh R, Maric I, Mataraso SJ, Phongpreecha T, Ravindra NG, Stanley N, Thuraiappah M, Shaw G, Stevenson DK, **Angst MS**, Gaudilliere B, Aghaeepour N. Next-generation Network Construction Algorithm Reveals Changes in Coordination between Multiomics Biological Pathways during Pregnancy. PAS 2022.

98. 3/2022 Chang AL, Reiss JD, Culos A, Becker M, Mayo JA, Marić I, Fallahzadeh R, Bidoki NH, De Francesco D, Phongpreecha T, Espinosa CA, Xenochristou M, Zhang M, Stanley N, Lee HC, Gaudillière B, **Angst MS**, Stevenson DK, Shaw GM, Sylvester KG, Aghaeepour N. Quantitative assessment of neonatal health using dried blood spot metabolite profiles and deep learning. SRI and PAS 2022.

99. 3/2022 Feyaerts D, Stelzer IA, Maric I, Hedou J, Diop M, Ganio EA, Han X, Ando K, Aghaeepour N, Hlatky MA, **Angst MS**, Winn VD, Stevenson DK, Romero R, Gaudilliere B, Gomez-Lopez N. Cross-tissue Assessment of Local and Peripheral Immune Determinants of Preeclampsia. PAS 2022.

100. 3/2022 Multiomics Longitudinal Modeling of Preeclamptic Pregnancies Marić I, Contrepois K, Moufarrej M, Stelzer, Feyaerts D, Han H, Tang A, Wong RJ, Darmstadt GL, Winn VD, Shaw GM, Relman DA, Quake SR, **Angst MS**, Snyder MP, Stevenson DK, Brice Gaudilliere G, Aghaeepour N. SRI 2022.

101. 5/2022 Choisy B, Hedou GH, Verdonk F, Gaudilliere D, Tsai AS, Shankar K, Sato M, Einhaus J, Ganio E, Bonham A, Warrington B, Ahmad S, Tingle M, Ando K, Bruckman S, S. **Angst MS**, Kin C, Gaudilliere B. Multimodal, coached telehealth prehabilitation has high compliance and improves exercise and cognitive capacity prior to surgery: a pilot study. IARS 2022.

102. 5/2023 Verdonk F, Hedou J, Marić I, Bellan G, Einhaus J, Gaudilliere D, Bonham A, **Angst MS**, Gaudilliere B. An Immune Signature of Surgical Site Infections (SSI), a Retrospective Study with a Novel Machine Learning Pipeline for Biomarker Identification. IARS 2023.

103. 5/2023 Verdonk F, Hedou J, Marić I, Bellan G, Einhaus J, Gaudilliere D, Ladant FX, Stelzer I, Feyaerts D, Tsai A, Bonham A, **Angst MS**, Aghaeepour N, Stevenson DK, Tibshirani R, Gaudilliere B. STABL Enables Reliable and Selective Biomarker Discovery in Predictive Modeling of High-dimensional Omics Data. IARS 2023.

104. 5/2023 Verdonk F, Tsai AS, Hedou J, Heifets B, Gaudilliere D, Bellan G, Feyaerts F, Stelzer I, Ganio E, Sato M, Bonham A, Ando A, Aghaeepour N, **Angst MS**, Gaudilliere B. An immune signature of postoperative cognitive dysfunction (POCD). IARS 2022.

Special Materials: (9 Total)

1. Angst MS. Dose-response Function of Epidural Fentanyl versus Sufentanil. Anesth Analg. 1998 Apr;86(4):918-919. PMID: 9539633. https://doi.org/10.1097/00000539-199804000-00056
   Letter

2. Maze M, Angst MS. Dexmedetomidine and opioid interactions: defining the role of dexmedetomidine for intensive care unit sedation. Anesthesiology. 2004 Nov;101(5):1059-1061. PMID: 15505438. https://doi.org/10.1097/00000542-200411000-00002
   Editorial

3. Angst MS, Clark DJ. Comment on Koltzenburg et al.: Differential Sensitivity of Three Experimental Pain Models in Detecting the Analgesic Effects of Transdermal Fentanyl and Buprenorphine. Pain 2006;126:165-74.pain. 2007 Apr;128(3):292-294. PMID: 17276008. https://doi.org/10.1016/j.pain.2006.12.024. Epub 2007 Feb 2
   Letter

4. Angst MS. Intrathecal cyclooxygenase inhibitors in humans: don't throw in the towel!. Anesthesiology. 2010 May;112(5):1082-1083. PMID: 20418688. https://doi.org/10.1097/ALN.0b013e3181d94e41
   Editorial

5. Angst MS, Clark JD. Ketamine for managing perioperative pain in opioid-dependent patients with chronic pain: a unique indication?. Anesthesiology. 2010 Sep;113(3):514-515. PMID: 20683248. https://doi.org/10.1097/ALN.0b013e3181e9092d
   Editorial

6. Angst MS, Clark JD. In reply. Anesthesiology. 2013 Jan;118(1):230-231. PMID: 23249943. https://doi.org/10.1097/ALN.0b013e318278e4e4
   Letter

7. Angst MS. Editorial comment: Challenges in the Perioperative Management of the Patient Receiving Extended-Release Naltrexone. A A Case Rep. 2014 Dec 1;3(11):145. PMID: 25612100. https://doi.org/10.1213/XAA.0000000000000104
   Editorial comment

8. Gaudilliere B, Angst MS, Hotchkiss RS. Deep Immune Profiling in Trauma and Sepsis: Flow Is the Way to Go!. Crit Care Med. 2017 Sep;45(9):1577-1578. PMID: 28816846. PMCID: PMC6294342. https://doi.org/10.1097/CCM.0000000000002594
   Editorial

9. Berger M, Angst MS, Culley DJ, Price CE, Scott DA, Whittington RA, Eckenhoff RG, Perioperative Neurotoxicity Working Group. In Response. Anesth Analg. 2019 Sep;129(3):e112-e113. PMID: 31425253. PMCID: PMC7153730. https://doi.org/10.1213/ANE.0000000000004300
   Letter

Digital Publications: (4 Total)

1. Carvalho B**, Clark DJ, Yeomans D, **Angst MS**. Collecting and measuring nociceptive and inflammatory mediators in surgical wounds. J Vis Exp. 2008 Oct 29;962. PMID: 19078937. PMCID: PMC3234158. https://doi.org/10.3791/962. Epub 2008 Oct 29
2. **Angst MS**, Tingle M, Schmelz M, Carvalho B**, Yeomans DC. Human in-vivo bioassay for the tissue-specific measurement of nociceptive and inflammatory mediators. J Vis Exp. 2008 Dec 1;1074. PMID: 19229167. PMCID: PMC2762925. https://doi.org/10.3791/1074. Epub 2008 Dec 1
3. **Angst MS**, Tingle M, Phillips NG**, Carvalho B**. Determining heat and mechanical pain threshold in inflamed skin of human subjects. J Vis Exp. 2009 Jan 14;1092. PMID: 19229176. PMCID: PMC2763295. https://doi.org/10.3791/1092. Epub 2009 Jan 14
4. Carvalho B**, Clark DJ, Yeomans D, **Angst MS**. Collecting and Measuring Wound Exudate Biochemical Mediators in Surgical Wounds. J Vis Exp. 2012 Oct 20;50133. PMID: 23117346. PMCID: PMC3490314. https://doi.org/10.3791/50133. Epub 2012 Oct 20

K. Invited Presentations and Workshops (68 Total)

Local presentations: (12 Total)

Grand Rounds: (2 Total)

1.	9/2003	"Do Painkillers Cause Pain?", Department of Psychiatry and Behavioral Sciences Stanford
2.	1/2014	“Immunity in the Context of Surgery and Anesthesia", Department of Anesthesiology, Pain and Perioperative Medicine Stanford

Speaker: (9 Total)

1.	6/2002	"Opioid-induced Hyperalgesia", Brain Research Institute Stanford
2.	1/2015	“Implementing Mass Cytometry at the Bedside: Single-cell Immune Signatures of Clinical Recovery from Surgical Trauma", Stroke Collaborative Action Network Stanford
3.	1/2015	“Single-cell Analysis of the Peripheral Immune System in Patients with a History of Term and Preterm labor”, Department of Pediatrics Stanford

4. 1/2017 “A Proteomic Clock of Pregnancy”, Stanford Prematurity Research Center
Stanford

5. 1/2018 “A Proteomic Signature of Preeclampsia”, Stanford Prematurity Research Center
Stanford

6. 1/2018 “Cocoa Flavanols for Modulating the Surgical Immune Response and Accelerating Clinical Recovery” SPARK
Stanford

7. 7/2019 "Cocoa Flavanols for Modulating the Surgical Immune Response and Accelerating Clinical Recovery – Final Results", SPARK
Stanford

8. 9/2025 Towards Team Science - My Journey at Stanford
Santa Cruz

9. 1/2026 Roundtable UCB Leadership Team: Department of Anesthesiology as a Research Hub
Stanford

Workshop: (1 Total)

1. 9/2025 Career Paths: Academia versus Industry or Both?
Santa Cruz

Regional presentations: (7 Total)

Grand Rounds: (1 Total)

1. 1/2014 “Clinical Recovery from Surgery Strongly Correlates with Single-Cell Immune Signatures, CCR UCSF
San Francisco

Speaker: (6 Total)

1. 3/2004 "Opioid-induced Hyperalgesia in Humans", UCSF Pain Interest Group
San Francisco

2. 5/2006 "Opioid-induced Hyperalgesia", Forum at the Center for Health Care Evaluation, Department of Veteran Affairs
Menlo Park

3. 8/2008 "From Mice to Men: Translational Experimental Protocol to Study Nociception and Inflammation in Tissue Injury", Stanford Scientific Conference of Immunology and the Institute of Immunity,

Transplantation and Infection
Asilomar

4. 1/2015 “Single-Cell Immune Signatures Predict Clinical Recovery after Surgery", UCSF/Stanford Anesthesia Research Retreat
Millbrae

5. 1/2018 “Deep Multiomic Profiling in Clinical Studies”, UCSF/Stanford Research Retreat
Millbrae

6. 2/2023 "Modulating the Inflammatory Response to Surgery", Alkahest
SanCarlos

National presentations: (34 Total)

Visiting Professorship: (3 Total)

1. 1/2016 “Immune Correlates of Delayed Surgical Recovery”, Department of Anesthesia, Washington University
St. Louise

2. 9/2022 “Anesthetic Management of Aneurysms and Vascular Malformations”, Grand Round Stony Brook Medicine
Stony Brook

3. 9/2022 “Biological Determinants of Postoperative Recovery”, Grand Round Stony Brook Medicine
Stony Brook

Grand Rounds: (1 Total)

1. 9/2023 The Stanford experience - Implementing OKRs, a goal-setting strategy to create an aspirational, transparent, and inclusive work culture
Online: University of Arkansas for Medical Sciences

Speaker: (28 Total)

1. 3/1997 "Quantification of Opioid Analgesia with a New Experimental Pain Model in Man", Analgesiology and Headache Section, Annual Meeting of the American Society of Clinical Pharmacology and Therapeutics
San Diego

2. 6/1997 "Quantitative Sensory Testing: What is Abnormal and what are Clinical Standards?", Workshop on Quantitative Sensory Testing, Massachusetts General Hospital
Boston

3. 6/2000 "The Pharmacodynamics of Oral Sustained Release Hydromorphone", Investigator Meeting Knoll

		Pharmaceutical Company Orlando
4.	5/2003	"Human Studies on Acute Opioid Tolerance", American Society of Regional Anesthesia and Pain Medicine San Diego
5.	5/2004	"Acute Opioid Tolerance: No Evidence in Models of Acute Experimental Pain?", Association of University Anesthesiologists Sacramento
6.	10/2004	"Opioid-induced Hyperalgesia: What Does It Mean for Pain Treatment?", American Society of Anesthesiology New Orleans
7.	4/2006	"Electrical Experimental Pain Models in Humans. International Experimental Pain Model", Advisory Board to Eli Lilly and Company Indianapolis
8.	8/2006	"Opioid-induced Hyperalgesia. Symposium Interface between Pain and Opioids", American Academy of Addiction Society St. Pete Beach
9.	3/2008	"Opioid-induced Hyperalgesia, a Newly Recognized Side Effect of Opioid Therapy?:", Department of Physiology and Pharmacology, Oregon Health & Science University Portland
10.	3/2008	"Pharmacokinetic Considerations for the Rational Use of Opioids", Department of Physiology and Pharmacology, Oregon Health & Science University Portland
11.	8/2008	"Towards a Definitive Evidence Base for Opioid Management of Chronic Non-cancer Pain: Clinical Assessment of Opioid-induced Hyperalgesia:, National Panel at the Pain Research Center of the University of Utah Salt Lake City
12.	10/2008	"Update on Opioid Safety and Tolerability: Current Concepts to Minimize Side Effects and Risks", Annual Meeting of the American Society of Anesthesiology Orlando
13.	5/2009	"The Relevance of Descending Inhibition to Understanding and Treatment of Neuropathic Pain: Experimental Assessment of Descending Inhibition in Normal Humans and those with Neuropathic Pain", Annual Meeting of the American Pain Society San Diego
14.	10/2009	"The Heritability of Opioid Effects – Preliminary Results of a Twin Study", Annual Meeting of the American Society of Anesthesiology New Orleans

15.	10/2009	"Update on Opioid Safety and Tolerability: Current Concepts to Minimize Side Effects and Risks", Annual Meeting of the American Society of Anesthesiology New Orleans
16.	10/2010	"Update on Opioid Safety and Tolerability: Current Concepts to Minimize Side Effects and Risks", Annual Meeting of the American Society of Anesthesiology San Diego
17.	1/2011	“All about Opioids: Opioid-induced Hyperalgesia”, American Academy of Pain Medicine Washington DC
18.	1/2011	“Opioid Pharmacogenomics in a Twin-Study Paradigm”, Laboratory of the Biology of Addictive Diseases, Rockefeller University New York
19.	1/2012	“Opioid-induced Hyperalgesia: Clinical Presentation and Implication”, World Institute of Pain Miami, FL
20.	1/2013	“The Role of Pharmacologic Challenge in Patient Phenotyping for Phase 2 and 3 Trials”, IMMPACT Washington DC
21.	1/2015	“The Resolution of Pain after Surgery and Trauma - New Concepts Bring New Opportunities: Immunologic Aspects of Recovery from Surgery”, American Society of Anesthesiology New Orleans
22.	1/2016	“New Thoughts on Predicting and Preventing Chronic Pain after Surgery: An Immune Biomarker for Slow Recovery and How to Modify Risk in Slow Recovery”, International Anesthesia Research Society San Francisco
23.	1/2018	“Emerging Tools and Approaches in Biomarker Discovery and Development”, Panel Chair NIH Workshop Washington DC
24.	1/2018	“Multiomic and Computational Approaches to Biomarker Discovery: Mass Cytometry and Data Integration”, NIH Workshop Washington DC
25.	1/2019	“Persistent Postsurgical Pain - Pathophysiology and Preventive Strategies: Perioperative Inflammation and Immune Response”, American Society of Anesthesiology Orlando
26.	1/2019	“Shifting Gears – Biological Hall Marks of Surgical Recovery”, Shock Society San Diego

27. 1/2019 “Signals to Begin Labor – Inflammation and PTL, March of Dimes Washington DC

28. 5/2019 "Shifting Gears – Biological Hall Marks of Surgical Recovery", Shock Society
San Diego

Moderator: (1 Total)

1. 4/2000 "Total Intravenous Anesthesia in Cardiac Surgery", Annual Meeting of the Society of Cardiovascular
Anesthesiologists
Orlando

Workshop: (1 Total)

1. 1/2013 “TIVA - Implications on Pain Management”, Mylan Roundtable
Trenton

International presentations: (15 Total)

Visiting Professorship: (5 Total)

1. 8/2002 "Apparent Acute Analgesic Opioid Tolerance: A Reflection of Opioid-induced Hyperalgesia", Department of Anesthesia, Hospital of Lucerne
Lucerne, Switzerland

2. 1/2015 “Immune Signatures of Clinical Recovery from Surgical Trauma: Mass Cytometry to Comprehensively Surveil the Entire Immune System with Single-cell Resolution at the Bedside”, Rigshospitalet, Copenhagen University
Copenhagen, Denmark

3. 1/2017 “Immune Correlates of Surgical Recovery, Grand Round DeGroote Institute, McMaster University
Hamilton, Canada

4. 1/2019 “Immune Signatures for Risk Profiling of Surgical Patients”, Intensive Care Symposium
Schwyz, Switzerland

5. 2/2026 Opponent Thesis Defense: The effect of perioperative glucocorticoids on surgical stress and clinical outcome after total knee arthroplasty, Department of Clinical Medicine, University of Copenhagen
Copenhage, Denmark

Grand Rounds: (1 Total)

1. 8/1997 "The Measurement of Pain in Clinical Pharmacology", 41st Symposium in Anesthesiology
Lucerne, Switzerland

Speaker: (7 Total)

1. 11/2001 "Computer Controlled Infusions: A Useful Tool for Analgesic Drug Trials", Institute of Physiology, University of Nuernberg-Erlangen
Erlangen, Germany
2. 11/2001 "Opioid-induced Hyperalgesia", Institute of Physiology, University of Nuernberg-Erlangen
Erlangen, Germany
3. 5/2008 "Altered Sensitivity to Opioids – Hyperalgesia and Tolerance", Annual Meeting of the European Society of Anesthesiology
Copenhagen, Denmark
4. 5/2008 "Pain Assessment in Experimental Medicine", Annual Meeting of the European Society of Anesthesiology
Copenhagen, Denmark
5. 4/2010 "Surrogate Markers of Opioid-induced Hyperalgesia in Humans: Are they Valid and where Do We Stand?" Spring Pain Conference
Grand Cayman Island
6. 1/2016 “Cellular and Proteomic Signatures of Term/preterm Birth”, March of Dimes
Montreal, Canada
7. 1/2019 “Intraoperative Opioids: Postoperative Consequences, Opioid-free Anesthesia, and Nociception-Index Guided Anesthesia”, International Anesthesia Research Society
Montreal, Canada

Moderator: (1 Total)

1. 1/2021 “Symposium on Immune Health in Surgery and Critical Care – Challenges and Novel Opportunities (organizer and moderator)”, International Anesthesia Research Society
Online (due to COVID-19)

Workshop: (1 Total)

1. 5/2009 "Difficult Airway Workshop: Flexible Fiberoptic Bronchoscopy", Annual Meeting of JAEPE
Recife, Brazil