THE UNIVERSITY OF ARIZONA
DEPARTMENT OF SURGERY

RESEARCH
SYMPOSIUM 2022

MAY 18, 7 - 11 A.M.

HEALTH SCIENCES
INNOVATION BUILDING
7:00 - 8:20 AM: **ORAL PRESENTATIONS**

8:30 - 9:00 AM: **DEPARTMENT OF SURGERY FACULTY TALKS:**
Geoffrey Gurtner, MD, FACS
Professor & Chair
Jennifer Erdrich, MD, MPH, MFA, FACS, FSSO
Assistant Professor

9:00 - 10:00 AM: **QUICK SHOT PRESENTATIONS**

10:00 - 11:00 AM: **GRAND ROUNDS**
“*A video is worth 1,000 operative notes*”
Justin Dimick, MD, MPH
Frederick A. Coller
Distinguished Professor & Chair
Department of Surgery
University of Michigan

*Stream Grand Rounds Live >>*
CAMS Code: 443427
Dear attendees,

On behalf of the University of Arizona Department of Surgery, we would like to welcome you to the Annual Department of Surgery Research Symposium, which showcases research projects throughout our department. This is an exciting gathering of faculty, researchers, fellows, and students.

The symposium consists of keynote lectures, oral sessions, quick shot presentations, digital posters and networking. It promotes the sharing of current research projects, processes and accomplishments as well as provides the opportunity for research to be reviewed by peers. Following each presentation, faculty and students alike can debate the research topic at hand, ask questions and provide commentary.

It is our pleasure to welcome our guest speaker Justin Dimick, MD, FACS, and chair of the Department of Surgery at the University of Michigan. Dr. Dimick is an expert in minimally invasive surgery and is nationally recognized for his contributions to quality measurement, health care policy evaluation, and comparative effectiveness research within surgical populations.

We look forward to another exciting year of new innovations, exchanging ideas, and opportunities for collaborations. Enjoy the event!

BELLAL JOSEPH, MD, FACS
Vice Chair of Research, Department of Surgery
Chief, Division of Trauma, Surgical Critical Care, Burns, and Acute Care Surgery
Chief, Division of General Surgery
Martin Gluck Professor of Surgery
Dr. Justin Dimick is a graduate of Cornell University and Johns Hopkins Medical School. He completed his surgical training at the University of Michigan and a health services research fellowship at the Dartmouth Institute for Health Policy & Clinical Practice.

Dr. Dimick has served in several national leadership positions, including president of the Association for Academic Surgery, chair of the Health Services Organization and Delivery Study Section at the NIH, associate editor at *Annals of Surgery*, and the Surgical Innovation Editor at *JAMA Surgery*. He has served as an advisor on quality and health policy for several organizations, including the BlueCross BlueShield Association, the American College of Surgeons-National Surgical Quality Improvement Program, U.S. News and World Report’s Best Hospital Rankings, and the Medicare Payment Advisory Commission.

Dr. Dimick’s clinical practice is primarily devoted to advanced laparoscopy, including treatment of morbid obesity, gastroesophageal reflux, paraesophageal hernias, abdominal wall hernias, and other benign and neoplastic diseases of the stomach, spleen, and foregut. He is the editor of the widely read surgical textbook, *Clinical Scenarios in Surgery: Decision Making and Operative Technique*.
Research Presentations - Oral

MICHELLE CHANG
A SYSTEMATIC REVIEW OF ROBOTIC SURGERY CURRICULA USING A CONTEMPORARY EDUCATIONAL FRAMEWORK

OMAR OBAID
INCREASED MORTALITY FOR TRANSFERRED TRAUMA PATIENTS: SHOULD TRANSFER TIME BECOME THE NEXT QUALITY OF CARE INDICATOR?

KELLEN CHEN
IDENTIFICATION OF CIRCULATING NON-HEMATOPOIETIC CELLS ORCHESTRATING TISSUE FIBROSIS AFTER INJURY
Research Presentations - Oral

MOHAMMAD HAMIDI
Does Pre-operative Estimated Glomerular Filtration Rate (EGFR) Predict Short-term Surgical Outcomes in Patients Undergoing Pancreatic Resections?

IKEOLUWAPO BOLAKALE-RUFAY
Non-Invasive Optical Imaging of Tissue Perfusion Shows Racial/Ethnic Disparities in Microvascular Disease Assessment

KHALED EL-QAWAQZEH
Not All Traumatic Brain Injury Patients Using Preinjury Anticoagulation Are the Same: A Secondary Analysis of the American Association for the Surgery of Trauma Brain Injury Guidelines Multi-Institutional Trial
Research Presentations - Oral

**YADIRA VILLALVAZO**
Pancreatic Neuroendocrine Tumor Lymph Node Resection: A New Calculation of Number of Lymph Nodes Required

**KELLY FAIRBAIRN**
Gold Standard Surgical Resection for Early Stage Lung Cancer Decreasing Despite Increasing Detection

**HAMIDREZA HOSSEINPOUR**
Racial, Ethnic, and Socioeconomic Disparities in the Nationwide Management of Elder Abuse
Research Presentations - Oral

JEFFERY TOLSON

ASSOCIATION OF OUTPATIENT PRE-ULCERATIVE FOOT CARE AND OUTCOMES OF DIABETIC FOOT ULCERATION
Invited Faculty Speaker

GEOFFREY GURTNER, MD, FACS

“The Potential for Scarless Healing in Humans”

Dr. Gurtner is chair of the Department of Surgery and professor of surgery and biomedical engineering at the University of Arizona. He graduated from Dartmouth College and earned his Medical Degree at the University of California, San Francisco.

Dr. Gurtner completed his internship and surgical residency at Massachusetts General Hospital, Harvard Medical School, followed by a plastic surgery residency at the Institute of Reconstructive Plastic Surgery at NYU Medical Center and a fellowship in oncologic microsurgery at the University of Texas MD Anderson Cancer Center in Houston.

Dr. Gurtner is internationally recognized as a highly accomplished clinician and prolific researcher, author, inventor and entrepreneur. He has been awarded more than $27 million in federal research funding and holds 35 patents. He also has founded three venture capital-backed life sciences companies.

Prior to joining the University of Arizona, Dr. Gurtner was the Johnson & Johnson Distinguished Professor of Surgery at Stanford University, co-director of the Hagey Laboratory for Pediatric Regenerative Medicine, professor of bioengineering, professor of materials science and engineering, executive director of the Stanford Advanced Wound Care Center, and inaugural Vice Chair for Innovation in the Stanford Department of Surgery.

Dr. Gurtner has authored or co-authored 345 peer-reviewed articles and nearly 50 book chapters, and he has edited the two major textbooks in his field. He is the immediate past board president of the Wound Healing Society, the premier scientific organization focused on wound healing.
Dr. Erdrich is a surgical oncologist and assistant professor with the Division of Surgical Oncology at the University of Arizona Department of Surgery. A member of the University of Arizona Cancer Center, she specializes in melanoma, sarcoma and breast cancers.

Dr. Erdrich earned her Medical Degree from Harvard Medical School. She attained a Masters in Public Health with a concentration in cancer prevention and completed an NCI-funded research fellowship at Harvard School of Public Health. In addition, she completed her general surgery residency at Stanford University, followed by a fellowship in surgical oncology at Cedars-Sinai Medical Center in Los Angeles, California.

After personally witnessing many of the disparities in Native American healthcare, especially in the areas of surgical care and cancer treatment, Dr. Erdrich developed a particular clinical and research interest in serving tribal populations. Through her work in the Department of Surgery, she hopes to expand the surgical oncology resources available to local tribal communities through multidisciplinary approaches that leverage innovation and teamwork.

Dr. Erdrich has received significant recognition for her work with underserved populations. While a resident at Stanford, she was the recipient of the Samuel L. Kountz Humanitarian Award for personifying professionalism, compassion, and respect for the dignity of those experiencing disparities in healthcare. She was also the recipient of the John Henry Smith Award, a Stanford general surgery award for distinguished dedication, hard work, honesty, and concern for patients. Dr. Erdrich is a member of the American College of Surgeons and the Society of Surgical Oncology.
Research Presentations - Quick Shot

ALLYSON MOLZAHN
THE ROLE OF STRESS ON LONG-TERM RETENTION OF INFORMATION DURING SURGICAL SIMULATION

ARTEM TROTSYUK
FLEXIBLE SMART BANDAGE FOR WIRELESS WOUND HEALING

MALAK NAZEM AKL
OPERATIVELY MANAGED LOWER LIMB LONG BONE FRACTURES: HOW SOON SHOULD WE BEGIN VENOUS THROMBOEMBOLISM PROPHYLAXIS?
Research Presentations - Quick Shot

OMID RAHIMI
OPERATIVE TIME AND 30-DAY OUTCOMES IN BARIATRIC SURGERY: COMPARISON BETWEEN ROBOTIC AND LAPAROSCOPIC APPROACH: 4-YEAR MBSAQIP DATABASE ANALYSIS

VALERIA FERNANDEZ
CHARACTERIZATION OF SERIAL RIB INJURY GUIDELINES (RIG) SCORING FOR PATIENTS WITH TRAUMATIC RIB FRACTURES

SAI KRISHNA BHOGADI
EARLIER VASOPRESSOR REQUIREMENT AMONG HYPOTENSIVE TRAUMA PATIENTS IS INDEPENDENTLY ASSOCIATED WITH POOR OUTCOMES
JACQUELINE DAUCH
THE IMPACT OF FRAILTY ON PATIENTS UNDERGOING LIVER RESECTION FOR COLORECTAL LIVER METASTASIS

TOMMY TRAN
IMPACT OF A STANDARDIZED TRAUMA SIGN-OUT PROCESS AND DYNAMIC HAND-OFF: A QUALITY IMPROVEMENT PROJECT

EMILY WUSTERBARTH
CLINICOPATHOLOGIC CHARACTERISTICS AND SURGICAL OUTCOMES OF PATIENTS WITH EARLY-ONSET COLORECTAL CARCINOMA: AN ANALYSIS OF THE NATIONAL CANCER DATABASE
YADIRA VILLALVAZO
PERIOPERATIVE NUTRITION SCREEN (PONS) PREDICTS OUTCOMES IN PATIENTS UNDERGOING PANCREATIC SURGERY FOR CANCER

NICHOLAS GALOUZIS
PREOPERATIVE ESTIMATED GLOMERULAR FILTRATION RATE (EGFR) IN LIVER RESECTIONS

JUAN ARIAS
EVALUATING THE IMPACT OF CAROTID ENDARTERECTOMY ON COGNITION AND BRAIN STRUCTURE USING ADVANCED NEURO-IMAGING TECHNIQUES
Research Presentations - Quick Shot

YAZAN ASHOURI
Baseline Cerebral Blood Flow Impact on Cognitive Function in Patients with Severe Carotid Occlusive Disease

KELLEN CHEN
Pathologic Mechanical Signaling Mediated by Rac2 Promotes the Foreign Body Response to Biomedical Implants

MUHAMMAD KHURRUM
Prognostic Factors Associated with Worse Outcomes Following Chemoradiation Therapy (CRT) in Patient with Anal Carcinoma
Poster Presentations

Please use the following QR codes to access the symposium posters online. If a preview of the poster is unavailable, please select “Download.”

MICHAEL HUNTER CULLBERT
WHEN EVERY MINUTE COUNTS: REBOA BEFORE SURGERY IS INDEPENDENTLY ASSOCIATED WITH A 15-MINUTE DELAY IN TIME TO DEFINITIVE HEMORRHAGE CONTROL
VIEW POSTER

KELLEN CHEN
CHARACTERIZATION OF MECHANORESPONSIVE INFLAMMATORY CELLS DURING WOUND HEALING
VIEW POSTER

KATHARINA FISCHER
CHARACTERIZATION OF MECHANORESPONSIVE CELL TYPES DURING VENOUS REMODELLING UNDER ELEVATED SHEAR STRESS ON A SINGLE CELL LEVEL
VIEW POSTER
ELISHIA THOMPSON
DIMINISHED RESPONSE TO NEOADJUVANT CHEMORADIATION IN MICROSATellite INSTABILITY (MSI) POSITIVE RECTAL CANCER
VIEW POSTER

MUHAMMAD KHURRUM
FACTORS PREDICTING MORTALITY IN PATIENTS WITH EARLY-ONSET COLORECTAL CANCER UNDERGOING SURGERY: AN ANALYSIS OF THE NATIONAL CANCER DATABASE
VIEW POSTER

RAUL REINA
FIBRINOGEN SUPPLEMENTATION FOR TRAUMA PATIENTS: SHOULD YOU CHOOSE FIBRINOGEN CONCENTRATE OVER CRYOPRECIPITATE?
VIEW POSTER
DAVID SCHAUB
RELEVANCE AND OUTCOMES OF MISMATCH REPAIR STATUS IN PATIENTS WITH METASTATIC COLORECTAL CANCER
VIEW POSTER

KENZIE SCHAEFER
IS THERE A PATTERN FOR PATHOLOGIC COMPLETE RESPONSE IN GASTRIC CANCER UNDERGOING NEOADJUVANT THERAPY?
VIEW POSTER

JUAN ARIAS
ASYMPTOMATIC CAROTID ATHEROSCLEROTIC DISEASE IS ASSOCIATED WITH INCREASED ALZHEIMER’S AND NON-ALZHEIMER’S DEMENTIA RISK
VIEW POSTER
Poster Presentations

JACQUELINE DAUCH
THE IMPACT OF FRAILTY ON PATIENTS UNDERGOING LIVER RESECTION FOR HEPATOCELLULAR CARCINOMA: A REVIEW OF THE NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM
VIEW POSTER

MOHAMMAD HAMIDI
APICAL DISPLACEMENT OF BIOPROSTHETIC MITRAL VALVE RESULTING IN LEFT VENTRICULAR OUTFLOW TRACT OBSTRUCTION
VIEW POSTER
Thank you for attending the
2022 DEPARTMENT OF SURGERY RESEARCH SYMPOSIUM

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