



2013

2013 ANNUAL REPORT



CASE
Surgery

Department of Surgery
Case Western Reserve University School of Medicine





University Hospitals
Case Medical Center
Department of Surgery
11100 Euclid Avenue
Cleveland, OH 44106



MetroHealth Medical Center
Department of Surgery
2500 MetroHealth Drive
Cleveland, OH 44109



Louis B. Stokes Cleveland
VA Medical Center
Surgical Services 112
10701 East Boulevard
Cleveland, OH 44106

DEPARTMENT OF SURGERY

Case Western Reserve
University School of Medicine

CHAIR'S OFFICE

Conor Delaney, MD, MCh, PhD

Interim Chair

The Jeffrey L. Ponsky Professor of
Surgical Education

Department of Surgery
Case Western Reserve
University School
of Medicine

11100 Euclid Avenue
Cleveland, OH 44106

216.844.8087 Phone
216.983.7230 Fax

www.casesurgery.com

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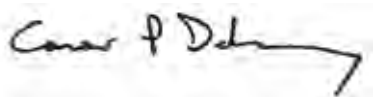
LOUIS B. STOKES CLEVELAND VA MEDICAL CENTER

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The Department of Surgery at Case Western Reserve University is proud to provide high quality patient care, integrated with clinical and basic science research, in an environment that is known for the high quality of education it provides. We are fortunate to have leaders in every surgical discipline among our faculty, who drive the quality of care provided and have earned the recognition enjoyed by the Department. Across the breadth of our practice, we provide all types of care, from the most novel and inventive types of hernia repair and diaphragm pacing, to the more routine, and yet equally important minimally invasive cardiac, colorectal, general surgical, hepatobiliary, oncologic, pediatric, thoracic and vascular procedures.

Our residency and fellowship programs continue to be an integral part of the Department, whilst adding to the rich culture of education and research. Our teaching hospitals include University Hospitals Case Medical Center, MetroHealth Medical Center, and the Louis B. Stokes Cleveland VA Medical Center. Each has a dedicated and unique faculty with special expertise that enriches patient care, and each adds a different perspective to the educational experience. Our faculty continue to present and publish some of the best international clinical outcomes, based on their skill at optimizing the care they provide daily to their patients. The Department has also distinguished itself, both nationally and internationally, for its creative and innovative hands-on and web-based postgraduate educational courses.

In this latest edition of the Annual Report, you will find a summary of the state of each Department and Division, and a brief listing of some of the accomplishments of our team.



Conor Delaney, MD, MCh, PhD
Interim Chair, Department of Surgery
The Jeffrey L. Ponsky Professor of Surgical Education
Case Western Reserve University
Chief, Division of Colorectal Surgery
University Hospitals Case Medical Center

CHAIRMAN'S INTRODUCTION



Conor Delaney, MD, MCh, PhD

“Our residency and fellowship programs continue to be an integral part of the Department, whilst adding to the rich culture of education and research.”

CASE FACULTY LEADERSHIP



RESIDENCY PROGRAM

Directors

General Surgery Residency

PROGRAM DIRECTOR

Jeffrey Marks, MD

ASSOCIATE PROGRAM DIRECTORS

Jeremy Lipman, MD

Gilles Pinault, MD

Sharon L. Stein, MD

Oral and Maxillofacial Surgery Residency Program

PROGRAM DIRECTOR

Faisal A. Quereshy, MD, DDS

Surgery Clerkship Directors

PROGRAM DIRECTOR

Marjie Persons, MD

ASSOCIATE PROGRAM DIRECTORS

Jeremy Lipman, MD

Gilles Pinault, MD

University Hospitals Case Medical Center

Faculty Leadership

INTERIM CHAIR

Conor M. Delaney, MD, MCh, PhD

DIVISION CHIEFS

Cardiac Surgery

Soon Park, MD

Colorectal Surgery

Conor Delaney, MD, MCh, PhD

General and Gastrointestinal Surgery

Michael Rosen, MD

Oral and Maxillofacial Surgery

Dale Baur, DDS

Pediatric Surgery

Edward Barksdale, MD

Surgical Oncology

Julian Kim, MD

Thoracic and Esophageal Surgery

Philip Linden, MD

Hepatobiliary and Transplant Surgery

Christopher Siegel, MD, PhD

Vascular Surgery and Endovascular Therapy

Vikram Kashyap, MD

MetroHealth Medical Center

Faculty Leadership

DEPARTMENT CHAIR

Christopher P. Brandt, MD

DIVISION DIRECTORS

Cardiothoracic Surgery

Inderjit S. Gill, MD

General Surgery

Christopher McHenry, MD

Oral and Maxillofacial Surgery

Michael R. Zetz, DDS

Plastic Surgery

Roderick B. Jordan, MD

Surgical Oncology

Christopher McHenry, MD

(Acting Director)

Trauma, Critical Care, Burns and Acute Care Surgery

Jeffrey A. Claridge, MD, MS

Vascular Surgery

J. Jeffrey Alexander, MD

Louis B. Stokes Cleveland VA Medical Center

Faculty Leadership

CHIEF, SURGICAL SERVICE

Brian Cmolik, MD

SECTION CHIEFS

Cardiothoracic Surgery

Yakov Elgudin, MD, PhD

General Surgery

Eric Marderstein, MD

Plastic Surgery

Devra Becker, MD

Surgical Critical Care

Edward Noguera, MD

Vascular Surgery

Jessie Jean-Claude, MD

SCHOOL OF MEDICINE HISTORY



Medical Education in the 19th Century

In the mid 1800's, medical students first completed a 3-year preceptorship after which they were able to practice medicine in Ohio. However, to obtain a medical degree a student had to attend two sets of 16-week lectures at a medical college. They then had to pass an examination by a committee composed of medical school faculty and County Medical Society physicians.

Major changes were occurring among the hospitals and colleges in Cleveland, which resulted in the medical school and hospital systems of today. The Cleveland City Hospital eventually combined with Marine Hospital, becoming Lakeside Hospital. Also during this period, a new City Infirmary, called the City Hospital, was built on Scranton Road - known today as MetroHealth Medical Center. Metro has been part of the Case Department of Surgery since the 1970's. Due to the generosity of several Cleveland industrialists, Lakeside Hospital and Western Reserve University School of Medicine eventually moved East to University Circle, where they reside today.

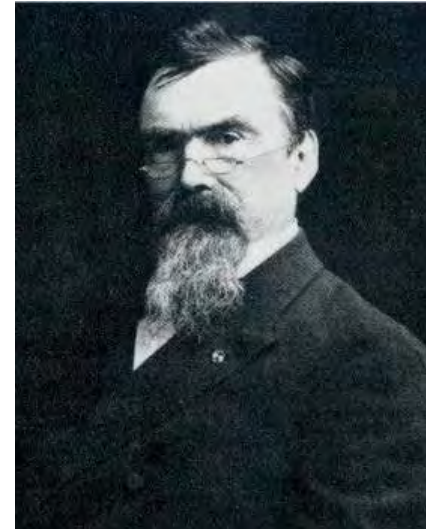
In the late 1800s, Lakeside Hospital underwent a major expansion and the Cleveland Medical Library Association was founded. This Association currently exists as the Allen Medical Library, which is the clinical library for Case School of Medicine. It was built with Dr. Allen's endowment of the marble building next to University Hospitals.



1834 – 1856

Dr. Horace A. Ackley

- First Chairman of the Department of Surgery
- Original founder of the Willoughby Medical College; moved the school to Cleveland to start what ultimately became the Medical Department of the Western Reserve College
- The original Medical Department in Willoughby eventually became the Starling Medical College at the Ohio State University
- A skilled anatomist, a formidable surgeon and a community activist
- The first to use ether in surgery

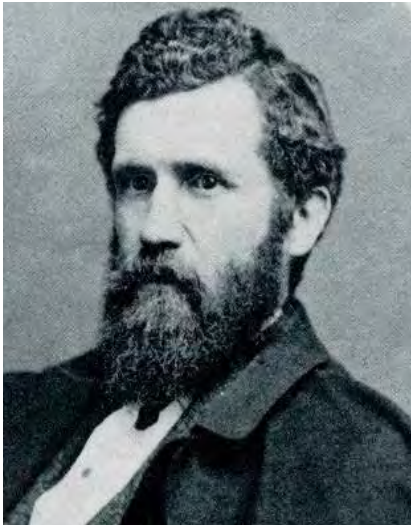


1856 – 1863

Dr. Gustav Carl Erich Weber

- Realized the importance of using inpatients for student teaching – used the Marine Hospital for this purpose
- Was the Surgeon General for Ohio during the Civil War
- Started an alternative medical school at St. Vincent's Charity Hospital





1863 – 1890

Dr. Proctor Thayer

- A long period of growth for the Department during his tenure
- Along with Dr. Weber, brought the two downtown medical schools together; funds were donated for the construction of a new medical school building, still in downtown Cleveland
- The medical school curriculum was lengthened
- Innovations in the OR during this time: the use of Lister's carbolic spray and topical antiseptics (soap) and new instruments such as the thermometer



1890 – 1893

Dr. Charles Barnsdall Parker

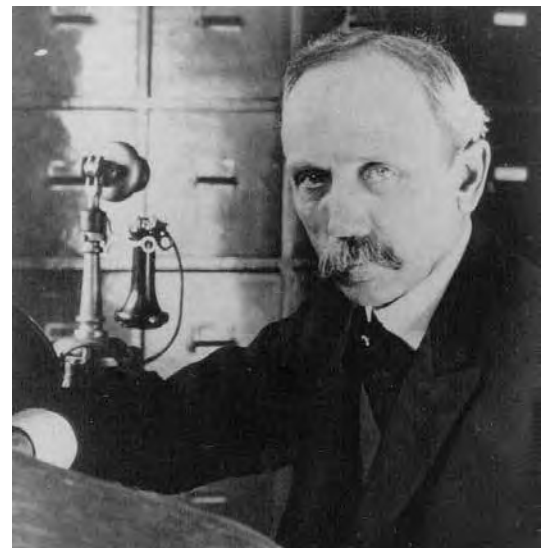
- The medical school curriculum was extended to 3 years of formal instruction
- Chemistry, physiology, and histology were introduced
- Fiscal tensions resulted in his resignation



1893 – 1910

Dr. Dudley Peter Allen

- Begins the "modern" era of surgical and medical education
- Actively revised the medical school curriculum prior to the Flexner report of 1909, which changed medical education in the United States
- The new curriculum involved seven departments and 4,100 hours of instruction along with expanded entrance requirements
- National leader in surgical education, which continues to this day



SCHOOL OF MEDICINE HISTORY



1910 – 1924

Dr. George Washington Crile

- Began practice as a trauma surgeon in Cleveland
- Went to France as part of the American Ambulance Service in which academic hospitals sent a complete hospital staff as a unit
- During the 1920s, worked to create the following in University Circle: Lakeside Hospital; the Pathology Institute; Babies and Children Hospital; and the MacDonal House Hospital for obstetrics and gynecology
- Upon retiring, rejoined former private practice partners to further a new venture—the Cleveland Clinic



1924 – 1932

Dr. Elliott C. Cutler

- Served with the Harvard unit that relieved Dr. Crile's American Ambulance Service in Paris
- Began academic career with neurosurgeon at Peter Bent Brigham Hospital, Dr. Harvey Cushing; shortly thereafter, was appointed chairman of our Department
- Created a full-time teaching faculty and strengthened commitment to surgical research for both the faculty and residents
- Eventually returned to PBBH as Harvey Cushing's successor
- The list of surgical trainees from both institutions formed the core of surgical professors and leaders for the next 30 years

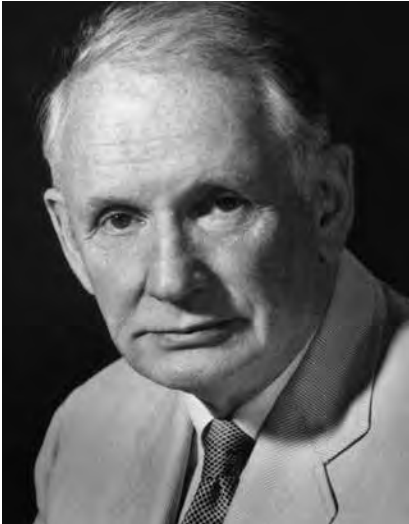


1932 – 1950

Dr. Carl Henri Lenhart

- Became chairman during the Great Depression
- Was the first recipient of the endowed Oliver H. Payne Chair of Surgery
- Due to financially turbulent times, all the full-time faculty were forced to revert to private practice





1950 – 1977

Dr. William D. Holden

- Advanced one academic rank per year, becoming Professor and Chairman in 1950
- Expanded the geographic full-time faculty whose base salaries allowed them to spend less time on private practice and more on teaching and research
- Combined the surgical residencies of University Hospitals, the Cleveland VA Hospital and Cleveland Metro General Hospital into the unified Case general surgery residency program in 1970
- Integrated some surgical specialties with general surgery in order to give joint credit for research years – this allowed the specialty chief residency to count as the chief year in general surgery, shortening the residency training years for those on an academic pathway



1980 – 2001

Dr. Jerry Mark Shuck

- Surgeon, pharmacist, and professional baseball player
- Brought a renewed commitment to excellence in teaching of residents and medical students and further development of the academic faculty
- Division of general surgery doubled in size
- Areas of special expertise were developed—The Breast Center, Transplantation, Vascular, Bariatric and Minimally Invasive (Laparoscopic) Procedures
- Oversaw the expansion of the clinical scope of the department into ambulatory surgery at the Green Road USHC and at University Hospitals and into the clinical offices at the main campus and suburban locations
- Became Director and Associate Dean of Graduate Medical Education for the Hospital

20th Century Accomplishments

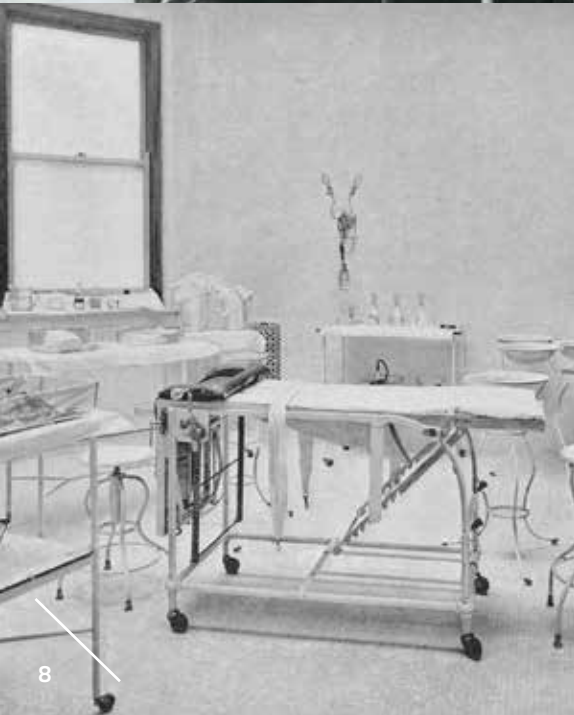
Dr. Crile's interest in shock from blood loss culminated in the first local transfusion of whole blood, and his interest in trauma spurred the use of the new Roentgen X-ray machines.

Dr. Cutler invented a transventricular valvulotome for mitral stenosis. It was not successful but this investigative work with Dr. Claude Beck of the Department started Dr. Beck's lifelong series of achievements in cardiovascular surgery.

Dr. Lenhart worked with Dr. David Marine who demonstrated the relationship between iodine deficiency and goiter, as Cleveland was part of the "Goiter Belt."

The 1950s brought many advances in the School of Medicine. These advances were the result of the revolutionary Western Reserve School of Medicine Curriculum, which combined basic science and clinical faculties. Among the advances: early metabolic surgical research supported with a metabolic clinical unit within Lakeside; labs in the new Wearn Research Building; and a new large animal research unit with labs and OR's within the new adjacent medical school complex. The surgical specialty services flourished and many became their own departments—Neurosurgery, Orthopedics, Otolaryngology and Urology among them.

Dr. Ponsky, with Dr. Michael Gauderer, is the co-originator of the Percutaneous Endoscopic Gastrostomy (PEG), a revolutionary procedure which provides a minimally invasive substitute for operative placement of feeding tubes.



2001 – 2004 Dr. James A. Schulak

- Transplant surgeon recruited by Dr. Shuck in 1985; dramatically increased the number of kidney transplantations, and established liver and pancreas transplant programs while establishing a national reputation in transplant immunology and reperfusion injury research
- As chairman, he stabilized the practice patterns within the divisions and restructured medical student and resident education

2005 – 2014 Dr. Jeffrey L. Ponsky

- The Oliver H. Payne Professor and Chairman
- Was Chief of Surgery at Mt. Sinai Hospital - the quality of his educational program was such that it was integrated into the Case surgical residency
- Has received numerous awards including: the prestigious Rudolf Schindler Award by the American Society for Gastrointestinal Endoscopy (2002) in recognition for excellence in endoscopic research, teaching and service; the Pioneer in Endoscopy Award from SAGES; and the SAGES George Berci Lifetime Achievement Award
- Co-invented the percutaneous endoscopic gastrostomy (PEG) procedure



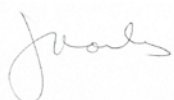
Thank you for your interest in the training programs in the Department of Surgery at Case Western Reserve University School of Medicine. Our mission is to provide the finest training available to individuals who are motivated, compassionate and willing to contribute to the excellence of the program for the benefit of all participants.

Please visit the Case Surgical Residency Program website (www.casesurgery.com) to learn more about specific surgical rotations, faculty biosketches, current residents, recent graduates and the educational conferences. As a part of our ongoing effort to improve the educational experience, conferences and yearly rotations may be modified based upon resident feedback at our yearly retreat. Surgical training is divided among the following outstanding hospitals to provide a broad range of experience:

- University Hospitals Case Medical Center is the primary hospital affiliate with Case Western Reserve University School of Medicine. Case Surgery is a recognized leader in minimally invasive surgery, abdominal wall reconstruction, cutting edge surgical oncologic interventions, and advanced novel endoscopic therapies, including Per-Oral Endoscopic Myotomy (POEM).
- MetroHealth Medical Center is the regional Level I Trauma and Burn Center and is nationally recognized for contributions in the area of emergency surgery, critical care and endocrine surgery.
- Louis B. Stokes Cleveland VA Medical Center boasts state-of-the-art electronic health records.
- Rainbow Babies and Children's Hospital is traditionally recognized as the top children's hospital in the Midwest and top five in the country.
- University Hospitals Seidman Cancer Center is our NCI-designated cancer center and is the only free-standing cancer hospital in Northern Ohio.

Graduates from our program continually achieve top fellowship positions and move on to make significant contributions in both clinical and academic surgery. The core curriculum follows the SCORE outline, and educational conferences are focused on case-based questions which help the residents achieve proficiency in decision making.

Our mission is "to heal, to teach and to discover." Our surgical training program is dynamic and steeped in tradition but has an eye towards the future. We look forward to continuing our tradition of excellence in teaching and sharing our vision of surgical education in the new millennium.



Jeffrey M. Marks, MD, FACS, FASGE
Professor of Surgery
Director of Surgical Endoscopy
Program Director, Surgical Residency Program
University Hospitals Case Medical Center

PROGRAM DIRECTOR'S INTRODUCTION



Jeffrey M. Marks, MD, FACS, FASGE

"We look forward to sharing our vision of surgical education in the new millennium."

CHAPTER 1 SURGICAL RESIDENCY PROGRAM



POST-GRADUATE YEAR 1

- Pre- and post-operative care
- Minor surgical procedures
- Assists at operations
- “See More, Do More” philosophy
- Increasing opportunities with increased exposure
- Medical student teaching
- Participation in teaching conferences
- Three weeks of vacation

SAMPLE PGY 1 ROTATION SCHEDULE

- Three months of general surgery
- Two months of vascular surgery
- One month of trauma surgery
- One month of transplant surgery
- One month of burn unit
- One month of surgical ICU
- One month of CT surgery
- Two months of emergency surgery

POST-GRADUATE YEAR 2

- Greater responsibility for patient evaluation compared to PGY 1
- Greater opportunity to develop skills in the operating room compared to PGY 1
- This is a year of growth, and progressive responsibility
- Builds upon past experiences
- Emphasizes the workings of the surgical team
- Four weeks of vacation

SAMPLE PGY 2 ROTATION SCHEDULE

- Three blocks of general surgery
- Two blocks of trauma surgery
- One block of colorectal surgery
- One block of surgical ICU
- One block of pediatric surgery
- One block of emergency surgery
- One block of thoracic surgery

POST-GRADUATE YEAR 3

- Coordinate teaching of junior residents and medical students
- Refinement of surgical skills
- Serve as “chief” resident at busy trauma SICU, renal transplant, and acute care surgery service
- Focused endoscopy experience rotating at all three institutions
- Four weeks of vacation

SAMPLE PGY 3 ROTATION SCHEDULE

- Six months of general surgery / surgical oncology
- Two months of endoscopy
- Two months of surgical ICU night float chief
- Two month of transplant surgery

POST-GRADUATE YEAR 4

You are the chief resident on:

- Pediatric surgery
- Trauma surgery
- Emergency surgery
- General surgery
- Vascular surgery
- Colorectal surgery
- Four weeks of vacation

SAMPLE PGY 4 ROTATION SCHEDULE

- Two months of general surgery
- Two months of emergency surgery
- Two months of colorectal surgery
- Two months of vascular surgery
- Two months of pediatric surgery
- Two months of trauma surgery

POST-GRADUATE YEAR 5

- Chief on all services
- Significant responsibilities for teaching in the clinical setting and in conferences
- Opportunity to serve as administrative chief resident
- Four weeks of vacation

SAMPLE PGY 5 ROTATION SCHEDULE

- Eight months of general surgery
- Two months of vascular surgery
- Two months of hepatobiliary surgery

RESEARCH YEARS

RESEARCH AT UNIVERSITY HOSPITALS

- Includes animal research, basic science research and clinical research opportunities
- Extensive interaction with Case Western Reserve University researchers
- Biomedical engineering
- Case imaging center
- Department of Pathology and Microbiology
- Current research areas include:
 - Abdominal wall reconstruction
 - Endoscopy and NOTES
 - Minimally invasive surgery
 - Surgical oncology
 - Vascular surgery

RESEARCH AT METROHEALTH MEDICAL CENTER

- Trauma and critical care based outcomes research
- Surgical infections

OFFSITE RESEARCH

Our residents have found funded opportunities at places such as:

- The Cleveland Clinic – Colorectal Basic Science and Vascular Surgery
- Loyola University – Burn and Shock Trauma Institute
- M.D. Anderson, Houston, Texas – Surgical Oncology Research
- NIH, Washington, DC



SURGICAL RESIDENCY PROGRAM

Current Research Residents

- Iuliana Bobanga, MD, Pediatric Surgery
- Akhil Chawla, MD, Oncology
- Benjamin Crawshaw, MD, Colorectal Surgery
- Daniel Kendrick, MD, Vascular Surgery
- Clayton Petro, MD, General Surgery
- Luke Rothermel, MD
- Charles Wojnarski, MD, CCF

CLINICAL TRAINING SITES

Faculty of the Case Western Reserve University School of Medicine are responsible for all training at the clinical facilities of University Hospitals Case Medical Center, MetroHealth Medical Center, and the Louis B. Stokes Cleveland VA Medical Center.

UNIVERSITY HOSPITALS CASE MEDICAL CENTER

Description

- Located just east of downtown
- Tertiary-care center with multiple satellite sites
- Six connected specialty hospitals
- Lerner Tower and Lakeside Hospital
- Mather Pavilion for Outpatient Surgery
- Rainbow Babies and Children's Hospital
- University McDonald Women's Hospital
- University Hospitals Seidman Cancer Center

Departmental Structure

- Division of Cardiac Surgery
- Division of Colorectal Surgery
- Division of General and Gastrointestinal Surgery:
- Division of Oral and Maxillofacial Surgery
- Division of Pediatric Surgery
- Division of Surgical Oncology
- Division of Thoracic and Esophageal Surgery
- Division of Hepatobiliary and Transplant Surgery
- Division of Vascular Surgery and Endovascular Therapy

UHCMC is home to many residencies and fellowships including surgical subspecialties in:

- Neurosurgery
- Orthopaedic Surgery
- Otolaryngology
- Urology
- Plastic Surgery
- Vascular Surgery

METROHEALTH MEDICAL CENTER

Description

- Located just southwest of downtown
- Tertiary care center for acutely ill patients
- ACS verified Level I Trauma Center for adults and Level II Trauma Center for pediatrics
- ACS verified Regional Burn Center



Departmental Structure

- General Surgery
- Minimally invasive
- Colorectal
- Endoscopy
- Endocrine
- Oncology
- Burns/Trauma/Critical Care/Acute Care Surgery
- Cardiothoracic Surgery
- Vascular Surgery
- Neurosurgery
- Plastic Surgery
- Pediatric surgery

Headquarters of Life Flight

- Four helicopters
- Active 24-hours a day, seven days a week
- Provides a steady stream of complex trauma patients

LOUIS B. STOKES CLEVELAND VA MEDICAL CENTER

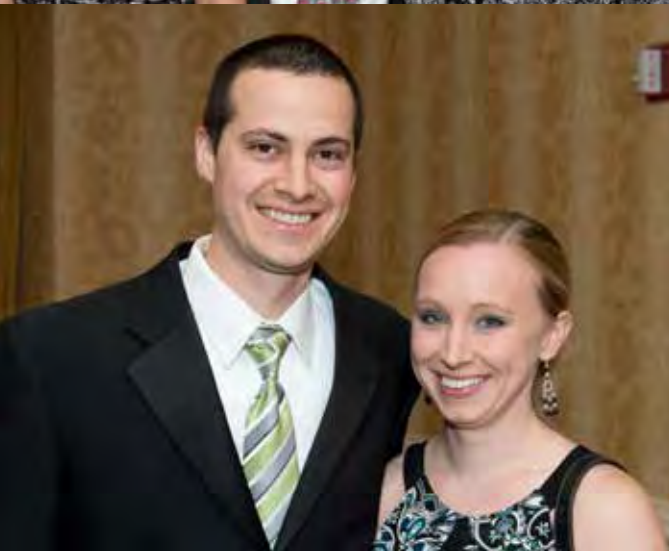
Description

- Major teaching hospital of the Case Western Reserve University School of Medicine
- Training site for residents in:
 - General Surgery
 - Orthopaedic Surgery
 - Otolaryngology
 - Urology
 - Cardiothoracic Surgery
 - Ophthalmology
 - Plastic Surgery
 - Neurosurgery
 - Internal Medicine
 - Psychiatry
 - Neurology

Regional Referral Center

- Cardiac surgery center for:
 - Ohio
 - Northern Kentucky
 - West Virginia
- Major vascular cases
- Bariatric cases
- Spinal cord injury
- Services Northeast United States





FACULTY

The Department is fully integrated in its educational programs at University Hospitals Case Medical Center, MetroHealth Medical Center, and the Louis B. Stokes Cleveland VA Medical Center. There are many full-time surgical faculty in our Department, in addition to PhDs, physician assistants and nurse practitioners.

UNIVERSITY HOSPITALS CASE MEDICAL CENTER

INTERIM CHAIRMAN

Conor Delaney, MD, MCh, PhD, Colorectal Surgery, Surgical Skills Training

VICE CHAIRMAN

Edward Barksdale, MD, Pediatric Surgery

PROFESSORS

Edward Barksdale, MD, Pediatric Surgery

Conor Delaney, MD, MCh, PhD, Colorectal, Surgical Skills Training

Jerry Goldstone, MD, Vascular and Endovascular Surgery

Vikram Kashyap, MD, Vascular and Endovascular Surgery

Julian Kim, MD, Surgical Oncology

Jeffrey Marks, MD, General and Gastrointestinal Surgery, Endoscopy

Raymond Onders, MD, Minimally Invasive Surgery, Anti-reflux Surgery

Soon Park, MD, Cardiac Surgery

Jeffrey Ponsky, MD, Minimally Invasive Surgery, Endoscopy

Michael Rosen, MD, Minimally Invasive Surgery, General and Gastrointestinal Surgery

James Schulak, MD, Transplant/Hepatobiliary and Pancreas Surgery

Robert Zollinger, MD (Emeritus), General and Gastrointestinal Surgery

ASSOCIATE PROFESSORS

Mark Aeder, MD, Transplant/Hepatobiliary and Pancreas Surgery

Brad Champagne, MD, Colorectal Surgery

Jeffrey Hardacre, MD, Surgical Oncology

Leena Khaitan, MD, Minimally Invasive and Bariatric Surgery

Peter Kouretas, MD, Pediatric Cardiothoracic Surgery

Philip Linden, MD, Thoracic and Esophageal Surgery

Yuri Novitsky, MD, Minimally Invasive Surgery, Hernia Repair Surgery

Yaron Perry, MD, Thoracic and Esophageal Surgery

Marjie Persons, MD, Surgical Oncology, General and Gastrointestinal Surgery, Breast Disease

Harry Reynolds, Jr., MD, Colorectal Surgery

Edmund Sanchez, MD, Liver, Kidney, Pancreas Transplant Surgery

Robert Shenk, MD, Surgical Oncology, General and Gastrointestinal Surgery, Breast Disease

Christopher Siegel, MD, PhD, Transplant/Hepatobiliary and Pancreas Surgery

Sharon L. Stein, MD, Colorectal Surgery

Scott Wilhelm, MD, Surgical Oncology, Endocrine Surgery, Minimally Invasive Surgery

Kenneth Woodside, MD, Transplantation, Hepatobiliary and Pancreatic Surgery

ASSISTANT PROFESSORS

John Ammori, MD, Surgical Oncology
Henry Baele, MD, Vascular and Endovascular Surgery
Scott Boulanger, MD, Pediatric Surgery
Teresa Carman, MD, Vascular Medicine
Heidi Elliott, MD, General and Gastrointestinal Surgery
Carlos Garcia, MD, Cardiac Surgery
Vanessa Humphreville, MD, Hepatobiliary and Transplant Surgery
Anne Kim, MD, Pediatric Surgery
Eric Marderstein, MD, Colorectal Surgery
Alan Markowitz, MD, Cardiac Surgery
Ajita Prabhu, MD, General and Gastrointestinal Surgery
Jason Robke, MD, Thoracic and Esophageal Surgery
John Wang, MD, Vascular and Endovascular Therapy
Virginia Wong, MD, Vascular and Endovascular Surgery

METROHEALTH MEDICAL CENTER

CHAIRMAN

Christopher Brandt, MD, General Surgery, Minimally Invasive, Burns, Endoscopy

VICE CHAIRMAN

Christopher McHenry, MD, General Surgery, Endocrine, Head and Neck

PROFESSORS

Christopher Brandt, MD, General Surgery, Minimally Invasive, Burns, Endoscopy
Richard Fratianne (Emeritus), MD, Burn Surgery
Edward Mansour (Emeritus), MD, Surgical Oncology
Christopher McHenry, MD, General Surgery, Endocrine, Head and Neck
Charles Yowler, MD, Trauma/Critical Care, Burn Surgery

ASSOCIATE PROFESSORS

J. Jeffrey Alexander, MD, Vascular Surgery
Bruce Averbook, MD, Surgical Oncology
Jeff Claridge, MD, Trauma/Critical Care
John Como, MD, Trauma/Critical Care
Paul Priebe, MD, General Surgery, Endoscopic, Colorectal

ASSISTANT PROFESSORS

Joseph G. Golob, MD, Trauma/Critical Care
Natalie Joseph, MD, Surgical Oncology
Anjay E. Khandelwal, General Surgery (Pending)
Jeremy Lipman, MD, Colorectal Surgery, Surgical Endoscopy, Minimally Invasive Surgery
Amy McDonald, MD, Trauma/Critical Care
Mireille Astrid Moise, MD, Vascular Surgery
Nimit Patel, MD, Trauma/Critical Care
Rishad Shaikh, DMD, Oral and Maxillofacial
Christopher Smith, MD, Vascular Surgery/ Endovascular Surgery

LOUIS B. STOKES CLEVELAND VA MEDICAL CENTER

SERVICE CHIEF

Brian Cmolik, MD, Cardiothoracic Surgery

ASSOCIATE PROFESSORS

Jessie Jean-Claude, MD, Vascular Surgery
Joel Peerless, MD, Surgical Critical Care

ASSISTANT PROFESSORS

Mujjahid Abbas, MD, General Surgery
Yakov Elgudin, MD, Cardiothoracic
Lleowell Garcia, MD, Vascular Surgery
Eric Marderstein, MD, General Surgery, Colorectal Surgery
Cliff Perez, MD, General Surgery, Surgical Critical Care
Gilles Pinault, MD, Vascular Surgery
Nakul Vakil, MD, Surgical Critical Care
Diana Whittlesey, MD, Cardiothoracic Surgery, Thoracic Oncology
Ray Wong, MD, General Surgery

CLINICAL INSTRUCTORS

Edward Noguera, MD, Anesthesiology, Critical Care

RESIDENTS

Our surgical residents are listed by year along with the medical school they attended.

CHIEF RESIDENTS

Robert Armstrong, Wright State University
Jeffrey Blatnik, Case Western Reserve University
Amir Fathi, Tabriz University of Medical Sciences
Glenn Hall, Meharry Medical College
William Leukhardt, The Ohio State University Medical Center
Liming Yu, Shanghai Medical University

4TH YEAR RESIDENTS

Katherine Kelly, University of Chicago
Andrea King, University of New Mexico
David Krpata, University of Arizona
Jonathan Kwong, University of Medicine and Dentistry of New Jersey
Jonah Stulberg, Case Western Reserve University
Anthony Visioni, SUNY Downstate Medical Center

3RD YEAR RESIDENTS

Matthew Allemang, The Ohio State University
Aman Banarjee, Virginia Commonwealth
Christopher Bohac, University of Illinois
Lauren Chmielewski, Case Western Reserve University
Vineeta Gahlawat, GSVM Medical College
Kristopher Katira, Louisiana State University
Jeanne Pan, University of Texas
SaAda Seidu, American University of Antigua

2013 GRADUATES

Karem Harth, MD

Vascular Surgery Fellow
University Hospitals Case Medical Center
Cleveland, Ohio

Matthew Hubbard, MD

MIS Fellowship
Vanderbilt University
Nashville, Tennessee

Jennifer Kim Lee, MD

Colorectal Fellowship
Rutgers Robert Wood Johnson Medical School
New Brunswick, New Jersey

Kristin Majors, MD

Private Practice
Kentucky One Health Surgical Associates/
St. Joseph London
London, Kentucky

Joseph Posluszny, MD

Critical Care Fellowship
University of Michigan
Ann Arbor, Michigan

Jacquelenn Stuhldreher, MD

Lieutenant Commander Select, U.S. Navy,
Medical Corps Ship's Surgeon, USS John C.
Stennis
Vascular Surgery Fellowship
University of Maryland Medical Center
Baltimore, Maryland



2ND YEAR RESIDENTS

Kevin Choong, Washington University
Jana Hambley, Tulane University
Jack He, University of Rochester
Ann Kim, Case Western Reserve University
Lamba Harveen, Case Western Reserve University
Kyle Lineberry, Michigan State University
Tobias Long, Penn State University
Arnab Majumber, The Ohio State University
Jacob Petrosky, University of Kansas
Steven Plato, Michigan State University
Hahn Soe-Lin, Georgetown University

1ST YEAR RESIDENTS

Gener Augustin, University of Rochester
Justin Brady, University of Toledo
Cory Criss, Ross University
John Francis, Rush Medical College
John Gerka Stuyt, Universidad del Zulia
Andrew Ibrahim, Case Western Reserve University
Nicholas Jabre, University of Cincinnati
Terence Jackson, Madras Medical College
Albert Kim, Virginia Commonwealth
Nikita Machado, Kasturba Medical College
Ashley Manlove, Case Western Reserve University
Nauman Manzoor, Aga Khan Medical College
Frank Masters, Case Western Reserve University
Sumit Nijhawan, Case Western Reserve University
Shannon Nord, University of North Dakota
Carl Odom, University of Alabama
Navid Pourtaheri, Duke University
Mazen Roshdy, University of Cincinnati
Victor Sandoval, Universidad de Ecuador
Kyle Scarberry, Case Western Reserve University
Peter Sofia, Ross University
Ji Son, Stanford University
Tammy Wang, Case Western Reserve University
Jessica Yih, Wayne State University
Hannah Zhou, Case Western Reserve University
Brenda Zosa, Case Western Reserve University

ALLEN SCHOLARS

Iuliana Bobanga, Wayne State University
Akhil Chawla, University of Cincinnati
Benjamin Crawshaw, University of Rochester
Daniel Kendrick, SUNY Upstate
Clayton Petro, University of Cincinnati
Luke Rothermel, Wright State University
Charles Wojnarski, Jagiellonian University

FELLOWS

Karem Harth, Vascular Surgery
Nathaniel Liu, Vascular Surgery
Sean Orenstein, Laparoendoscopic Surgery
Andrew Russ, Colorectal Surgery
Vikas Singhal, Bariatric Surgery

PAST GRADUATES

2012

Manjunath Haridas, MD

Private Practice
Med Central Health System
Mansfield, Ohio

Nathaniel Liu, MD

Vascular Surgery Fellow
UH Case Medical Center
Cleveland, Ohio

Ronson Madathil, MD

Cardiac Surgery Fellow
UCLA
Los Angeles, California

Craig Messick, MD

Colon and Rectal Fellow
Cleveland Clinic Foundation
Cleveland, Ohio

Michael Rosenbaum, MD

Vascular Surgery Fellow
Cleveland Clinic Foundation
Cleveland, Ohio

Joseph Trunzo, MD

Colon and Rectal Fellow
Cleveland Clinic Foundation
Cleveland, Ohio

2011

Joseph Golob, MD

Critical Care Fellowship
MetroHealth Medical Center
Cleveland, Ohio

Judy Jin, MD

Endocrine Fellowship
Cleveland Clinic Foundation
Cleveland, Ohio

Shafer Khan, MD

Plastic Surgery Fellowship
Wayne State University
Detroit, Michigan

Iziokhai Obokhare, MD

Colorectal Research Fellowship
OSHER Institute
New Orleans, Louisiana

Krzysztof Wikiel, MD

Minimally Invasive Fellowship
University of Pittsburgh
Pittsburgh, Pennsylvania

Christina Williams, MD

Critical Care Fellowship
University of Cincinnati
Cincinnati, Ohio

2010

Pejman Babakhanlou, MD

Private Practice
Anaheim, California

Amy Coulter, MD

Vascular Fellowship
SUNY Buffalo Medical Center
Buffalo, New York

Rahul Gohil, MD

Facial Plastic Surgery Fellowship
University of Chicago
Chicago, Illinois

Michael McGee, MD

Colon and Rectal Fellowship
Cleveland Clinic
Cleveland, Ohio

Yagnik Pandya, MD

MIS Fellowship
Boston University
Boston, Massachusetts

Jessica Summers, MD

Surgical Critical Care Fellowship
MetroHealth Medical Center
Cleveland, Ohio

2009

Jeremy Lipman, MD

Colon and Rectal Fellowship
Cleveland Clinic Foundation
Cleveland, Ohio

Ronald Matteotti, MD

Surgical Oncology Fellowship
Fox Chase Cancer Center
Philadelphia, Pennsylvania

Dinesh Vyas, MD

Private Practice
St. John's Mercy Hospital
St. Louis, Missouri

Hiba Abdel Aziz, MD

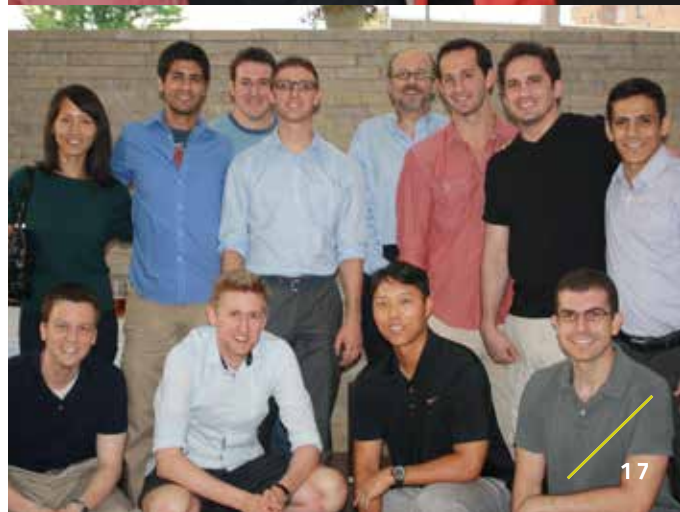
Trauma and Critical Care Fellowship
MetroHealth Medical Center
Cleveland, Ohio

Frances Allocco, MD

Minimally Invasive Surgery Fellowship
Methodist Hospital
Houston, Texas

Steven Bibevski, MD

Thoracic Surgery Fellowship
University of Michigan Hospitals
Ann Arbor, Michigan



Sofia Naz, MD

Acute Care Fellowship
University of Pittsburgh Medical Center
Pittsburgh, Pennsylvania

Roy Phitayakorn, MD

Endocrine Surgery Fellowship
The Massachusetts General Hospital
and Fellowship, Medical Simulation
Gilbert Program in Medical Simulation
and Harvard Macy Institute
Harvard Medical School
Boston, Massachusetts

2008**Diya Alaadeen, MD**

Minimally Invasive Surgery Fellowship
University of Miami
Miami, Florida

Chunjie Yang, MD

Staff at Chenango Memorial Hospital
Norwich, New York

Niranjan Shintre, MD

Private Practice
Coral Springs Medical Center
Coral Springs, Florida

2007**Anna B. Hatchett, MD**

Private Practice
Greenville, Alabama

Meiying Kuo, MD

Hand Fellowship
Royal College of Physicians and
Surgeons
Toronto, Ontario, Canada

Adam Martin, MD

Private Practice
Ashland, Ohio

Kerri Simo, MD

Transplant Fellowship
University of North Carolina Hospitals
Chapel Hill, North Carolina

Rajnish Tandon, MD

Private Practice
Hartford, Connecticut

Jenny Ziembicki, MD

SICU Fellowship
MetroHealth Medical Center
Cleveland, Ohio

2006**Faheem Akhtar, MD**

Fellowship, Vascular Surgery
Loma Linda University

Hitesh Amin, MD

Private Practice

Teng Lee, MD

Fellowship, Endovascular Surgery
Lund University

Melanie Lynch, MD

Fellowship, Surgical Oncology
University Hospitals of Cleveland

Joseph Skitzki, MD

Fellowship, Surgical Oncology
Roswell Park Cancer Institute

Michael Wolfe, MD

Fellowship, Plastic Surgery
Albert Einstein Medical Center

2005**Rodrigo Sandoval, MD**

Fellowship, Hepatobiliary and
Multi-Organ Transplant Surgery
Columbia University

Rasa Zarnegar, MD

Fellowship, Endocrine Surgery
University of California at San Francisco

Khaled Abdelhady

Fellowship, Cardiothoracic Surgery
University of Illinois at Chicago

Nasim Hedayati, MD

Fellowship, Vascular Surgery
Baylor College of Medicine

Krishna Mannava, MD

Fellowship, Vascular Surgery
The Oschner Clinic

2004**Kian Mostafavi, MD**

Fellowship, Vascular Surgery
Wake Forest University

Anastasios Polimenakos, MD

Fellowship, Cardiothoracic Surgery
Washington University, St. Louis

Melissa Times, MD

Fellowship, Colorectal Surgery
Henry Ford Hospital
Fellowship
Robert Wood Johnson Foundation

Vladimir Dubchuk, MD

Private Practice
Cleveland, Ohio

John Lee, MD

Fellowship, Critical Care
University of Pittsburgh

James Merlino, MD

Fellowship, Colorectal Surgery
Cleveland Clinic Foundation
Academic Practice
Case-MetroHealth Medical Center

2003**Joshua Gady, MD**

United States Air Force

Anastasios Konstantakos, MD

Fellowship, Cardiothoracic Surgery
Beth Israel-Deaconess Medical Center

Ronald Tesoriero, MD

United States Navy

Joseph Ambrose, MD

Private Practice
Canton, Ohio

Christopher Compton, MD

Fellowship, Vascular Surgery
University of Pittsburgh

Michael Firstenberg, MD

Fellowship, Cardiothoracic Surgery
The Ohio State University

2002**J. Timothy Sherwood, MD**

Fellowship, Cardiothoracic Surgery
University of Colorado
Academic Practice
Johns Hopkins

Scott Wilhelm, MD

Fellowship, Endocrine Surgery
Rush-Presbyterian St. Luke's Medical Center
Academic Practice
University Hospitals of Cleveland

Virginia Wong, MD

Fellowship, Vascular Surgery
University Hospitals of Cleveland
Academic Practice
University Hospitals of Cleveland

Jason Foster, MD

Fellowship, Surgical Oncology
Roswell Park Cancer Institute

David Kabithe, MD

Private Practice
Middletown, Ohio

Christopher Kwon, MD

Fellowship, Cardiothoracic Surgery
Yale University

Dvora Nelson, MD

Private Practice
Elyria, Ohio

2001**Amy McDonald, MD**

Fellowship, Trauma/Critical Care
University of Cincinnati
Academic Practice
MetroHealth Medical Center

Elizabeth Mittendorf, MD

United States Air Force
Fellowship, Surgical Oncology
MD Anderson Cancer Center

John van Aalst, MD

Fellowship, Plastic Surgery
Indiana University
Academic Practice
University of North Carolina

Aviv Ben Meir, MD

Fellowship, Minimally Invasive Surgery
Oregon Health Sciences University
Private Practice
Cleveland, Ohio

Peter Hallowell, MD

Academic Practice
University Hospitals of Cleveland

John Jasper, MD

Academic Practice
University Hospitals of Cleveland /
Cleveland VAMC

Howard Lederer, MD

Fellowship, Bariatric Surgery
University of Minnesota
Private Practice
Minnetonka, Minnesota

2000**David Harrison, MD**

Private Practice
Newburgh, New York

Natalie Joseph, MD

Fellowship, Surgical Oncology
Fox Chase Cancer Center
Academic Practice
Fox Chase Cancer Center

Ashwani Rajput, MD

Fellowship, Surgical Oncology
Roswell Park Cancer Institute
Academic Practice
Roswell Park Cancer Institute

Lisa Weinstein, MD

Fellowship, Colorectal Surgery
Oschner Clinic
Private Practice
Denver, Colorado

George Dwyer, MD

Fellowship, Critical Care
Massachusetts General Hospital

Debora Gama Lima, MD

Fellowship, Minimally Invasive Surgery
Mayo Clinic, Scottsdale, Arizona

Claudia Goettler, MD

Fellowship, Trauma/Critical Care
University of Pennsylvania
Academic Practice
Eastern Carolina University

Eric Hahn, MD

Fellowship, Minimally Invasive Surgery
Private Practice
Fremont, California

1999**Steven Panaro, MD**

Private Practice
Tilton, New Hampshire
Residency, Anesthesiology
Massachusetts General Hospital

Steven Rosenblatt, MD

Fellowship, Minimally Invasive Surgery
Cleveland Clinic Foundation
Academic Practice
Cleveland Clinic Foundation

Debra Tarantino, MD

Fellowship, Colorectal Surgery
St. Luke's-Roosevelt Hospital
Private Practice
Millburn, New Jersey

Kip Wells, MD

Cardiothoracic Surgery
University of Pittsburgh
Private Practice
Hobbs, New Mexico

Jeffrey Hazey, MD

Fellowship, Minimally Invasive Surgery
Cleveland Clinic Foundation
Academic Practice
The Ohio State University

Amy Kells, MD

Fellowship, Trauma/Critical Care
Maryland Shock Trauma
Private Practice
Brooklyn, New York

Kyung Kim, MD

Private Practice

Somchai Limsrichamrern, MD

Fellowship, Transplantation
University of Chicago
Academic Practice
Bangkok, Thailand

1998**Anthony Ripepi, MD**

Private Practice
Pittsburgh, Pennsylvania

Bernardo Sandoval, MD

Fellowship, Cardiothoracic Surgery
University of Texas Southwest, Dallas
Academic Practice
Quito, Ecuador

Christopher Smith, MD

Fellowship, Vascular Surgery
Private Practice
Philadelphia, Pennsylvania

Rebecca Yang, MD

Fellowship, Breast Surgery
University Hospitals of Cleveland
Academic Practice
Lahey Clinic

Donald Keenan, MD

Academic Practice
University of Pittsburgh

Steven Kelly, MD

United States Army
Private Practice
Canton, Ohio

James Madura, MD

Academic Practice
Cook County-Rush University

Gilles Pinault, MD

Fellowship, Vascular Surgery
Fellowship, Critical Care
University Hospitals of Cleveland
Academic Practice
Cleveland VAMC

SURGICAL RESIDENCY PROGRAM

NEED TO KNOW FACTS

- Open door policy with easy access to meet with the Chairman and Program Director as well as with all other faculty.
- Monthly evaluation of residents with constructive feedback.
- Free participation in the scheduled evening meetings of the Cleveland Surgical Society.
- Insurance coverage (Health/Dental, Malpractice, Disability and additional family coverage available).
- Expense reimbursement for presentation of scholarly work at national meetings.
- Departmental residency retreats dedicated to a critical evaluation of the residency and to improving the educational environment and experience.
- Resident participation on the Residency Committee and with applicant recruitment.
- House staff hospital libraries and access to medical school libraries (Allen Memorial Library and Health Sciences Library).
- Paid maternity/paternity leave is six weeks including any accrued vacation for the year (based on American Board of Surgery Regulations).
- Uniforms and scrubs are supplied and laundered by the hospital.
- Vacation is three weeks per year for interns and four weeks per year for other residents.
- No more than on-call every fourth night.
- Departmental internet site for communication, teaching, and recording case logs.
- 2013 stipends received for each year after graduating from medical school:
 - 1st year: \$50,745
 - 2nd year: \$52,500
 - 3rd year: \$54,000
 - 4th year: \$55,900
 - 5th year: \$58,000
 - 6th year: \$60,240
 - 7th year: \$62,000
- Meal tickets are provided for all on-call periods.
- Optional two years of research.



DEPARTMENTAL CONFERENCES

Educational Conference

Mondays
7:00-8:15 AM at UHCCM
Thursdays
7:00-8:00 AM at MetroHealth Medical Center

Journal Club

Monthly
Off-campus at local restaurant

UNIVERSITY HOSPITALS CASE MEDICAL CENTER

Department Wide Conferences

Morbidity and Mortality Conference

Every Wednesday (except 4th Wednesday)
7:00-8:00 AM

Grand Rounds

Every Wednesday
8:00-9:00 AM
(4th Wednesday, 7:00 – 8:00 AM)

Service Specific Conferences

Multidisciplinary GI Tumor Board

Every Wednesday
Radiation Oncology Conference Room,
Lerner Tower, B151

Transplant Journal Club

3rd Thursday of the month
Lerner Tower 2060

Interdisciplinary Breast Conference

Thursdays
Bolwell XRT Conference Room

Vascular Surgery Conference

3rd Monday, 5-6pm
4th Wednesday, 7-8am
6th floor Vascular Library

Colorectal Conference

Thursdays
Lakeside Conference Room
5:00-6:00 PM

Combined General Surgery / GI conference

Tuesdays
5:00-6:00 PM

METROHEALTH MEDICAL CENTER

Department Wide Conference

Quality Assurance

Tuesdays
Rammelkamp, R170

General Surgery Conference

Thursdays
Rammelkamp 170

Service Specific Conferences

Trauma Chairman Rounds

Thursdays
SICU

Blue Surgery Conference

Tuesdays
H936

Breast Surgery Conference

Tuesdays
Radiology Conference Room

Burn Surgery Conference

Thursdays
BICU

Vascular Surgery Conference

Fridays
Radiology Conference Room RG30

Green Surgery Conference

Fridays
H936

LOUIS B. STOKES CLEVELAND VA MEDICAL CENTER

Department Wide Conferences

MONDAYS

GI Multidisciplinary Tumor Board Conference

12:00-1:00 PM
Lincoln Conference Room

TUESDAYS

Vascular Section Walk Rounds

7:30-9:00 AM
Ward 5A

Multidisciplinary Vascular Conference

9:00-10:00 AM
SICU Conference Room

THURSDAYS

Morbidity and Mortality Conference

(General and Vascular Surgery Sections)
7:00-8:00 AM
Conference Room K-119

Tumor Board Conference

8:00-9:00 AM
Conference Room K-119

General Surgery Indications Conference

9:00-10:00 AM
SICU Conference Room

Critical Care Walk Rounds

10:00-11:00 AM
SICU

Pathology Gross and Microscope Conference

11:00 AM-12:00 PM (monthly only)
Dept. of Pathology Morgue
Conference Room

FRIDAYS

CV Surgery/Cardiology Multi-disciplinary Catheterization Conference

7:00-8:00 AM
Cardiac Catheterization Lab
Conference Room



FELLOWSHIP TRAINING

While our residency programs offer experience in all required areas, the trend towards specialized training has accelerated in recent years. The Department of Surgery has established several fellowships to keep up with the demand for specialized training. The Department currently has the following fellowships:

- Bariatric Surgery
- Colorectal Surgery
- MIS/Laparoendoscopic Surgery
- Vascular Surgery

These fellowships are highly selective and nationally recognized programs.



MEDICAL STUDENTS

Third year students from the Case Western Reserve University School of Medicine rotate through the Department of Surgery in small groups for eight weeks at a time as a part of their curriculum. While the students are in the clerkship, they are assigned to a team of attending surgeons and residents to shadow in the OR, clinics and at Departmental education conferences. The students also attend a series of 36 student-g geared lectures, prepared and presented by the Department's faculty members. Rita Rys is the Clerkship Coordinator who works in conjunction with Dr. Marjie Persons, the Clerkship Director.

CHAPTER 2 CENTER FOR SKILLS AND SIMULATION

The Case Western Reserve University Center for Skills and Simulation (CWRU CSS) offers national and international resources in a wide spectrum of learning modalities with the ultimate goal of improving health care quality and efficiency. The CWRU CSS provides the opportunity for clinical and non-clinical educational excellence.

Since its inception, CWRU CSS has embraced the multi-disciplinary approach to meet the needs of many trainees within the context of state-of-the-art facilities and high quality educational programs. It is an American College of Surgeons Level 1 Comprehensive Accredited Education Institute, receiving reaccreditation in 2012.

The mission of the CWRU CSS is to be a uniting force for the advancement of health care education. CWRU CSS strives to:

- Provide assessment, training, and evaluation for multiple levels of learners, to achieve patient safety through leadership, research, and innovative learner-centered experiences;
- Be a uniting force bringing all of the region's health care institutions together in collaboration and cooperation;
- Provide unparalleled educational facilities both on site and in situ;
- Be an invaluable local, national and international resource for continuing education for health care providers;
- Be a dynamic industrial partner in testing, development, manufacturing, and marketing simulation technology; and
- Be a Center of Excellence in research and leadership development.

Director

Mark Aeder, MD

Center Staff

Andrea Bryner

Administrative Director

Andrew Gross

Medical Simulation Manager

Casey Schroeder

Jamie Janos

Howard Gregory

DeBorah Hamilton-Levy



CENTER FOR SKILLS AND SIMULATION

MT. SINAI SKILLS AND SIMULATION CENTER AT CASE WESTERN RESERVE UNIVERSITY SCHOOL OF MEDICINE (MSSSC)

The MSSSC provides the availability and expertise in all five areas of simulation training (standardized patients, task training, simulation scenarios, virtual reality, and hybrid simulation) for the learners at all levels. These modalities are incorporated into programs for learner assessment, training, certification, testing and research. The MSSSC provides state-of-the-art simulation, both at its 8,500 square foot facility and at various locations (utilizing its in situ equipment) by creating realistic training scenario modules and video debriefing. The expert staff facilitates the teaching and evaluation of clinical and nonclinical skills such as those required by the American Association of Medical Colleges (AAMC), the Accreditation Council for Graduate

Medical Education (ACGME) and the various Certifying Boards. The MSSSC has provided educational programs for a diverse learner population including: undergraduate students; medical, nursing and dental students; health care providers and professionals from all disciplines; practicing physicians and nurses; first responders; military personnel; and community members. With the appointment of Dr. Mark Aeder as the Medical Director in 2010, the MSSSC has seen a marked increase in the potential programming opportunities and an increased presence at national and international meetings. With an expansion of the potential learner base, the Center is pioneering new techniques in corporate and professional education. The MSSSC is a consulting partner for the Global Center for Health Innovation at the Cleveland Convention Center and plans to operate and staff the educational facility at the site.



The MSSSC offers an outcomes-driven curriculum which focuses on improving patient-provider communication and reducing medical errors and health care costs. In addition to being able to customize any simulation experience, the Center has a vast library of realistic multidisciplinary and interprofessional scenarios which can incorporate all forms of simulation, including standardized patients, basic and complex task trainers, high fidelity manikins, virtual reality trainers and second life programs. The past year has seen an expansion of these programs to provide the learner groups enhanced opportunities for clinical and nonclinical development. A major focus in this initiative is skill enhancement in the areas of critical thinking, problem-solving and teamwork.

The past year has been a successful one for the MSSSC as it transitions to maximizing its resource offerings. In addition to the growth in the number of programs offered and the integration of the interdisciplinary focus, the Center staff has been advancing their personal educational opportunities. This has translated into more robust scenario development and programming. Under the guidance of Dr. Aeder and the Administrative Director they have been able to further facilitate the user needs and to enhance the educational experience. Many of these advancements and improvements are noted in the list of course offerings and schedule, and can be viewed on the updated MSSSC website at <http://casemed.case.edu/simcenter>.

PRESENTATIONS

Dr. Aeder

- Seeking Financial Sustainability in Healthcare Simulation. International Meeting for Simulation in Healthcare, Orlando, January 2013.
- Simulation Education for Industry, Cleveland, May 2012.
- Update on the National Kidney Paired Donation Pilot Program, Atlanta, November 2013.
- Benefits for Participation in the National Kidney Paired Donation Pilot Program, Kansas City, December 2013.



CHAPTER 3 POST-GRADUATE PROGRAM

Part of the mission of the Department of Surgery at Case Western Reserve University School of Medicine is to advance research and education in surgical science across all disciplines and specialties—regionally, nationally and internationally. Post-graduate education is a goal of the Department of Surgery. Many training opportunities are offered throughout the year, including web symposiums and on-site courses.

INTERNATIONAL WEB SYMPOSIUMS

We continue to offer these cost-effective interactive CME courses which are broadcast from our state-of-the-art onsite studio. Web symposiums provide a way for surgeons and other specialists to collaborate with others around the globe for a fraction of the cost of traditional meetings. Learners participate in the comfort of their office or home, secure necessary CME credits, and benefit from the expertise of major opinion leaders across the globe. Debates, panel discussions, difficult case studies, and interactive polls are all part of the online experience. Since 2009, nearly 5,000 professionals have participated in our webinars, representing over 30 countries. This year's topics include:

- Current Controversies in Esophageal Disease
- Abdominal Wall Reconstruction
- Pediatric Ophthalmology Series – Thyroid Related Eye Disease, Cataracts, Neuro Ophthalmology
- SAGES Resident Training
- Vascular Surgery Update
- Brain Health

ONSITE COURSES

We provide onsite training courses, which include CME, as well as corporate-sponsored offerings such as:

Laparoscopic Colorectal, Advanced Laparoscopic Hernia and Bariatric Surgery mini-fellowships: These national, multi-day, corporate-sponsored programs include didactics, live surgical case observations, and hands-on sessions in the laboratory.

Animate Skills Lab programs: Hands-on training on various disciplines for surgeons and other specialists, fellows and residents, including



surgical treatment of craniocervical junction, surgical treatment of migraine headaches, OB/GYN and orthopedic abnormalities.

Abdominal Wall Reconstruction Summit: Annual multi-day offering which exposes participants to all aspects of abdominal wall reconstructions, including complex abdominal wall reconstruction techniques, minimally invasive hernia repairs, parastomal hernia repairs, post traumatic abdominal wall defects, and management of congenital neonatal defects.

Colorectal Residents Career Course: Annual fellows career development course, offering topics such as building a CV, coding, malpractice, publishing, financial planning, and learning from mistakes. This two-day course also provides a laparoscopic workshop, which includes virtual simulation and hands-on laboratory session.

Advanced GI Fellows Course: Endoscopic Techniques and How to Videotape Them: This annual course is designed for fellows who are training in advanced procedures such as ERCP, EUS, and Therapeutic Endoscopy. It combines didactic sessions with “hands on” instruction in explant and live porcine models, followed by instructions on video documentation and editing.

Per Oral Endoscopic Myotomy: This course is an update in new technology for research and clinical application of Per-Oral Endoscopic Myotomy (POEM) for the treatment of achalasia and several other esophageal motility disorders. Course content includes state-of-the-art lecturers, panel discussions, instructive video presentations and a porcine laboratory session.



SAMPLE OF THE VARIOUS COURSES OFFERED:



2013 NAMED LECTURESHIPS



March 6, 2013
The 2nd Annual Murdough Lecture
 "From WWI to OIF/OEF: Perspectives of a Colorectal (Trauma) Surgeon"
 Scott Steele, MD
 Chief, Colorectal Surgery
 Madigan Army Medical Center, Fort Lewis, WA



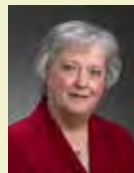
March 27, 2013
Dudley P. Allen, MD Memorial Lecture
 "The Impact of Resident Training on Surgical Outcome"
 Theodore N. Pappas, MD
 Distinguished Professor of Surgical Innovation & Interim Chair
 Department of Surgery
 Duke University Medical Center



April 17, 2013
The Beck Lecture in Vascular Surgery
 "Clinical and Personal Comparative Effectiveness"
 Julie Freischlag, MD
 The William Stewart Halsted Professor
 Chair & Surgeon-in-Chief, Department of Surgery
 The Johns Hopkins Hospital



June 15, 2013
The Beck Lecture in Thoracic Surgery
 "Surgical Management of Malignant Pleural Mesothelioma"
 Raja M. Flores, MD
 Ames Professor of Cardiothoracic Surgery
 Chief, Division of Thoracic Surgery
 The Mt. Sinai Medical Center, New York, NY



September 21, 2013
Debra J. Graham, MD Endowed Lectureship in Surgical Education
 "Stewardship of Surgical Education"
 Patricia J. Numann, MD
 Lloyd S. Rogers Professor of Surgery
 Distinguished Teaching & Service Professor
 SUNY Upstate Medical University



October 2, 2013
The Beck Lecture in Cardiac Surgery
"Cardiothoracic Surgery in Thailand"
 Prinya Sakiyalak, MD
 Department of Surgery
 Siriraj Hospital, Mahidol University
 Bangkok, Thailand

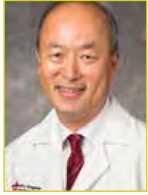


November 9, 2013
The Izant Lecture in Pediatric Surgery
"Fetal Therapy: Surgical, Cellular, and Genetic Perspectives on the Fetus as a Patient"
 Alan W. Flake, MD
 Ruth and Tristram C. Colket, Jr. Chair in Pediatric Surgery
 Director, Children's Hospital of Philadelphia
 Professor of Surgery and Obstetrics
 University of Pennsylvania School of Medicine



December 11, 2013
"High Consequence Urban Terrorism – The Israeli Experience"
 Colonel Isaac Ashkenazi, MD, MSC, MPA, MNS
 Retired Colonel, The Israeli Defense Forces
 Former Surgeon General, IDF Home-front Command
 International Expert for Crisis Management & Leadership
 Ben Gurion University of the Negev
 Former Director, Urban Terrorism Preparedness, NPLI Harvard University

CARDIAC SURGERY



Soon Park, MD
Division Chief, Cardiac Surgery

Medical School: Pritzker School of Medicine, University of Chicago

Residency: General Surgery, University of Washington Affiliated Hospitals; Thoracic Surgery, University of Minnesota Hospital



Alan Markowitz, MD
Cardiac Surgery

Adult Cardiothoracic Surgery, Minimally Invasive Valve Repair and Replacement (Mini-Sternotomy and Heartport), Stentless Valves and Homografts, Off-Pump CABG

Medical School: Albany Medical College

Residency: University Hospitals of Cleveland



Carlos Garcia, MD
Cardiac Surgery

Valve Repair, Off-Pump Surgery

Medical School: University of Utah

Residency: Oregon Health Sciences University

Fellowship: Oregon Health Sciences University



Daniel van Heeckeren, MD
Cardiothoracic Surgery

Adult Cardiac Surgery, Homografts and Autograft Valve Replacement

Medical School: Harvard Medical School

Residency: New Haven Hospital, Yale

Fellowship: Karolinska Institute, Sweden

PEDIATRIC CARDIOTHORACIC SURGERY



Peter C. Kouretas, MD, PhD
Chief, Pediatric Cardiothoracic Surgery

Complex Neonatal Cardiac Surgery, Adult Congenital Heart Surgery, Mechanical Circulatory Support, Cardiac Transplantation

Medical School: Georgetown University

Residency in General Surgery: University of Virginia

Residency in Cardiothoracic Surgery: University of Pennsylvania

Fellowship: Congenital and Pediatric Cardiothoracic Surgery,

Transplantation: Stanford University

PhD in Circulatory Physiology: Georgetown University



COLORECTAL SURGERY



Conor Delaney, MD, MCh, PhD

Interim Chair, Department of Surgery
Division Chief, Colorectal Surgery

Minimally Invasive Colorectal Surgery, Diverticulitis, Colonoscopy, Inflammatory Bowel Disease, Colorectal Cancer, and Rectal Pathology

Medical School: University College of Dublin; Royal College of Surgeons in Ireland

Residency: Mater Hospital; St. Vincent Hospital

Fellowship: University of Pittsburgh Medical Center; Cleveland Clinic Foundation



Bradley Champagne, MD

Colorectal Surgery
Colorectal Residency Program Director

Minimally Invasive Colorectal Surgery, Colorectal Cancer, Diverticulitis, Inflammatory Bowel Disease, Colonoscopy, Pelvic Floor Disease

Medical School: Upstate Medical University at Syracuse

Residency: Albany Medical Center, Albany

Fellowship: Georgia Colorectal Clinic



Eric Marderstein, MD, MPH

Colorectal Surgery

Minimally Invasive Colorectal Surgery, Ulcerative Colitis, Crohn's Disease, Complex Reoperative Abdominal Surgery, Colon and Rectal Cancer, Diverticular Disease, Anorectal Disease

Medical School: University of Virginia School of Medicine

Residency: University of Pittsburgh Medical Center

Fellowship: Colorectal Surgery, Cleveland Clinic; Surgical Research, University of Pittsburgh Medical Center; Patient Safety, University of Pittsburgh Medical Center



Harry Reynolds, Jr., MD

Colorectal Surgery

Inflammatory Bowel Disease, Colorectal Cancer, Rectal Pathology

Medical School: Case Western Reserve University School of Medicine

Residency: University Hospitals of Cleveland

Fellowship: Cleveland Clinic Foundation



Sharon L. Stein, MD

Colorectal Surgery

Minimally Invasive Colorectal Surgery, Inflammatory Bowel Disease, Crohn's Disease, Ulcerative Colitis and Preservation of fertility following pelvic surgery

Medical School: University of Colorado

Residency: Massachusetts General Hospital

Fellowship: New York-Presbyterian Hospital of Cornell and Columbia



Joseph A. Trunzo, MD

Colorectal Surgery

Minimally invasive colorectal surgery, colorectal cancer, inflammatory bowel disease, diverticulitis, benign anorectal and pelvic floor disorders

Medical School: Wright State University School of Medicine

Residency: University Hospitals Case Medical Center (general surgery)

Fellowship: Cleveland Clinic Foundation (colorectal surgery)

GENERAL AND GASTROINTESTINAL SURGERY



Michael Rosen, MD

Division Chief, General and Gastrointestinal Surgery

Director, Case Comprehensive Hernia Center

General Surgery

Gastrointestinal Surgery, Hernia Repair and Minimally Invasive Surgery

Medical School: University of Southern California

Residency: Massachusetts General Hospital

Fellowship: Cleveland Clinic Foundation; Carolinas Medical Center



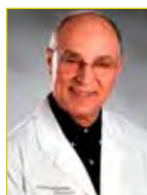
Vladimir Dubchuk, MD

General Surgery

Surgical Pathology of the GI Tract, Minimally Invasive Surgery, Colorectal Surgery, Endoscopy, Thyroid, Parathyroid Surgery

Medical School: Lviv State Medical University

Residency: University Hospitals of Cleveland



Seth Eisengart, MD

General Surgery

General Surgery and Surgery of the Hand

Medical School: Finch University Medical School

Residency: Bronx Municipal Hospital Center



Heidi Elliott, MD

Director, Acute Care Surgery

General Surgery

General Surgery, Minimally Invasive Surgery, Hernia, Anti-Reflux

Medical School: University of Connecticut School of Medicine

Residency: University of Connecticut

Fellowship: Advanced Laparoscopic Surgery and Surgical Endoscopy, Dartmouth Hitchcock Medical Center; Laparoscopic and Bariatric Surgery, Brigham and Women's Hospital



Amitabh Goel, MD

General Surgery

General Surgery, Minimally Invasive Surgery, Critical Care

Medical School: Queen's University

Residency: West-Penn Allegheny Health System

Fellowship: University of Pittsburgh



Cathy Graham, MD

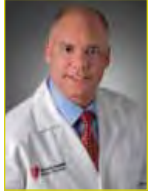
General Surgery

General Surgery, Breast Surgery, Trauma, Gastrointestinal Surgery, Emergency Medicine

Medical School: Duke University School of Medicine

Residency: University Hospitals of Cleveland

Fellowship: University Hospitals of Cleveland



John Jasper, MD

General Surgery

General Surgery, Minimally Invasive Surgery and Breast Surgery

Medical School: University of Minnesota

Residency: University Hospitals Case Medical School



Leena Khaitan, MD, MPH

General Surgery

Director, Bariatric Surgery

Minimally Invasive and Bariatric Surgery

Medical School: Case Western Reserve University School of Medicine

Residency: Lankenau Hospital, PA

Fellowship: Vanderbilt University Medical Center



Jeffrey Marks, MD

Director, Surgical Endoscopy

Program Director, General Surgery Residency Program

General Surgery

Gastrointestinal Surgery, Endoscopy, and Minimally Invasive Surgery

Medical School: Tufts University School of Medicine

Residency: Mt. Sinai Medical Center, Cleveland

Fellowship: Mt. Sinai Medical Center, Cleveland



Yuri Novitsky, MD

Co-director, Case Comprehensive Hernia Center

Director, Surgical Research

General Surgery

Hernia Repair, Minimally Invasive Surgery, Gastroesophageal Disorders

Medical School: Albany Medical College

Residency: Mt. Sinai Medical Center and University of Massachusetts Medical Center

Fellowship: Minimally Invasive Surgery, Carolinas Medical Center



Raymond Onders, MD

Director, Minimally Invasive Surgery

General Surgery

Minimally Invasive Surgery, Anti-Reflux Surgery, and Diaphragm Pacing

Medical School: Northeastern Ohio College of Medicine

Residency: University Hospitals of Cleveland



Jeffrey Ponsky, MD

General Surgery

Gastrointestinal Surgery, Endoscopy and Minimally Invasive Surgery

Medical School: Case Western Reserve University School of Medicine

Residency: University Hospitals of Cleveland



Ajita Prabhu, MD
General and Gastrointestinal Surgery
Co-Director, Case Comprehensive Hernia Center
 GI Surgery, Hernia Repair, Minimally Invasive Surgery

Medical School: University of South Carolina
Residency: Maine Medical Center
Fellowship: Carolinas Medical Center



Lisa Rock, MD
General Surgery
 General Surgery, Vascular Surgery

Medical School: Medical College of Pennsylvania
Residency: University Hospitals of Cleveland

HEPATOBIILIARY AND TRANSPLANT SURGERY



Christopher T. Siegel, MD, PhD
Division Chief, Hepatobiliary and Transplant Surgery
 Adult and Pediatric Kidney, Liver and Pancreas Transplantation, Vascular Access Surgery, Hepatobiliary and General Surgery

Medical School: Jefferson Medical College of Thomas Jefferson University
Residency: University of Chicago Medical Center
Fellowship: University of Chicago Medical Center



Mark Aeder, MD
Quality Officer, Department of Surgery
 Quality Assessment and Process Improvement

Medical School: Washington University
Residency: University Hospitals of Cleveland; University of Minnesota
Fellowship: The Ohio State University



Vanessa R. Humphreville, MD
 Adult and Pediatric Kidney, Liver, and Pancreas Transplantation, Living Donor Surgery, Vascular Access Surgery, Peritoneal Dialysis Access Surgery, Hepatobiliary and General Surgery
 Living Donor Outcomes/Issues, Hepatitis C, Transplant Immunology

Medical School: Pennsylvania State University College of Medicine
Residency: University of Iowa Hospitals and Clinics
Fellowship: University of Minnesota



Edmund Sanchez, MD
 Liver, Kidney, and Pancreas Transplantation, Hepatobiliary and General Surgery, Immunosuppression Management/Research

Medical School: Wayne State University School of Medicine, Detroit, Michigan
Residency: Wayne State University School of Medicine, Detroit, Michigan
Fellowship: Abdominal Transplant Fellow Baylor University Medical Center, Dallas, Texas



James A. Schulak, MD

Adult and Pediatric Renal, Hepatic and Pancreas Transplantations, Vascular Access Surgery, Hepatobiliary, Pancreatic, Endocrine and General Surgery

Medical School: University of Chicago Medical School

Residency: University of Chicago Hospital

Fellowship: University of Chicago Hospital



Kenneth Woodside, MD

Liver, Kidney, and Pancreas Transplantation, Vascular Access Surgery, Hepatobiliary and General Surgery

Medical School: Doctor of Medicine with Distinction in Research University of Michigan Medical School, Ann Arbor, Michigan

Residency: University of Texas Medical Branch at Galveston, Galveston, Texas

Fellowship: Department of Surgery University of Michigan, Ann Arbor, Michigan

ORAL AND MAXILLOFACIAL SURGERY



Dale A. Baur, DDS

Division Chief, Oral and Maxillofacial Surgery

Chairman, Department of Oral and Maxillofacial Surgery

Case School of Dental Medicine

Oral Cancer, Salivary Gland Tumors, Obstructive Sleep Apnea, Facial Plastic Surgery and Reconstruction

Dental School: Case Western Reserve University

Residency: William Beaumont Army Medical Center, El Paso, Texas

Fellowship: University of Michigan Medical Center, Ann Arbor, Michigan



David Ash, DDS

Oral and Maxillofacial Surgery

Dental Implants, Oral Diseases, Jaw Surgery

Dental School: Case Western Reserve University School of Dental Medicine

Residency: Medical College of Virginia



Charles Babbush, DDS, MS

Oral and Maxillofacial Surgery

Dental Implants

Dental School: University of Detroit School of Dentistry/Boston University (Masters of Dental Science)

Residency: Mount Sinai Hospital in Cleveland



Paul Bertin, DDS

Oral and Maxillofacial Surgery

ABOMS Examiner

Dental School: Case Western Reserve University School of Dental Medicine

Residency: MetroHealth Medical Center



John Blakemore, DDS

Oral and Maxillofacial Surgery
Orthognathic Surgery/Implantology

Dental School: Case Western Reserve University School of Dental Medicine
Residency: University Hospitals of Cleveland



William Blood, DDS, MD

Oral and Maxillofacial Surgery
Orthognathic Surgery/Implantology

Dental School: Case Western Reserve University School of Dental Medicine
Medical School: Case Western Reserve University School of Medicine
Residency: University Hospitals of Cleveland



Michael Hauser, DMD, MD

Oral and Maxillofacial Surgery
Temporomandibular Joint Surgery (TMJ); Orthognathic Jaw Surgery

Dental School: Boston University, Henry M. Goldman School of Graduate Dentistry, Boston, Massachusetts
Medical School: University of Massachusetts Medical School, Worcester, MA
Residency: General Practice Residency in Dentistry, Albert Einstein College of Medicine; Bronx Municipal Hospital Center, Bronx, New York
Internship: Oral and Maxillofacial Surgery, Massachusetts General Hospital/Harvard School of Dental Medicine, Boston, Massachusetts; Assistant Resident, Chief Resident
Fellowship: Clinical Fellowship Harvard University, Boston, Massachusetts



Robert D. Heckel, DMD

Oral and Maxillofacial Surgery

Dental School: Case Western Reserve University
Surgical Residency: Louisiana State University
Anesthesia Residency: University Hospitals of Cleveland



James Julian, DDS

Oral and Maxillofacial Surgery

Dental School: University of Nebraska at Lincoln
Residency: Case Western Reserve University School of Dental Medicine; University Hospitals of Cleveland



Frank Karfes, DDS

Oral and Maxillofacial Surgery

Dental School: University of Pittsburgh
Residency: New York Hospital Cornell Medical Center, New York City
Fellowship: University of Pennsylvania, Graduate School of Medicine and Oral Surgery



Don P. Lewis, DDS
Oral and Maxillofacial Surgery

Dental School: Case Western Reserve University School of Dental Medicine
Residency: University Hospitals of Cleveland
Fellowship: Post Graduate, Charlotte Memorial, Charlotte, NC



Raymond Plona, DMD, MD
Oral and Maxillofacial Surgery

Dental School: Case Western Reserve University
Medical School: University of Pittsburgh Medical Center
Residency: University of Pittsburgh Medical Center



Faisal A. Quereshy, MD, DDS, FACS
Assistant Professor, Residency Program Director
Oral and Maxillofacial Surgery

Medical School: Case Western Reserve University
Residency: University Hospitals
Fellowship: Institute of Facial Surgery, Utah



Keith Schneider, DMD
Oral and Maxillofacial Surgery

Dental School: Case Western Reserve University
Residency: MetroHealth Medical Center



Marion Wazney, DDS
Oral and Maxillofacial Surgery

Dental School: Case Western Reserve University School of Dental Medicine
Residency: Mt. Sinai Hospital in Cleveland
Fellowship: St. Luke's Medical Center



Michael Zetz, DDS
Oral and Maxillofacial Surgery
Director, Division of Oral and Maxillofacial Surgery, MetroHealth Medical Center
Dental Implants, Oral Diseases, Jaw Surgery

Dental School: Ohio State University Dental School
Residency: Medical University of South Carolina

PEDIATRIC SURGERY



Edward Barksdale, MD

Vice Chairman, Department of Surgery
Division Chief, Pediatric Surgery
In-Utero Malformations, Short Bowel Syndrome

Medical School: Harvard Medical School
Residency: Massachusetts General Hospital
Fellowship: Children's Hospital Medical Center, Cincinnati, OH



Scott Boulanger, MD

Pediatric Surgery
Minimally Invasive Surgery, Oncology

Medical School: Ohio State University
Residency: State University of New York at Buffalo
Fellowship: Children's Hospital of Buffalo; State University of New York at Buffalo



Anne Kim, MD

Pediatric Surgery
Assistant Professor of Surgery
Prenatal Care/Neonatal Surgery, ECMO, Congenital Diaphragmatic Hernia

Medical School: New York Medical College
Residency: University of California (Davis) Health System
Fellowship: Shands at The University of Florida

SURGICAL ONCOLOGY



Julian Kim, MD

Division Chief, Surgical Oncology
Melanoma, Sarcoma, Breast, GI Cancers

Medical School: Medical College of Ohio
Residency: University of Maryland
Fellowship: The Ohio State University



John Ammori, MD

Surgical Oncology, General Surgery
Upper GI and Hepatobiliary Surgery, Sarcoma, Melanoma, Breast

Medical School: University of Michigan
Residency: University of Michigan
Fellowship: Memorial Sloan-Kettering Cancer Center



Jeffrey Hardacre, MD

Surgical Oncology, General Surgery
Head, Section of Pancreatic Surgery
Gastrointestinal Surgery, Endoscopy, Pancreatic Surgery and Biliary Surgery

Medical School: Duke University School of Medicine
Residency: The Johns Hopkins Hospital
Fellowship: The Johns Hopkins Hospital; The Cleveland Clinic Foundation



Marjie Persons, MD

Surgical Oncology, General Surgery
Surgical Oncology and Diseases of the Breast

Medical School: SUNY
Residency: University Hospitals of Cleveland



Robert Shenk, MD

Director of Breast Center UHCMC
Surgical Oncology, Breast, Melanoma, Pancreas, and Colon Metastases

Medical School: Case Western Reserve University School of Medicine
Residency: University Hospitals of Cleveland, National Cancer Institute, University Hospitals of Cleveland, MD Anderson Cancer Center



Scott Wilhelm, MD

Surgical Oncology, General Surgery
Endocrine Surgery (Thyroid, Parathyroid, Adrenal, Pancreatic and Carcinoid) and Minimally Invasive Surgery

Medical School: University of Cincinnati
Residency: University Hospitals of Cleveland
Fellowship: Rush-Presbyterian St. Luke's Medical Center

THORACIC AND ESOPHAGEAL SURGERY



Philip Linden, MD

Division Chief, Thoracic and Esophageal Surgery
Minimally Invasive (VATS) Lung and Esophageal Surgery, Thoracic Oncology, High Risk Chest Surgery, Lung Cancer in the Emphysema Patient

Medical School: University of Pennsylvania School of Medicine
Residency: Brigham and Women's Hospital
Fellowship: Brigham and Women's Hospital



Yaron Perry, MD

Director, Minimally Invasive Esophageal Surgery
Minimally invasive approach to Gastro- Esophageal reflux Disease, Funduplications, Collis procedure, Giant Para-esophageal Hernia, Achalasia, Esophageal diverticula, Esophageal Tumors and malignancies, Minimally Invasive Esophagectomies. Lung and mediastinal surgery: Video Assisted Thoracoscopies (VATS), Lung resection, Pleural Diseases, VATS lobectomies and anatomic resection, Mediastinoscopies and VATS Sympatectomies. Mediastinal Tumors, Flex and Rigid, Esophagoscopy, Endoscopic laser treatment, Esophageal and bronchial stents, Robotic Surgery of the Thorax and Foregut

Medical school: The Hebrew University School of Medicine, Jerusalem, Israel
Residency: Hadassah Medical Centre, Jerusalem, Israel; Allegheny General Hospital, Pittsburgh, PA
Fellowship: University of Pittsburgh Medical Center, Pittsburgh, PA



Jason Robke, MD

Thoracic and Esophageal Surgery

Thoracic Oncology, Esophageal Surgery, Minimally Invasive (VATS) Surgery, Airway and Esophageal Stenting, GERD, Paraesophageal Hernia Surgery, and YAG Laser Therapy

Medical School: Medical College of Ohio at Toledo

Residency: Allegheny Hospital

Fellowship: Allegheny General Hospital

VASCULAR SURGERY AND ENDOVASCULAR THERAPY



Vikram S. Kashyap, MD, FACS

Division Chief, Vascular Surgery and Endovascular Therapy

Co-Director, Harrington Heart & Vascular Institute

Vascular Surgery, Endovascular Therapy

Medical School: Jefferson Medical College

Residency: Massachusetts General Hospital

Fellowship: UCLA



Jerry Goldstone, MD, FACS, FRCSE (hon.)

Emeritus Chief, Vascular Surgery and Endovascular Therapy

Carotid Diseases, Aortic Aneurysms and Peripheral Vascular Disease

Medical School: Oregon Health Sciences University School of Medicine

Residency: University of California, San Francisco

Fellowship: Peter Bent Brigham Hospital



Henry Baele, MD, FACS

Vascular Surgery and Endovascular Therapy

Aortic Aneurysm, Aortic, Peripheral and Renal Reconstruction, Carotid Endarterectomy and Endovascular Surgery

Medical School: Indiana University School of Medicine

Residency: University Hospitals of Cleveland; Henry Ford Hospital



Teresa Carman, MD

Vascular Medicine

Medical Management of Arterial Vascular Disease, Venous Thromboembolism, Clinical Thrombophilia, Wound Care

Medical School: The Ohio State University School of Medicine

Residency: Internal Medicine, Cleveland Clinic Florida

Fellowship: Cleveland Clinic Florida; Cleveland Clinic, Cleveland, OH



Howard Darwin, MD

Vascular Surgery

Coronary Artery Disease, Aneurysms, Carotid Artery Disease, Peripheral Vascular Disease and Cardiovascular Medicine

Medical School: Howard University College of Medicine

Residency: Mount Sinai Medical Center, Cleveland

Fellowship: St. Anthony Medical Center, UCLA Medical Center



James Persky, MD

Vascular Surgery

Coronary Artery Disease, Cardiovascular Medicine, Carotid Artery Disease, Venous Disease

Medical School: Case Western Reserve University

Residency: University Hospitals of Cleveland

Fellowship: University of Cincinnati



John Wang, MD

Vascular and Endovascular Therapy

Open and Endovascular Surgery for Carotid, Aortic, Visceral and Periheral Vascular Disease; Reconstructive surgery for thoracic, infrarenal and infrainguinal aneurysmal disease; Open and endovascular venous surgery for insufficiency

Medical School: MB, BCh, BAO, LRCP and SI; The Royal College of Surgeons in Ireland

Residency: Department of Surgery, Temple University Hospital, Philadelphia

Fellowship: Department of Surgery, Division of Vascular Surgery, Temple University Hospital, Philadelphia



Virginia Wong, MD

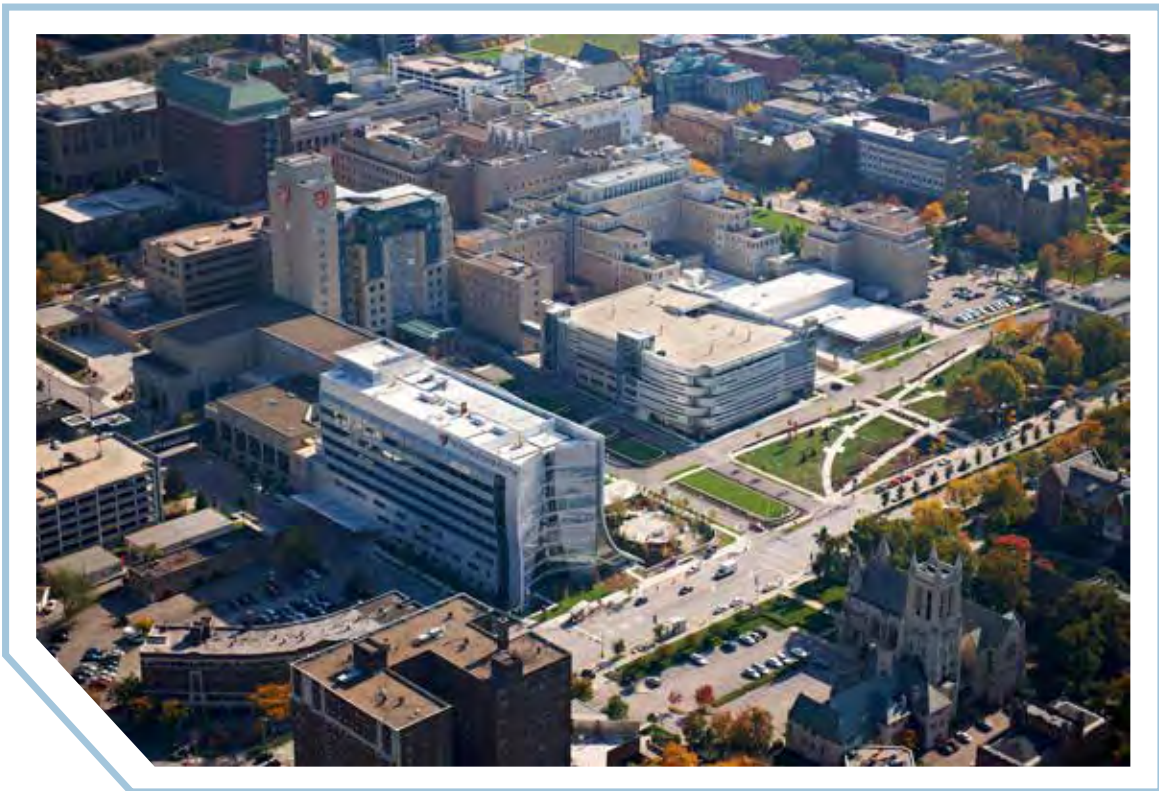
Vascular Surgery and Endovascular Therapy

Peripheral Arterial Occlusive Disease, Aneurysm, Extra-Cranial Cerebrovascular Disease, Venous Disease and Endovascular Surgery

Medical School: SUNY at Brooklyn College of Medicine

Residency: University Hospitals of Cleveland

Fellowship: University Hospitals of Cleveland; Eastern Virginia Medical School





The Division of Cardiac Surgery is responsible for performing all cardiac surgical procedures, including heart and lung transplantation at University Hospitals Case Medical Center (UHCMC), UH Ahuja Medical Center, and Rainbow Babies & Children's Hospital (RB&C). The Division has a long history of performing cardiac surgery, dating back to the late 1920's.

Originally formed as two separate Divisions, the Division of Cardiovascular Surgery, formed in 1950 under the directorship of Dr. Claude S. Beck, and the Division of Thoracic Surgery, formed in 1955 under the leadership of Dr. Harvey Mendelsohn, combined in 1965 to form the Division of Thoracic Surgery. Dr. Jay L. Ankeney, who is responsible for successfully developing the open heart and thoracic surgery residency programs at UHCMC, joined the Division in 1955. Dr. Ankeney assumed the directorship of the Division in 1972. The Division was renamed the Division of Cardiothoracic Surgery in 1985. With the arrival of Dr. Philip Linden, again two separate Divisions have been formed. In 2013, the Division of Cardiac Surgery consisted of seven full-time academic surgeons; six adult and one pediatric surgeon who provided adult and pediatric cardiac surgery at UHCMC and also at RB&C's Section of Pediatric Cardiothoracic Surgery. In the past, the Division has also provided cardiothoracic surgical services to Southwest General Health Center and currently continues services to the westside of Cleveland at St. John Medical Center.

CHAPTER 5 DIVISION OF CARDIAC SURGERY

Division Chief
Soon J. Park, MD

Surgical Staff
Arie Blitz, MD
Robert S. Boova, MD
Adnan Cobanoglu, MD
Carlos E. Garcia, MD, MHA
Peter C. Kouretas, MD, PhD
Alan Markowitz, MD
Daniel W. van Heeckeren, MD

**Section of Pediatric Cardiothoracic
Surgery Chief**
Peter C. Kouretas, MD, PhD



CARDIAC SURGERY

The Division faculty are active members of numerous local, regional, national and international organizations. Dr. Adnan Cobanoglu and Dr. Daniel van Heeckeren, now an Emeritus Professor, are members of the American Association for Thoracic Surgery (AATS). The AATS is a prestigious organization whose members are evaluated on specific qualifications, including their accomplishments in clinical performance, professional stature, professional conduct, leadership advancing the discipline, and contributions to surgical literature in English language, peer reviewed journals. In 2008, Dr. Cobanoglu started working on the Workforce on International Relationships of the Society of Thoracic Surgeons and was a featured speaker at the STS International Symposium in January 2009, 2010, and again in 2012. In 2009, Dr. Cobanoglu was also appointed as a member of the STS/AATS Joint Workforce on Health Policy, Reform and Advocacy, which he maintains to date and which has been quite active in Washington, D.C. at a time when substantial changes are taking place with the current healthcare reform. Dr. van Heeckeren has served as past president of the Academy of Medicine, Cleveland Chapter. Dr. Arie Blitz was active in a two-year post as the President of the Cleveland Chapter of the American Heart Association.

In January 2011, Dr. Robert S. Boova was recruited as a full-time cardiac surgeon to join the Division. Dr. Boova's main responsibilities were at St. John Medical Center in West Cleveland, where he ran and helped to restructure the cardiac surgery program.

There was much transition in 2013 in the Division of Cardiac Surgery. Dr. Soon J. Park was successfully recruited as Division Chief from the Mayo Clinic. Dr. Robert Boova returned to Philadelphia. Dr. Arie Blitz transitioned from University Hospitals to a new position in Cincinnati, Ohio. Dr. Adnan Cobanoglu resigned from his position at University Hospitals.

STAFF/FACULTY

Arie Blitz, MD

Dr. Blitz joined the medical staff in November 2005 as the Director of Heart Transplantation and Assist Device Surgery. Dr. Blitz received his medical degree from the Albert Einstein College of Medicine in Bronx, New York. He completed his training in thoracic surgery at UCLA Medical Center followed by fellowship training in Congenital Heart Surgery at UCLA Medical Center and an advanced fellowship in Cardiac Transplantation and Mechanical Assist Devices at the Ochsner Clinic Foundation in New Orleans, Louisiana. Dr. Blitz's focus at University Hospitals was on the rejuvenation of the Cardiac Transplant and Mechanical Assist and Device Program, including clinical research trials surrounding the latest innovations in the treatment of heart failure. He is currently past President of the American Heart Association, Cleveland Chapter. Dr. Blitz held the rank of Assistant Professor of Surgery at Case Western Reserve University School of Medicine. Dr. Blitz left University Hospitals in June 2013.

Robert S. Boova, MD

Dr. Boova, Clinical Associate Professor of Surgery, joined the Division of Cardiac Surgery in January 2011. A graduate of Jefferson Medical College in Philadelphia, Dr. Boova completed residencies in Surgery and Thoracic Surgery at Thomas Jefferson University Hospital in Philadelphia. With an active cardiac surgery practice in the Philadelphia area just prior to joining the Division, he was System Chief of Cardiac Surgery for the Jefferson Main Line Health Hospitals and Chief of Cardiac Surgery at Bryn Mawr Hospital in Pennsylvania. Dr. Boova expanded the Division's cardiac surgery practice at St. John Medical Center in West Cleveland, before leaving University Hospitals in March 2013.

Adnan Cobanoglu, MD

Dr. Cobanoglu joined the medical staff in January 2006 as the Chief of Cardiac Surgery. Dr. Cobanoglu received his medical degree from Ankara University School of Medicine in Ankara, Turkey. He completed his training in cardiothoracic surgery at Episcopal Hospital/Temple University and Thomas Jefferson University Hospitals in Philadelphia, Pennsylvania followed by a pediatric cardiac fellowship at The Oregon Health Sciences University in Portland, Oregon. Dr. Cobanoglu was appointed as Chief of Cardiothoracic Surgery at the Oregon Health Sciences University in 1989, following Dr. Albert Starr's tenure. He served in that position for 12 years. Prior to his appointment to the medical staff at UHCMC, Dr. Cobanoglu was the Director and Surgeon-in-Chief at Turkish Advanced Specialization Hospital in Ankara that housed the largest Cardiovascular Center in Turkey, with close to 4,000 major cardiac and vascular procedures each year. Dr. Cobanoglu's focus at University Hospitals Case Medical Center was to help enhance the growth of the cardiac program which also includes heart and lung transplantation. Dr. Cobanoglu held the rank of Professor of Surgery at Case Western Reserve University School of

Medicine, and was the Jay L. Ankeney Professor of Cardiothoracic Surgery. Dr. Cobanoglu left University Hospitals in December 2013.

Carlos Garcia MD, MHA

Dr. Garcia joined the Division of Cardiac Surgery in August 2007. Dr. Garcia graduated from the University of Utah School Of Medicine in Salt Lake City and completed his residencies in General Surgery and Cardiothoracic Surgery at Oregon Health Sciences Center in Portland, Oregon. He earned a Masters of Healthcare Administration at the University of Washington in Seattle, Washington. In addition to his practice at UHCMC, he performs Cardiac and Thoracic surgery at Southwest General Hospital. Dr. Garcia's clinical interests are off-pump coronary surgery, mitral valve repair and minimally invasive surgical techniques, TAVR. He participates in the Heart and Lung Transplant Programs at University Hospitals. His administrative interests are Medical Staff Governance, Clinical Program Development and Quality Assurance. Dr. Garcia is an Assistant Professor of Surgery at Case Western Reserve University School of Medicine and Southwest General Hospital.



Peter C. Kouretas, MD, PhD

Dr. Kouretas joined the Division in September 2010 to continue cardiac surgical services to children at Rainbow Babies and Children's Hospital. He received his medical degree from Georgetown University School of Medicine followed by a doctor of philosophy degree in Cardiovascular Physiology at Georgetown University Graduate School. His residency in Surgery was at Georgetown University Medical Center and the University of Virginia at Charlottesville. He finished his thoracic residency at the University of Pennsylvania in 2002 and spent additional years in pediatric cardiothoracic surgery, cardiothoracic transplant and mechanical circulatory support in 2002-2004. Prior to his arrival in Cleveland, Dr. Kouretas was an Assistant Professor of Surgery at University of Utah School of Medicine in Salt Lake City.

Alan Markowitz, MD

Dr. Markowitz joined the medical staff in 1997 as the Director of Clinical Operations for the Division of Cardiothoracic Surgery. Prior to his appointment to the medical staff at UHCMC, Dr. Markowitz was the Chief of the Division of Cardiothoracic Surgery at Mt. Sinai Medical Center. Currently, Dr. Markowitz holds the position of Chief Surgical Officer for the Heart and Vascular Institute and Clinical Co-Chief of the Division of Cardiothoracic Surgery, responsible for the clinical aspects of cardiac surgery. His clinical interests include adult cardiothoracic surgery, minimally invasive valve repair and replacement (mini-sternotomy and Heartport), stentless valves and homografts, and off-pump coronary bypass surgery. Dr. Markowitz holds the rank of Assistant Professor of Surgery at Case Western Reserve University School of Medicine.

Soon J. Park, MD

Dr. Park joined the medical staff in October 2013 as the Co-Director, Harrington Heart & Vascular Institute; Chief, Division of Cardiac Surgery; Director of Heart Transplant; Director of Lung Transplant; and Director of Mechanical Assist Devices. He

holds the rank of Professor of Surgery at Case Western Reserve University School of Medicine and is the recipient of the Jay L. Ankeney, MD Chair, Professorship of Cardiothoracic Surgery.

Dr. Park graduated from a combined program with a double degree of Bachelors in Chemistry and Masters in Biochemistry from University of Chicago. He attained his medical degree from Pritzker School of Medicine, University of Chicago. He completed his general surgery residency program at University of Washington Affiliated Hospitals and his cardiothoracic residency program at University of Minnesota Hospital. He is Board Certified by the American Board of Surgery and the American Board of Thoracic Surgery. Dr. Park is former Advisory Board Member and currently serves as Director for AATS Graham Education and Research Foundation and co-chair for Graham Memorial Traveling Fellowship for American Association for Thoracic Surgery. He is a reviewer and member for INTERMACS. He has served on the Board of Directors for International Society for Heart and Lung Transplantation, Minnesota Society of Thoracic Surgeons, Twin City Thoracic and Cardiovascular Surgical Society.

Prior to his appointment to the medical staff at UHCMC, Dr. Park was the Director of Advanced Heart Failure and Assist Device Program, Division of Cardiovascular Surgery at Mayo Clinic, Rochester, Minnesota and Professor of Surgery with Mayo Clinic College of Medicine. His clinical interests include adult cardiothoracic surgery, heart and lung transplant, mechanical cardiac assistance, and innovative surgical therapy for advanced heart failure. Dr. Park's vision for the Division of Cardiac Surgery is to implement fully integrated, quality outcomes cardiac surgery across the UH Health System. His goal is to enhance relationships with referring physicians and to leverage UHCMC for tertiary programs, including Comprehensive End Stage Heart Disease Center, Aortic Aneurysm Center, Valve Disease Center, and Comprehensive End Stage Lung Disease.

Daniel van Heeckeren, MD

Dr. van Heeckeren has been a member of the medical staff since 1971 and is one of the founding members of the Division of Cardiothoracic Surgery at UHCCM. Dr. van Heeckeren received his medical degree from Harvard Medical School and completed his training in thoracic surgery at Yale New Haven Hospital in New Haven, Connecticut, followed by a fellowship in thoracic surgery at Karolinska Institute in Stockholm, Sweden. In 2010, Dr. van Heeckeren received Emeritus Professor position in the Division and continues to support the Division Chief in the administrative affairs of the Division.

RESEARCH STAFF/FACULTY

Steve Schomisch, PhD

Director, Surgical Research and Animate Skills Lab

Dr. Schomisch was recruited from the Center for Anesthesia Research at the Cleveland Clinic in 1998. He received his undergraduate degree from John Carroll University and earned his PhD in regulatory biology at Cleveland State University.

Dr. Schomisch is responsible for all operations of the Surgical Research and Animate Skills lab, including: supervision and training of technical support staff, surgical residents and students; use of space and equipment; documentation of laboratory budget; assisting investigators with experimental design, feasibility of techniques and planning of technical aspects of projects; conducting experimental studies; preparing and managing IACUC protocols; and coordinating training courses. He has authored or co-authored 30 publications in various journals, including the Annals of Thoracic Surgery and The Journal Thoracic and Cardiovascular Surgery.

DIVISION EDUCATIONAL PROGRAM

The Division of Cardiac Surgery has been involved in the training and education of residents, fellows and nurses since the early 1960's. Many outstanding residents and fellows have graduated from this program over the last 45 years. The Division is dedicated to providing a sound, educational environment that will foster the development of residents and fellows as proficient, well-rounded surgeons.

Other educational activities of the Division of Cardiac Surgery include participation in the Master Affiliation Agreement between Cuyahoga Community College (Tri-C) and University Hospitals. In



Dr. Prinya Sakiyalak, Visiting Professor for the 2013 Beck Lecture in Cardiac Surgery, with Emeritus Professor Dr. Daniel van Heeckeren

CARDIAC SURGERY

January 2005, the Division began accepting students enrolled in Tri-C's Physician Assistant Program. Students in their second year of training complete their clinical rotations under the supervision of the cardiothoracic surgery RN First Assistants. Additionally, in June 2005, UHCMC and Christ Hospital School of Perfusion Science entered into an Affiliation Agreement. Students in their final year of training complete their clinical rotations under the supervision of the Perfusion Services Department at UH.

The Division faculty, Advanced Clinical Nurses and Perfusionists give CME presentations throughout the year at UH and community hospitals within the health system.

DIVISION RESEARCH

The Fred Lennon Research Laboratory at Case Western Reserve University School of Medicine was originally endowed by the founder of the Swagelok Corporation. Now under the auspices and support of the Department of Surgery, the laboratory is a facility open to cardiothoracic faculty and residents who wish to pursue research in cardiothoracic surgery.

Animal studies have involved calves, dogs, pigs, rats and rabbits. Full anesthetic and operating room capabilities are present in the lab. Cardiac monitoring function includes conducting catheter and sonomicrometric crystal techniques. Computerized real time physiological data collection and analysis are available. Two Langendorff columns are used for in-vitro studies.

In recent years, members of the Division were productive with the clinical start of the Heart and Lung Transplant Programs. The large animal laboratory is utilized to train and educate nurses, perfusionists, technicians, physicians and surgeons in ventricular assist devices and transplantation procedures in large animal models. Investigation of techniques in utilizing novel percutaneous warming/cooling catheters have been carried out in this laboratory with successful application in patients.

LABORATORY RESEARCH

- Mechanisms of Infection of Artificial Surfaces (NIH grant)
- Use of a rewarming catheter for complex cardiac surgery
- Use of the Impella VAD as a right ventricular assist device
- The Effect of NM 4095 in pigs undergoing cardiopulmonary bypass and myocardial infarction

PATIENT CARE WITHIN THE DIVISION

Surgical services provided by the Division of Cardiac Surgery include routine and advanced cardiac surgical procedures, including primary and re-operative cardiac revascularization, valve replacement and repair, maze procedure, thoracic aortic and great vessel surgery, adult and pediatric congenital heart operations, heart failure surgery with assist devices, minimally invasive procedures, and lung and heart transplantation procedures.

During the Intensive Care Unit phase, the Division continues to work as a team in collaboration with the Critical Care team, which is a division of the Department of Anesthesiology. During the day, the Critical Care team, attending and residents, assisted by a nurse practitioner, oversee the daily management of the patient while keeping the attending surgeon informed and involved. During the evenings, bedside management is the responsibility of the resident or fellow, under the supervision of the attending surgeon and intensive care anesthesiologist. The attending surgeon, fellow and nurse practitioner conduct rounds every morning to establish a plan of care for the patients on the cardiothoracic service. The nurse practitioners work collaboratively with the cardiothoracic surgeons to facilitate movement of their patients through the University Hospitals system. They serve as liaisons between physicians, hospital personnel and patients to provide continuity of care through an interdisciplinary approach. They help educate

CLINICAL RESEARCH PROJECTS

Study Name: JARVIK HEART
PI: Arie Blitz, MD
AI: Adnan Cobanoglu, MD
Synopsis: Jarvik 2000 Heart Assist System being investigated in bridge to transplant
Sponsor: Jarvik Heart

Study Name: FSRegistry
PI: Alan Markowitz, MD
Synopsis: This is a registry of patients with Freestyle valves. There is a retrospective as well as prospective arm to this trial

Study Name: Intermacs
PI: Arie Blitz, MD
Synopsis: Registry for destination therapy/bridge to transplant
Sponsor: NHLBI

Study Name: ABLATE Trial
Co-I's: Ian Markowitz, MD, Adnan Cobanoglu, MD
Synopsis: AtriCure Synergy Bipolar RF Energy Lesions for Permanent Atrial Fibrillation Treatment during Concomitant On-Pump Endo/Epicardial Cardiac Surgery
Sponsor: AtriCure, Inc.

Study Name: The Use of a Novel Rewarming Catheter as a Protection Against Hypothermia
PI: Arie Blitz, MD
Sponsor: Alsius Corporation

Study Name: Fast Fourier Transform analysis
PI: Arie Blitz, MD
Synopsis: Fast Fourier Transform analysis of body surface electrograms and epicardial atrial electrograms of postoperative atrial fibrillation

Study Name: CoreValve Multicenter Clinical Trial
Co-PI: Alan H. Markowitz, MD, Robert S. Boova, MD, Carlos E. Garcia, MD
Synopsis: Percutaneous implantation of the CoreValve in high risk or non-candidates with aortic stenosis
Sponsor: Medtronic Corporation

Study Name: The BRIDGE trial
Co-I: Adnan Cobanoglu, MD
Synopsis: Maintenance of platelet inhibition with Cangrelor after discontinuation of thienopyridines in patients undergoing surgery
Sponsor: The Medicines Company

Study Name: EXCEL trial
Co-PI: Adnan Cobanoglu, MD
Synopsis: Left Main Coronary Artery Revascularization, PCI vs. Surgery
Sponsor: Abbott Vascular, Inc.

Study Name: Improving Oxygen Delivery During Extra-Corporeal Membrane Oxygenation
PI: Peter C. Kouretas, MD, PhD
Sponsor: Rainbow Surgical Specialists Grant

CARDIAC SURGERY

the patients about their surgery pre- and post-operatively, as well as assist in the outpatient clinic.

Continuous Quality Improvement and Morbidity/Mortality meetings are held weekly to review surgical complications and unique or significant cases are discussed in an educational atmosphere. Formal presentations are made. In the last few years, the Division has consistently attained a 3-star (highest) rating by the Society of Thoracic Surgeons Registry for its clinical services and outcomes.

DIVISION GOALS

The last four years were exciting with the development and growth of the Harrington Heart & Vascular Institute and an increase in the number of patients seen and treated within the Division. The Division continues these efforts and work collectively to enhance marketing efforts to increase the referral base with community physicians and other outside sources.

The goals of the Division are multifaceted, involving all areas of clinical service, education, research and community service. The recruitment of additional full-time cardiology faculty and cardiac surgeons over the past years helped serve as an extension of

both cardiac and surgical services to the community in a more comprehensive manner. In environments of intense competition and declining surgical caseloads, the Division's workload has held steady and actually has increased compared to earlier years. This increase has had a beneficial effect on clinical research and the educational programs. From 2006 through 2009, the Division showed a strong presence in Cardiac and Thoracic Surgery at Southwest General Health Center and in early 2010 moved its West Cleveland operations to St. John Medical Center, where efforts to expand that program continue. In early 2011, UH Ahuja Medical Center, a new hospital in the University Health System, started operations. The Division of Cardiac Surgery maintains offices there with an increasing number of cardiothoracic procedures. The future plans are to help maintain and strengthen all these programs and initiate new ones, based on the University Health System's strategic plans in other affiliates and new facilities in the coming years.

The faculty members of the Division strive to provide the highest quality cardiac surgery services and patient-centered, personalized care while making the advanced expertise and cutting-edge technologies available to all our patients, the communities and hospitals affiliated with the system.



PUBLICATIONS

Dr. Blitz

- Kamouh A, Osman MN, Rosenthal N, Blitz A: "Erosion of an Amplatzer Septal Occluder Device into the Aortic Root." *Annals of Thoracic Surgery*, 2011, 91:1608-10.
- Tran AH, Kiamenesh F, Maga JM, Blitz A, Salgado CJ: "Use of an Intravascular Warming Catheter to Maintain Normothermia during Flap Reconstruction of the Sternum." *J Clin Anesthesia*, 2012, In Press.

Dr. Cobanoglu

- Mungan U, Cicekcioglu F, Parlar AI, Babaroglu S, Yay K, Tutun U, Ulus AT, Aksoyek A, Katircioglu SF, Cobanoglu A: Conventional versus Beating Heart Valve Surgery Technique in Reoperations, Submitted to *Journal of Thoracic and Cardiovascular Surgery*.
- Garcia CE, Graber R, Fitzmaurice M, Cobanoglu A: Lipomatous Hamartoma of the Aortic Valve, *Tex Heart Inst J*, in press.
- Bardakci H, Kervan U, Akdogan M, Kucuker A, Arka K, Birincioglu L, Cobanoglu A: Utilization of the Gott Shunt in the Treatment of Descending Thoracic Aortic Aneurysm in a Patient with Chronic Active Hepatitis, in press.

Dr. Kouretas

- Flores S, Strainic J, Ashwath R, Kouretas PC: "Fetal Diagnosis of Superior Vena Cava Aneurysm," *Pediatric Cardiology*, In Preparation, 2012.
- Kouretas PC, Pandya K, Ashwath R, Strainic J, Al-Khatib Y: "Repair of Coronary Sinus Ostial Atresia and Total Anomalous Pulmonary Venous Connection" *World Journal for Pediatric & Congenital Heart Surgery*, In Preparation 2012.

Dr. Markowitz

- Liu, N, Gilkeson R, Markowitz A, Schröder C. Thoracoscopic removal of a suture needle from the posterior pericardium after coronary artery bypass grafting. *Interactive Cardiovascular Thoracic Surgery* 2011;13:341-343.
- Schröder C, Leukhardt W, Hsiao E, Farah M, Markowitz A. Trans-aortic video assisted resection of a recurrent left ventricular myxoma. *Annals of Thoracic Surgery* 2012, in press.

PRESENTATIONS

Dr. Blitz

- Current Status of Mechanical Circulatory Support. 30th Annual Update in Anesthesiology, Surgery, and Perioperative Medicine. Puerto Rico. January 2012. <http://www.clinicalupdateinanesesthesiology.org/brochure.pdf> International audience of surgeons, anesthesiologists.
- Mechanical Circulatory Support: Welcome to the Machine. 3rd Annual Chest Pain & University Hospitals Harrington Heart & Vascular Institute Cardiovascular Symposium, Cleveland, OH. March 2012.
- The Management of Type A Aortic Dissection: Go Directly to the OR; Do Not Pass Go; Do Not Collect \$200. 10th Annual Advanced Practice Nursing Conference. University Hospitals Case Medical Center, Cleveland, OH March 2012.

Invited Lectures:

- Antegrade vs. Retrograde Cerebral Perfusion. Practices in Cardiac Surgery. New Orleans, June 2012. www.theneworleansconference.com/confnola09/index.php (international audience)
- How Cardiac Surgery Will be Affected by Health Care Reform. Practices in Cardiac Surgery. New Orleans, June 2012. www.theneworleansconference.com/confnola09/index.php (international audience)
- Should Every Cardiac Surgery Program Have a VAD? Practices in Cardiac Surgery. New Orleans, June 2012. www.theneworleansconference.com/confnola09/index.php (international audience)
- Proof of Concept: Excellent Destination Therapy Survival Can Be Achieved in a Low Volume Program. 22nd Congress of the World Society of Cardiothoracic Surgeons. Vancouver, CA, September 2012. (international audience)

Dr. Cobanoglu

- Management of the Small Aortic Root. Society of Thoracic Surgeons International Symposium on Management of Adult Patients with Congenital Heart Disease. The Society of Thoracic Surgeons 48th Annual Meeting, The Convention Center, Room 220, Fort Lauderdale, Florida, January 28-February 1, 2012.

Dr. Garcia

- Geauga Oncology Seminar: Imaging Techniques.
- Grand Rounds: Aortic Dissection; Hyper Hydrosis.
- Mended Hearts presentation: Cardiac Rehabilitation at Chagrin Highlands.

Dr. Kouretas

- "Management of Aortic Aneurysm in Congenital Heart Disease," Pediatric Grand Rounds Rainbow Babies & Children's Hospital, February 23, 2012.
- "Congenital Cardiac Anatomy," Surgical Anatomy Course, Case Western Reserve School of Medicine, March 22, 2012.

Dr. Markowitz

- Schröder C, Leukhardt W, Hsiao E, Farah M, Markowitz A. Novel Trans-Aortic Video Assisted Resection of a Recurrent Left Ventricular Myxoma. The Society of Thoracic Surgeons 48th Annual Meeting, Fort Lauderdale, Florida, February, 2012.
- Rothermel L, Leukhardt W, Gilkeson R, Markowitz A, Schröder C. Thoracoscopic resection of a giant teratoma compressing the right heart. International Society for Minimally Invasive Cardiothoracic Surgery Annual Meeting, Los Angeles, CA, June, 2012.

SECTION OF PEDIATRIC CARDIOTHORACIC SURGERY

SECTION OF PEDIATRIC CARDIOTHORACIC SURGERY

The Pediatric Heart Center at University Hospitals Rainbow Babies & Children's Hospital (RB&C) is consistently ranked as one of America's Best Children's Hospitals in cardiac surgery and cardiology. Our multidisciplinary team includes pediatric specialists in cardiothoracic surgery, interventional cardiology, cardiac intensive care and cardiac anesthesiology. Our multispecialty team approach ensures optimal, individualized care with our primary focus being excellent outcomes, highest quality, and superb patient/family satisfaction.

The comprehensive care available at the Pediatric Heart Center at RB&C includes pediatric and congenital cardiothoracic surgery, interventional cardiology including hybrid procedures, fetal echocardiography, and comprehensive arrhythmia management. We are in the process of building a state-of-the-art pediatric hybrid operating room and cardiac catheterization suite, the only pediatric hybrid suite in northeast Ohio. Innovative techniques such as hybrid approaches to congenital heart disease, ablation procedures, and percutaneous valve replacement are all less invasive procedures with decreased hospital stay and quicker recovery time.

Working in close collaboration with our high-risk obstetricians and the maternal-fetal medicine team at UH MacDonald Women's Hospital, allows us the advantage of providing continual care and immediate access to our neonatal intensivists and cardiac interventionalists. All of our cardiac specialists at RB&C are located at the same UH facility, providing integrated care without the need to travel.

The Section of Pediatric Cardiothoracic Surgery, under the direction of Dr. Peter C. Kouretas, is responsible for performing and/or coordinating all cardiac surgical procedures on patients with

congenital heart disease. This includes all pediatric patients being operated on at RB&C and adults with congenital heart disease receiving surgery at University Hospitals Case Medical Center (UHCMC).

EDUCATIONAL PROGRAMS

Dr. Kouretas has implemented several educational initiatives for the pediatric cardiothoracic team, including quality improvement meetings and didactic lectures for the cardiac and intensive care fellows, nurse practitioners, and nursing teams. Furthermore, novel programs have been implemented to specifically focus on family education and satisfaction. Dr. Kouretas also works with the Case Western Reserve University School of Medicine, lecturing on anatomy and congenital heart disease.

FACULTY

Peter C. Kouretas, MD, PhD

Dr. Kouretas was recruited in 2010 from Primary Children's Medical Center at The University of Utah, where he served as Director of Pediatric Mechanical Circulatory Support and Assistant Professor of Surgery. Dr. Kouretas completed his general surgery residency at the University of Virginia in 2000. He completed his thoracic training at The University of Pennsylvania in 2002. His training in pediatric cardiac and congenital surgery, as well as cardiopulmonary transplantation, was completed at Stanford University in 2004. He is board certified in both surgery and thoracic surgery. Dr. Kouretas received his PhD in circulatory physiology from Georgetown University in 1997. He is a member of The Society of Thoracic Surgeons, The Western Thoracic Surgical Association, The Southern Thoracic Surgical Association and The International Society of Heart and Lung Transplantation. Dr. Kouretas' clinical interests include complex neonatal cardiac surgery and adult congenital heart surgery, as well as mechanical circulatory support and cardiac transplantation. He is well recognized for his leadership and professionalism in the field of

cardiac surgery. Since arriving at RB&C, Dr. Kouretas has created a collaborative multidisciplinary team approach to congenital heart disease that has included pediatric intensive care, cardiology, perfusion, cardiac anesthesiology and nursing. Overall surgical outcomes have been outstanding for a highly complex group of patients, and the entire team has achieved measurable resonance as a high performing team.

Dr. Kouretas has a specific focus and interest in complex neonatal repairs including: hypoplastic left heart syndrome and the Norwood procedure; transposition of the great arteries; and complex valve repair techniques including valve-sparing aortic root replacement procedures in patients with Marfan's syndrome. Our congenital patients are also followed into adulthood by our multidisciplinary team and cardiovascular interventions are provided at our integrated UH campus.

OVERVIEW

The Section of Pediatric Cardiothoracic Surgery provides state-of-the-art, family-centered and comprehensive care for patients of all ages with

congenital heart, lung or vascular disease. Clinical care is provided at RB&C with the following services: a dedicated pediatric cardiothoracic surgery operating room and specialized pediatric cardiopulmonary bypass and support equipment, a dedicated 6-bed Cardiac Intensive Care Unit within the confines of the Pediatric Intensive Care Unit, along with access to the Neonatal Intensive Care Unit and regular and step-down care units. The Section provides 24/7 comprehensive perioperative care and is supported by a multidisciplinary team that includes pediatric cardiologists, neonatologists, intensivists, anesthesiologists, and other sub-specialists as patient care needs dictate. In addition, a full range of professional support services is available that includes child life specialists, respiratory therapists, critical care and step-down cardiac nurses, social workers and other services as patient family needs dictate. The Section has active ongoing research efforts, including studies investigating the effect of neonatal cardiopulmonary bypass on endothelial function, specifically focusing on the effect of blood priming on nitric oxide biology and its effect on circulatory physiology.



PUBLICATIONS

- Flores S, Dangol A, Strainic JP, Holt BD, Kouretas PC, Ashwath RC: "Fetal Diagnoses of Superior Vena Cava Syndrome," *Echocardiography*, Sep 7, 1540-8175, Epub ahead of print, 2012.
- Ohye RG, Schonbeck JV, Eghtesady P, Laussen PC, Pizarro C, Shrader P, Frank DU, Graham EM, Hill KD, Jacobs JP, Kanter KR, Kirsh JA, Lambert LM, Lewis AB, Ravishankar C, Tweddell JS, Williams IA, Pearson GD; Pediatric Heart Network Investigators: "Cause, Timing, and Location of Death in the Single Ventricle Reconstruction Trial," *The Journal of Thoracic and Cardiovascular Surgery*, 144(4):907-914, 2012.
- Ghanayem NS, Allen KR, Tabbutt S, Atz AM, Clabby ML, Cooper DS, Eghtesady P, Frommelt PC, Gruber PJ, Hill KD, Kaltman JR, Laussen PC, Lewis AB, Lurito KJ, Minich LL, Ohye RG, Schonbeck JV, Schwartz SM, Singh RK, Goldberg CS; Pediatric Heart Network Investigators: "Interstage Mortality After the Norwood Procedure: Results of the Multicenter Single Ventricle Reconstruction Trial," *The Journal of Thoracic and Cardiovascular Surgery*, 144(4):896-906, 2012.
- Tabbutt S, Ghanayem N, Ravishankar C, Sleeper LA, Cooper DS, Frank DU, Lu M, Pizarro C, Frommelt P, Goldberg CS, Graham EM, Krawczeski CD, Lai WW, Lewis A, Kirsh JA, Mahony L, Ohye RG, Simsic J, Lodge AJ, Spurrier E, Stylianou M, Laussen P; Pediatric Heart Network Investigators: "Risk Factors for Hospital Morbidity and Mortality After the Norwood Procedure: A Report From the Pediatric Heart Network Single Ventricle Reconstruction Trial," *The Journal of Thoracic and Cardiovascular Surgery*, 144(4):882-895, 2012.
- Pasquali SK, Ohye RG, Lu M, Kaltman J, Caldarone CA, Pizarro C, Dunder-Masterson C, Gaynor JW, Jacobs JP, Kaza AK, Newburger J, Rhodes JF, Scheurer M, Silver E, Sleeper LA, Tabbutt S, Tweddell JS, Uzark K, Wells W, Mahle WT, Pearson GD; Pediatric Heart Network Investigators: "Variation in Perioperative Care Across Centers for Infants Undergoing the Norwood Procedure," *The Journal of Thoracic and Cardiovascular Surgery*, 144(4):915-921, 2012.
- Newburger JW, Sleeper LA, Bellinger DC, Goldberg CS, Tabbutt S, Lu M, Mussatto KA, Williams IA, Gustafson KE, Mital S, Pike N, Sood E, Mahle WT, Cooper DS, Dunbar-Masterson C, Krawczeski CD, Lewis A, Menon SC, Pemberton VL, Ravishankar C, Atz TW, Ohye RG, Gaynor JW; Pediatric Heart Network Investigators: "Early Developmental Outcome in Children with Hypoplastic Left Heart Syndrome and Related Anomalies: The Single Ventricle Reconstruction Trial," *Circulation* 125(17):2081-2091, 2012.
- Tweddell JS, Sleeper LA, Ohye RG, Williams IA, Mahony L, Pizarro C, Pemberton VL, Frommelt PC, Bradley SM, Cnota JF, Hirsch J, Kirshbom PM, Li JS, Pike N, Puchalski M, Ravishankar C, Jacons JP, Laussen PC, McCrindle BW; Pediatric Heart Network Investigators: "Intermediate-Term Mortality and Cardiac Transplantation in Infants with Single-Ventricle Lesions: Risk Factors and their Interaction with Shunt Type," *The Journal of Thoracic and Cardiovascular Surgery*, 144(1):152-159, 2012.
- Matto F, Kouretas PC, Smith R, Cina AJ, Ostrowsky J, Reynolds JD, Stamler JS: "Effect of Cardiopulmonary Bypass on Nitric Oxide Bioactivity." *Circulation Research*, Submitted 2013.
- Balakumar V, DeRoss AL, Kouretas PC, Boulanger SC, Barksdale EM: "Pyloric Exclusion for Treatment of Complicated Duodenal Atresia," *Neonatology*, Submitted 2013.
- Matto F, Kouretas PC, Smith R, Cina AJ, Ostrowsky J, Reynolds JD, Stamler JS: "Effect of Cardiopulmonary Bypass on Nitric Oxide Bioactivity." 14th Biennial Midwest Platelet Conference University Hospitals Case Medical Center, October 18, 2012.
- Matto F, Kouretas PC, Smith R, Ostrowsky J, Cina AJ, West D, Martin R, Stamler JS, Reynolds JD: "Intra-Operative Transfusion Volume During Pediatric Cardiopulmonary Bypass Impacts Circulating S-Nitrosyl Hemoglobin Levels and Post-Operative Outcome," Case Western Reserve Cardiovascular Research Institute Annual Retreat, University Hospitals Case Medical Center, Harrington Heart & Vascular Institute, Case Western Reserve University, Oct 5, 2013.
- Johnntony J, Wheller K, West D, Kouretas PC: "Prevalence of Methicillin-Resistant Staphylococcus Aureus Colonization in the Pediatric Cardiothoracic Surgery Patient Population," *Cardiology* 2014 17th Annual Update on Pediatric and Congenital Cardiovascular Disease, February 19, 2014, Accepted.

GRANTS

Rainbow Surgical Specialists Grant

- Principal Investigator, "Improving Oxygen Delivery During Extra-Corporeal Membrane Oxygenation"

CHAPTER 6 DIVISION OF COLORECTAL SURGERY

Division Chief

Conor P. Delaney, MD, MCh, PhD

Colorectal Surgical Staff

Bradley J. Champagne, MD

Sadaf Khan, MD, DHPE

Jeremy Lipman, MD

Eric Marderstein, MD, MPH

Harry L. Reynolds, Jr., MD

Sharon L. Stein, MD

Joseph A. Trunzo, MD

Colorectal Residency Program Director

Brad Champagne, MD

Colorectal Residents

Andrew Russ, MD

W. Conan Mustain, MD

Research Fellows

Knut Magne Augestad, MD

Benjamin Crawshaw, MD

Deborah Keller, MD

Zhamak Korghami, MD

Eslam Dosokey, MD

Surgical Skills Trainer

Sadaf Khan, MD

Nurse Practitioners

Karen Brady, NP

Pat Cigetich, NP

Mary Kasavich, NP

Melissa Snow, APN

Donya Woconish, NP



STAFF/FACULTY

Conor Delaney, MD, MCh, PhD

Dr. Delaney gained his medical degree in University College Dublin, Ireland, and earned his Master of Surgery and Doctor of Philosophy in Surgery degrees from the University of Pittsburgh School of Medicine and University College Dublin Medical School. He completed surgical training with the Royal College of Surgeons in Ireland, and a post-accreditation training position in the Department of Colorectal Surgery at the Cleveland Clinic. He serves as Chief of the Division of Colorectal Surgery, Vice-Chair of the Department of Surgery, and Professor of Surgery at Case Western Reserve University School of Medicine. He also holds the position of Director of the Institute for Surgery and Innovation and is the Jeffrey L. Ponsky, MD Professor of Surgical Education. He is a past President of the International Society for Laparoscopic Colorectal Surgery. Dr. Delaney is on the editorial boards of Diseases of the Colon and Rectum, World Journal of Gastroenterology, World Journal of Surgery, Colorectal Disease and the Polish Journal of Surgery, and serves as a reviewer for many journals. He travels to teach colorectal surgery nationally and internationally. He has written and edited four books, published more than 270 chapters and papers, and has given more than 250 invited lectures. His primary clinical interests include laparoscopic colorectal surgery, colorectal cancer, inflammatory bowel disease, diverticular disease, colonoscopy and re-operative abdominal surgery. Dr. Delaney serves on Council of the American Society of Colorectal Surgeons, and was recently appointed as Chair of a new program to teach rectal cancer surgery nationally within the U.S. Dr. Delaney recently founded Socrates Analytics, a healthcare IT company which helps hospitals link and risk adjust disparate administrative databases in order to measure the clinical and financial outcomes of healthcare provision.

COLORECTAL SURGERY

Bradley J. Champagne, MD, FACS, FASCRS

Dr. Champagne obtained his Bachelors in Science from the University of Scranton, and his medical degree from Upstate Medical College at Syracuse, New York. He undertook his General Surgery Residency at Albany Medical College, and then completed a Colorectal Residency at the Georgia Colon and Rectal Surgery Clinic in Atlanta, Georgia. He received certification by the American Board of Surgery and American Board of Colon and Rectal Surgery, and was appointed to this Division in August 2006. Dr. Champagne was promoted to Associate Professor in 2010. He is a fellow of both the American College of Surgeons and the American Society of Colon and Rectal Surgeons. He also serves as the Program Director of the ACGME-accredited Colorectal Residency at UH Case Medical Center. This past year, Dr. Champagne was appointed as the ASCRS young surgeon representative to the ACS Advisory Council and the ASCRS representative to ASSET (Association of Surgeons for Simulation, Education and Training). Furthermore, he was appointed by the President-Elect of ASCRS to the position of Program Chair for the 2014 national meeting. He has been the Course Chair for multiple SAGES and ASCRS laparoscopic colectomy national

and regional programs. Dr. Champagne is the Co-Director of the Annual Career Development Course for ACGME colorectal residents. He has a keen interest in teaching and his research focus is on training methods for laparoscopic colectomy and outcomes. He is the principal investigator on several projects in the Division and has written numerous articles and chapters in peer reviewed journals. He is a reviewer for Diseases of the Colon and Rectum, Annals of Surgery and multiple other journals. He is the Surgical Director of the Community Gastroenterology and Quality Center for the Digestive Health Institute. Dr. Champagne has given several invited lectures nationally and internationally. His clinical interests include laparoscopic colorectal surgery, colorectal cancer, inflammatory bowel disease, diverticular disease and benign anorectal disease.

Sadaf Khan, MD, DHPE

Dr. Khan received her medical degree from the Aga Khan University, Pakistan. She completed her General Surgery residency and Colon and Rectal Surgery fellowship at Henry Ford Hospital, Detroit, Michigan. She is certified by the American Board of Surgery and American Board of Colon and Rectal



2013 Colorectal Fellows Career Course Faculty

Surgery. She joined Henry Ford as senior staff before joining the Aga Khan University as an Assistant Professor of Surgery. While there, she obtained a Diploma in Health Professions Education, and was involved in curricular development, with specific interest in techniques and implementation of assessment strategies. She is currently a Visiting Faculty at the Aga Khan University. She joined the Division in March 2011 as Director of Surgical Skills Training at the Institute for Surgery and Innovation. Dr. Khan's areas of interest include education and education research, especially assessment, and curriculum development. Her primary clinical interests include colorectal cancer, re-operative surgery, colonoscopy and benign anorectal disease. She is practicing as a colorectal surgeon at Mercy Hospital in Lorain.

Jeremy Lipman, MD

Dr. Lipman earned his Bachelor of Arts degree from Boston College and his medical degree from Drexel University College of Medicine in Philadelphia, Pennsylvania. He completed his General Surgery Residency at Case Western Reserve University and did a Colorectal Surgery fellowship at the Cleveland Clinic Foundation, where he received the Outstanding Clinical Fellow Award. He is board certified by the American Board of Surgery and American Board of Colon and Rectal Surgery. Dr. Lipman joined the staff of MetroHealth Medical Center in July, 2010 and is an Assistant Professor of Surgery at Case Western Reserve University School of Medicine. He received the Case Department of Surgery Faculty Teaching Award in 2012. He has published many peer-reviewed articles and presented his work at several national meetings. Dr. Lipman serves as a reviewer for the American Journal of Surgery, The Surgeon, and others. He is the Director of Surgical Education at MetroHealth, associate program director for the Case general surgery residency, clerkship director for the 3rd and 4th year medical students and co-Chair of the Clinical Competency Committee. He is a member of the Residents Committee of the American Society of Colon and Rectal Surgeons and serves on the Medical Advisory Committee of the Northeast Ohio Chapter of the Crohn's and Colitis Foundation. His clinical interests include laparoscopic colorectal surgery, colorectal cancer, inflammatory bowel disease, diverticular disease, colonoscopy, re-operative abdominal surgery and benign anorectal disease.

Eric Marderstein, MD, MPH

Dr. Marderstein obtained his basic science degree in Biophysics with Honors from Brown University in Providence, Rhode Island and his medical degree from University of Virginia School of Medicine in Charlottesville, Virginia. He undertook General Surgery



Residency at the University of Pittsburgh Medical Center in Pittsburgh, Pennsylvania. During his general surgery residency, Dr. Marderstein was granted a Master's Degree in Public Health from the University of Pittsburgh. He then completed a Colorectal fellowship at the Cleveland Clinic in Cleveland, Ohio. Dr. Marderstein is certified by both the American Board of Surgery and the American Board of Colon and Rectal Surgery. He was appointed Assistant Professor of Surgery within the Division in July 2007. His clinical interests include laparoscopic approaches to colorectal disease, colorectal cancer, inflammatory bowel disease and complex reoperative abdominal surgery. His research interests include the new and growing field of Patient Safety. In May 2010, Dr. Marderstein was appointed Director of Colorectal Surgery Services at the Louis B. Stokes Cleveland VA Medical Center, and was subsequently appointed as Chief of General Surgery.

Harry Reynolds, Jr., MD

Dr. Reynolds graduated with a degree in Bioengineering from Syracuse University as a University Scholar. He subsequently completed medical school at Case Western Reserve University, with a scholarship from the United States Air Force, and finished his residency in General Surgery at University Hospitals of Cleveland. He then served as the Chief of Surgical Services and as a Flight Surgeon at the 22nd Medical Group, McConnell Air Force Base, Kansas. He completed his Colorectal Fellowship training in 1996 at the Cleveland Clinic Foundation. He was appointed as an Assistant Professor of Surgery at Case Western Reserve University in 1997 and subsequently served as the Director of Colorectal Surgery at University Hospitals through June of 2005. He continues his service in the Air Force as the Chief of Aerospace Medicine at the 180th Medical Group, Toledo, Ohio. He has served in support of Operation Enduring Freedom and Iraqi Freedom and received the Humanitarian Service Medal for his participation in the Hurricane Katrina relief effort. In 2007, Dr. Reynolds worked as a Surgeon and Flight Surgeon at the 332nd Air Expeditionary Medical Group, Balad Air Base, Iraq. He served in support of Operation Iraqi Freedom,

and provided Space Shuttle Mission Support at Moron Air Base Spain this past spring. He was deployed to Kyrgyzstan and Afghanistan in support of Operation Enduring Freedom in October and November 2009. Dr. Reynolds has given multiple invited presentations and authored or coauthored numerous abstracts and papers. His special interests include the multidisciplinary management of colon and rectal cancer, surgical treatment of inflammatory bowel disease, anorectal diseases, and laparoscopic approaches to colorectal pathology. He now serves as the Director of Colorectal Cancer Surgery at University Hospitals Case Medical Center.

Sharon L. Stein, MD, FACS, FASCRS

Dr. Stein obtained a Bachelors of Arts with distinction from the University of Michigan in Ann Arbor, Michigan and a medical degree at University of Colorado Health Science Center in Denver, Colorado. She completed her General Surgery Residency at Massachusetts General Hospital in Boston, Massachusetts and her Colon and Rectal Surgery fellowship at New York Presbyterian Hospitals of Cornell and Columbia. After completing her fellowship, Dr. Stein worked as a surgeon for Doctors without Borders (Medecins sans Frontiers) in Southern Sudan, and more recently, in Haiti following the earthquake in 2010. She is board certified by the American Board of Surgery and the American Board of Colon and Rectal Surgery. She joined the faculty at University Hospitals in August 2009. Dr. Stein has special interests in complex Crohn's disease, enterocutaneous fistulas and re-operative surgery, and serves as the Director of the Case Acute Intestinal Failure Unit and Surgical Director of the Inflammatory Bowel Disease Center. She is the principle investigator for several departmental studies. Dr. Stein serves in leadership roles on the Council of the Association of Women Surgeons and is Chair of the Ohio District #1 Committee on Applicants for the American College of Surgeons. She is a committee member for numerous committees for American College of Surgeons, American Society of Colon and Rectal Surgeons, and Association of Woman Surgeons. She is a reviewer for American Journal of Surgery, Diseases of the Colon and Rectal Surgery and

Inflammatory Bowel Disease. She is a frequent speaker at National Meetings and instructor of laparoscopic surgery and author of numerous book chapters, articles and reviews. She currently serves as Associate Program Director for Case Surgery Residency Program, Chair of the Clinical Competency Committee for Residents and Co-Director of the Annual Colorectal Residents Career Course.

Joseph A. Trunzo, MD

Dr. Trunzo earned a Bachelor of Science from Eastern Michigan University and his medical degree from Wright State University School of Medicine in Dayton, OH. He completed General Surgery Residency at Case Western Reserve University and did a Colorectal Surgery Fellowship at the Cleveland Clinic Foundation. He is board certified in surgery by the American Board of Surgery. Dr. Trunzo will be joining University Hospitals regional partners at St. John Medical Center and Southwest General Medical Center. He has published many peer-reviewed articles and presented his work at several national meetings. His clinical interests include laparoscopic colorectal surgery, colorectal cancer, inflammatory bowel disease, diverticular disease, colonoscopy, re-operative abdominal surgery and benign anorectal disease.

COLORECTAL RESIDENCY

Andrew J. Russ, MD

Dr. Russ obtained his Bachelor of Arts in Zoology, with a Thematic Sequence in Chemistry at Miami University in Ohio. He then went on to obtain his medical degree at Wright State University Boonshoft School of Medicine in Dayton, Ohio. He matched at the University of Wisconsin in Madison to complete 5 years of General Surgery Residency, as well as a 2-year fellowship in Tumor Immunology. He was elected as the Administrative Chief Resident, and won numerous teaching awards, including the Ben Lawton award for medical student teaching, and also the resident teaching award. He will complete his Fellowship in Colon and Rectal Surgery at UH Case Medical Center in July 2013. Dr. Russ is board certified by the American Board

of Surgery. His clinical interests include minimally invasive colorectal surgery, colon and rectal cancer, and benign anorectal disease. Research interests include resident and medical student education, health care team dynamics, and operative and non-operative simulation. Dr. Russ has published several peer-reviewed articles and book chapters, as well as several presentations at the Society of Surgical Oncology, the American Society of Colon and Rectal Surgery, and the Association for Academic Surgery at the Academic Surgical Congress.

W. Conan Mustain, MD

Dr. Mustain attended Florida State University as a National Merit Scholar, earning a Bachelor of Science in Biology. He obtained his medical degree from the University of Mississippi School of Medicine, and did his residency in General Surgery at the University of Kentucky Chandler Medical Center in Lexington, KY. During residency he completed a 2-year research fellowship in the lab of Dr. B. Mark Evers, studying molecular mechanisms of colorectal cancer and inflammatory bowel disease. He served as a resident member of the Clinical Competency Committee and was elected Administrative Chief Resident. He will begin a Fellowship in Colorectal Surgery at UH Case Medical Center in July 2014. Dr. Mustain is a member of the Alpha Omega Alpha Honor Medical Society and has received awards for excellence in surgical education as well as research. He has authored or coauthored numerous publications and has presented his work at several national and regional meetings. His clinical interests include the multidisciplinary treatment of rectal cancer, laparoscopic colorectal surgery, and benign anorectal disease.

RESEARCH STAFF

Deborah Keller, MD

Dr. Keller obtained a Bachelors of Science and Arts degree in Fine Art and Biological Sciences, and a Master's Degree in Healthcare Policy and Management from Carnegie Mellon University in Pittsburgh, Pennsylvania. Following graduate school, she worked as a business analyst for

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American Management Systems, specializing in Healthcare Management consulting. She returned to school, earning a medical degree at UMDNJ-New Jersey Medical School in Newark, New Jersey. She completed her General Surgery Residency at Temple University Hospital in Philadelphia, Pennsylvania. Following residency, Dr. Keller joined the University Hospitals Case Medical Center Division of Colorectal Surgery as a research fellow. Her projects focused on surgical outcomes and quality improvement in benign and malignant colorectal disease. Dr. Keller's work has been presented at several national conferences and peer-reviewed journals. After her research year, Dr. Keller will complete a clinical Colorectal Residency at the Penn State Milton S. Hershey Medical Center.

Knut Magne Augestad, MD

Dr. Augestad is a practicing surgeon and research leader working at the University of Hospital North Norway and Norwegian National Centre for Integrative Care and Telemedicine. His research focuses on surgical decision making, with emphasis on patients with colorectal cancer. He and his team have assessed complex surgical patient pathways and decision making by use of new technology (telemedicine) and development of clinical decision support tools integrated in the electronic medical record. During his 2010 U.S. fellowship at the Division of Colorectal Surgery, University Hospitals Case Medical Center, Dr. Augestad was introduced to research on surgical simulators. In August 2013, he will return as a postdoctoral research fellow at the Division of Colorectal Surgery, focusing on decision analytic modeling, telemedicine and predictive analytics.

INSTITUTE FOR SURGERY AND INNOVATION



Dr. Delaney is Director and co-founder of the Institute for Surgery and Innovation (ISI). The ISI is a training Institute which has three primary goals:

- To provide skills training, which combines training for medical students and residents, as well as for surgeons in practice in advanced laparoscopic techniques;
- To foster a multi-center research group which will perform clinical trials in various surgical disciplines; and
- To harbor an Innovation Center which interacts with industry to create and test new technical products.

The teaching component has developed the fastest, and there are now between two and four courses each month held in the animate laboratory. Laparoscopic colorectal courses are held monthly, and waiting lists for these courses are approximately nine months. Courses in many other specialty areas are also held, all of which are helping raise the level of awareness of the Institution both regionally and nationally. More than 3,000 surgeons and physicians have been through the ISI in the last three years. In 2012, the Institute was re-accredited by the American College of Surgeons as a Level I Training Center. ISI is now joined with the Mount Sinai Skills and Simulation Center, and both are termed the Case Center for Skills and Simulation.

Dr. Sadaf Khan continues as the Skills Trainer, and will continue to hold this post and direct skills training for the residents, as well as starting a part-time clinical practice. In 2013, several abstracts have been submitted based on educational research being performed at ISI.

Benjamin Crawshaw, MD

Dr. Crawshaw received his Bachelor of Arts in biology, magna cum laude, from Brown University in Providence, Rhode Island and his medical degree from the University of Rochester School of Medicine and Dentistry in Rochester, New York. He is currently pursuing his general surgery residency at Case Western Reserve University in Cleveland, Ohio. In July 2013, he began two years of clinical research with the Division of Colorectal Surgery at University Hospitals Case Medical Center as the Jeffrey L. Ponsky Research Fellow. Dr. Crawshaw has an interest in surgical education and plans to pursue a career in academic colorectal surgery.

Zhamak Khorgami, MD

Dr. Khorgami received his medical degree from Tehran University of Medical Sciences, Iran. He did his internship and surgical residency at that university. After being board-certified, Dr. Khorgami began to serve as a full-time staff surgeon at Tehran University of Medical Sciences. During 2013, he was a research fellow in the Division of Colorectal Surgery at University Hospitals Case Medical Center. Dr. Khorgami has interests in clinical research, surgical education, and minimally invasive surgery and plans to continue his career in academic surgery.

Eslam Dosokey, MD

Dr. Dosokey received his medical degree from Faculty of Medicine Assiut University, Egypt. He did his internship and surgical residency at that university. After being board-certified, he did a fellowship in Surgical Oncology and received a Master degree in Surgical Oncology. Dr. Dosokey then served as a full-time staff surgeon at South Egypt Cancer Institute, Assiut University. He helped to establish the Laparoscopic Unit at the University Hospital. He is currently a research fellow in the Division of Colorectal Surgery at University Hospitals Case Medical Center. Dr. Dosokey has interests in clinical research, surgical education, and minimally invasive surgery and plans to continue his career in Laparoscopic Colorectal Surgery.

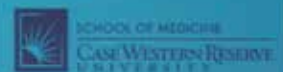
DIVISION EDUCATION

The Division has an ACGME-accredited Colorectal Fellowship Program which is in its third year, and is expanding to two fellowship slots in 2014. The program matched Dr. Andrew Russ, MD. Dr. Champagne, who is Program Director for the program, and Dr. Sharon Stein, have expanded this educational venture and have organized a novel course for career advice for colorectal fellows from all over the U.S. The inaugural course took place in Fall, 2010, and the attendance has increased as recognition has grown. The majority of colorectal fellows in the country were in attendance at the 2013 course.

DIVISION GOALS

- To continue clinical growth regionally and nationally
- To become increasingly recognized as leaders in colorectal surgical education
- To continue to develop the research program
- Establishment of a joint Inflammatory Bowel Center with Gastroenterology, a joint Colorectal Cancer Clinic with Oncology and Radiotherapy and a Pelvic Floor Center
- Build clinical volume by marketing laparoscopic colorectal surgery, anal surgery and pelvic floor surgery, and a rectal cancer center with facilities for intraoperative radiation, transanal surgery and laparoscopic surgery

Colorectal Residents 4th Annual Career Course



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LAPAROSCOPIC TRAINING PROGRAMS

The Division continues to host numerous national and international visitors to observe laparoscopic and open surgery. Drs. Champagne, Reynolds and Stein all participate in quarterly laparoscopic training courses.

PATIENT CARE WITHIN DIVISION

The Division continues to provide specialized care for patients with conditions affecting the colon, rectum and anus. The research being performed allows us to continue to develop the quality of care offered to patients and to allow us to maintain outcomes data with the goal of establishing the

Division as a national leader in its area of expertise. The procedure rooms in Bolwell and Seidman clinics offer 3-D imaging with ultrasound, as well as flexible endoscopy for patients at their initial presentation to the physician. The in-patient area is now well settled on the 5th floor of the UH Seidman Cancer Center.

Patients are seen at main campus, as well as at facilities in Westlake, Green Road, Chagrin Highlands, Landerhaven and Twinsburg. Surgical procedures are primarily performed at main campus; however, cases are also being performed at St. John West Shore Hospital, at UH Ahuja Medical Center, and will be performed at Mercy Hospital in Lorain.

PRIZES, HONORS AND AWARDS

Conor Delaney, MD, MCh, PhD

- Editorial Board for: Diseases of the Colon and Rectum, World Journal of Surgery, Colorectal Disease, World Journal of Gastroenterology, Polish Journal of Surgery, American Journal of Surgery
- Elected to membership, American Surgical Association
- Council, Midwest Surgical Association
- Council, American Society of Colorectal Surgeons
- Best Doctors In America, since 2005
- America's Top Doctors, since 2006
- America's Top Doctors for Cancer, since 2006
- Cleveland Magazine Top Doctors, since 2006
- Northern Ohio Live Top Doctors, since 2007
- 2012, Inaugural UH Leadership Academy
- 2012, Mexican Society of Rectum and Colon Surgeons and Mexican College of Specialists in Coloproctology, Honorary International Fellowship; presented by Dr Quintin Gonzalez, President, San Jose del Cabo, July 15th, 2012
- 2012, Midwest Surgical Association Best Paper Award for best oral presentation, "Extraction site incision and incisional hernias after laparoscopic colorectal surgery: Should we be avoiding the midline?"

Brad Champagne, MD

- Best Doctors, 2011-2013
- Who's Who of Physicians, 2011-2013
- America's Top Surgeons, 2010-2013
- Cleveland Magazine Best Doctors, 2011-2013
- Honorary Professor of Surgery: University of Lima, 2012

Harry Reynolds, Jr., MD

- America's Top Doctors
- Best Doctors Northern Ohio Live since 2005
- Top Docs Cleveland Magazine since 2005
- Best Doctors since 2004

Sharon Stein, MD

- Chair, American Society of Colon and Rectal Surgeon's Young Surgeon's Committee

Andrew Russ, MD

- University of Wisconsin Department of Surgery Chief Administrative Resident (2012)
- University of Wisconsin Department of Emergency Medicine Trauma Resuscitation Award (2012)

INVITED NAMED LECTURES

Conor Delaney, MD, MCh, PhD

- Incorporation of Barbers Lecture. Royal College of Physicians and Surgeons of Glasgow, Glasgow, UK, "The State versus laparoscopic colorectal cancer surgery – guilty, innocent or not proven!" March 2012.
- "Laparoscopic Colorectal Surgery and Perioperative Care: Bringing Industrial Standards to Colorectal Surgery", McEwen Lecture, Department of Surgery, University of Kansas School of Medicine, Wichita, KS, May 2012.
- "Extraction site incision and incisional hernias after laparoscopic colorectal surgery: Should we be avoiding the midline?" Midwest Surgical Association Best Paper Award for best oral presentation, 2012.

HONORARY APPOINTMENTS & INVITED INTERNATIONAL SURGERIES

Conor Delaney, MD, MCh, PhD

- Kantonspital, St Gallen, Switzerland; European Congress of Colorectal Surgery, December 2013.



GRANTS

Conor Delaney, MD, MCh, PhD

Funding source: Norwegian Government

Role: Scientific Advisory Board

Project title: Modeling Colorectal Cancer

Surveillance: Norwegian-US perspective

Total amount: NOK 2.4M (\$400,000)

Period: submitted

Funding source: Great Lakes Innovation & Development Enterprise

Role: Founder and PI

Project title: Socrates Analytics

Total amount: \$100,000

Period: 2013

Funding source: Norwegian Government

Role: International Collaborator

Project Title: M# Mobile Mentor

Total amount: NOK 2.4M (\$400,000)

Period: 2011-2013

Bradley Champagne, MD

Role: Principal Investigator

Project Title: Ligation of Intersphincteric Fistula

Total amount: \$5,000 (Start Up) \$2,095 (Per Patient)

Role: Principal Investigator

Project title: Hemorrhoid Energy Treatment Trial

Total amount: \$13,000 (Start Up) \$2,821 (Per Patient)

Sharon L. Stein, MD

Funding source: Helsinn Therapeutics(U.S), Inc.

Role: Primary Site Investigator

Project title: A Phase II, Double-Blind, Placebo-Controlled, Dose Finding Study to Evaluate the Safety and Efficacy of Ipamorelin Compared to Placebo for the Recovery of Gastrointestinal Function in Patients Following Small or Large Bowel Resection with Primary Anastomosis (Protocol No. HT-IPAM-202)

Total amount: \$154,040 in site funding

Period: 2012-Present



Funding source: Ventrus Biosciences and INC Research (USA)

Role: Primary Site Investigator

Project title: A Phase 3 Randomized, Double-Blind, Placebo Controlled, Parallel Treatment Group, Multicenter Efficacy and Safety Study of Topical Diltiazem Hydrochloride 2% Cream I Subjects with Anal Fissure (Protocol No. VEN307-AF-001)

Total amount: \$35,000 in site funding

Period: 2012-present

Role: Primary Site Investigator

Project title: The Optimal Treatment Of Fulminant Clostridium Difficile Colitis: Diverting Loop Ileostomy and Colonic Lavage versus Total Abdominal Colectomy

Total amount: \$10,000 in site funding

Period: 2012-present

Role: Co-Investigator

Project title: A Prospective Study of Methylated Vimentin DNA in Blood as a Novel Biomarker in Colorectal Cancer (Protocol No. 1201) – GI SPORE pilot project

Period: 2013-present

PUBLICATIONS

Books

- "Netter's Surgical Anatomy and Approaches". Editor: Conor P Delaney. Elsevier, Philadelphia, PA. October 2013.
- "Operative Techniques in Laparoscopic Colorectal Surgery". 2nd Edition. Authors: Delaney CP, Senagore AJ. Lippincott Williams & Wilkins, Philadelphia, PA. October 2013.
- "Pelvic Cancer Surgery: Modern Breakthroughs and Future Approaches". Authors: Patel H, Delaney CP. Springer Publishing Company, New York, NY. In press.
- "Single-Incision Laparoscopic and Transanal Colorectal Surgery". Authors: Law WL, Delaney CP. Springer Publishing Company, New York, NY. Under contract.

Book Chapters and Reviews

- "Netter's Surgical Anatomy and Approaches", Editor: Conor P Delaney. 2013. Elsevier, Philadelphia, PA.
- "Operative Techniques in Laparoscopic Colorectal Surgery" 2nd Edition. Authors: Delaney CP, Lawrence J, Keller DS, Champagne BJ, Senagore AJ. 2013. Lippincott Williams & Wilkins, Philadelphia, PA.
- "Single-Incision Laparoscopic and Transanal Colorectal Surgery" Authors: Law WL, Delaney CP. 2013. Springer Publishing Company, New York, NY.
- Laparoscopy for rectal cancer. Lawrence J, Delaney CP. Colorectal Cancer (2nd Edition). Eds Vaccaro CCA, Lastiri JM, Rossi G, Varela E, Vaccarezza H. In press.
- Clinical and Educational Benefits of Surgical Telementoring. Augestad K, Chomutare T, Belliak JG, Lindsetmo RO, Delaney CP, Mobile Medical Mentor (M3) Project. Simulation Training in Laparoscopy and Robotic Surgery. Eds: Patel H, Joseph J. Springer Verlag, London. In press.
- Laparoscopic extended right hemicolectomy. Shanmugan S, Delaney CP. Lower Gastrointestinal Tract Surgery. Eds: Hohenberger W, Parker M. Springer Verlag, London. In press.
- Simulation and its role in training. Samia H, Khan S, Delaney CP. Clin Colorect Surg. In press.
- The Socrates story – integrating hospital administrative data to improve health care efficiency and outcomes. Lawrence J, Delaney CP. Clin Colorect Surg, 2013; 26: 1-9.
- Improving surgical standards: using industrial practices and technology to improve surgical practice. Manwaring M, Delaney CP. Semin Col Rect Surg, 2013; 26: 1-7.
- Fast Track Protocols in the Era of Minimally Invasive Surgery. Keller D, Delaney CP. Semin Col Rect Surg. 2013. 24: 7-13.
- Facilitating Return of Bowel Function After Colorectal Surgery: Alvimopan and Gum Chewing. Keller D, Stein SL. Semin Col Rect Surg, In press.
- Minimally Invasive Laparoscopic Colorectal Surgery. Keller D, Delaney CP. An Evidence-Based Approach to Minimally Invasive Surgery. Eds: Muryama K, Chand B, Mikami D, Nagle A, Kothari S. Wright-Saunders, Philadelphia. In Press.
- The Future is Now: SILS, Robotics, and CLER. Keller D, Obias V, Delaney CP. Complexities in Colorectal Surgery: Decision-Making and Management. Eds: Champagne BJ, Maykel JA, Steele SR. In Press.
- SILS Total Abdominal Colectomy and Total Proctocolectomy with Ileoanal Anastomosis. Keller DS, Delaney CP. In "Single-Incision Laparoscopic and Transanal Colorectal Surgery". Authors: Law WL, Delaney CP. Springer Publishing Company, New York, NY.
- Edwards T. Champagne B. Netter's Surgical Anatomy and technical Approaches. "Approaches to Left Colectomy" December 2013.
- Champagne BJ Surg Clin N Amer. Considerations and complications in patients undergoing ileal pouch anal anastomosis. Surg 2013 Feb;93(1):107-43 Review.
- Champagne BJ Operative Techniques in Laparoscopic Colorectal Surgery, 2nd Edition Lippincott Williams and Wilkins, Philadelphia, PA. Editors Delaney et al. "Hand-Assisted Right Colectomy".
- Scott R. Steele, M.D., FACS, FASCRS, Justin A. Maykel, M.D., FACS, FASCRS, Bradley J. Champagne, M.D., FACS, FASCRS, and Guy R. Orangio, M.D., FACS, FASCRS, Editors. Complexities in Colorectal

Surgery: Decision-Making and Management, Springer Business Media 2013.

- Champagne BJ, Macrae H Complexities in Colorectal Surgery: Decision-Making and Management, Springer Business Media. "Teaching and Training for Laparoscopic Colorectal Resection" April 2013.
- Shanmugan S. Champagne BJ Single-Incision Laparoscopic and Trans-anal Colorectal Surgery, "Platforms for Single Incision Colectomy" April 2013.
- Champagne BJ Clinics in Colorectal Surgery, "Effective Teaching Strategies in the OR and Beyond" May 2013.
- Stein SL "Right Colectomy", Netter's Atlas for Surgical Residents. Delaney CP, ed. Elsevier. In Press.
- Stein SL; Section editor, Lower Gastrointestinal Disease. Netter's Atlas for Surgical Residents. Delaney CP, ed. Elsevier. In Press.
- Shanmugan S, Stein SL "Lower Gastrointestinal Bleeding", Current Surgical Therapy. 10th Ed. Cameron AM, Cameron JP eds. Elsevier. In Press.
- Stein SL, Delaney CP "Postoperative Management", American Society of Colon and Rectal Surgery Manual 2nd Ed. Beck D, Wexner S, Hull T, Roberts P, Saclarides T, Stamos M, Steele S, Senagore A, eds. Springer Verlag New York, NY 2013.
- Reynolds HL. Abdominal perineal resection. Netter Atlas. Edited by Conor Delaney, 2013.
- Reynolds HL, Delaney C. Laparoscopic right hemicolectomy. In Operative Surgery of the Colon, Rectum and Anus, Sixth Edition, Edited by Ronan O'Connell, Robert Madoff and Michael Solomon, in press 2013.
- Reynolds HL, Keller D. HALS sigmoid colectomy. In Operative Techniques in Laparoscopic Colon and Rectal Surgery. 2nd ed. Edited by Conor Delaney, In press 2014.
- Marks J, Reynolds HL. Local treatment of rectal ca: TEMS v TAMIS v Transanal in Complexities of Colorectal Surgery: Decision Making and Management. Edited by Scott Steele et al., In press 2014.

Journal Articles and Abstracts

- Single incision vs. standard multiport laparoscopic colectomy: a multi-center, case-controlled comparison. Champagne BJ, Papaconstinou H, Parmar S, Nagle DA, Young-Fadok TM, Lee EC, Delaney CP. Ann Surg, 2012; 255: 66-9.
- Effect of local anesthetics on postoperative pain and opioid consumption in laparoscopic colorectal surgery. Stuldreher JM, Adamina M, Konopacka A, Brady K, Delaney CP. Surg Endosc, 2012; 26: 1617-23.
- Towards optimizing perioperative colorectal care: outcomes for 1000 consecutive laparoscopic colorectal procedures using enhanced recovery pathways. Delaney CP, Brady K, Woconish D, Parmar SP, Champagne BJ. Am J Surg, 2012; 203: 353-6.
- Laparoscopic versus open surgery for colon cancer in an older population. Cummings LC, Delaney CP, Cooper GS. World J Surg Oncol, 2012; 10(1): 31.
- Evaluation of Clinical Outcomes with Alvimopan in Clinical Practice: a National Matched Cohort Study in Patients Undergoing Bowel Resection. Delaney CP, Craver C, Maggard Gibbons, M, Rachfal AW, VandePol CJ, Cook SF, Poston S, Calloway M, Techner L. Ann Surg, 2012; 255: 731-8.
- Identification of consensus-based quality endpoints for colorectal surgery. Manwaring ML, Ko CY, Fleshman JW, Beck DE, Schoetz DJ, Temple LK, Morris AM, Delaney CP. Dis Colon Rectum, 2012; 55: 294-301.
- Canadian Association of General Surgeons, the American College of Surgeons, the Canadian Society of Colorectal Surgery and the American Society of Colorectal Surgeons evidence based reviews in surgery – colorectal surgery. Morris AM, Delaney CP, Pahlman LA, Phang PT. Dis Colon Rectum, 2012; 55: 1096-8.
- Laparoscopic complete mesocolic excision for right colon cancer. Adamina M, Manwaring ML, Park KJ, Delaney CP. Surg Endosc, 2012; 26: 2976-80.
- Surgical quality surrogates do not predict colon cancer survival in the setting of technical credentialing: A report from the prospective COST trial. Mathis KL, Green EM, Sargent D, Delaney CP, Simmang CL, Nelson H. Ann Surg, 2013; 257(1): 102-7.

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- Pricing of surgery for colon cancer: patient severity and market factors. Dor A, Koroukian SM, Fang X, Stulberg JJ, Delaney CP, Cooper G. *Cancer*, 2012; 118(23): 5741-8.
- System-based factors impacting intraoperative decision-making in rectal cancer by surgeons. An international assessment. Augestad K, Lindsetmo RO, Stulberg J, Reynolds H, Champagne B, Senagore AJ, Delaney CP. *Colorectal Disease*, 2012; 14(10): 679-88.
- Laparoscopic low anterior resection in a patient with Lynch syndrome and a previous open right colectomy. Keller DS, Lawrence JK, Delaney CP. *Dis Colon Rectum*, 2013; 56: 263.
- Laparoscopic guided transversus abdominis plane block for colorectal surgery. Favuzza J, Delaney CP. *Dis Colon Rectum*, 2013; 56: 389-91.
- Construct validation of a novel postoperative quality of life metric. McGee MF, Cheruvu VK, Debanne S, O'Brien B, Laughinghouse M, Champagne BJ, Reynolds H, Marderstein E, Delaney CP. *Surgery*, In press.
- Transversus abdominis plane blocks and enhanced recovery pathways: Making 23 hour stay a realistic goal after laparoscopic colorectal surgery. Favuzza J, Brady K, Delaney CP. *Surg Endosc*, 2013; Jan 26.
- Safety and effectiveness of an endoscopic suturing device in a human colonic treat-and-resect model. Pauli EM, Delaney CP, Champagne B, Stein S, Marks JM. *Surg Innov*, 2103 Feb 26. Epub ahead of print.
- Extraction site location and incisional hernias after laparoscopic colorectal surgery: should we be avoiding the midline? Samia H, Lawrence J, Nobel T, Stein S, Champagne BJ, Delaney CP. *Am J Surg*, 2013; Jan epub.
- A comparison of virtual reality and augmented reality simulators for laparoscopic colorectal skills acquisition. Leblanc F, Ellis CN, Senagore A, Champagne BJ, Delaney CP. *Surg Endosc*, submitted.
- Evaluating the Effects of Patient Demographics on Length of Stay in Colorectal Surgery Patients. Stein SL, Rose J, Champagne BJ, Reynolds H, Marderstein E, Delaney CP. *Dis Colon Rectum*, submitted.
- Laparoscopic sigmoid colectomy on a virtual reality simulator: validation of metrics. Leblanc F, Champagne BJ, Augestad KM, Zeinali F, Ellis CN, Gross AJ, Senagore AJ, Lynch M, Delaney CP. *J Surg Education*, submitted.
- Laparoscopic colectomy in the obese, morbidly obese, and super obese: when does weight matter? Zafar N, Franklin M, Champagne B, Delaney CP, Russek K, Sherwell S. *Dis Colon Rectum*, submitted.
- Laparoscopic proctectomy in rectal cancer: Oncologic considerations. Lawrence J, Delaney CP. *Surg Lap Endosc Perc Tech*, submitted.
- An objective Stepwise Assessment Tool of Operative Skills (SATOS) for evaluating junior surgical trainees in abdominal wall opening and closure. Kelly KB, Zeinali F, Schomisch S, Samia H, Khan S, Ponsky J, Delaney CP. *Dis Colon Rect*, submitted.
- Integration of open and laparoscopic approaches for rectal cancer resection: oncologic and short term outcome. Park KJ, Keller D, Augestad K, Delaney CP. *Surgery*, submitted.
- Tailored rectal cancer treatment – a time for implementing contemporary prognostic factors? Wibe A, Law WL, Delaney CP. *Colorectal Disease*, submitted.
- Laparoscopic colectomy in the obese, morbidly obese, and super morbidly obese: When does weight matter? Zafar N, Franklin M, Delaney CP, Russek K, Herwell S, Champagne B. *Surg Endosc*, submitted.
- Bioabsorbable Staple Line Reinforced in Colorectal Anastomoses: Analysis of a Prospective Randomized Study. Anthony Senagore, MD; Frederick R. Lane, MD; Edward Lee, MD; Steven Wexner, MD; Nadav Dujovny, MD; Bradford Sklow, MD; Paul Rider, MD; Julius Bonello, MD, and the members of CBSG Study Group. *Dis Colon Rectum*, submitted.
- The new surgery – better surgery at lower cost. Griffin RB, Hashemi L, Delaney CP, Fendrick M. *Health Affairs*, submitted.
- Consensus statement on the multi-disciplinary management of patients with primary rectal cancer beyond total rectal excision planes and recurrent rectal cancer. Bhangu A, Beynon J, Brown G, Chang G, Das P, Frizelle F, and the Beyond TME Collaborative. In development.
- Outcome of discharge after elective laparoscopic colorectal surgery with transversus abdominis plane block. Favuzza J, Delaney CP. *JACS*, Submitted.
- Comparative effectiveness of laparoscopic vs robot-assisted colorectal resection. Keller D, Senagore AJ, Lawrence JK, Hashemi L, Champagne BJ, Delaney CP. *Surg Endosc*. Submitted.
- Laparoscopic Low Anterior Resection with En-bloc Small Bowel Resection and a Difficult Splenic Flexure. Keller D, Lawrence JK, Delaney CP. *Surg Endosc*. Submitted.
- Pilot Study Evaluating the Efficacy of AlloMEM™ in Prevention of Intraoperative Adhesions and Peritoneal Regeneration after Loop Ileostomy. Keller D, Champagne BJ, Stein SL, Ermlich, B, Delaney CP. *Surg Endosc*. Submitted.
- Construct Validation and Comparison of a Novel Colorectal Postoperative Quality of Life Metric and the Short Form 36 in Colorectal Surgery Patients. Keller D, McGee MF, Cheruvu VK, Goyal S, Nobel T, Ermlich B, Delaney CP. *Surgery*. Submitted.
- Evaluation of Inflammatory Markers as Predictors of Hospital Stay and Unplanned Readmission after Colorectal Surgery, Krpata DM, Keller D, Samia H, Lawrence JK, Obokhare I, Marderstein EM, Delaney CP. *Polish J Surg*, Accepted.
- Statistical Process Control in Surgery: Using Industrial Methodology to Evaluate Resource Utilization for Peri-operative Colorectal Care. Keller D, Stulberg JJ, Lawrence JK, Samia H, Rose J, Jung B, Brady K, Delaney CP. *J Am Coll Surg*. For submission.
- Optimizing Cost and Outcomes for Elderly Patients in Colorectal Surgery. Keller D, Lawrence JK, Hall G. Nobel T, Delaney CP. *Surg Endosc*. For submission.
- Process Improvement In Colorectal Surgery: Modifications To An Established Enhanced Recovery Protocol. Keller D, Lawrence JK, Nobel T, Delaney CP. *Dis Colon Rectum*. For submission.
- Cost-Effectiveness Of Laparoscopy In Rectal Cancer. Keller D, Stein SL, Delaney CP. *Dis Colon Rectum*. For submission.
- C-Reactive Protein As A Predictor Of Length Of Stay After Colorectal Surgery. Keller D, Bankwitz B, Krpata DM, Lawrence JK, Brady KM, Delaney CP. *Dis Colon Rectum*. For submission.
- Using The Frailty Score To Predict Failure Of Early Discharge After Laparoscopic Colorectal Surgery With An Enhanced Recovery Pathway. Keller D, Bankwitz B, Nobel T, Delaney CP. *Dis Colon Rectum*. For submission.
- Application Of A Novel Postoperative Quality Of Life Metric In Rectal Cancer. *Dis Colon Rectum*. For submission.
- Process Improvement in Colorectal Surgery: Evaluating Changes to an Enhanced Recovery Protocol. Keller D, Lawrence JK, Favuzza J, Delaney CP. *Dis Colon Rectum*. For submission.
- Application Of A Novel Postoperative Quality Of Life Metric In Rectal Cancer. Keller D, Nobel T, Ermlich BO, Delaney CP. *Dis Colon Rectum*. For submission.
- Predicting The Unpredictable: Comparing Readmitted Versus Non-Readmitted Colorectal Surgery Patients. Keller D, Swendseid B, Stein SL, Champagne BJ, Reynolds HL, Delaney CP. *Amer J Surg*. For submission.
- Short-term Outcomes for Robotic Colorectal Surgery by Provider Volume. Keller D, Hashemi L, Lu M, Delaney CP. *J Am Coll Surg*. Submitted.
- Stein S, Stulberg J, Champagne BJ. Learning Laparoscopic Colectomy during Colorectal Residency: What does it take and how are we doing? *Surg Endosc*, *Surg Endosc* 2012; 26(2): 488-92, PMID 21938581.
- Hall JF, Stein SL. Unexpected Intraoperative Findings. *Surg Clin North Am* 2013; 93(1): 45-59.
- Champagne BJ, Lee EC, Stein SL, Valerian B, Singh TP. Do Formal Mentorship Rotations Improve General Surgery Residents Ability to Perform Laparoscopic Colectomy when Compared to Traditional Curriculums? *Surg Innov*, Accepted.
- Champagne BJ, Stein S, Haridas M, Favuzza J, Hoffman L, Steele S, Johnson E; Novel Operating Anoscope for Ferguson Hemorrhoidectomy: A Feasibility Study and Comparative Cohort Analysis. *Colorectal Dis*, Submitted.
- Trunzo JA, Stein SL, LeBlanc F, Augestad K, Champagne BJ. An Intraoperative Algorithm for Conversion of Straight Laparoscopic Colectomy to Hand Assisted Colectomy: The Best of Both Worlds. *Dis Colon Rect*, Submitted.

- Krpata DM, Stein SL, Eston M, Blatnik JA, Novitsky YW, Rosen MJ. Outcomes of simultaneous large complex abdominal wall reconstruction and enterocutaneous fistula takedown. *Am J Surg*, submitted.
- Ensuring a Valid and Reliable Bank of Multiple Choice Questions (MCQs). Shazia Sadaf, Sadaf Khan and Syeda Kauser Ali. Accepted to Education for Health.
- Russ AJ, Winslow ER, Rettammel RJ, Weber SM, Cho CS. Inaccuracy of Preoperative Classifications of Pancreatic Cystic Neoplasms: Are We Improving? (manuscript in preparation).
- Russ AJ, Cho CS. Review of Tumor Induced Immune Suppression. (manuscript in preparation).
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VIDEOS/ MULTIMEDIA

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- Laparoscopic Low Anterior Resection with En-bloc Small Bowel Resection and a Difficult Splenic Flexure. Keller D, Lawrence JK, Delaney CP. *SAGES Annual Meeting* 2013.
- Laparoscopic Cylindrical Abdominoperineal Resection in High Lithotomy Position. Keller D, Lawrence JK, Delaney CP. *American Society of Colon and Rectal Surgeons Annual Meeting*, Phoenix 2013.

INVITED LECTURES/GRAND ROUNDS/COURSES

Conor Delaney, MD, MCh, PhD

Grand Rounds

- "Laparoscopic colorectal surgery: optimizing perioperative care." Department of Surgery, University of Arkansas, AR, Jan 2013.

Lectures

- "What's new in anal fistula surgery?", "Robotic colorectal surgery: why do it and why not?". Kaiser Permanente National Meeting, San Francisco, April 2013.
- "Right colon hurdles; problem areas, order of attack, middle colics", "Integrating perioperative care pathways with laparoscopic colorectal surgery". 8th ISLCS / SAGES meeting, Baltimore, MD, April 2013.
- "NOTES in Colorectal Surgery" Evidence Based Therapy in Colorectal Surgery, SSAT, May 2013.
- "Dealing with difficult situations in Colorectal Surgery", Michigan Chapter ACS, May 2013.
- "Complex inflammatory fistula – staying laparoscopic" Nuts and Bolts Symposium, ASCRS, Phoenix, AZ, 2013.
- "Results Open vs Laparoscopic TME in the USA", "Unedited Laparoscopic". 3rd International Conference on Advance in Surgery: Cutting Edge Management of Rectal Cancer. Barcelona, June 2013.
- "Polypectomy." Advanced Colonoscopy; Polypectomy and Beyond". ACS, Oct 2013.
- "Tips every colorectal surgeon should know". Colorectal Residents 3rd Annual Career Course, Nov 2013.
- "Avoiding Troubles in Laparoscopic Colorectal Surgery". European Colorectal Congress, St. Gallen, Switzerland, Dec 2013.
- "24 hour recovery after laparoscopic colectomy", "Optimal management of rectal cancer". Gastroenterology and GI Surgery Update, Cleveland, Ohio, Jan 2014.
- "Laparoscopic TME" Take me to your OR session (10-15min), ASCRS, 2014.
- "En bloc management of T4 disease, what can and can't be done via MIS?". 14th World Congress of Endoscopic Surgery, with the 9th International Congress for Laparoscopic Colorectal Surgery and the 22nd International Congress of the European Association for Endoscopic Surgery (EAES). Paris, France, June 2014.
- "Integrating perioperative care pathways with laparoscopic colorectal surgery". 9th ISLCS / EAES meeting, Paris, France, June 2014.

Brad Champagne, MD

- Case Medical Center Laparoscopic Colectomy Course: 2012-2013 (8 sessions), Course Director.
- ASCRS Meeting 2013: Annual Laparoscopic Colectomy Course (Lectures and Lab) Phoenix, Arizona, Course Chairman.
- 4th Annual Colorectal Residents Career Course, Cleveland, Ohio 2013, Course Director.

Grand Rounds

- "Modern Management of Ano-rectal Disease," University Hospitals Case Medical Center Surgery Grand Rounds, January 2013.

Conferences

- ASCRS 2013 Meeting. "Utilization of Energy in the Endoscopy Suite: How, when and shy?" Phoenix, Arizona.
- Annual Argentinian Colorectal Meeting. School of Medicine of the Universidad Nacional del Nordeste. "Laparoscopic Approaches to Rectal Cancer" Corrientes, Argentina, September, 2013.
- American College of Surgeons 2013 Annual Congress: Anastomotic Leak, Prevention and Management: Washington, DC 2013.
- "Simulation for Laparoscopic Sigmoid Colectomy: What metrics have construct validity" Champagne BJ et al. Podium Presentation. ASCRS 2013. Phoenix, Arizona.
- "Laparoscopic Rectopexy without resection: Mesh or No-Mesh" Shanmugan S, Champagne BJ et al. Poster Presentation. ASCRS 2013. Phoenix, Arizona.
- "Pilot Study Evaluating the Efficacy of AlloMEM™ in Prevention of Intraoperative Adhesions and Peritoneal Regeneration after Loop Ileostomy". Keller D, Champagne BJ, Stein SL, Ermlich, B, Delaney CP. SAGES Annual Meeting 2013. Accepted, Poster Presentation.
- "Predicting Who Will Fail Early Discharge After Laparoscopic Colorectal Surgery with an Established Recovery Pathway". Keller D, Lawrence JK, Woconosh D, Nobel T, Stein SL, Reynolds HL, Champagne BJ, Delaney CP. SAGES Annual Meeting 2013. Accepted, Oral Presentation.
- "Cost Effectiveness of Laparoscopic Rectal Resection". Keller D, Champagne BJ, Stein SL, Reynolds HL, Delaney CP. ASCRS Annual Meeting 2013, Accepted, Poster Presentation.
- "Predicting The Unpredictable: Comparing Readmitted Versus Non-Readmitted Colorectal Surgery Patients". Keller D, Swendseid B, Stein SL, Champagne BJ, Reynolds HL, Delaney CP. The Midwest Surgical Association 2013 Annual Conference.
- "Crohn's Disease and Pregnancy: The Impact of Perianal Disease on Delivery Methods and Complications". Poster Presentation at the 2013 ASCRS Meeting, Phoenix, Miller, Maykel Jm Champagne BJ, Steele SR.
- Antibiotic Prophylaxis in Hemorrhoid Surgery—A Multicenter Experience. Poster Presentation at the 2013 ASCRS Meeting, Phoenix, AZ, April 2013. Steele SR, Champagne BJ.

Harry Reynolds, MD

- Reynolds H. Battlefield Medicine: Reflections of a guard Surgeon. Presented at UHCMC resident education conference 28 Jan 13.
- Reynolds H. Principles and Pearls in the Treatment of Rectal Cancer. Presented at The American Society for Gastrointestinal Endoscopy's Colorectal Cancer and Polyps: A Multidisciplinary Approach. San Francisco, California. 9-10 Feb 2013.
- Reynolds H. An Open or Closed Case: Laparoscopic v. Open Colectomy. Presented at The American Society for Gastrointestinal Endoscopy's Colorectal Cancer and Polyps: A Multidisciplinary Approach. San Francisco, California. 9-10 Feb 2013.

- Reynolds H. When to Consider a Surgical Approach to Liver Metastases. Presented at The American Society for Gastrointestinal Endoscopy's Colorectal Cancer and Polyps: A Multidisciplinary Approach. San Francisco, California. 9-10 Feb 2013.
- Reynolds H. Update on the Treatment of Rectal Cancer. Presented at the resident education conference. UHCMC. 18 Feb 2013.
- Reynolds H. Crohn's and Hidradenitis. Presented at the UHCMC Department of Internal Medicine Morbidity and Mortality Conference. 8 March 2013.
- Reynolds H. The Evolution of Rectal Cancer Management. Colorectal fellows conference. 28 Mar 2013.
- Reynolds H. A Military Surgeons Story. Presented at the 4th annual nursing update conference. Cleveland, 26 Apr 2013.
- Reynolds H. Prolapse, inertia, incontinence. Resident education conference, UHCMC. 26 Aug 2013.
- Reynolds H. Management of AIN to SCCA of the anus. Colorectal fellows conference. 3 Oct 2013.
- Reynolds H. Practical colorectal surgical anatomy. Colorectal fellows conference. 12 Sep 2013.
- Reynolds H. Surgical principles in the treatment of rectal cancer. Presented at the annual GI teaching day, Vassar Brothers Medical Center, Poughkeepsie, NY. 25 Sep 2013.

Sharon Stein, MD

- SL Stein, 2013 New Technologies in Colorectal Surgery, Ohio State University/Case Western Reserve University Advances in Minimally Invasive Surgery, Naples, FL.
- SL Stein, 2013 Laparoscopic Colorectal Surgery, Ohio State University/Case Western Reserve University Advances in Minimally Invasive Surgery, Naples, FL.
- SL Stein, 2013 Complications, SAGES Colorectal Course, Baltimore, MD.
- SL Stein, 2013 Crohn's disease, American Society of Colorectal Surgeons Annual Convention, Colorectal Course, Phoenix, Arizona.
- SL Stein, 2013 Ahuja Grand Rounds, Beachwood, OH.
- SL Stein, 2013 Surgical Management of Colitis: Surgical Resident Forum, University Hospitals Case Medical Center.
- SL Stein, 2013 Stapled Hemorrhoidectomy, Harvard Medical School/MGH: Technical Tips and Tricks in Colorectal Surgery: 7th Annual Update for the Practicing Surgeon Boston, MA.
- SL Stein, 2013 How to Recognize and Drain an Intersphincteric Abscess, Harvard Medical School/MGH: Technical Tips and Tricks in Colorectal Surgery: 7th Annual Update for the Practicing Surgeon Boston, MA.
- SL Stein, 2013 APPEAR Technique for Very Low Lying Rectal Tumors: Is it Worth the Risk? Harvard Medical School/MGH: Technical Tips and Tricks in Colorectal Surgery: 7th Annual Update for the Practicing Surgeon Boston, MA.
- SL Stein, 2013 Perineal Approaches to Rectal Prolapse, Harvard Medical School/MGH: Technical Tips and Tricks in Colorectal Surgery: 7th Annual Update for the Practicing Surgeon Boston, MA.

CHAPTER 7 DIVISION OF GENERAL AND GASTROINTESTINAL SURGERY

Division Chief

Michael J. Rosen, MD

Faculty/Staff

Heidi Elliott, MD

Leena Khaitan, MD, MPH

Jeffrey M. Marks, MD

Yuri Novitsky, MD

Raymond P. Onders, MD

Jeffrey L. Ponsky, MD

Ajita Prabhu, MD

Regional Faculty

Vladimir Dubchuk, MD

Seth Eisengart, MD

Amitabh Goel, MD

Cathy Graham, MD

John Jasper, MD

Lisa Rock, MD

The Division of General and Gastrointestinal Surgery has maintained a continued high level of academic and clinical productivity, particularly in the field of minimally invasive surgical treatments of gastrointestinal diseases. Our Division strives to provide cutting edge treatment modalities to all aspects of gastrointestinal diseases. With clinical trials in endoscopic treatments of morbid obesity, endoscopic approaches to achalasia, diaphragm pacing, and complex abdominal wall reconstructions, patients are offered the most up-to-date therapies for these and other gastrointestinal diseases.

During the past year, the Division of General and Gastrointestinal Surgery has continued its strong commitment to providing cutting-edge therapies for all aspects of minimally invasive gastrointestinal surgery. Dr. Jeffrey Ponsky and Dr. Jeffrey Marks are internationally recognized pioneers in a novel transoral approach to performing a Heller myotomy entirely endoscopically, termed P.O.E.M.: Per Oral Endoscopic Myotomy. This revolutionary new approach to Achalasia has eliminated surgical incisions and dramatically improved patients' recovery with almost no discomfort. Dr. Ponsky and Dr. Marks have amassed one of the largest series of P.O.E.M.'s in the nation. They have also been recognized as leaders in the field of education as they have given multiple courses to teach surgeons from around the world this innovative approach. Dr. Yuri Novitsky has recently joined the bariatric surgery team, and has spearheaded the laparoscopic gastric sleeve program. Dr. Novitsky also is the Director of Surgical Research for the Department of Surgery and holds several important grants, with funding from the National Institutes of Health and SAGES.

Dr. Onders continues to offer hope to many spinal cord injury patients and those with Amyotrophic Lateral Sclerosis with his groundbreaking research on diaphragm pacing. Diaphragm Pacing was developed at University Hospitals Case Medical Center (UHCMC) in Cleveland. To date, UHCMC has the world's largest experience with DP in ALS as well as other patient populations. Dr. Onders has implanted over 300 ALS (Amyotrophic Lateral Sclerosis or Lou Gehrig's disease) patients, and continues to look for other ways to help patients with ALS. Nearly 50% of those patients received gastrostomy tubes at the time of DP implantation. Patients are offered a choice between the low profile gastrostomy (Mic Key™) button and the standard PEG.



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In addition to DP therapy and maintaining nutrition with a feeding tube, ALS patients with decreased mobility may benefit from supra-pubic catheter placement to simplify urination. Supra-pubic catheters have been standard therapy in other wheelchair bound patient populations for decades. The ALS patients who have received the supra-pubic catheters all report the resumption of a more active social life. UHCMC is the only facility in Northeast Ohio offering DP along with simultaneous feeding tube and supra-pubic catheter placement. These three therapies can positively impact the life of the ALS patient.

UHCMC is the world's largest site of diaphragm pacing and in 2013 patients have traveled here from over 20 countries and states for the expertise. UHCMC continues to lead the way in research and in helping other centers, and was recognized with several major awards in 2013. In addition, Dr. Onders currently has over ten patents with another several more pending.

The Case Comprehensive Hernia Center has revolutionized the care of the hernia patient, offering both minimally invasive repairs for routine hernia repair, to reconstructing some of the most complex abdominal wall defects. The multidisciplinary nature of our Center allows close interactions with plastic surgeons and general surgeons to offer the full spectrum of surgical reconstructive options for our patients. Redefining the concept of a functional dynamic abdominal wall reconstruction has resulted in a host of funded research grants, national awards, and direct patient benefits with these unique approaches. Under the direction of Dr. Michael Rosen, our Center is participating in several ground breaking multi-center studies to evaluate the most cost effective methods for dealing with contaminated abdominal wall defects. Dr. Rosen is the Principal Investigator of a FDA-monitored, IDE study that is a prospective randomized single blinded study evaluating biologic versus synthetic mesh for the repair of contaminated abdominal wall defects. Dr. Rosen received a prestigious American



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Hernia Society grant for this work. Dr. Ajita Prabhu, an assistant professor of surgery, has recently joined the Case Comprehensive Hernia Center. Dr. Prabhu has rapidly established herself as a leading force in minimally invasive and complex abdominal wall reconstruction. She has taken a leading role in surgical education as well. Dr. Prabhu's interests include minimizing postoperative patient discomfort and optimizing postoperative recovery.

The Comprehensive Metabolic and Bariatric Treatment Center, led by Dr. Leena Khaitan, continues to offer state-of-the-art therapy for those patients suffering from obesity. Working closely with Dr. Yuri Novitsky, the Center now offers a full spectrum of care. Under the direction of Dr. Leena Khaitan, the program has successfully expanded to two campuses so that bariatric surgery is now offered at two sites. University Hospitals is the only health system in the region with two Centers achieving bariatric accreditation.

Dr. Khaitan also functions as the Director of the Center for Esophageal and Swallowing Disorders. Dr. John Dumot, from the Department of Gastroenterology, is the Co-Director of the Center. This Center, within the Digestive Health Institute, encompasses many disciplines including gastroenterology, minimally invasive surgery, thoracic surgery, radiology and oncology. Dr. Khaitan has spearheaded the effort to provide cutting edge diagnostic capabilities for esophageal and swallowing disorders, including high resolution manometry and impedance technology. The Directors work together to implement strategies for expeditious multidisciplinary evaluation of benign and malignant esophageal diseases. The Center provides state-of-the-art treatments for these challenging disorders.

Under the leadership of Dr. Heidi Elliott, the Director of Acute Care Surgery, UHCMC has addressed the increasing need for inpatient surgical care. The Acute Care Surgery Service was developed to provide rapid access to surgical consultation. Dr. Elliott has spearheaded this effort and has successfully

implemented strategies for all surgical consults to be seen within one hour, and improved throughput to the operating room for those in need of urgent surgical exploration. In addition, a special clinic has been developed to provide outpatient surgical follow up for many patients triaged through the growing emergency department. We have seen significant growth of this service after opening the new emergency department at UHCMC, and look forward to the continuing expansion of this important opportunity.

With the incorporation of University Hospitals Practice Groups, the groundwork has been laid for true system-wide patient care. In particular, Dr. Amitabh Goel has provided tremendous leadership to the community-based surgeons while being an active member in the Division of General and Gastrointestinal Surgery at UHCMC. As this collaborative effort grows, the potential for incorporating these dynamic surgeons into the clinical rotations and residency teaching program may be examined. As the newer hospital systems of UH Ahuja Medical Center and the UH Seidman Cancer Center continue to expand, we look forward to the exciting role that the Division of General and Gastrointestinal Surgery will play to further the care of those patients.

STAFF/FACULTY

Jeffrey L. Ponsky, MD

In 2005, Dr. Ponsky became the Oliver H. Payne Professor and Chairman, Department of Surgery at Case Western Reserve University (CWRU). Prior to this appointment, Dr. Ponsky held the position of Professor of Surgery at the Cleveland Clinic Lerner College of Medicine and Director of Graduate Medical Education at the Cleveland Clinic Foundation. Dr. Ponsky is a graduate of CWRU School of Medicine (1971) and completed his surgical internship and residency at CWRU Integrated Surgical Residency Program (1971-1976). In 1990, he received his MBA from CWRU Weatherhead School of Management. Dr. Ponsky has served as a Director of the American Board of Surgery (ABS) and is past Chairman of the ABS. He has served as President of the

following organizations: the American Society for Gastrointestinal Endoscopy (1996-1997); the Ohio Chapter of the American College of Surgeons (1994-1995); the Society of American Gastrointestinal Endoscopic Surgeons (1990-1992); Northeastern Ohio Society for Gastrointestinal Endoscopy (1982-1987); and the Cleveland Surgical Society (1990-1991). Dr. Ponsky has received numerous awards including the prestigious Rudolf Schindler Award presented by the American Society for Gastrointestinal Endoscopy (2002). He has published over 230 manuscripts, book chapters and books. Dr. Ponsky's area of expertise is in surgical endoscopy and minimally invasive surgery. The Jeffrey Ponsky Chair in Surgical Education was established at Case School of Medicine in 2008.

Michael J. Rosen, MD

Dr. Rosen joined the Department after completion of a Fellowship in Minimally Invasive Surgery at Carolinas Laparoscopic and Advanced Surgery Program, Carolinas Medical Center, Charlotte, North Carolina (2004-2005). Dr. Rosen received his medical degree from University of Southern California (1993-1997) and his surgical residency training at the Massachusetts General Hospital, Harvard Medical School (1997-2004). He completed a Research Fellowship in Minimally Invasive Surgery at the Cleveland Clinic (2000-2002) during his surgical residency. Dr. Rosen has been prolific with the publication of over 150 manuscripts and book chapters. Dr. Rosen has recently completed his third surgical textbook, and recently published the Atlas of Abdominal Wall Reconstruction. He has given multiple presentations in his area of expertise, which is advanced laparoscopy and complex abdominal reconstruction. Dr. Rosen has been a perennial recipient of the Department of Surgery Best Teacher Award. In 2009, Dr. Rosen received the SAGES Young Investigator Award. He has received multiple grants for his work in abdominal wall reconstruction and recently was awarded an NIH grant as a Co-Investigator for his work in developing an antibiotic impregnated prosthetic mesh. Dr. Rosen has recently been promoted to Professor of Surgery.

Raymond P. Onders, MD

Dr. Onders joined the Division and the Department of Surgery as an Assistant Professor of Surgery in 1997 after completing his commitment to the U.S. Air Force. Dr. Onders received his medical degree in 1988 from Northeastern Ohio Universities College of Medicine. He completed his surgical residency training at CWRU Integrated Surgical Residency Program (1988-1993). Dr. Onders achieved expertise in advanced laparoscopy during his military assignments at Grand Forks Air Force Base, North Dakota and North Dakota School of Medicine (1993-1996) and Wright-Patterson



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Air Force Base in Ohio and Wright State University School of Medicine (1996-1997). He was promoted to Associate Professor of Surgery at CWRU in June 2004. Dr. Onders was President of the Cleveland Surgical Society (2005-2006). He has received numerous awards for his work in diaphragm pacing, holds multiple U.S. patents for this technology and has received several privately funded grants for this work. He has published over 40 manuscripts and book chapters. Dr. Onders has been a frequent recipient of Cleveland Magazine's Best Doctor recognition.

Jeffrey M. Marks, MD

Dr. Marks joined the Department of Surgery in 2006 and was promoted to the rank of Associate Professor in 2007. He received his medical degree from Tufts University School of Medicine (1987) and completed his surgical residency training at the Mt. Sinai Medical Center in Cleveland (1987-1992). Following residency training, he undertook a Fellowship in Surgical Endoscopy at the same institution (7/1992-12/1992). Dr. Marks was previously president of the Cleveland Surgical Society (2004-2005). He has been recognized for his teaching efforts. He serves on the editorial boards of Surgical Endoscopy (2002 - present), Laparoendoscopic and Advanced Surgical Techniques (2004-present) and Surgical Innovations (2005-present). Dr. Marks is actively involved in the teaching of surgical endoscopy, his area of expertise.

Leena Khaitan, MD, MPH

Dr. Khaitan joined the Department of Surgery in 2007 as an Associate Professor. Previously, she was Assistant Professor of Surgery at Emory University and Director of the GI Physiology Laboratory at Emory University Hospital. She completed a two-year fellowship in Minimally Invasive Surgery, as well as receiving her Masters in Public Health at Vanderbilt University Medical Center (2000-2002). In 2006, Dr. Khaitan was awarded the Young Investigator's Award by SAGES. Her area of interest and expertise is in esophageal swallowing disorders, minimally invasive surgery and bariatric surgery. Dr. Khaitan is now a Board member of SAGES. Dr. Khaitan is active in research regarding weight loss surgery and swallowing disorders.

Yuri Novitsky, MD

Dr. Novitsky joined the Department of Surgery at University Hospitals Case Medical Center in 2011. He is Co-Director of the Case Comprehensive Hernia Center, and Director of Surgical Research. He is also an Associate Professor of Surgery with Case Western Reserve University. Dr. Novitsky comes to UHCMC from the University of Connecticut Health Center, where he was Chief of Laparoscopic Surgery and the Director of the Connecticut Comprehensive Center for Hernia Repair. Dr. Novitsky has extensive expertise in the repair of groin, ventral, and hiatal hernias. His laboratory work is focused on testing and improving prosthetic and biologic materials used in hernia repair procedures. Dr. Novitsky has authored and co-authored more than 60 scientific papers and book chapters on the topic of prosthetic materials and hernia repair. He has also successfully developed and applied a variety of innovative techniques in both laparoscopic hernia repairs and major abdominal wall reconstructions. Dr. Novitsky was trained in general surgery at the Mount Sinai Medical Center in New York, New York and at the University of Massachusetts Medical Center. He then completed his research and clinical fellowships in minimally invasive surgery at the Carolinas Medical Center in Charlotte, North Carolina. Dr. Novitsky recently was awarded a prestigious SAGES grant for his evaluation of genetic therapies for gastroesophageal reflux disease.

Heidi Elliott, MD

Dr. Elliott joined the Department of Surgery in August 2012 as an Assistant Professor. She is currently the Director of Acute Care Surgery at UHCMC, which encompasses all aspects of surgical emergencies. Dr. Elliott received both her medical degree (1999-2003) and residency training (2003-2008) at the University of Connecticut. She continued her training with a fellowship in Minimally Invasive Surgery (MIS) and Bariatric Surgery at Harvard's Brigham and Women's Hospital (2008-2009), and completed a second fellowship in Advanced MIS and Surgical Endoscopy at Dartmouth Hitchcock Medical Center (2009-2010). Dr. Elliott's areas of interest include MIS, anti-reflux surgery, and complex abdominal wound care.



Ajita Prabhu, MD

Dr. Prabhu recently joined the Department of Surgery in December of 2013 as an Assistant Professor. She is a valued member of the Case Comprehensive Hernia Center. She received her medical degree from the University of South Carolina (1999-2003). She did her residency training at the Maine Medical Center in Portland, Maine (2003-2008), followed by an Advanced Gastrointestinal and MIS fellowship at the Carolinas Medical Center in Charlotte, North Carolina (2008-2010). Dr. Prabhu's areas of interest include hernia surgery, esophageal disease, minimally invasive surgery, and complex abdominal wall reconstruction.

REGIONAL FACULTY

Vladimir Dubchuk, MD

Dr. Dubchuk attended Lviv State Medical University and did his general surgery residency at University Hospitals Case Medical Center. His specialties are general surgery including surgical pathology of the gastrointestinal tract, minimally invasive surgery, colorectal surgery, endoscopy, thyroid and parathyroid surgery.

Seth Eisengart, MD

Dr. Eisengart attended medical school at Finch University and did his general surgery residency at Bronx Municipal Hospital Center. His specialties include general surgery and surgery of the hand.

Amitabh Goel, MD

Dr. Goel attended Queen's University Medical School and did his general surgery residency at West-Penn Allegheny Health System. He completed a fellowship at the University of Pittsburgh. Dr. Goel's specialties include general surgery, minimally invasive surgery and critical care.

Cathy Graham, MD

Dr. Graham attended Duke University School of Medicine and did her general surgery residency at UHCCM. Her specialties include general surgery, breast surgery, trauma, gastrointestinal surgery and emergency medicine.

John Jasper, MD

Dr. Jasper received his medical degree in 1996 from the University of Minnesota. He completed his surgical training at CWRU Integrated Surgical Residency Program (1996-2001). Since that time, he has been on the staff at University Hospitals Case Medical Center, the Louis B. Stokes Cleveland VA Medical Center and University Hospitals Regional Institutions. Dr. Jasper's areas of surgical interest include general, bariatric, breast and advanced laparoscopic surgery.

Lisa Rock, MD

Dr. Rock attended medical school at the Medical College of Pennsylvania and completed her general surgery residency at CWRU Integrated Surgical Residency Program. Her specialties include general surgery and vascular surgery.



GRANTS AND PROTOCOLS

Jeffrey Marks, MD

- "Anti-scarring Therapy to Prevent Stricture Following Endoscopic Esophageal Mucosectomy". SAGES 2012 Research Grant Award - \$30,000 (PI) Funding Period: 2012-13.
- "Prevention of Esophageal Scarring by Persistent Drug Delivery from an Esophageal Stent": Case-Coulter Translational Research Partnership- \$100,000.00 (PI), Funding period: 2013-2014



AWARDS/HONORS/LEADERSHIP ACTIVITIES (National and Regional)

Heidi Elliott, MD

- Director, Acute Care Surgery
- Physician Informaticist for EMR

Jeffrey Marks, MD

- Chair, Flexible Endoscopy for Surgeons Post Graduate Course, 2013 ACS meeting
- Chairman, Fundamentals of Endoscopic Surgery (FES) Committee, 2005-present
- Co-chair, SAGES Annual Meeting 2014
- SSAT Representative, Flexible Endoscopy Curriculum Task Force



Raymond Onders, MD

- 2013 ALS Bob Feller Legacy Award: presented at the 2013 Strike Out ALS at Progressive Field, Cleveland Ohio, June 8th, 2013
- Cornerstone of Recovery Award: presented by the Jon Michael Moore Trauma Center during the Trauma Night of Recognition, West Virginia University, Morgantown West Virginia, October 10th, 2013
- 19th Annual Rescuer of Humanity Award: to NFL Star Steve Gleason & Dr. Raymond Onders for their commitment to helping people with ALS live productive inspired lives by providing life-affirming events and assistive technology until a cure is found
- President of Midwest Surgical Association 2103-2014



PUBLICATIONS

Jeffrey Marks, MD

- Marks JM, Phillips MS, Tacchino R, Roberts K, Onders R, DeNoto G, Gecelter G,
- Rubach E, Rivas H, Islam A, Soper N, Paraskeva P, Rosemurgy A, Ross S, Shah S. Single-incision laparoscopic cholecystectomy is associated with improved cosmesis scoring at the cost of significantly higher hernia rates: 1-year results of a prospective randomized, multicenter, single-blinded trial of traditional multiport laparoscopic cholecystectomy vs single-incision laparoscopic cholecystectomy. *J Am Coll Surg*. 2013 Jun;216(6):1037-47; discussion 1047-8. doi: 10.1016/j.jamcollsurg.2013.02.024. Epub 2013 Apr 23.
- Pauli EM, Delaney CP, Champagne B, Stein S, Marks JM Safety and Effectiveness of an Endoscopic Suturing Device in a Human Colonic Treat-and-Resect Model. *Surg Innov*. 2013 Feb 26. [Epub ahead of print].
- Anastassiades CP, Salah W, Pauli EM, Marks JM, Chak A. Cap-assisted ERCP with a forward-viewing gastroscope as a rescue endoscopic intervention in patients with Billroth II anatomy. *Surg Endosc*. 2013 Jun;27(6):2237. doi: 10.1007/s00464-013-2814-x. Epub 2013 Feb 8.
- Pauli EM, Schomisch SJ, Blatnik JA, Krpata DM, Sanabria JS, Marks JM. A novel over-the-scope deployment method for enteral stent placement. *Surg Endosc*. 2013 Apr;27(4):1410-1. doi: 10.1007/s00464-012-2564-1. Epub 2012 Oct 10.
- Wu Y, Schomisch SJ, Cipriano C, Chak AL, Lash RH, Ponsky JL, Marks JM. Preliminary results of antiscarring therapy in the prevention of postendoscopic esophageal mucosectomy strictures. *Surgical Endoscopy*. Epub October 2013.

Raymond Onders, MD

- Perry KA, Linn JG, Eakin JL, Onders RP, Velanovich V, Melvin WS. Transoral incisionless fundoplication does not significantly increase morbidity of subsequent laparoscopic nissen fundoplication. *J Laparoendoscopic Adv Surg Tech* 2013;23:456-458. PMID: 23578416.
- Marks JM, Phillips MS, Tacchino R, Roberts K, Onders R, DeNoto G, S, Gecelter G, Rubach E, Rivas R, Islam A, Soper N, Paraskeva P, Rosemurgy A, Ross S, Shah S. Single-Incision Laparoscopic Cholecystectomy Is Associated with Improved Cosmesis Scoring at the Cost of Significantly Higher Hernia Rates: 1-Year Results of a Prospective Randomized, Multicenter, Single-Blinded Trial of Traditional Multiport Laparoscopic Cholecystectomy vs Single-Incision Laparoscopic Cholecystectomy. *J Am Coll Surg* 2013;16:1037-47 PMID: 23619321.
- Onders R, Elmo M, Kaplan C, Katirji B, Schilz R. Final Analysis of the Pilot Trial of Diaphragm Pacing in Amyotrophic Lateral Sclerosis with Long Term Follow-up: Diaphragm Pacing Positively Affects Diaphragm Respiration. Accepted for publication *American Journal of Surgery* 2013.
- Posluszny JA, Onders R, Kerwin AJ, Weinstein MS, Stein DM, Knight J, Lottenberg L, Cheatham ML, Khansarinia S, Dayal S, Byeno PM. Multicenter Review of Diaphragm Pacing in Spinal Cord Injury: Successful not only in weaning from ventilators but also in bridging to independent respiration. *J Trauma Acute Care Surg* 2014;76:303-310.

Jeffrey Ponsky, MD

- Berci, G., Hunter, J., Morgenstern, L., Arregui, M, Brunt, M, Carroll B., Edye M, Fermelia D, Ferzli, G., Greene, F., Petelin, J., Phillips E., Ponsky, J, Sax, H., Schwaitzberg, S, Soper N., Swanstrom, L., Traverso, W: Laparoscopic cholecystectomy: First, do no harm; Second, take care of the bile duct stones. *Surg Endosc*, January 2013.
- Wu Y, Schomisch SJ, Cipriano C, Chak A, Lash RH, Ponsky JL, Marks JM: Preliminary results of antiscarring therapy in the prevention of postendoscopic esophageal mucosectomy strictures. *Sur Endosc* October 2013.
- Schomisch SJ, Yu L, Wu Y, Pauli EM, Cipriano C, Chak A, Lash RH, Ponsky, JL, Marks JM: Commercially available biological mesh does not prevent stricture after Esophageal mucosectomy. *Endoscopy* November 2013.

TEXTBOOKS/BOOK CHAPTERS

Heidi Elliott, MD

- Laparoscopic Inguinal Hernia Repair in *Netter's surgical Anatomy and Approaches*, edited by Conor Delaney. 2014. Pgs 355-366.

Jeffrey Marks, MD

- Marks JM, Dunkin BJ, *Principles of Flexible Endoscopy for Surgeons*. Springer. 2013.

Raymond Onders, MD

- Onders RP, Siegel CT. Splenectomy. In Delaney CP, *Netter's Surgical Anatomy and Approaches*. Philadelphia, PA: Elsevier, 2013, 197-203.

Jeffrey Ponsky, MD

- Marks, JM, Ponsky JL: *Endoscopy and Endoscopic Intervention* Maingot's Abdominal Operations 12th Edition; Michael Zinner, MD and Stanley Ashley, MD (Eds) McGraw Hill Publishers, pp. 31-62, 2013.

PRESENTATIONS AND LECTURES

Heidi Elliott, MD

- "Hernias in Women of Childbearing Age: Watchful waiting vs. elective repair". *Abdominal Wall Reconstruction Summit*. Vail, CO. February 2014.
- "Approach to Hernias in Women of Childbearing Age". *Society of American Gastrointestinal and Endoscopic Surgeons (SAGES)*. Salt Lake City, Utah. April 2014.

Raymond Onders, MD

- "Development of the Diaphragm Pacing System and Worldwide Use" Presentation at the Cleveland-Bratislava Sister Cities American Slovak Cultural Organization, Feb 11th, 2013.
- "Laparoscopic Versus Open Common Bile Duct Explorations" Presentation at SAGES 2013 Scientific Sessions and Postgraduate Courses During Surgical Spring Week, Baltimore April 17th, 2013.
- "Minimally Invasive Surgery Approach to Acute Small Bowel Obstructions" Presentation at SAGES 2013 Scientific Sessions and Postgraduate Courses During Surgical Spring Week, April 19th, 2013.
- "Diaphragm Pacing: A Bridge to Functional Recovery", Award presentation at the American Spinal Injury Association(ASIA) 40th Annual Anniversary Annual Meeting, Chicago May 6th, 2013.
- "Diaphragm Pacing is Stimulating Breathing" Poster Presentation at the 28th National Conference of the American Association of Nurse Practitioners, Las Vegas, June 19-23, 2013.
- "Final Analysis of the Pilot Trial of Diaphragm Pacing(DP) in Amyotrophic Lateral Sclerosis (ALS) with long term follow-up: DP positively Affect Diaphragm Respiration" Presentation at the 56th Annual Meeting of the Midwest Surgical Association, Traverse City, Michigan, July 28th to 31st, 2013.
- "Diaphragm Pacing Program at University Hospitals Case Medical Center" Video presentation at the Global Center for Health Innovation, Cleveland, Ohio August 21st, 2013.
- "Multi-Center Analysis of Diaphragm Pacing in Spinal Cord Injury: Successful in Not Only Weaning from the Ventilators but In Bridging to Independent Respiration" Oral Presentation at the 72nd Annual Meeting of the American Association for Surgery of Trauma and the Clinical Congress of Acute Care Surgery, San Francisco, September 18-21, 2013.
- "Changing the Paradigm of Chronic Ventilators in Pediatric Spinal Cord Injury: Diaphragm Pacing can allow natural ventilation and improve integration into society" Presentation at the 52nd Annual International Spinal Cord Society(ISCOS) Annual Meeting, Istanbul, Turkey, October 27-30th, 2013.

GENERAL AND GASTROINTESTINAL SURGERY

- “Diaphragm Pacing: Not only can it replace tracheostomy mechanical ventilation but it can be a bridge to functional recovery” Presentation at the 52nd Annual International Spinal Cord Society (ISCOS) Annual Meeting, Istanbul, Turkey, October 27-30th, 2013.
- “Changing the Paradigm of Management of Ventilators in Spinal Cord Injured (SCI) Patients in Saudi Arabia: Development of a Diaphragm Pacing (DP) Program To Improve the Quality of Life of Patient While Decreasing the Intensive Care Unit Utilization” Presentation at the 52nd Annual International Spinal Cord Society (ISCOS) Annual Meeting, Istanbul, Turkey, October 27-30th, 2013.
- “The Future of Diaphragm Pacing”, Presentation at the Pulmonary Research Conference, Ohio State University, November 4th, 2013.
- “Changing the Paradigm of Chronic Ventilators in Children: Diaphragm Pacing can allow natural ventilation and improve integration into society” Presentation at the Association of Providers for Children with Complex Medical Needs, West Palm Beach, FL, November 7th, 2013.
- “From Bench to Bedside: The Diaphragm Pacing Story”. Keynote address at Northeastern Ohio Chapter of Association of Clinical Research Professionals Sixth Annual Conference “Promoting Clinical Research through Innovation and Technology”, Global Innovation Center, Cleveland, November 8th, 2013.
- Conflict of Interest Panel Presenter at the Northeastern Ohio Chapter of Association of Clinical Research Professionals Sixth Annual Conference “Promoting Clinical Research through Innovation and Technology”, Global Innovation Center, Cleveland, November 8th, 2013.
- “Real World FDA Experiences” Presentation at the Regulatory Affairs 101: Navigating the FDA Process with the Clinical and Translational Science Collaborative of Cleveland, November 12, 2013.
- “Diaphragm Functional Analysis at the Upper and Lower Spectrum of Forced Vital Capacity (FVC) in ALS/MND: FVC Inadequately Assesses Diaphragm Function or Upper Motor Neuron Involvement for Stimulability” Platform presentation at the 24th International ALS/MND Symposium, Milan, Italy December 8th, 2013.
- “Urological management in Amyotrophic Lateral Sclerosis/Motor Neuron Disease(ALS/MND): Subrapubic catheters can improve quality of life but are underutilized.” Poster Presentation at the 24th International ALS/MND Symposium, Milan, Italy December 6th, 2013.

Jeffrey Ponsky, MD

- January, 2013 – Cleveland, Ohio – University Hospitals Case Medical Center –
- Esophageal Webinar Course – “GERD and Motility Disorders”.
- February, 2013 – Cleveland, Ohio – University Hospitals Case Medical Center – “POEM: A Hands on Course” Course Chair; “POEM – Overview & History”; “POEM Technique”; “Tricks of the Trade”.
- March, 2013 – Naples, Florida – Advances in Minimally Invasive Surgery – “Achalasia: Heller Myotomy or POEM”; Moderator “ENDOSCOPY”; “Notes: Where are we now?”.
- April, 2013 – Baltimore, Maryland – SAGES Annual Meeting – “Achalasia: Medical vs. Surgical vs. Endoscopic Therapy: Myths & Realities”; “Be it Resolved that it is time to play Taps for SIL: Cons” (Presidential debate); and “How to Give a Good Talk”.
- April, 2013 – Cleveland, Ohio – University Hospitals Case Medical Center – Ohio Nurses Association Annual Meeting – “POEM”.
- May, 2013 – Columbus, Ohio – Ohio Chapter, American College of Surgeons – Ohio Oration “Surgical Metamorphosis”.
- May, 2013 – Toledo, Ohio – Toledo Surgical Society – “Current Therapy for Achalasia”.
- May, 2013 – Cleveland, Ohio – University Hospitals Case Medical Center – POEM, A Hands-On Course (Course Chairman); “POEM: Overview & History”; “POEM Technique”; “Prepping of Patient and Room”; “Tricks of the Trade”.
- June, 2013 – Chicago, Illinois – Olga Jonasson Symposium /5th annual Warren Cole Society Scientific Meeting – “Surgical Metamorphosis: Preparing for Change”.
- June, 2013 – Boston, Massachusetts – Brigham and Women’s Hospital, Harvard Medical School - Pro Tem Visiting Professor; Francis D. Moore Lecturer in Surgery “Surgical Metamorphosis”.
- June, 2013 – Knoxville, Tennessee – University of Tennessee Department of Surgery Annual Resident Research Day – The Kimball I. Maul Visiting Lecturer “Current Therapy for Achalasia”.
- July, 2013 – Hilton Head, South Carolina – U of South Carolina Surgery Update Course – “Current Therapy for Achalasia 2013”; “Management of Common Bile Duct Stones”; “Bariatric Surgery: Where have we been and where are we going?”; “GERD 2013: What are our options and is it still a surgical disease?”.
- September, 2013 - Cleveland, Ohio – University Hospitals Case Medical Center – Gastrointestinal Fellows Course in Advanced Endoscopy – “Future of Endoscopy”.
- September, 2013 – Cleveland, Ohio – Cleveland Clinic Foundation GI Hemorrhage Summit – “Surgical Management of Non-Variceal Upper GI Bleeding”.
- November, 2013 – Cleveland, Ohio – University Hospitals Case Medical Center – “Per-Oral Endoscopic Myotomy (POEM): A Hands On Course” Course Co-Director; “POEM- Overview and History”; “POEM Technique”; Tricks of the Trade”.
- December, 2013 – New York, New York - 30th Annual Controversies, Problems & Techniques in Surgery – “Surgical Metamorphosis: Preparing for Change” – Marvin Gleidman Lectureship.



Case Acute Intestinal Failure Unit



CHAPTER 8 DIVISION OF ORAL AND MAXILLOFACIAL SURGERY

Division Chief

Dale A. Baur, DDS

Residency Program Director

Faisal A. Quereshey, MD, DDS, FACS

Faculty/Staff

Jerold S. Goldberg, DDS

Robert Heckel, DDS

Michael Zetz, DDS

Michael P. Horan DDS, MD, PhD

Keith Schneider DMD

Michael Hauser, DMD, MD

William Blood, DDS, MD

John Blakemore, DDS

Paul Bertin, DDS

Joseph Krajekian DMD, MD

Rishad Shaikh DMD

Marion Wazney, DDS

Scott Alperin, DDS

David Ash, DDS

Luc Cestelyn DDS, MD

Charles Babbush, DDS, MS

Andrew N. Berman, DDS

Eric S. Fried, DDS

Frank Karfes, DDS

James Julian, DDS

Raymond Plona DMD, MD

The Division of Oral and Maxillofacial Surgery provides a broad range of services to our patient population. As defined by the American Association of Oral and Maxillofacial Surgeons, Oral and Maxillofacial Surgery is the specialty of Medicine/Dentistry that includes the diagnosis, surgical and related treatment of diseases, injuries and defects involving both the functional and esthetic aspects of the hard and soft tissues of the head, face, mouth, teeth, gums, jaws and neck. Oral and maxillofacial surgeons are specialists who treat conditions, defects, injuries, and esthetic aspects of the mouth, teeth, jaws, and face. The training of our surgical residents includes a four-year graduate degree in dentistry and the completion of a five-year hospital-based surgical residency program which includes attending medical school to obtain a medical degree, and one year of general surgery training.

Oral and maxillofacial surgeons care for patients who experience such conditions as problematic or impacted wisdom teeth, facial pain, and misaligned jaws. They treat accident victims suffering facial injuries, offer reconstructive and dental implant surgery, and care for patients with tumors and cysts of the jaws and functional and esthetic conditions of the maxillofacial areas. With our advanced training in pain control and anesthesia, we are able to provide our patients with maximum comfort and safety.

DIVISION GOALS

Our primary goal is to establish the Division/Department as a national center of excellence in modern oral and maxillofacial surgery, by increasing surgical volume and diversifying the experiences for our residents. We also wish to cultivate future academic leaders of our specialty. We strive to continue to provide state-of-the-art care to our patients. As a means to this end, we will continue to recruit strong residents to our training program.

As part of our outcome measures, we expect all of our residents to complete the certification process and become diplomates of the American Board of Oral and Maxillofacial Surgery. Additionally, we encourage our graduates to seek subspecialty fellowship training.



GENERAL RESIDENCY INFORMATION

PGY 1

- 10 months: Internship Oral and Maxillofacial Surgery
University Hospitals Case Medical Center
Metrohealth Medical Center,
Louis B. Stokes VA Medical Center
- 2 months: Anesthesia rotation; Department of Anesthesia
University Hospitals Case Medical Center

PGY II

- 12 months: Case School of Medicine

PGY III

- 4 months: Anesthesia
University Hospitals Case Medical Center
- 6 months: Oral and Maxillofacial Surgery
University Hospitals Case Medical Center
Metrohealth Medical Center
Cleveland Clinic Hospital
- 2 months: Case School of Medicine
Awarded degree Doctor of Medicine (MD)

PGY IV

- 12 months: General Surgery (internship)
University Hospitals Case Medical Center

PGY V

- 12 months: Oral and Maxillofacial Surgery (Chief Resident)
University Hospitals Case Medical Center
Metrohealth Medical Center

Resident Education

- Tuesday AM: Basics in OMS (Quereshy)
- Wednesday AM: Orthognathic / Orthodontic Conference
(Quereshy / Valiathan Orthodontics)
Literature Review (Quereshy)
- Wednesday PM: Craniofacial Center, Rainbow Babies and
Children's Hospital
- Thursday AM: Clinical Case Presentation Conference (Hauser)
- Thursday PM: Anesthesia Conference (Bertin)
- Friday AM: Oral Pathology Conference (Baur)

PUBLICATIONS

Dale A. Baur, DDS

- Shehab M, Baur DA, et al: A Novel design of a Computer Generated Splint for Vertical Repositioning of the Maxilla After Le Fort I Osteotomy: *Oral Surgery, Oral Medicine, Oral Pathology*, 115(2), e16-e25, 2013.
- Baur DA, Collette DC, Weber J, et al: Osteonecrosis of the Jaws Unrelated to Bisphosphonate Use: A Series of Four Cases. *J Oral Maxillofacial Surg*, 70(12), 2802-2808, 2012.
- Baur DA, Teppa J: Dental Implants and Mini-implants. *Medscape (Emedicine)* February 2014.
- Baur DA, Bushey A, Lyu D: Patient evaluation and history taking. *Manual of Minor Oral Surgery for the General Dentist*, 2nd edition. Editors Mehra P, D'Innocenzo R. Elsevier, in press 2013.
- Baur DA, Loveless T: Management of the Branchial Cleft Cyst, *Atlas of Oral and Maxillofacial Surgery*. Editors Tiwana P, Kademani D. Elsevier, in press 2013.
- Baur DA, Collette D: The Submental island Flap, *Atlas of Oral and Maxillofacial Surgery*. Editors Tiwana P, Kademani D. Elsevier, in press 2013.
- Baur DA. The Platysma Myocutaneous Flap. *Oral and Maxillofacial Surg Clin North Am*, W.B. Saunders, Philadelphia. In press 2014.
- Baur DA, Beushausen M, Leech B, Quereshy FA, Fitzgerald N: Distance Between Articular Eminence and Foramen Spinosum, Foramen Spinosum and Petrotympic Fissure; An Anatomic Landmark Study on Dry Skulls. *J Oral Maxillofacial Surg* 2014.

Faisal A. Quereshy, MD, DDS, FACS

- Baur DA, Jannuzzi JR, Mercan U, Quereshy FA. Treatment of Long Term Anterior Dislocation of the TMJ. *Int J OMS*, 2013.
- Beushausen M, Quereshy FA, Baur DA. An Anatomic study of the Distance Between the Articular Eminence and Foramen Spinosum, and the Foramen Spinosum and Petrotympic Fissure. *Journal of Oral and Maxillofacial Surgery* JOMS-D-13-00807R2 (accepted for publication).
- Tyman Loveless DMD MD, Yeliz Kilinc DDS, Andres Flores-Hidalgo DDS, Dale Baur DDS, Faisal Quereshy MD DDS FACS. Bone quality assessment in grafted versus non-grafted extraction sites: A CBCT study (submitted JOMS JOMS-D-14-00007).
- Sumit Nijhawan DDS, MD, Jose Teppa, Yeliz Kelinc DDS, Michael Horan DDS, MD, PhD, Dale Baur DDS, Faisal Quereshy DDS, MD, FACS Assessing Volume of Bone Defects with CBCT: 3D Reconstruction versus the Cavalieri Principle. Submitted JOMS.
- Hall T, Evangelinakis N, Valiathan M, Quereshy F Interdisciplinary Management of Goldenhar's Syndrome – A Case Report 2013: submitted *American Journal of Orthodontics (AJO)*.
- Keith M. Schneider, Alan Y. Martinez, Marcello Guglielmi. Large Cell Neuroendocrine Carcinoma: Topic Review and a Unique Case of Metastasis to the Mandible. *J. Maxillofac. Oral Surg*. DOI 10.1007/s12663-012-0362-x.
- Marcello Guglielmi, Keith M. Schneider, Giorgio Iannetti, Changyoung Feng, Alan Y. Martinez. Orthognathic Surgery for Correction of Patients With Mandibular Excess: Don't Forget to Assess the Gonial Angle, June 2013, Vol. 71, No. 6 JOMS.
- Marcello Guglielmi, DDS1, Dr. Micheal Zetz, DDS and Dr. Faisal A Quereshy, MD, DDS, Modified Roll Palatal Flap Technique in Aesthetic Zone. Stability of Results After 4 years submitted *Journal of Prosthodontics* 2013.
- D. Schwartz, Quereshy FA. Atlas of the Oral and Maxillofacial Surgery Clinics of North America, guest edited by Dr. Landon McClain. Combined Rhytidectomy and Alloplastic facial implants. Philadelphia, PA. 2013.
- Manlove A, Quereshy FA. Kademani/Tiwana: Atlas of Oral and Maxillofacial Surgery: Otoplasty. Philadelphia, PA. 2013.
- Naghibi S, Quereshy FA. Facial Aesthetic Evaluation. "Oral and Maxillofacial Surgery Secrets, 3rd edition" in progress.

PRESENTATIONS

Dale A. Baur, DDS

- Strasbourg Osteosynthesis Research Group, lecture on Flap Reconstruction, 6 April 2013, Nashville, TN.
- Assessing Buccal Alveolar Bone Defects with CBCT: Comparing 3D Reconstruction with the Cavalieri Principle. Nijhawan S, Kilinc Y, Teppa J, Horan M, Baur DA, Poster Presentation, Academy of Osteointegration, Tampa, FL, March 2013.
- Brooke Army Medical Center/Lackland Air Force Base OMFS residency lecture. Topics include Flap Reconstruction, Parotid Gland Surgery, BRONJ, and Case Discussions, 17 July 2013, San Antonio, TX.
- Oral Cancer Update, Seattle Study Club, 18 July 2013, San Antonio, TX.
- Brazilian Congress of Oral and Maxillofacial Surgery, Rio de Janeiro, Brazil; Lectures on: BRONJ update, Genial Advancement in the Management of OSA, Management of the Atrophic Mandible Fracture. 20-22 August 2013.
- University of Cincinnati Department of Oral and Maxillofacial Surgery; Local Flaps in facial Reconstruction, Cincinnati OH, 14 September 2013.
- Single Use versus Multi-use Implant Drills: Is there a benefit? Nijhawan S, Horan M, Baur DA, Quereshy FA, et al. Poster presentation, AAOMS annual meeting, Orlando FL, October 2013.
- AAOMS annual meeting; Dentoalveolar Trauma, Moderator. October 12, 2013. Orlando, FL.
- Myths and Realities: Antibiotic Prophylaxis; Myths and Realities. Expert Panel, American Dental Association Annual meeting, New Orleans, LA. November 2013.

Faisal A. Quereshy, MD, DDS, FACS

- AAOMS 2013 Cosmetic Facial Surgery Preconference Program, Orlando, FL: Moderator and organizer, 10-9-2013.
- AAOMS 2013 Cosmetic Facial Surgery Preconference Program "Facial Augmentation with Implants" Orlando, FL, 10-9-2013.
- AAOMS 2013 Cosmetic Facial Surgery Preconference Program "Contemporary Rhinoplasty for the Oral & Maxillofacial Surgeon: Surgical Clinic 2 hours" Orlando, FL, 10-12-2013.
- AAOMS Webinar: "Facial Liposuction in Facial Cosmetic Surgery" 1 hour, Cleveland, OH, 06-26-2013.
- LSU Shreveport Dept OMS: Grand Rounds: "Use of Facial Implants vs Osteotomies in Facial Cosmetic Surgery." 2.5 hours. Shreveport, LA., 05-06-2013.
- Greater Cleveland Dental Society. "Updates on Orthognathic Surgery" Cleveland OH, 04-09-2013.
- ACOMS: "Facial Volumizing & Conservative Facial Rejuvenation" Hands-On Surgical Series. LSU Health Sciences Center, New Orleans, LA, 02-23 to 02-24-13; "History of Fillers & Conservative Treatments"; "Implants vs. Osteotomies"; "Silicone implants vs ePTFE Implants."
- "Orthognathic Virtual Surgical Planning" Annual Tri-State Dental Medical Conference, Boyne Highlands, MI, 01-21-13.
- "Facial Cosmetic Surgery" Annual Tri-State Dental Medical Conference, Boyne Highlands, MI, 01-22-13.
- "Nobel Biocare – All on 4 Implants" Faisal A. Quereshy; Visage Surgical Institute, Medina, OH 2 hours CEU, 01-08-13.

Keith Schneider, DMD

- Obstructive Sleep Apnea: The Importance of Identifying Patients with this Disorder. Presented to the Northeast Ohio Dental Hygiene Association.
- Obstructive Sleep Apnea: The Importance of Identifying Patients with this Disorder. Presented at a local dental study group in Concord, Ohio.

RESEARCH

Dale A. Baur, DDS

- Distance Between Articular Eminence and Foramen Spinosum, Foramen Spinosum and Petrotympenic Fissure; An Anatomic Landmark Study on Dry Skulls. TMJ alloplastic replacement quality of life survey. In progress 2014.
- Antibiotic Usage amongst Ohio Oral and Maxillofacial Surgeons. In progress 2014.
- Correlation of Blood Loss and Operating Time During Orthognathic Surgery. In progress 2014.

Faisal A. Quereshey, MD, DDS, FACS

- AAOMS 95th Annual Meeting: Modified Roll Palatal Flap Technique in Aesthetic Zone. Stability of Results After 4 years. Dr. Marcello Guglielmi, DDS, Dr. Micheal Zetz, DDS and Dr. Faisal A Quereshey, MD, DDS, 10-10-2013.
- AAOMS 95th Annual Meeting: "Single-Use Versus Multi-Use Implant Drills: Is There a Benefit?". Dr. Sumit Nijhawan, Dale Baur, Michael Horan, Velizar Petrov, Faisal A Quereshey, MD, DDS, 10-10-2013.
- AAOMS 95th Annual Meeting: "Patient-Centered Quality of Life (QOL) Measures after Temporomandibular Total Joint Replacement Surgery". Daniel Schwartz, Xena Alakailly, Dale Baur, Catherine Demko, Yeliz Kilinc, Faisal A Quereshey, MD, DDS, 10-10-2013.

Keith Schneider, DMD

- Schneider KM, Atencio I, Kronenwetter N, Baur DA. Antibiotic Usage Amongst Ohio Oral and Maxillofacial Surgeons. IRB approval # EM-13-29. Publication submission pending.
- Schneider KM, Manlove AE, Demko C, Quereshey FA, Baur DA. Correlation of Blood Loss and Operating Time During Orthognathic Surgery. Publication submission pending.
- Flores-Hidalgo A, Atencio I, Horan M, Schneider KM, Quereshey FA, Baur DA. Diagnosis and Treatment of Edentulous Mandible Fractures: A Case Series. IRB Approval from Metrohealth.
- Schneider KM. Outcome Assessment after Facial Computer Tomography; A 10 Year Review. IRB pending.
- Schneider KM. Evaluation of Immediate Functional Loading on Early Restoration of Maxillary Dental Implants. IRB pending.

LEADERSHIP ACTIVITIES (National and Regional)

Dale A. Baur, DDS

- American Board of Oral and Maxillofacial Surgeons
- Examination Committee, Pathology and Reconstruction Section III. 2008-2013
- Ohio Society OMS
Vice-president, July 2011-July 2012
President-elect July 2012-2013
President 2013-2014
Hospital affairs committee, 2007-2014
2013 annual meeting chairman
- American Association of Oral and Maxillofacial Surgeons
Committee on Continuing Education and Professional Development, 2009-2014

- Chalmers J. Lyons Academy of Oral Surgery
Vice-president 2014
- Reviewer
Journal of Oral and Maxillofacial Surgery, 2013-14
Oral Oncology Journal, 2012-2013
Clinical Dentistry and Research, Advisory Board, 2014
Commission on Dental Accreditation
OMFS residency program site visitor, 2010-present

Faisal A. Quereshey, MD, DDS, FACS

- American Association of Oral and Maxillofacial Surgery:
Faculty Fellow Member #027320
2012 – 2014 Chairman: clinical interest group Facial Cosmetic Surgery
2013 Program Chair: Preconference Cosmetic Facial Surgery symposia AAOMS annual Meeting (10-2013, Orlando, FL)
2014 Program Chair: 2014 AAOMS annual Meeting (Hawaii)
2013 – present Committee on Residency Education and Training (CRET) appointed by AAOMS
- Journal Oral & Maxillofacial Surgery (JOMS) - scientific article reviewer for publications
- Ohio Society of Oral & Maxillofacial Surgeon (OSOMS)
2012: Expanded Scope (committee)
2013: alternate delegate OHIO
2014: DELEGATE Ohio
- Board examiner ABOMS (accepted 4-2010) (6-year term)
2012 – 2014: Section II Editor - responsible of all written MCQ for resident OMSITE examination, Qualifying examination (QE), and Recertifying Examination (RE)
2014 – 2016: Section II Co-Chairman (OCE) - responsible for fabrication of Oral Board Examination (OCE)
- Ohio Dental Association (ODA) (State – member)
Dental Education and Licensure Committee (2009-2011)
- Greater Cleveland Dental Society (GCDS)
Board of Trustee (officer) 2012 – 2015
Finance committee member (2010 – 2013)
Editor of "BULLETIN" news magazine (2012-2014)
Nominated Secretary/Treasurer 2014-2015
- American Academy of Cosmetic Surgery

Committees served:

- Cosmetic Surgery Foundation committee member (2008 - present)
- American Journal of Cosmetic Surgery (AJCS)
Literature review editor (2-09 – present)
- American Board of Cosmetic Surgery (ABCS)
Executive Board of Directors
Secretary (2009-2013)
Board of Trustee (11-2007 – 12-2013)
Chairman of Oral Board Examinations (2010 – 2013)
oral board examiner (2007- present)
written examination contributor (2007- present)
Fellowship Review Committee (Chairman, 2009 - present)
- OKU (Omicron Kappa Upsilon) - Dental Honor Society
Assistant secretary (2012 – 2013)
Vice President (2013-2014)

CHAPTER 9 DIVISION OF PEDIATRIC SURGERY

Division Chief

Edward M. Barksdale, Jr., MD

Faculty/Staff

Scott C. Boulanger, MD

Anne Kim, MD

The Division of Pediatric Surgery currently comprises three, full-time academic faculty and provides complete consultative and surgical services for all children at Rainbow Babies and Children's Hospital (RB&C). A fourth surgeon, Dr. Michael Dingledein, will be joining the group in August 2014. These services include all general and thoracic surgical conditions: congenital anomalies, pediatric solid tumors, complex gastrointestinal problems (esophageal disorders, biliary tract diseases, inflammatory bowel disease, Hirschsprung's disease/bowel motility disorders, etc.) and chest wall deformities. A major percentage of these procedures are being approached using advanced minimally invasive surgical technologies.

The faculty sees office consults and performs outpatient surgery in a variety of easily accessible community venues. Office hours are conducted weekly on the main campus of Rainbow Babies and Children's Hospital as well as the UH Landerbrook, Westlake, Twinsburg and Mentor health centers. Ambulatory surgery in appropriate patients is conducted off the main campus at the UH Ahuja Medical Center, UH Westlake Surgery Center and the UH Mentor Surgery Center.

The Division also provides comprehensive services and coverage for the only ACS-certified Level 1 Pediatric Trauma Center in northeast Ohio. Dr. Edward Barksdale serves as the Interim Director of Rainbow's Trauma Center. The new Director of Trauma, Dr. Michael Dingeldein, will be joining the Division in August. The annual volume of trauma admissions has averaged approximately 425 per year since the Center's inception in 1998. In February 2012, the RB&C Pediatric Trauma Program was re-verified by the American College of Surgeons Committee on Trauma and maintained its certification as a Level I Pediatric Trauma Center. RB&C is one of only three such pediatric trauma centers in Ohio.

In summary, the Division provides comprehensive inpatient and outpatient services for all neonatal and pediatric general and



PEDIATRIC SURGERY

thoracic surgical patients at Rainbow Babies and Children's Hospital. The Division also provides 24-7 coverage for the institution's emergency department and Trauma Program. The Division performed about 1,187 surgical cases in 2013 at UH surgical locations. In pursuit of growth, several initiatives in the Division are ongoing. These initiatives, which are outlined below, include the academic and community service development of full-time faculty, creation of opportunities for remote post-graduate continuing medical education, the cultivation of several new clinical programs, and the establishment of a Pediatric Surgery Fellowship Program.

STAFF/FACULTY

Edward M. Barksdale, Jr., MD

Robert J. Izant, Jr., MD Professor of Surgery and Pediatrics, Surgeon in Chief, Chief of the Division of Pediatric Surgery, Rainbow Babies and Children's Hospital, Vice Chairman of Surgery, UH Case Medical Center

Scott C. Boulanger, MD

Assistant Professor of Surgery and Pediatrics, Director of the Minimally Invasive Surgery Program, Rainbow Babies and Children's Hospital

Anne Kim, MD

Assistant Professor of Surgery and Pediatrics, Rainbow Babies & Children's Hospital



DIVISION EDUCATION

Education is an important component of the Divisional activities and mission, beginning with daily attending-led rounds at 6:00 am. Informal teaching is based on the current in-patient combined with one-on-one technical training in the operating room. A more formal power point presentation is given by an individual on a topic from our core curriculum during our weekly conference (Friday). In addition to resident education, the faculty also delivers a three-hour survey lecture to third-year medical students once every six weeks. Annually, a member of the group gives an applied embryology lecture to first-year medical students. Formal teaching within the Division takes place primarily through a weekly series of didactic activities on Wednesdays. Patient Quality and Outcome Conference (Mortality and Morbidity Rounds) alternating with a Patient Management Conference occurs every Wednesday morning. On Wednesday afternoon, the main Divisional conferences occur, including Surgery/Radiology/Pathology conferences, Pediatric Surgery Grand Rounds and the Multidisciplinary (with either Gastroenterology, Neonatology or Pulmonology) Conferences. This is a formal Case Medical School conference and offers Category 1 CME credit.

PATIENT CARE WITHIN THE DIVISION

The manner in which inpatient care is delivered within the Division has been modified in an effort to provide greater continuity, access and service. The Division has fully implemented a "Surgeon of the Week" system in which one individual will be responsible for all of the inpatient care from 6:00 am until 5:00 pm. This attending for the week will round with residents on the floor and NICU/ICU, be available to speak with parents, see consults on a timely basis and make dynamic decisions with the consulting primary services. He will also be available for all daytime emergencies and add-on cases and perform all urgent outpatient consults. The responsibility of the Surgeon of the Week or primary attending surgeon is to work in concert with the resident team, three

Certified Pediatric Nurse Practitioners, and a variety of related pediatric and surgical subspecialties (e.g. neonatology, pediatric critical care, gastroenterology, etc.) to provide coordinated family-centered care. This system has been well received by staff and faculty. Nurse practitioners provide extended coverage of the service for 16 hours a day, Monday through Friday (6am -10 pm), and for 24-hour on-call coverage on Saturday and Sunday.

HOSPITAL SERVICE

The Division has been energetic in its efforts to improve quality of care at Rainbow Babies and Children's Hospital and University Hospitals. We have begun implementation of the Pediatric Certified Nurse Practitioner Physician Extension Model of Care to improve the quality and experience of services provided to our patients and their families. In addition to direct patient care, the team is responsible for defining the Division's practices related to quality, safety, outcomes, education, primary and referring physician communication, and long-term follow-up care. The Nurse Practitioners are also in the process of developing programs in wound and stoma care and a clinic in chest wall deformities.

COMMUNITY SERVICE

The Division (and hospital) remains actively engaged in diverse community service endeavors through the development of strategic relationships with a variety of community partners, including members of the public school system, city government, law enforcement and emergency medical services, to further the mission of improving health and health care for children in Northeast Ohio. The burgeoning epidemic of urban violence that so tightly grips Cleveland and Northeast Ohio has led to a unique partnership between RB&C and UHCMC, the mayor's office and local law enforcement. Dr. Barksdale, along with Cleveland Mayor Frank Jackson and Cleveland Chief of Police Michael McGrath, have collaborated as the three Co-Chairmen to form Project FOCUS. This publicly supported effort is

a multidimensional endeavor to thwart gang-related urban violence by offering social service (employment and educational opportunities) alternatives to stiff law enforcement efforts. Collaborations have also been developed with Case Western Reserve University School of Public Health to study injury patterns in Amish children and young adults in Northeast Ohio. These efforts have resulted in the cultivation of a partnership with family practitioners and nurses at Geauga Hospital, Elders in the Amish community and the schools to develop culturally sensitive injury prevention programs, to both decrease the disparities in injury and outcomes. Dr. Boulanger is involved in mentoring programs in various public schools in the area.

DIVISION GOALS

Expansion of Clinical Services

The UH system has invested significantly in acquiring independent hospitals in Northeast Ohio. The addition of UH Elyria and UH Parma will provide an incremental opportunity to serve more patients in the western population of Northeast Ohio. The addition of Dr. Dingeldein will facilitate plans to broaden our clinical outreach within the Metropolitan Cleveland area and Northeast Ohio. We will continue to provide office hours at the UH Westlake, Twinsburg and Mentor centers, but we will also look to expand locations. Efforts to more efficiently and strategically deploy faculty to other locations within the region are planned according to both community demand and institutional goals. The Division projects continued surgical volume growth at RB&C and the UH affiliates.

Refinement of Established Multidisciplinary Programs

Established multidisciplinary clinical programs, such as Trauma and emerging programs in Minimally Invasive Surgery, Maternal-Fetal Diagnosis and Treatment and Inflammatory Bowel Disease, continue to be areas of great clinical distinction for our Division. Funding from the Cleveland

Foundation has provided critical support to build and mature a clinical center of excellence in Pediatric Minimally Invasive Surgery to programmatically coordinate advances in general and thoracic pediatric surgery with neurosurgery, orthopedics and other pediatric surgical subspecialties. The construction of a state-of-the-art Neonatal Intensive Care Unit at RB&C and the recent recruitment of a new Division Chief of Perinatology at McDonald's Women's Hospital has facilitated the development of an interdisciplinary fetal diagnosis and treatment center. These efforts have increased our regional referrals of infants with complex congenital anomalies and serve to help us establish our institution as a destination point in the region for the care of these mothers, infants and their families.

Rainbow Babies & Children's Hospital's trauma center at UH Case Medical Center has been verified as a Level 1 Trauma Center by the Verification Review Committee (VRC), an ad hoc committee of the Committee on Trauma (COT) of the American College of Surgeons (ACS). The Committee on Trauma's certificate of verification has been awarded for an additional two years (April 22, 2013 to April 22, 2015). This achievement recognizes the trauma center's dedication to providing optimal care for injured patients.

Established by the American College of Surgeons in 1987, the COT's Consultation/Verification Program for Hospitals promotes the development of trauma centers in which participants provide not only the hospital resources necessary for trauma care, but also the entire spectrum of care to address the needs of all injured patients. This spectrum encompasses the pre-hospital phase through the rehabilitation process. RB&C's trauma center has met the essential criteria that ensure trauma care capability and institutional performance (as outlined by the American College of Surgeons Revised 5/20/2009) by demonstrating our commitment to providing the highest quality trauma care for all injured patients.

Establish New Investigative Programs in Pediatric Surgery

The addition of new faculty has now created a critical mass of individuals who can pursue areas of academic interest in concert with their clinical activities. The recent establishment of the Minimally Invasive Program and development of the Pediatric Surgery Database have converged to provide critical infrastructure for the emergence of the clinical research program for the Division. The Pediatric Surgery Database will allow the Division to prospectively record cases and follow outcomes. This data may be repurposed for multiple other uses within both research and quality assurance. Consequently, there has been a remarkable increase in the number of publications from the group. The group will pursue corporate objectives toward continued development of clinical research objectives in minimally invasive surgery, injury prevention and nutrition in the critically ill neonate and child, with a concerted focus on increasing publication productivity, increasing faculty presence at national meetings, and pursuit of extramural support.

Commitment to Undergraduate and Graduate Medical Education

The Division is widely recognized for its commitment to the education at all levels of undergraduate, graduate and post-graduate medical education. We remain committed to sustaining the efforts needed to improve medical student and resident education. One of the students mentored by the group was recently featured in an upcoming special on the syndicated TV show "The Doctors". Several investigational studies and projects by students and residents have been proctored and successfully published or presented at national meetings. Furthermore, we endeavor to codify interests and efforts in graduate medical education in pediatric surgery.

Constructive Community Engagement

Ongoing vigorous efforts will continue to refine and extend the activities by all Division members in various community service endeavors throughout Northeast Ohio.



Dr. Alan Flake (center), Visiting Professor for the 2013 Izant Lecture in Pediatric Surgery, with Dr. Jeffrey Ponsky and Dr. Edward Barksdale

PUBLICATIONS

- Krpata DM, Barksdale Jr EM. Trauma induced left ventricular apical ballooning syndrome in a 15 year old: A rare case of Tako-tsubo cardiomyopathy. *J Pediatr Surg* 48, 876-879, 2013.
- Balakumar, V, DeRoss, AL, Kouretas PC, Boulanger SC, Barksdale, Jr EM. Pyloric Exclusion for Treatment of Complicated Duodenal Atresia. *Neonatology* 105, 263-266, 2014.

VISITING PROFESSORSHIPS/INVITED LECTURES

Edward M. Barksdale, Jr., MD

- "Youth Violence: The Ultimate Health Disparity Reflections of a Pediatric Surgeon" Invited Speaker, 2013-2014 Alvin F. Poussaint, MD Visiting Lectureship, Harvard Medical School, Boston, Massachusetts, November 7, 2013.
- "Pediatric Intestinal Failure – Past, Present & Future" Invited Speaker, Anesthesia and Surgery Grand Rounds, Boston Children's Hospital, Boston, Massachusetts, November 6, 2013.
- "Pediatric Surgery: A Primer for Pediatricians" Invited Speaker, Comprehensive Pediatrics Regional Rounds, Westlake, Ohio, October 28, 2013.
- "Why We Can't Wait: The Youth Violence Epidemic" Invited Speaker, David Satcher Lecture Series, University Hospitals Case Medical Center, Case Western Reserve University, Cleveland, Ohio, October 21, 2013.
- "GI Motility" Invited Speaker, Pediatric Gastroenterology & Nutrition, Rainbow Babies & Children's Hospital, Cleveland, OH, September 19, 2013.
- "Moans and Groans: Acute Abdominal Conditions of Childhood" Invited Speaker, Medical Student Lecture, Cleveland, Ohio, May 29, 2013.
- "Chronic Abdominal Pain in Children" Invited Speaker, Greenville Post Graduate Seminar, Greenville Hospital System University Medical Center, Greenville, SC, April 17, 2013.

AWARDS AND RECOGNITION UPDATE

Edward Barksdale, Jr., MD

- Kaiser-Permanente Clinical Teaching Award, "Excellence in Teaching"
- Cleveland Super Doctors, 2013
- Best Doctors in America® (Elected by peers for inclusion in Best Doctors in America®), 2013
- Cleveland Magazine Best Docs, 2013
- Top Doctor (Selected by Castle Connolly), 2013
- Patients' Choice Award, 2013
- Compassionate Doctor Recognition, 2013

DIVISION RESEARCH

- Optimal Caloric Repletion During Acute Metabolic Stress in Infants
- Large Animal Laboratory for Development of Novel Minimally Invasive Surgery Techniques
- The Neonatal Effects of Gestational Obesity
- Trauma and Injury Prevention



GRANTS

Title of Project: Nutrition in Pediatric Surgical Critical Care & Trauma

Principal Investigator: Edward M. Barksdale, Jr., MD

Sponsor: S.K. Wellman Foundation

Funding Amount: \$15,000

CHAPTER 10 DIVISION OF SURGICAL ONCOLOGY

Division Chief

Julian Kim, MD, MS

Faculty

John Ammori, MD

Jeffrey Hardacre, MD

Marjie Persons, MD

Robert R. Shenk, MD

Scott M. Wilhelm, MD



The Division of Surgical Oncology continues to expand services and to contribute to the academic mission of the Department of Surgery at UHCMC. Dr. Julian Kim serves as Chief Medical Officer of the UH Seidman Cancer Center. Dr. Marjie Persons manages the medical student educational initiatives for the Department of Surgery. Dr. Robert Shenk is the medical director of breast services at UHHS. Dr. Jeffrey Hardacre is the Chair of the Surgical Oncology Quality Assurance Committee. Dr. Scott Wilhelm is current President of the Cleveland Surgical Society. Dr. John Ammori has been awarded a Paul Calabrese NIH K12 career development award.

The genesis of the Division of Surgical Oncology was an institutional initiative which aimed to formalize and expand Surgical Oncology services in anticipation of the construction of a free-standing, state-of-the-art cancer hospital. The UH Seidman Cancer Center opened in June 2011 and represents one of only two NCI-designated comprehensive cancer centers in Ohio and the only in Northern Ohio. The Division of Surgical Oncology is comprised of surgeons who have focused their clinical and research activities primarily in areas relating to cancer or endocrine neoplasia. The members of the Division of Surgical Oncology all serve as staff surgeons on the Lenhart and



Shuck teaching services at UHCMC, which facilitates group interactions with respect to patient care, research and teaching. All members of the Division are mentioned in Castle and Connolly's Top Doctors either as leaders on the regional or national level.

DIVISION PATIENT CARE

The clinical activities of Surgical Oncology within the Department of Surgery and UH Seidman Cancer Center demonstrated excellent growth over the past year. Dr. Robert Shenk and Dr. Marjie Persons have been instrumental in growing the Breast Program into one of the leading multidisciplinary groups within the UH Seidman Cancer Center. Dr. Scott Wilhelm has developed comprehensive programs in endocrine surgery, including minimally invasive approaches to tumors of the parathyroid, adrenal and pancreas. Dr. Jeffrey Hardacre leads malignant biliary and pancreatic surgery. Dr. Julian Kim brings expertise in the areas of gastrointestinal and retroperitoneal malignancies, as well as melanoma. Dr. John Ammori has added programmatic development in the areas of pancreatic and hepatobiliary malignancies, as well as intraperitoneal hyperthermic perfusion with chemotherapy. The broad range of expertise in a variety of disease types makes the Division of Surgical Oncology a strong partner to members of the Department of Surgery, as well as the UH Seidman Cancer Center, in establishing standards for the multidisciplinary care of patients with cancer.

DIVISION EDUCATION

The Division of Surgical Oncology also plays an important role in the education and training of medical students and surgical residents. Dr. John Ammori was voted by residents as the Case Surgery training program "Teacher of the Year" in 2013. The Lenhart service has been recognized as one of the most popular clinical services among surgery residents, and in 2013 expanded to create the Shuck service in collaboration with Christopher Siegel, MD, PhD who is a specialist in hepatobiliary surgery. Students and residents are required to attend multidisciplinary tumor board conferences, as well as a new lecture series based upon case

presentations, in order to compliment the education in the outpatient clinics, hospital inpatient floors and operating rooms. Dr. Marjie Persons is the Medical Student Clerkship Coordinator for the Department of Surgery at UHCMC. She directs the student rotations, coordinates lectures and serves as the physician liaison to the School of Medicine in issues regarding curriculum.

DIVISION RESEARCH

Research activities within the Division of Surgical Oncology span clinical, translational and basic and are funded from a variety of sources including the National Institutes of Health (NIH), institutional awards, and industry. Extramural grant support within the Division ranks as one of the highest within the Department of Surgery. Dr. Julian Kim is the principal investigator of an NIH award which aims to develop novel methods of adoptive immunotherapy of cancer using T cell receptor molecular signatures. The data from this NIH study is currently being used to develop a Phase I study of adoptive immunotherapy of patients with metastatic melanoma. Preclinical mouse studies are also being conducted within the Kim Lab on regulation of macrophages as a cancer therapy using the development of nanoparticles to target tumor-associated macrophages for therapy and imaging. Dr. Jeffrey Hardacre is principal investigator on a Phase III pivotal FDA registration trial evaluating a novel hyperacute pancreatic cancer vaccine in patients with resected pancreatic cancer. Dr. Robert Shenk is a co-investigator on an NIH grant in collaboration with the Department of Human Genetics and has teamed with Dr. Janice Lyons in the Department of Radiation Oncology to develop methods of partial breast irradiation. Dr. John Ammori has competed for and received an institutional NIH K12 career development award for work examining T cells responses in draining lymph nodes in patients with pancreatic cancer. Preclinical studies are underway on human draining lymph nodes, and Dr. Ammori is also starting studies on adoptive immunotherapy using a murine pancreatic cancer model.

STAFF/FACULTY

PROFESSOR

Julian Kim, MD

Dr. Kim is the Charles A. Hubay Professor of Surgery and Chief, Division of Surgical Oncology. He is currently Chief Medical Officer of the UH Seidman Cancer Center. He has served as Program Director of Surgery, Case Integrated Hospitals for the past three years. Dr. Kim received his training in General Surgery at the University of Maryland Hospitals in Baltimore, Maryland and completed an SSO-approved fellowship at the Arthur G. James Cancer Hospital at The Ohio State University in 1994. He was Assistant Professor of Surgery within the Division of Surgical Oncology at Ohio State until 1999 and was recruited to the Cleveland Clinic Foundation where he served as Associate Professor and Director of the Melanoma Program until 2006. Dr. Kim has a national reputation in minimally invasive procedures of the breast including mammary ductoscopy and nipple-sparing mastectomy, and has served as invited speaker and moderator for national meetings of the American Society of Breast Surgeons. He has extensive research experience which includes working in the laboratories of Dr. Pierre Triozzi, Dr. Suyu Shu and Dr. Ernest Borden and has served as principal investigator on over \$3 million of research funding from NIH, Susan G. Komen Foundation and industry sources. He has published over 60 manuscripts and book chapters and holds two U.S. patents on adoptive immunotherapy of cancer.

ASSOCIATE PROFESSOR

Jeffrey Hardacre, MD

Dr. Hardacre is an Associate Professor of Surgery and the Director of the Section of Pancreatic Surgery. He joined the Division and Department of Surgery in 2004 after completing a Flexible Surgical Endoscopy Fellowship at the Cleveland Clinic (2003-2004). Dr. Hardacre received his medical degree from Duke University School of Medicine (1996) and his surgical residency training at The Johns Hopkins Hospital. He received additional training as a Postdoctoral Research Fellow in the Department of Surgery at The Johns Hopkins Hospital (1998-1999),

as a Visiting Specialist Registrar in the Department of Surgery at The John Radcliffe Hospital, Oxford, England (7/1/2000-12/31/2000), and Advanced Specialty Training Program in Gastrointestinal Surgery under the direction of Dr. John Cameron at The Johns Hopkins Hospital (2002-2003). His area of expertise is in upper gastrointestinal surgery with special emphasis on pancreatic disease. Dr. Hardacre is principal investigator on a Phase III pivotal FDA registration trial evaluating a novel hyperacute pancreatic cancer vaccine in patients with resected pancreatic cancer. He has added an additional administrative role as Chair of the Surgical Oncology Quality Assurance Committee.

Marjie Persons, MD

Dr. Persons has been a member of the Department of Surgery since 1985. She received her medical degree from SUNY at Syracuse in 1980 after which she completed her surgical residency training at CWRU Integrated Surgery Residency Program (1980-1985). Dr. Persons was promoted to Associate Professor of Surgery in 1997. She has been the Surgical Clerkship Director since 1988. In addition to serving on numerous departmental, hospital and medical school committees, Dr. Persons has served as Health Frontiers Volunteer Surgical Consultant in Lao Peoples Democratic Republic (1996, 1997). She has been a lecturer and consulting surgeon to the National Cancer Institute, Hanoi, Vietnam (2002). Her area of expertise is in diseases of the breast.

Robert R. Shenk, MD

Dr. Shenk is an Associate Professor of Surgery and Director of the Section of Breast Surgery. Dr. Shenk received his medical degree from CWRU in 1978. From 1978-1980 he was a resident at CWRU Integrated Surgical Residency Program followed by two years as Clinical Fellow at the Immunology Branch, National Cancer Institute (1980-1982). He returned to CWRU to complete his surgical residency training (1982-1985). Post residency, he was a Fellow in Surgical Oncology at MD Anderson Hospital and Tumor Institute, Houston Texas. Dr. Shenk joined the staff of University Hospitals and faculty of CWRU after completing his Surgical Oncology

fellowship in 1987. He has been the American College of Surgeons Cancer Liaison Physician for UHCCM since 1993. He has published over 30 manuscripts and book chapters. Dr. Shenk's area of expertise is in surgical oncology with a special emphasis on breast cancer, melanoma and sarcoma.

Scott M. Wilhelm, MD

Dr. Wilhelm is an Associate Professor and Director of the Section of Endocrine Surgery. He received his medical degree from University of Cincinnati College of Medicine (1995). He completed his surgical residency training at CWRU Integrated Surgical Residency Program (1995-2002) where he was also awarded a position as Dudley P. Allen Surgical Research Scholar (1997-1999) working in the laboratory of Dr. James Schulak. Following completion of his residency, he undertook a Fellowship in Advanced Endocrine Surgery at Rush-Presbyterian, St. Luke's Medical Center under the tutelage of Dr. Richard A. Prinz. Dr. Wilhelm has received numerous awards including the Chicago Surgical Society 2003 Resident/Fellow Award for Surgical Research, the 1998 American Society of Transplant Surgery Young Investigator Award, the Cleveland Surgical Society First Place Basic Science Award (1998), the Ohio Chapter American College of Surgeons (ACS) Best Trauma Paper Award for the Resident Essay Contest (1999), the Ohio Chapter ACS First Place Basic Science Award for the Resident Essay Contest (1999) and the Cleveland Surgical Society Second Place Basic Science Research Award (1999). He has published over 15 manuscripts and book chapters. He currently serves as Clerkship Director for the Clinical Transaction pathway for third year medical students, an NIH sponsored grant being conducted at CWRU School of Medicine. His area of expertise is endocrine surgery, including minimally invasive surgery of the parathyroid, pancreas and adrenal.

ASSISTANT PROFESSOR

John Ammori, MD

Dr. Ammori is Assistant Professor of Surgery and joined the Division in July 2011. He performed both his medical school training and surgical residency training at the University of Michigan. During his surgery residency, he took two years as a research fellow in the laboratory of Dr. Michael Mulholland and was extremely productive in the area of regulation of gastrointestinal motility. Dr. Ammori was awarded best teaching resident during his Chief year and then earned a two-year fellowship in Surgical Oncology at Memorial Sloan Kettering Cancer Center in 2009. He joined Case Surgery immediately after his fellowship and has started to develop a clinical practice in



pancreatic and hepatobiliary malignancies as well as intraperitoneal hyperthermic chemoperfusion. He competed for and received an institutional NIH K12 career development award for work examining T cells responses in draining lymph nodes in patients with pancreatic cancer which commenced in July 2012. Dr. Ammori has lead the Divisional clinical effort in development of heated intraperitoneal chemoperfusion, and also has taken the lead in advancing minimally invasive pancreaticoduodenectomy, gastrectomy and inguinal lymph node dissection.

IRB-APPROVED CLINICAL TRIALS

- “Molecular Analysis of T Cell Clones for Adoptive Therapy” (Kim, PI). Sponsor-NIH/NCI.
 - “A Phase 3, Prospective, Open-Label, Multicenter Comparison Study of Lymphoseek and Vital Blue Dye as Lymphoid Tissue Targeting Agents in Patients With Known Melanoma or Breast Cancer Who Are Undergoing Lymph Node Mapping” (Kim, PI). Sponsor-Neoprobe Corporation.
 - “A Phase III Clinical Trial to Evaluate the Safety and Efficacy of Treatment with 2 mg Intralesional Allovectin-7 Compared to Dacarbazine (DTIC) or Temozolomide (TMZ) in Subjects with Recurrent Metastatic Melanoma” (Kim, PI). Sponsor-Vical Corporation.
 - “A Phase II study of hyperacute pancreatic cancer vaccine in subjects with surgically resected pancreatic cancer” (Hardacre, PI). Sponsor-NewLink Genetics Corporation.
 - “A Prospective, Randomized Comparison of Pancreatic Stump Closure Techniques Utilizing an Autologous Falciform Patch and Fibrin Glue Compared to Standard Closure Following Distal Pancreatectomy with or without Splenectomy” (Hardacre, PI).
 - “A Phase 3 Study of Chemotherapy and Chemoradiotherapy with or without HyperAcute®-Pancreatic Cancer Vaccine in Subjects with Surgically Resected Pancreatic Cancer.” (Hardacre PI) Sponsor-New Link Genetics.
- UHCMC IRB 10-10-12 “Blood and Mucosal HIV-Specific CD8+ T-Cell Responses in High-Risk Seronegatives.” Jeffrey Hardacre, Co-investigator.

IACUC APPROVED ANIMAL PROTOCOLS

- CASE 2012-0019: Adoptive immunotherapy using ex vivo activated melanoma-draining lymph node (MDLN) T cells against human melanoma xenografts.
- CASE 2010-0127: Modulation of mammary tumor growth, metastasis and tumor-induced immune suppression.
- CASE 2010-0152: Effects of KLF4 knock-out macrophages on B16 melanoma murine model.

AWARDS

John Ammori, MD

- 2013 Teacher of the Year, Department of Surgery, Case Surgery

Robert Shenk, MD

- Minority Women With Breast Cancer Uniting Annual Service Award, October 2013

DIVISION GOALS

The Divisional goals for 2014 will be to continue to lead within the new UH Seidman Cancer Center. Clinical activities will continue to expand in all service lines by increasing the quality of cancer surgery services within regional hospitals in the system. The long-range goal will be to increase national visibility by increasing presentation of scientific results and participation in key scientific societies such as American College of Surgeons, Society of Surgical Oncology, American Society of Breast Surgeons, American Society of Endocrine Surgeons and SAGES/SSAT. Mentoring of residents and junior faculty in the development of research projects and careers in academic medicine will become a priority as the research program expands. Increased extramural research support and development of a research foundation using philanthropic support will ensure that the research program can grow in a fiscally responsible manner.

RESEARCH GRANTS AND AWARDS

Julian Kim, MD, MS

Funding Source: NIH/NCI
Role on Project: Principal investigator
Project Title: Molecular Analysis of T Cell Clones for Adoptive Therapy
Project Period: 9/30/06-9/30/12
Award Amount (total): \$672,300

Funding Source: Case Western Reserve University Clinical and Translational Science Collaborative
Role of Project: Co-Principal Investigator (Mei Zhang, PhD)
Project Title: Adoptive Immunotherapy Using Melanoma Draining Lymph Nodes
Project Period: 7/1/2012- 6/30/2013
Award Amount (total): \$75,000

Funding Source: Case Comprehensive Cancer Center
Role of Project: Co-Principal Investigator (Mei Zhang, PhD)
Project Title: Development of Injectable Novel CNT/Fe₃O₄ Nanoparticle Complexes for TAM-Specific Targeting, Imaging and Elimination in the Treatment of Breast Cancer
Project Period: 7/1/2012- 6/30/2013
Award Amount (total): \$75,000

John Ammori, MD

Funding Source: NIH/NCI Clinical Oncology Career Development Program
Role of Project: Paul Calabresi Scholar (Gerson, PI)
Project Title: Mentored Research Experience with a 2-year Didactic Curriculum Designed to Provide Basic Background and Highly Individualized Advanced Training in Clinical and Methodological Components of Translational Cancer Research
Project Period: 2012-2014

Jeffrey Hardacre, MD

Funding Source: NewLink Genetics Corp
Role on Project: Principal Investigator
Project Title: A Phase 3 Study of Chemotherapy and Chemoradiotherapy with or without HyperAcute®-Pancreatic Cancer Vaccine in Subjects with Surgically Resected Pancreatic Cancer

Robert Shenk, MD

Funding Source: PHD NIH R18
Project Title: Use of Biometric Patient Identification System Prior to Medical Procedures
Role on Project: Co-Investigator (Principal Investigator, Jason Sohn)

PUBLICATIONS

- Mudd J. C, Murphy P, Manion M, Debernardo R, Hardacre J, Ammori J, Hardy GA, Harding C, Mahabaleshwar G, Jain M, Jacobson J, Brooks A, Lewis S, Schacker T, Anderson J, Cubas RA, Haddad EK, Rodriguez B, Sieg SF, and Lederman MM. Impaired T cell responses to sphingosine-1-phosphate in HIV-1 infected lymph nodes. *Blood*. 2013 121(15):2914-22.
- Pelletier SJ, Nadig SN, Lee DD, Ammori JB, Englesbe MJ, Sung RS, Magee JC, Fontana RJ, Punch JD. A prospective, randomized trial of complete avoidance of steroids in liver transplantation with follow-up of over 7 years. *HPB (Oxford)*. 2013 Apr; 15(4):286-93.
- Bickenbach KA, Karanicolas PJ, Ammori JB, Jayaraman S, Winter JM, Fields RC, Govindarajan A, Nir I, Rocha FG, Brennan MF. Up and down or side to side? A systematic review and meta-analysis examining the impact of incision on outcomes after abdominal surgery. *Am J Surg*. 2013 Sep;206(3):400-9.
- Ammori JB, D'Angelica MI, Fong Y, Cercek A, Dematteo RP, Allen PJ, Kingham TP, Paty PB, Jarnagin WR, Kemeny NE. Conversion To Complete Resection and/or Ablation Using Hepatic Artery Infusional Chemotherapy In Patients With Unresectable Liver Metastases From Colorectal Cancer: A Decade of Experience at a Single Institution. *Ann Surg Oncol*. 2013 Sep;20(9):2901-7.
- Raigani S, Hardacre JM, Kim J, Ammori JB. Trends in the Surgical Treatment of Gastric Adenocarcinoma. *Ann of Surg Oncol*. 2013 Oct 29. [Epub ahead of print].
- Carter TI, Fong ZV, Hyslop T, Lavu H, Tan WP, Hardacre J, Sauter PK, Kennedy EP, Yeo CJ, Rosato EL. A Dual-Institution randomized Controlled Trial of Remnant Closure after Distal Pancreatectomy: Does the Addition of a Falciform Patch and Fibrin Glue Improve Outcomes? *J Gastrointest Surg* 2013;17:102-9.
- Hardacre JM, Mulcahy M, Small W, Talamonti M, Obel J, Krishnamurthi S, Rocha-Lima CMS, Safran H, Lenz HJ, Chiorean EG. Addition of Algenpantucel-L Immunotherapy to Standard Adjuvant Therapy for Pancreatic Cancer: A Phase 2 Study. *J Gastrointest Surg* 2013;17:94-101.
- Mudd JC, Murphy P, Manion P, Debernardo R, Hardacre J, Hardy GA, Harding CV, Mahabaleshwar G, Jain MK, Jacobson JM, Brooks AD, Lewis S, Schacker T, Anderson J, Haddad EK, Cubas RA, Rodriguez B, Sieg SF, Lederman MM. Impaired T Cell Responses to Sphingosine-1-phosphate in HIV-1 Infected Lymph Nodes. *Blood* 2013;121:2914-22.
- Blatnik JA and Hardacre JM. Management of Pancreatic Fistulas. *Surg Clin N Am* 2013;93:611-17.
- Hardacre JM (2013) Gastrectomy. In: Delaney CP (ed) *Netter's Surgical Anatomy and Approaches*, Elsevier Saunders, Philadelphia.
- Hardacre, JM (2013) Pancreaticoduodenectomy. In Delaney CP (Ed.) *Netter's Surgical Anatomy and Approaches*, Elsevier Saunders, Philadelphia.
- Contrast of Key Sentinel Node Biopsy Parameters of Localization Rate/Patient and Degree of Localization of 99mTc-Tilmanocept-Targeted and European 99mTc-colloidal mapping agents in Melanoma. *World Melanoma Congress, Hamburg, Germany*. July 2013.
- Contrast of Lymph Node Localization with 99mTc-Tilmanocept and Vital Blue Dye in Melanoma Patients by Tumor Location. *World Melanoma Congress, Hamburg, Germany*. July 2013.

John Ammori, MD, Jeffrey Hardacre, MD, Julian Kim, MD

- Raigani S, Hardacre J, Kim J, Ammori JB. Trends in the Surgical Management of Gastric Cancer. Presented as a poster by Raigani at the Society of Surgical Oncology's 66th Annual Cancer Symposium, Gaylord, MD, March 2013.
- Raigani S, Ammori JB, Kim J, and Hardacre J. Trends in the Surgical Treatment of Pancreatic Adenocarcinoma. Presented orally by Raigani at the Annual Meeting of the Pancreas Club in Orlando, Florida, May 2013.
- Raigani S, Ammori JB, Kim J, and Hardacre J. Trends in the Surgical Treatment of Pancreatic Adenocarcinoma. Presented orally by Raigani at the Annual Meeting of the Society for Surgery of the Alimentary Tract in Orlando, Florida, May 2013.

LOCAL AND REGIONAL MEETINGS

Robert Shenk, MD

- Sentinel Node Biopsy, When Less is More. Lecture at CCCC Seminar Breast Cancer 2013 Seeing the Future, 5/24/2013.
- New Day Cleveland Channel 8 Interview, Breast Cancer Risk and Prevention, 10/16/1013.
- Prevention/Genetics of Breast Cancer Lecture, Community Outreach, Shaker Country Club, 10/25/2013.

Jeffrey Hardacre, MD

- Update on Cystic Pancreatic Neoplasms. Grand Rounds. Southwest General Hospital. August 23, 2013.
- The Management of Pancreatic Cancer. Grand Rounds, Department of Pathology, University Hospitals Case Medical Center. December 11, 2013.

John Ammori, MD

- Gastroenterology and GI Surgery Update. Course Directors—Conor Delaney, MD and Fabio Cominelli, MD. Faculty for session, "Reoperative Surgery and Recurrent Cancer – Dealing with What Everyone Doesn't Want To". January 18, 2014.
- Management of Gastrointestinal Stromal Tumor. Grand Rounds. Southwest General Hospital, Middleburg Heights OH. February 22, 2013.
- Management of Gastrointestinal Stromal Tumor. Surgical Grand Rounds. University Hospitals Case Medical Center. Cleveland, OH. September 11, 2013.
- Surgical Therapy for Colorectal Cancer Metastatic to the Liver. Grand Rounds. Ahuja Medical Center. Beachwood, OH. November 18, 2013.
- Pancreatic Cancer and Cystic Neoplasms of the Pancreas. Regional Rounds Program. Parma, OH. December 12, 2013.
- Tumors of the Liver and Biliary Tract. Surgery Resident Education Conference. University Hospitals Case Medical Center. Cleveland, OH. December 16, 2013.

PRESENTATIONS

NATIONAL AND INTERNATIONAL MEETINGS

Julian Kim, MD

- Targeted Therapy for GIST. Gastrointestinal Stromal Tumor Session, Annual Meeting of the SAGES. Baltimore, MD March 2013.
- Nipple Discharge. Benign Breast Disease Session, Annual Meeting of the American Society of Breast Surgeons. Chicago, IL. May 2013.

ADMINISTRATIVE

Julian Kim, MD

- Chief Medical Officer, UH Seidman Cancer Center
- Medical Executive Committee, UH Seidman Cancer Center

Scott M. Wilhelm, MD

- Director, Section of Endocrine Surgery, Division of Surgical Oncology
- Surgical Grand Rounds Director (July 2012- present)
- Surgical representative on the hospital CME committee (7/2005-present)
- Surgical Research Review Committee (7/2007-present) - intradepartmental IRB protocol review and research planning-monthly meeting
- Resident and Faculty Interviewer for annual match and new hires
- UH Wellness Committee
- Named Northeastern Regional Councilor July 2012- present
- Council member, outgoing President July 2012-present
- American College of Surgeons- Ohio District #1 Committee on Applicants of the American College of Surgeons member 2011-present
- Institutional Representative for the Association of Academic Surgery for dispersement of info, membership recruitment etc.
- American Association of Endocrine Surgeons (AAES) - Membership committee

Jeffrey Hardacre, MD

- Director, Section of Pancreatic Surgery, Division of Surgical Oncology
- Chair of the SCC Surgical Oncology Quality Committee
- Upper GI Surgical Oncology Lead for UH Seidman Cancer Center GI Disease Team
- Surgical Director, Cancer Center of University Hospitals Digestive Health Institute
- "Life after the Whipple" Support Group at University Hospitals
- Member of the CMO's "Cabinet"
- Program Sub-committee (Pancreas) Member SSAT (2013-14)
- Membership Committee for Midwest Surgical Association (2012-15)
- Program Committee Central Surgical Association (2013-2015)
- Reviewer for Surgery, Annals of Surgery, JACS, American Journal of Surgery

Robert R. Shenk, MD

- Co-Director Breen Health Care Pavilion
- American College of Surgeons Cancer Liaison Physician University Hospitals
- PI NASBP clinical trials for Case Medical Center
- Breen Breast Center Operations committee
- Breast Cancer Research Committee
- Breast Center Task Force
- Disease Team Leadership Meeting
- CME Committee, Seidman Cancer Center
- Commission on Cancer Accreditation Planning Committee
- Seidman Extended Leadership Meeting
- Executive Quality Council Seidman Cancer Center
- Medical Credentialing Committee

Marjie Persons, MD

- Convener, CWRU city-wide Block I Core Discipline Leaders
- Block I Core Discipline Leader, CWRU
- Curriculum Committee, Association for Surgical Education
- Clinical Curriculum Council
- AOA Selection Committee



CHAPTER 11 DIVISION OF THORACIC AND ESOPHAGEAL SURGERY

Division Chief
Philip Linden, MD

Faculty
Jason Robke, MD
Yaron Perry, MD



The Division of Thoracic and Esophageal Surgery focuses on the minimally invasive treatment of disorders of the lung, mediastinum, pleura, chest wall, and esophagus including lung cancer, gastroesophageal reflux, paraesophageal hernia, esophageal cancer, pleural disease, hyperhidrosis, thoracic outlet syndrome, and tracheal tumors. Minimally invasive procedures commonly performed include VATS lobectomy, VATS pericardial window, laparoscopic hernia repair, laparoscopic Heller myotomy, VATS thymectomy, and stenting of the airway and esophagus. Ablative therapies, including Cyberknife stereotactic radiosurgery and radiofrequency ablation, are available for high risk and prohibitive risk patients.

STAFF/FACULTY

Philip Linden, MD

Dr. Linden began at University Hospitals Case Medical Center (UHCCM) in August 2007. He is an associate professor of surgery at Case Western Reserve University School of Medicine. He received his medical degree from the University of Pennsylvania in 1992. He completed his training in general surgery at the Brigham and Women's Hospital and Harvard Medical School in Boston, Massachusetts in 1999. During this time, he spent two years as the



Garrett B. Smith Fellow in Angiogenesis Research under Dr. Judah Folkman at Children's Hospital. Dr. Linden completed his training in cardiac and thoracic surgery at the Brigham and Women's Hospital and Children's Hospital in Boston in 2001. After completing his training, he was on staff in the Division of Thoracic Surgery at Brigham and Women's Hospital. During this time, he was Section Head of Thoracic Surgery at the Boston VA Hospital and developed a thoracic surgery program at MetroWest Medical Center in Framingham, Massachusetts. He was an assistant professor of surgery at Harvard Medical School. Dr. Linden's areas of interest include esophageal surgery, minimally invasive thoracic surgery, bronchoalveolar carcinoma, and the surgical treatment of lung cancer in the high risk patient, including ablative therapies.

Jason Robke, MD

Dr. Robke was recruited in July 2004. He received his medical degree from the Medical College of Ohio and completed his training in thoracic surgery at Allegheny Medical Center in Pittsburgh, Pennsylvania. Dr. Robke received extensive training in the area of minimally invasive surgical techniques (VATS), surgical treatment of esophageal diseases, hyperhidrosis, chest wall tumors, and endoscopic treatment of airway and esophageal strictures under the tutelage of Dr. Rodney Landreneau. Dr. Robke is an assistant professor of surgery at Case Western Reserve University School of Medicine. He is on staff at the Louis B. Stokes Cleveland VA Medical Center, as well as at UHCMC.

Yaron Perry, MD

Dr. Perry was recruited in October 2013. He received his medical degree at the Hebrew University School of Medicine in Jerusalem, Israel. He was trained in General Surgery at Hadassah Medical Center and trained in Thoracic Surgery at Allegheny Medical Center. He did an advanced fellowship at the University of Pittsburgh Medical Center in 2003. He was a staff surgeon at Tufts New England Medical Center, and most recently at Memorial University Medical Center in Savannah, Georgia. He is the Director of Minimally Invasive Esophageal Surgery

at Case Medical Center. His interests are minimally invasive esophageal and GE junction surgery, laparoscopic paraesophageal hernia repair, and minimally invasive thoracic surgery.

DIVISION EDUCATIONAL PROGRAM

The thoracic service provides a second year general surgery resident rotation. Core competencies in thoracic surgery are taught. There are weekly teaching lectures on core subjects in thoracic surgery from the following topics: benign esophageal disease, malignant esophageal disease, benign and malignant lung and pleural disease, mediastinum, airway, chest wall and diaphragm.

The second year resident's patient care responsibilities include care of the thoracic surgery ICU patients, as well as the workup and care of in-hospital consultations.

DIVISION RESEARCH

Project Title: Computer-Extracted CT Features for Distinguishing Suspicious Lung Lesions with No, Minimal, and Significant Invasion

Co-Principal Investigator: Philip Linden, MD

Funding: Department of Defense, \$534,000 over 2 years

Project Title: STS: Mitigation of lung resection risk through use of limited resection, an analysis of the degree of reduction in lung resection risk when wedge resection as opposed to lobectomy is performed

Principal Investigator: Philip Linden, MD

Funding: Society of Thoracic Surgery approved database study

Project Title: Comparison of Endoscopic Submucosal Dissection versus Mucosal Resection for Neoplasia of the Esophagus, Stomach, Colon, and Rectum.

Principal Investigator: John Dumot, DO

Sub Investigator: Philip Linden, MD

DIVISION GOALS

- To become a regional and national center of excellence in minimally invasive thoracic surgery and in the care of the high risk thoracic surgery patient.
- To grow volume across the medical system and develop practices at St. John West Shore Hospital and UH Ahuja Medical Center.
- To develop a clinical and translational research program, supported by philanthropic, intramural and extramural research grants.



Project Title: CASE 3510: Genetic and Biological Markers of Lung Cancer

Co-Investigators: Cheryl Thompson, PhD, Philip Linden, MD, Afshin Dowlati, MD, Said Khayyata, MD, Rom Leidner, MD

Project Title: CASE 1510: MicroRNA Expression in Bronchoalveolar Carcinoma

Co-Investigators: Cheryl Thompson, PhD, Philip Linden, MD, Said Khayyate, MD, Afshin Dowlati, MD

Project Title: Laser Capture Microdissection and Microarray Analysis of Invasive and Noninvasive Areas of Adenocarcinoma with Bronchoalveolar Carcinoma Features

Principal Investigator: Philip Linden, MD

Project Title: Near Infra-Red Spectrophotometry (NIRS)-Based Cerebral Oximetry Monitoring in Elderly Thoracic Surgical Patients Undergoing Single Lung Ventilation Procedures: A Single Center, Prospective, Randomized Controlled Pilot Study Assessing the Clinical Impact of NIRS-Guided Intervention

Co-Principal Investigator: Philip Linden, MD

Project Title: Novel Application of Three Dimensional Brachytherapy Esophageal Stents for Treatment of Esophageal Cancer. Proposed Trial

Principal Investigator: Yaron Perry, MD

PATIENT CARE WITHIN THE DIVISION

Patients are cared for on the Tower 3 Telemetry unit. Early ambulation is provided with the aid of specially designed upright walkers which allow for ambulation with chest tubes that require continuous suction. A core group of nurse practitioners and physician's assistants is responsible for patient care, while the second year resident is responsible for inpatient consultations and patients in the intensive care unit. Patients requiring ventilation or unstable patients are admitted to the cardiothoracic surgical intensive care unit, where they are cared for in collaboration with the surgical intensive care team.

Rounds are conducted every morning by the thoracic surgery attending, along with the thoracic surgery nurse practitioner or physician's assistant. A thoracic surgery fellow and a second year general surgery resident complete the thoracic surgery team. Weekly quality assurance meetings are conducted, reviewing every operation performed, as well as any complications.



PUBLICATIONS

Dr. Linden

- Babakoochi S, Fu P, Yang M, Linden PA, Dowlati A. Combined SCLC clinical and pathologic characteristics. *Clin Lung Cancer* 2013;14(2): 113-119.
- Linden PA, Morgan JA, Couper, GS. Seven-year disease free survival following radical pneumonectomy for a pulmonary artery sarcoma. *J Thorac Cardiovasc Surg* 2013;146(3):e17-8.
- Gharibeh TR, Strohl K, Margevicius S, Fu P, Linden PA. Sleep Apnea patients do not have an elevated risk of complications or length of stay post lobectomy. *J Pulm and Resp Med.* 2013;3:156.
- Linden PA, D'Amico TA, Perry Y, Saha-Chaudhuri P, Sheng S, Kim S, Onaitis M P Linden, A Wedge Resection is Associated with a 50% Lower Rate of Major Morbidity than Anatomic Resection: An STS Database Propensity-Matched Analysis - The Society of Thoracic Surgeons, Annual Conference.

Dr. Perry

- Y Perry, M Espiritu, E Schroeder – Congenital Lobar Emphysema presented in adulthood treated with Video Assisted Thoracoscopic Lobectomy. *Journal of Pulmonary and Respiratory Medicine* 2013.
- M Lamb, JR Dutton, D Most, Y Perry - A Rare Case of Heterotopic Calcification with a Pleurocutaneous Fistula 31 years after Chest Wall Irradiation. *Journal of Pulmonary and Respiratory Medicine* 2013.

AWARDS

Dr. Linden

- Cleveland Magazine, Top Doctors, Thoracic Surgery
- Best Doctors in America
- Richard E. Clark Award Recipient, Society of Thoracic Surgery 50th Annual Meeting

PRESENTATIONS

Dr. Linden

- ECOG-ACRIN Update: Annual General Thoracic Surgical Club Meeting, March 2013.
- Southwest General Grand Rounds: Improving the Cure Rate for Non small cell lung cancer, August 2013.
- Lung Cancer Lecture, Case Western Reserve School of Medicine.

Dr. Perry

- Minimally Invasive Esophagectomy – invited speaker in GA society of the ACS 2013 annual meeting, Atlanta, GA, August 24-25, 2013.
- Recurrent esophageal perforation in a patient with eosinophilic esophagitis presented as a motility disorder – the 12th OESO world conference, Paris, France, August 28 – September 1, 2013.
- Resident Lecture Lung Cancer, January 6, 2014.
- Innovations in Lung Cancer surgery – to Pulmonary division in UH, January 17, 2014.
- Case observation as part of building the Thoracic Robotic Program, February 11-12, 2014.
- Advances in the treatment of Lung cancer - St. Vincent Charity Hospital, February 26, 2014.

CHAPTER 12 DIVISION OF HEPATOBILIARY AND TRANSPLANT SURGERY

Division Chief

Christopher T. Siegel, MD, PhD

Faculty

Mark Aeder, MD

John Ammori, MD

Scott Boulanger, MD, PhD

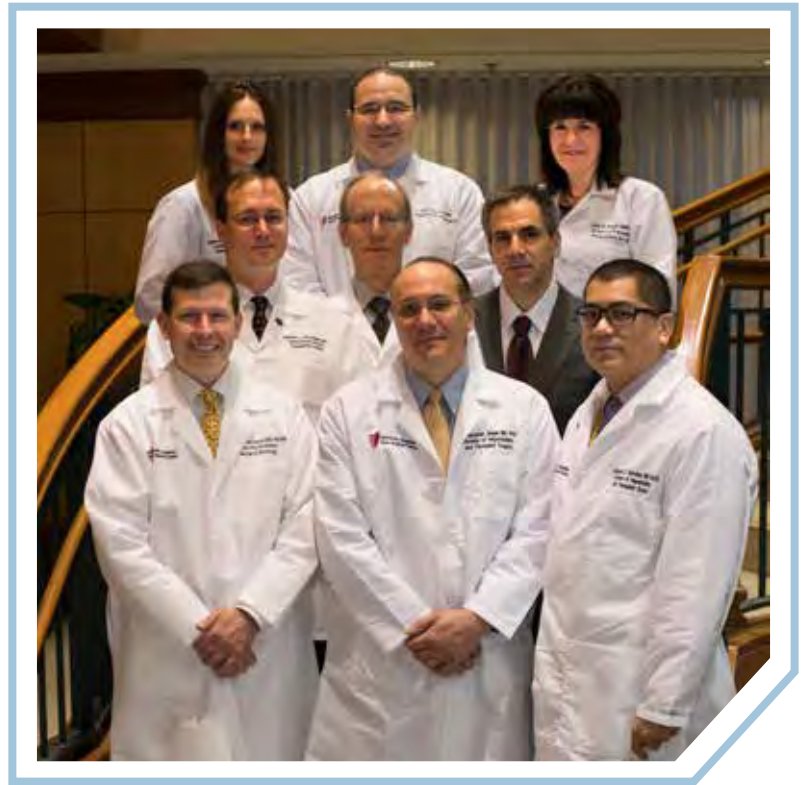
Jeffrey Hardacre, MD

Vanessa Humphreville, MD

Edmund Sanchez, MD

Kelly Siegel, CNP

Kenneth Woodside, MD



The Division of Hepatobiliary and Transplant Surgery has responsibility for performing all abdominal organ (kidney, liver, and pancreas) transplants at the University Hospitals Case Medical Center (UHCMC) which includes Rainbow Babies & Children's Hospital. The Division members also perform the majority of hepatobiliary operations including hepatic resections and tumor ablations, using both open and laparoscopic techniques. In addition, Division surgeons perform hemodialysis access procedures for UHCMC patients.

The Transplant Program, which was started in 1969 with renal transplantation, was expanded to include liver and pancreas transplantation in the late 1980s. Since its inception, the program has performed over 3,500 abdominal organ transplants with kidney transplants comprising the majority. Currently, the Division performs between 120-140 transplants each year. Live donor kidney transplantation is routinely performed for both adults and children and all donor nephrectomies are performed laparoscopically by Division surgeons. In addition, Division surgeons perform over 250 hepatobiliary and pancreatic operations and over 200 vascular access cases each year.



The members of the Division of Hepatobiliary and Transplant Surgery participate regularly in local, regional, and national organizations involved with transplantation and hepatobiliary surgery:

- Dr. Mark Aeder is the current vice chair of the OPTN/UNOS Kidney Committee and Chair of the OPTN/UNOS Kidney Paired Donation Workgroup.
- Dr. Jeffrey Hardacre serves on the membership committee for the Midwest Surgical Association, and the pancreas program subcommittee for the Society for Surgery of the Alimentary Tract. He is also a member of the program committee for the Central Surgical Association and a reviewer for the journal *Surgery, Annals of Surgery, JACS*, and the *American Journal of Surgery*.
- Dr. Humphreville serves on the Medical Advisor Board for LifeBanc.
- Dr. Christopher Siegel has served on both the Informatics and the Vanguard committees of the ASTS and is a past Chairman of the OSOTC Liver Transplant Committee. He serves on the Medical Advisory Committee of the Ohio Chapter of the American Liver Foundation and on the Advisory Boards for two pharmaceutical companies.
- Dr. Edmund Sanchez is currently serving on the UNOS Pancreas Committee and the ASTS Curriculum, and is a past member of the ASTS Fellowship Training Committee. Dr. Sanchez also serves on the Board of Director for both the OSOTC and LifeBanc.
- Dr. Kenneth Woodside is a member of the ASTS Vanguard Committee and the Winter Symposium Planning Committee. He is a member of the Medical Advisory Committee of the American Liver Foundation, Cleveland Metro Chapter. In addition, Dr. Woodside has served on the Medical Advisor Board for LifeBanc and is a reviewer for the *Journal of Surgical Research*, the *Annals of Transplantation*, *Transplant International*, and the *American Journal of Transplantation*.

STAFF/FACULTY

Mark Aeder, MD

Dr. Aeder joined the Department of Surgery in 2004. It was a homecoming of sorts as he completed his General Surgery Residency at UHCMC in 1987. Following a Transplant Fellowship at The Ohio State University, he was Director of the Transplant Institute at Research Medical Center in Kansas City for 16 years. A graduate of Washington University School of Medicine and a former Allen scholar at UH, he is currently an Associate Professor in the Department. He is past Surgical Director of the Kidney Transplant Program and currently is the Director, Surgical Quality for UHCMC. Additionally he is the Director of the Mt. Sinai Skills and Simulation Center for the CWRU School of Medicine.

John Ammori, MD

Dr. Ammori joined the Department of Surgery in 2011. He completed his general surgery training at the University of Michigan and his surgical oncology fellowship at the Memorial Sloan-Kettering Cancer Center. He is currently an Assistant Professor of Surgery in the Case Western Reserve University School of Medicine. He has clinical and research interests in hepatobiliary and pancreatic malignancies and currently is funded through and NIH K12 award. He is a recent inductee into the American College of Surgeons and was the recipient of the 2012-2013 Case Western Reserve surgery faculty teaching award.

Scott Boulanger, MD, PhD

Dr. Boulanger joined the Department of Surgery in 2008. He completed his general surgery and University of Buffalo Integrated Surgical Residency and his pediatric surgery fellowship at Women and Children's Hospital of Buffalo. He currently holds the rank of Assistant Professor of Surgery in the Case Western Reserve University School of Medicine. He has interests in pediatric hepatobiliary and pancreatic surgery.

HEPATOBIILIARY AND TRANSPLANT SURGERY

Jeffrey Hardacre, MD

Dr. Hardacre joined the Department of Surgery in 2004. He completed his general surgery and fellowship training at the Johns Hopkins Hospital and subsequently finished an advanced endoscopy fellowship at the Cleveland Clinic. Dr. Hardacre currently holds the rank of Associate Professor of Surgery in the Case Western Reserve University School of Medicine. He is currently the section chief of pancreatic surgery at University Hospitals Case Medical Center and is the surgical director of the Cancer Center of the Digestive Health Institute.

Vanessa Humphreville, MD

Dr. Humphreville joined the Department of Surgery in 2013. She completed her general surgery training at the University of Iowa Hospitals and Clinics and her transplant fellowship at the University of Minnesota Medical Center. She is currently an Assistant Professor of Surgery in the Case Western Reserve University School of Medicine. She is an award recipient of the University of Minnesota Surgery Research Grant. She has interests in living donor kidney and liver transplantation.

Edmund Sanchez, MD

Dr. Sanchez joined the Department of Surgery at UHCMC in November of 2009. He was recruited from the Baylor University Medical Center in Dallas where he was the Director of both Kidney and Pancreas Transplantation, Program Director of the Transplant Surgery Fellowship, and Assistant Director of Transplant Services. Dr. Sanchez is a graduate of the Wayne State University School of Medicine (1994). He received his general surgery training at Wayne State University Medical Center and completed his transplant fellowship at the Baylor University Medical Center. Dr. Sanchez holds the rank of Associate Professor in the Case Western Reserve University School of Medicine. He is the Surgical Director of both Liver and Pancreas Transplantation Surgery at UHCMC.

Christopher T. Siegel, MD, PhD

Dr. Siegel has been a member of the Department of Surgery at UHCMC since 1999. He is a graduate

of the Thomas Jefferson School of Medicine (1989). He completed his general surgery and transplant training at The University of Chicago Medical Center where he also earned a PhD in immunology. Dr. Siegel holds the rank of Associate Professor in the Case Western Reserve University School of Medicine. He is a past Director of both the Liver and Pancreas Transplantation and the current Director of the Division of Hepatobiliary and Transplant Surgery at UHCMC. In addition, Dr. Siegel serves as the Surgical Director of the Liver Center of Excellence in the Digestive Health Institute and as the Director of the Liver Cancer Disease Team in the UH Seidman Cancer Center.

Kelly Siegel, CNP

Kelly Siegel is a board certified Acute Care Nurse Practitioner and has been a member of the Department of Surgery since 2007. She completed her BSN at Ursuline College and Masters of Science in Nursing at Case Western Reserve University. She has been on staff at University Hospitals Case Medical Center since 1997. She holds an appointment on the clinical faculty at the Frances Payne Bolton School of Nursing at Case Western Reserve University. She has interests in liver disease, kidney disease and hepatobiliary malignancies.

Kenneth Woodside, MD

Dr. Woodside joined the Department of Surgery at UHCMC in August of 2009. He is a graduate of the University of Michigan Medical School (1999) where he also earned a Master's Degree in Immunology. He received his general surgery training at the University of Texas Medical Branch at Galveston where he also served on the faculty for one year prior to completing his transplant training at the University of Michigan Medical Center. Dr. Woodside was recently promoted to the rank of Associate Professor in the Case Western Reserve University School of Medicine. At UHCMC he is the Director of the Vascular Access Service and a member of the liver, kidney, and pancreas transplant teams, where he is the Director of Live Donor Surgery and the Surgical Director in the new Program for Renal Transplantation in HIV Patients.

RESEARCH IN THE DIVISION

Members of the Division are involved in both laboratory and clinical research.

- Dr. Aeder has ongoing clinical research into the processes and improvements of national kidney allocation and the barriers to national paired kidney donation. He is working on algorithms for the national redistricting of kidney allocation units and the metrics for determining the best utilization of en bloc/double kidney transplants. He is working on a national financial model for kidney paired donation and new algorithms for determining how to transplant the hard to match recipients.
- Dr. Ammori is involved in research activities evaluating the immunomodulatory effects of VEGF on human lymph node antigen-presenting and lymphoid cells. In addition, he has recently published on the use of hepatic artery infusion pumps in the treatment of patients with unresectable metastatic colon cancer to the liver.
- Dr. Hardacre has been involved in a national multicenter trial evaluating the use of immune stimulants in the adjuvant treatment of resectable pancreatic adenocarcinoma.
- Dr. Sanchez has an ongoing interest in studying renal function in liver transplant patients as well as the use of continuous glucose monitoring in pancreas transplant recipients.
- Dr. Woodside is conducting outcomes research in renal transplantation utilizing the national SRTR database. He is actively involved in new immunosuppression trials in renal transplant recipients.
- All members of the Division participate in the Transplant Program's numerous industry-sponsored, multi-center trials in the area of immunosuppression therapeutics and in the management of liver diseases.

Industry Sponsored Research Projects

- "Phase 2, randomized, open-label, parallel group, multi-center study to assess the safety and efficacy of Alefacept in de novo kidney transplant recipients" (Astellas).
- "Phase 3, open-label, multi-center, prospective, randomized study of the efficacy and safety of conversion from Prograf® capsules twice daily to LCP-Tacro tablets once daily for the prevention of acute allograft rejection in stable kidney transplant patients" (LifeCycle).
- "A facilitated access program to provide everolimus (RAD) for maintenance for patients completing therapy (RAD) trials in solid organ transplantation" (Novartis).



HEPATOBIILIARY AND TRANSPLANT SURGERY

- “Planned transition to sirolimus-based therapy versus continued tacrolimus-based therapy in renal allograft recipients” (Wyeth).
- “Phase 3, double-blind, double-dummy, multi-center, prospective, randomized study of the efficacy and safety of LCP-Tacro™ tablets, once daily, compared to Prograf® capsules, twice daily, in combination with Mycophenolate Mofetil for the prevention of acute allograft rejection in De Novo adult kidney transplant recipients” (Veloxis Pharmaceuticals).
- “Advanced liver analysis in computed tomography for liver segmentation and volumetry” (Phillips).
- “A partially blinded, prospective, randomized multi-center study evaluating efficacy, safety and tolerability of oral sotrotaurin plus standard or reduced exposure tacrolimus vs myfortic plus tacrolimus in de novo renal transplant recipients” (Novartis).
- “A phase III randomized, double blind, placebo controlled study of sorafenib as adjuvant treatment for hepatocellular carcinoma after surgical resection or local ablation (STORM)” (Bayer Healthcare).
- “Global investigation of therapeutic decision in hepatocellular carcinoma and of its treatment (GIDEON)” (Bayer Healthcare).
- “A phase 2b randomized single blinded trial of JX-594 (Vaccina GM-CSF/TK deactivated virus) plus best supportive care vs placebo plus best supportive care in patients with advanced hepatocellular carcinoma who have failed sorafenib treatment” (Jennerex Biotherapeutics).
- “The role of social support in liver transplant outcomes” (Ohio Solid Organ Transplantation Consortium).

NIH and HRSA Research Grants

- Noninvasive monitoring to predict outcome in De Novo kidney transplant recipients (CTOT-01, NIH).
- Immune monitoring and CNI withdrawal in low risk recipients of kidney transplants (CTOT-09, NIH).
- Enhancing DCD Utilization with Thrombolytic Therapy (HRSA).

DIVISION EDUCATION

The Division does not have a transplant surgery fellowship program. Consequently, its primary educational effort is in the training of general surgery and urology residents at UHCMC. In addition, residents from several regional general surgery programs rotate through the service in order to obtain their transplantation experience. The Transplant and Hepatobiliary Service serves as the primary exposure of the resident staff to patients with chronic end-stage kidney and liver disease, thereby allowing them to become familiar with the strategies of renal replacement therapy and the management of patients with liver failure and hepatic malignancies. Specific topics covered with the resident staff include: immunosuppression and transplant immunology; patient evaluation for liver, pancreas, and kidney transplantation; organ donation, procurement, and allocation; evaluation of patients for vascular access; and assessment of patients with hepatobiliary and pancreatic neoplasms. The Division members also participate in the didactic educational programs for the first and third year students and serve as mentors for fourth year students performing assistant internships in the field of transplant and hepatobiliary surgery. The Division periodically presents “Transplant Update” courses for community physicians. Finally, members of the Division give educational update lectures each year to various physicians’ and nurses’ groups both in the University Hospitals Health System and for other medical groups in Northeast Ohio.

PATIENT CARE WITHIN THE DIVISION

The Transplant and Hepatobiliary Service at UHCMC is a very unique service in that it is attended by both the surgeons from the Division of Transplant and Hepatobiliary Surgery and the transplant nephrologists and hepatologists from their respective divisions in the Department of Medicine. The primary resident staff is from the programs in general surgery and urology (typically this includes a PGY5, PGY3, and two PGY1s) who are variably assisted by fellows from nephrology and gastroenterology in the Department of Medicine. The service has a full-time nurse coordinator whose responsibility is to assist the resident staff with transplant-related management issues and to serve as a liaison between the inpatient service and outpatient management teams, and three nurse practitioners (NPs). One NP works primarily with the surgeons managing non-transplant hepatobiliary and pancreas patients. Two other NPs are assigned to the surgical and medical patients on the transplant service. The pre-transplant effort is managed by five nurse coordinators for kidney and pancreas transplantation and one for liver transplantation. The post-transplant effort is managed by three additional nurse coordinators for adult kidney and pancreas transplantation, one for pediatric kidney transplantation, and two for liver transplantation. In addition, the Transplant Program has a dedicated hospital administrator, data management and computer coordinator, two

social workers, a business coordinator, two outreach coordinators, and two patient financial coordinators.

Whenever feasible, morning rounds are conducted jointly by the surgical and medical attending staff, and all major therapeutic and management decisions on transplant patients are made after consultation with each other. The program conducts weekly patient selection meetings and monthly quality improvement meetings for both the kidney/pancreas and liver programs. In addition, a monthly journal club is held where recent scientific articles are discussed or visiting professors in the field of transplantation are featured. Because of the large number of liver and pancreatic cancer patients managed by the Division members, they are regular participants in the multi-disciplinary tumor conferences for both GI (non-hepatic) and Hepatobiliary malignancies. The latter was initiated by Dr. Siegel who regularly chairs this program. In 2007, the UHCMC Transplant Institute was opened. This facility is home for all of the nurse coordinators for the abdominal and thoracic organ transplant programs, as well as all of the administrative and ancillary staff. In addition, the space houses all of the pre- and post-transplant clinics for both the surgical and medical faculty, thereby facilitating seamless care for the transplant patients. The Transplant Institute also operates an Education and Evaluation Clinic in Akron, Ohio to facilitate the initial assessment of patients from that region.

HONORS AND AWARDS

- Dr Ammori received the 2012-13 faculty teaching award
- Dr. Humphreville received the Research Scholar of the Year Award in surgery from the University of Minnesota
- Dr. Siegel and Dr. Sanchez have been cited in "Best Doctors in America"
- Dr. Sanchez was awarded the Baylor University Medical Center Transplant Teaching award for 2009

SELECTED PUBLICATIONS 2008 – 2013

- Hricik DE, Poggio ED, Woodside KJ, Sarabu N, Sanchez EQ, Schulak JA, Padiyar A,
- Heegers PS, Augustine JJ. Effects of cellular sensitization and donor age on acute rejection and graft function after deceased donor kidney transplantation. *Transplantation* 2013; 95: 1254-1258.
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- Ammori JB, D'Angelica MI, Fong Y, Cercek A, Dematteo RP, Allen PJ, Kingham TP, Paty PB, Jarnagin WR, Kemeny NE. Conversion To Complete Resection and/or Ablation Using Hepatic Artery Infusional Chemotherapy In Patients With Unresectable Liver Metastases From Colorectal Cancer: A Decade of Experience at a Single Institution. *Ann Surg Oncol*. 2013 Sep;20(9):2901-7.
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- Clinical Congress of the American College of Surgeons (98th annual Chicago, IL) presentation of "Living Liver Donation Morbidity and Mortality-The University of Minnesota Experience over a Fourteen Year Period."
- University of Minnesota Transplant Grand Rounds. "Long Term Outcomes and Quality of Life of Living Liver Donors". January 2013.
- ASTS Winter Symposium (Miami, FL) presentation of "Living Liver Donation Morbidity and Mortality-The University of Minnesota Experience over a Fourteen Year Period."
- ASTS Advances in Organ Transplantation. (Boston, MA) "Long-Term Outcomes and Quality of Life of Living Liver Donors". April 2013.
- American Transplant Congress. "Long Term Outcomes and Quality of Life of Living Liver Donors". May 2013.

PRESENTATIONS

Mark Aeder, MD

- State of the OPTN/UNOS Kidney Paired Donation Program, National OPTN sponsored Transplant Professionals, Atlanta, 2013.
- National Update on the OPTN/UNOS Kidney Paired Donation Pilot Program; Current Status and Barriers, Regional Transplant Symposium, Kansas City, 2013.
- The New Kidney Allocation System, National Podcast sponsored by OPTN/UNOS and HRSA, 2014 The American Society of Transplantation Kidney Allocation Webinar, sponsored by the American Society of Transplantation, nationally broadcast, 2014.
- The Kidney Allocation System Basics Webinar sponsored by OPTN/UNOS and HRSA, nationally broadcast, 2014.

John Ammori, MD

- Surgical Therapy for Colorectal Cancer Metastatic to the Liver. Grand Rounds. Ahuja Medical Center. Beachwood, OH. November 18, 2013.
- Pancreatic Cancer and Cystic Neoplasms of the Pancreas. Regional Rounds Program. Parma, OH. December 12, 2013.
- Tumors of the Liver and Biliary Tract. Surgery Resident Education Conference. University Hospitals Case Medical Center. Cleveland, OH. December 16, 2013.

Jeffrey Hardacre, MD

- Raigani S, Ammori J, Kim J, Hardacre JM. Trends in the Treatment of Resectable Pancreatic Adenocarcinoma. Annual Meeting of the Pancreas Club, 2013, Lake Buena Vista, FL. (given by Raigani)
- Raigani S, Ammori J, Kim J, Hardacre JM. Trends in the Treatment of Resectable Pancreatic Adenocarcinoma. Annual Meeting of the Society for Surgery of the Alimentary Tract, 2013, Orlando, FL. (given by Raigani)
- Hardacre, JM. Update on Cystic Pancreatic Neoplasms. Grand Rounds. Southwest
- General Hospital. August 23, 2013.
- Hardacre, JM. The Management of Pancreatic Cancer. Grand Rounds, Department of
- Pathology, University Hospitals Case Medical Center. December 11, 2013.

Vanessa Humphreville, MD

- The John S. Najarian Lecture Series (6th annual) case presentation. "Pediatric Paired Exchange."
- International Congress of the International Liver Transplant Conference (18th Annual San Francisco, California): Living liver donation, morbidity and mortality-The University of Minnesota experience over a fourteen year period.
- American Transplant Congress poster presentation (Boston, MA) "What's in a name? "High risk" designation impacts the utilization of donated organs."

Edmund Q. Sanchez, MD

- Intraoperative fluorescence imaging in pancreas transplantation to determine vascular patency and allograft perfusion. American Transplant Congress, Toronto, 2008.
- Advancing donor age does not predict increased length of stay in a multivariate analysis of complications after liver transplantation. American Transplant Congress, Toronto, 2008.
- Renal failure after liver transplant is dependent on month 3 GFR, a long-term review of up to 15-year Glofil data. American Transplant Congress, Toronto, 2008.
- Utilizing intraoperative fluorescence imaging in liver transplantation and hepatic arterial revisions to image vascular flow, allograft perfusion, and bile production. American Transplant Congress, Toronto, 2008.
- The effect of immunosuppression on long-term FGR, a comparison of tacrolimus, cyclosporine, and sirolimus. American Transplant Congress, Toronto, 2008.
- Intraoperative fluorescence imaging in renal transplantation to demonstrate vascular patency and allograft perfusion. American Transplant Congress, Toronto, 2008.
- Transplantation options for patients with diabetes mellitus. Northeast Ohio Universities College of Medicine, 2010.

Christopher T. Siegel, MD

- Advanced Surgical Anatomy: Liver resection and transplantation. Case Western Reserve University, Cleveland, 2008.
- Approaches to Challenges in Hepatobiliary & Pancreatic Surgery. 4th Annual Case Department of Surgery Surgery Update Course, Cleveland, 2008.
- Hepatocellular Carcinoma, Cleveland Clinic, 2009.
- Management of gall stone pancreatitis and management of pancreatic pseudocysts. 5th Annual Case Department of Surgery Update Course, Cleveland, 2009.
- Approaches to Challenges in Hepatobiliary & Pancreatic Surgery Cases. 6th Annual Case Department of Surgery Update Course, Cleveland, 2010.
- Imaging Solutions in Cancer Management: A Case Based Conference, Cleveland, 2011
- Surgical Management of Primary Malignancies of the Liver and Pancreas. LakeHealth Annual Cancer Symposium, 2011.

Kenneth J. Woodside, MD

- Liver and kidney utilization from pediatric DCD donors. American Society of Transplant Surgeons Winter Meeting, Marco Island, 2009.
- Laparoscopic nephrectomy in obese donors. American Transplant Congress, Boston, 2009.
- Extended and standard criteria kidneys with similar KDRI scores have similar outcomes, American Society of Transplant Surgeons Winter Meeting, Hollywood, FL, 2011.
- Ruptured liver mass, American Liver Foundation, Cleveland, 2011.

HEPATOBIILIARY AND TRANSPLANT SURGERY

- Kidney case studies, American Society of Transplant Surgeons Winter Meeting, Miami Beach, FL, 2012.
- ECD kidney utilization, International Society for Organ Preservation Webinar Series, 2012.
- Transplant Immunology. Grand Rounds, Department of Surgery UHCCM 2012.
- Outcomes of transplant nephrectomy: A possible benefit of transplant nephrectomy early after allograft failure. American Transplant Congress, 2012.
- Alphabet Soup: SCD, ECD, and DCD donors. University Hospitals Transplant Learning Series, Youngstown and North Canton, 2012.
- Transplant Immunosuppression, Grand Rounds, Department of Surgery, Northside Hospital, Youngstown OH, 2012.
- Kidney transplantation for patients with HIV. Ahuja Grand Rounds, Ahuja Medical Center, Beachwood, Ohio.
- Kidney transplants for patients with well-controlled HIV. Healthlines Podcast Program, Academy of Medicine Education Foundation, Cleveland, Ohio.
- Organ donor types and transplantation. 4th Annual Nursing Update—Historical Trends:
- Past, Present and Future, Case Western Reserve University, Cleveland, Ohio.
- Living donation, paired donation, and deceased kidney donor types. Fresenius Retreat: Understanding Kidney Transplantation, University Hospitals Transplant Institute & Fresenius Medical Care, Cleveland, Ohio
- Utilization and outcomes of marginal and high risk kidney donors. Lifebanc Education and Transplantation Series, Cleveland, Ohio
- Liver cancer. University Hospitals Transplant Learning Series: Liver Care Meeting, Akron, Ohio (Invited Presentation).
- Hepatocellular carcinoma. Summa Western Reserve Hospital, Cuyahoga Falls, Ohio (Invited Presentation).
- Matching kidney donors and recipients. University Hospitals Transplant Learning Series: Focus on Kidney Transplant, Westlake, Ohio (Invited Presentation).
- Matching kidney donors and recipients. Division of Pediatric Nephrology, Department of Pediatrics, University Hospitals Rainbow Babies & Children's Hospital, Cleveland, Ohio.

The year 2013 saw the retirement of longtime Division chief James Schulak, MD. With the retirement of Dr. Schulak, the Division of Hepatobiliary Surgery and Transplant Surgery have recombined and are under the direction of Dr. Christopher Siegel. Dr Edmund Sanchez is the current chief of abdominal organ transplantation and Dr. Jeffrey Hardacre serves as the chief of pancreas surgery. In 2013, the total volume of organ transplants performed at University Hospitals Case Medical Center, since the inception of the program, has surpassed the 3,500 mark. Continued growth in our abdominal transplant programs will be a major focus of the Division with emphasis on living donor renal transplantation and single site nephrectomy. Growth in hepatobiliary surgery will be driven by an increased presence of the Division surgeons in the community hospitals of the UHCCM system, specifically UH Ahuja Medical Center and St. John Medical Center, serving the east and west suburbs of Cleveland respectively.

DIVISION GOALS

The Division of Hepatobiliary and Transplant Surgery continues to strive for the best outcomes achievable in abdominal organ transplantation and in hepatobiliary surgery. Growth in transplant volume is of paramount importance to the Division and strategies to achieve this goal are being developed through strategic planning efforts with UHCCM administration for each organ. In concert with our colleagues in the Department of Medicine, Division surgeons continue to develop clinical studies in kidney, liver, and pancreas transplantation. Improvement in outcomes for hepatobiliary and pancreatic malignancies continues to be a goal for the Division and is being achieved through the use of multidisciplinary teams in the treatment of these devastating cancers.

The mission of the Division of Vascular Surgery and Endovascular Therapy is to provide comprehensive care for patients with diseases of the vascular system to reduce morbidity and mortality from these diseases and improve quality of life for our patients. We do this through education, research and scientifically-based, compassionately delivered clinical care employing the latest advanced techniques and technology.

More than half of our procedures are now exclusively or partially catheter-based and minimally invasive. This has greatly broadened the scope of our clinical activities and is reflected in the name Division of Vascular Surgery and Endovascular Therapy. As one of the Divisions within the Department of Surgery, we participate fully in its academic and educational programs. The Division is also an integral component of the Harrington Heart and Vascular Institute of University Hospitals Case Medical Center (UHCMC), working closely with colleagues from cardiovascular medicine, cardiac surgery, and radiology to create system-wide integration and improvements in cardiovascular care. Vascular medicine focuses on the non-surgical and non-interventional management of a wide variety of vascular disorders including wound care, lymphedema, arteriovascular risk factor modification and clinical thrombosis.

The Division is composed of eight full-time faculty. These faculty members provide inpatient services to the following University Hospitals Centers: Case, Ahuja, Bedford, Geauga, and Richmond Medical Centers. Outpatient clinical practice occurs at multiple suburban Cleveland locations including: University Suburban, Chagrin Highlands, Twinsburg, Concord, Westlake, and Mentor Health Centers. The Division has two nurses, a nurse practitioner, a clinical research coordinator, secretaries, and a billing and coding specialist to help provide expert and timely communication and care. As the Vascular Center of the Heart and Vascular Institute, we also are responsible for the Vascular Diagnostic Center, where more than 10,000 non-invasive vascular examinations are performed annually.

The Division supports highly successful and competitive ACGME-approved training programs. The Fellowship in Vascular Surgery is a 2-year program and is approved for one fellow per year leading to certification in Vascular Surgery by the American Board of Surgery. Recently, the Division was approved for a novel Vascular Surgery Residency (0-5 Program, 5 years); our inaugural resident began in 2012. In addition, we actively participate in the education of general surgery residents and medical students from Case Western Reserve University School of Medicine.

CHAPTER 13 DIVISION OF VASCULAR SURGERY AND ENDOVASCULAR THERAPY

Division Chief

Vikram Kashyap, MD

Division Chief Emeritus and Program Director

Jerry Goldstone, MD

Faculty

Henry Baele, MD

Teresa Carman, MD

Howard Darvin, MD

James Persky, MD

John Wang, MD

Virginia Wong, MD



STAFF/FACULTY

Henry Baele, MD, FACS

Assistant Professor of Surgery

Dr. Baele has been affiliated with UHCMC for over 20 years and serves as Director of the Vascular Laboratories. He has a busy clinical practice, focused primarily on complex aortic disease, and he plays an important role in the education of vascular fellows. He is certified by the American Board of Surgery in general surgery and vascular surgery.

Teresa Carman, MD

Assistant Professor of Vascular Medicine

Dr. Carman is a Diplomat of the American Board of Vascular Medicine. She serves as Director of the Vascular Medicine program, as well as the Center for Wound Care at UHCMC and the Anticoagulation Monitoring Service. Her clinical research interests include thrombophilia, therapies for venous thromboembolism and vascular laboratory assessment. She plays an active role in the vascular surgery educational and clinical programs.

Howard Darvin, MD, FACS

Clinical Assistant Professor of Surgery

Dr. Darvin completed his general surgery training at Mount Sinai Medical Center in Cleveland and a vascular fellowship at St. Anthony's Hospital in Columbus. He is the Director of Vascular Services at UH Geauga Medical Center where he maintains a busy clinical practice. He is board certified by the American Board of Surgery in general surgery.

Jerry Goldstone, MD, FACS, FRCSE (hon)

Professor of Surgery

Dr. Goldstone serves as Division Chief Emeritus, having led the Division for nine years, from 1999-2008, and again as interim chief in 2010. He has been a member of the UHCMC faculty since 1999. He has played a significant leadership role within the Department of Surgery, University Hospitals Case Medical Center, and Case Western Reserve University School of Medicine. He is certified by the American Board of Surgery in general surgery and vascular surgery.

Vikram Kashyap, MD, FACS

Professor of Surgery

Dr. Kashyap was recruited to lead the Division and assumed this role in February 2011. His clinical expertise is in the areas of cerebrovascular disease, aortic pathologies, peripheral arterial disease, and venous problems. He has been awarded numerous NIH and Foundation grants to fund his research. The translational laboratory is devoted to the study of endothelial dysfunction. He is certified in both general surgery and vascular surgery.

James Persky, MD, FACS

Clinical Assistant Professor of Surgery

A native Clevelander and graduate of the Case Western Reserve University School of Medicine, Dr. Persky received his general surgery training at Case Western Reserve University followed by a vascular surgery fellowship at the University of Cincinnati. He is the first-elected Chief of Surgery at UH Ahuja Medical Center. He is certified by the American Board of Surgery in both general and vascular surgery.

John Wang, MD, FACS

Assistant Professor of Surgery

Dr. Wang joined the faculty in 2009 following training in general and vascular surgery at Temple University in Philadelphia. He has quickly become a busy clinician with expertise in endovascular therapies and is now beginning to develop a research program. He is Associate Program Director of the Vascular Surgery Fellowship. He is certified by the American Board of Surgery in both general and vascular surgery.

Virginia Wong, MD, FACS

Assistant Professor of Surgery

Dr. Wong has been a member of the faculty since completing her general and vascular surgery training at UHCMC in 2006. She completed additional fellowship training in advanced endovascular techniques at Eastern Virginia Medical School (2005) and Baylor (2006). She has been a leader in the

application of endovascular techniques to the treatment of vascular disease and has also become a leader in dialysis access program. She leads the Vascular Services at UH Richmond Medical Center. Dr. Wong is certified by the American Board of Surgery in both general surgery and vascular surgery.

PATIENT CARE

The Division's multidisciplinary team is composed of highly trained academic physicians, surgeons, nurses and technicians in multiple locations across Northeast Ohio. We are dedicated to the diagnosis and treatment of patients with vascular problems including cerebrovascular, aortic, peripheral occlusive and venous disease. All aspects of evaluation and treatment of vascular diseases, including advanced diagnostic imaging, medical therapies, endovascular treatment and surgery, are available for our patients. The Division's physicians are pioneers in a number of cutting-edge research studies and novel therapies. We have many innovative clinical and research resources for the most challenging and ill patients. Our patients have access to the latest technologies, including stem cell therapy for peripheral arterial disease, advanced cardiovascular imaging, novel endovascular devices and surgical techniques. In addition, the results of the Medical Center's patient satisfaction surveys show vascular surgery to be at or near the very top of the rankings in every category.

DIVISION EDUCATIONAL ACTIVITIES

We have responsibility for the education of 24 PGY-1 general surgery and surgery specialist residents providing care for patients with vascular disease. This is both a rewarding and stimulating activity. A major educational focus involves the training of our advanced vascular fellows in a two-year program that has completion of a general surgery residency as a necessary precursor. Similarly, we focus on training our integrated vascular surgery residents over a five-year span. The vascular trainees must become not only familiar with, but expert in, the diagnosis and management of diseases of the arterial and venous systems. One measure of the quality of such training programs is the success rate of the graduates in passing the vascular board examinations of the American Board of Surgery. Over the past 10 years, our fellows' record is nearly 100%. Faculty also participate in the education of medical students through the core surgery clerkships, as well as advanced electives. In addition, faculty are involved in CME activities, lecturing and sharing their expertise to other practicing physicians in local, regional, national and international venues. The faculty give nearly 100 academic presentations locally, nationally, and internationally on a yearly basis.

DIVISION GOALS

Our overall goal is to increase our ability to serve the patients of Northeast Ohio with the most innovative, comprehensive and personal care. In order to help achieve this goal, we plan to:

- Expand the number of clinical research projects.
- Expand clinical activities to include UH Ahuja Medical Center and hospitals on the West Side.
- Develop new clinical programs utilizing endovascular, minimally invasive therapies.
- Develop an inter-departmental center for the outpatient management of varicose veins.
- Develop a robust translational laboratory with additional NIH funding.





DIVISION RESEARCH

Basic or Translational Research:

- Endothelial Function in Human Peripheral Arteries
- Biomimetic Engineering of Vascular Prostheses, R01 HL087483
- Effects of Thrombosis on Venous Endothelium
- Pilot of Intravascular Optical Coherence Tomography Axial Imaging to Assess Lower Extremity Vascular Morphology and Results of Endovascular Intervention
- Operative Staff Radiation Exposure Comparison Between a Hybrid and Standard OR Theater Using Real-Time Dosimetry

Clinical Research:

- The Rheos Implantable Baroreceptor Stimulator for the Treatment of Resistant Hypertension
- Investigation of Flow Altered, Short Transcervical Carotid Artery Stenting in Patients with Significant Carotid Artery Disease with Filter (ROADSTER)
- Stenting and Angioplasty with Protection in Patients at High-Risk for Endarterectomy (SAPPHIRE WW)
- Post Approval Study Evaluating The Long Term Safety and Effectiveness Of the Endurant Stent Graft System (ENGAGE PAS)
- A Multicenter, Open Label, Prospective, Non-Randomized Study of The Incraft™ Stent Graft System in Subjects with Abdominal Aortic Aneurysms (INSPIRATION)
- MarrowStim PAD Kit for the Treatment of Critical Limb Ischemia in Subjects with Severe Peripheral Arterial Disease
- A Randomized, Double-blind, Parallel group, Multicenter Phase IIIb Study to Compare Ticagrelor with Clopidogrel Treatment on the Risk of Cardiovascular Death, Myocardial Infarction and Ischemic Stroke in Patients with Established Peripheral Artery Disease (EUCLID)
- A Randomized, Prospective Evaluation of the Toad Anti-Gravity Brace for Use with Plantar Ulcer Off-loading and Healing (TOAD)
- Propaten® Randomized Investigation on Cost-benefit and Efficacy (PRICE)
- Hospital Associated Cost Comparison Between Patients with Carotid Occlusion and Asymptomatic Carotid Stenosis
- Comparison of Incidence of Aortic Pathology Between Patients with Normal Aortic Arch Anatomy and Bovine Arch Anatomic Variants
- Timing of Vein Mapping for Hemodialysis Arteriovenous Fistula Access

PUBLICATIONS

- Kashyap VS, Angle N, Quinones-Baldrich WJ, Thrombolysis for arterial and graft occlusions: techniques and results, in *Vascular and Endovascular Surgery: A Comprehensive Review*, 8th edition, edited by Moore W. Elsevier Science, Philadelphia, PA; 2013, pages 556-582.
- Vargas L, Kashyap VS, *Vascular Access Closure Devices*, in *Handbook of Endovascular Interventions*, edited by Kumar A, Ouriel K. Springer Science+Business Media, New York, NY; 2013, pages 501-510.
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2013 Cleveland Vascular Society's Research Competition – UHCMC researchers "swept" the awards:

1st place: Ben Eslahpazir, CWRU Masters student, "Utility of PVRs in Stratifying PAD"

2nd place: Matt Allemang, Allen Scholar in Surgical Research, "Initial Use of OCT in Lower Extremity Angiography"

3rd place: Alex Chang, 2nd year Vascular Surgery fellow, "Single Stage vs. Dual Stage Basilic Transposition"

HONORS AND AWARDS

Henry Baele, MD

- "Best Doctors in Northeast Ohio"

Jerry Goldstone, MD

- "Best Doctors in Northeast Ohio"
- "Best Doctors in America"

Vikram S. Kashyap, MD

- President-Elect, Peripheral Vascular Surgery Society
- University Hospitals Leadership Academy, Weatherhead School of Business
- Editorial Board, *Journal of Vascular Surgery*

ACCOMPLISHMENTS

- Integration of UHMG-UHMP surgeons into one group
- Open surgical and endovascular double digit growth
- Hybrid operating room—both hybrid and percutaneous cases
- Achieved ICAVL certification for UH Vascular Labs
- Continue to develop system Wound Center integration
- Expanded services at Twinsburg, Concord, Medina and Mentor
- Centralized scheduling using the HVI 844 3800 number for enhanced access
- Installation and use of 3D Phillips Portal
- Establishing a translational laboratory
- Recruitment of highly competitive vascular trainees

CLINICAL FIRSTS

- Carotid artery stenting using reversal of flow
- Thoracic endografting for aneurysms and dissections
- Endoscopic vein harvest for lower extremity bypass
- Novel and branched endografts for aortic pathologies
- Branding of Vascular Center
- Initiation of multiple new clinical trials

CHAPTER 14 SURGICAL RESEARCH

The Department of General Surgery's Research Section is comprised of two registered nurses. Under the direction of Bridget O'Brien-Ermlich, RN, MSN, CCRP, research has continued to grow over the past several years. In addition to the full management and coordination of clinical trials, the Research Section assists and mentors residents, students and other staff investigators in the development of protocols, consent forms, and IRB submissions such as departmental databases and other low risk research projects.

GENERAL SURGERY RESEARCH UPDATE

All members of the research team are Certified Clinical Research Professionals (CCRPs) by the Society for Clinical Research Associates (SoCRA). SoCRA established the Certification Program for Clinical Research Professionals in order to create an internationally accepted level of knowledge, education, and experience by which clinical research professionals will be recognized by the medical research community.

A Clinical Research Professional may serve as a clinical investigator, sub-investigator, clinical researcher, research nurse, administrator, coordinator, data manager, project manager, IRB coordinator, quality assurance specialist, regulatory affairs specialist, research pharmacist, consultant, or educator in clinical trials management. A Clinical Research Professional is involved in one or more aspects of clinical trials (GCP) research, including data collection, analysis, or monitoring; case management of protocol participants; recruitment and enrollment of human subjects; protection of subjects and subjects' rights through IRB relations; development of informed consent documents; preparation of adverse event experience reports; construction or monitoring of case report forms; maintenance of drug accountability records; grant and budget development; report preparation; education of other health-care professionals, patients or families regarding clinical trials, protocol development, program administration; and research program audit.

Tina Seafler, RN

Research Nurse

Ms. Seafler has almost 30 years of clinical nursing experience. She started her nursing career working with post-op surgical patients and in cardiology. She then moved into the role of a Nurse Specialist working closely with patients in the office setting and performing nuclear stress testing. Ms. Seafler's interest in research developed when she was a clinical coordinator for a program looking at



General Surgery Research

Left to right: Bridget O'Brien-Ermlich, RN, MSN;
Tina Seafler, RN

peripheral artery disease. She also worked in the community, screening and educating for wellness and prevention. She has assisted on research projects that focused on risk factors associated with diabetes and cardiovascular disease. Ms. Seafler currently coordinates clinical trials in the Department of Surgery on several PI-initiated and sponsored studies.

Bridget O'Brien-Ermlich, RN, MSN **Senior Clinical Research Study Coordinator**

Ms. O'Brien-Ermlich came to UHCMC from the Cleveland Clinic where she served as a research nurse for the Digestive Disease Center from 2001 to 2005. Prior to that, she worked as a Wound, Ostomy and Continence nurse for approximately seven years. While at CCF, she was responsible for managing an extensive database on Crohn's Disease with an average accrual of 400 patients per year. Ms. O'Brien-Ermlich continues to lead the research team in the Department of Surgery and is responsible for the budgets and administrative financial obligations for research. She has authored and co-authored articles for a variety of clinical journals and has presented at many clinical programs and symposia. Ms. O'Brien-Ermlich received her Bachelor's of Science in Nursing from College Misericordia in Dallas, Pennsylvania. In 2009, she received her Master's in Nursing from Kent State University. She serves as a member of the IRB Executive Committee, the Research Committee for Electronic Health Record Committee and the SOP Committee.

CLINICAL RESEARCH STUDIES

Title: A Phase 3B, Randomized, Double-Blind Placebo Controlled, Parallel-Treatment Group, Multicenter Efficacy and Safety Study of Topical Diltiazem Hydrochloride 2% Cream in Subjects with Anal Fissure
Principal Investigator: Sharon Stein, MD
Sponsor: Ventrus Biosciences

Title: Establishment of a Longitudinal Database I Support of Simulation-Based Analysis of Colorectal Cancer Survivorship Data: Colorectal Cancer Surveillance Database
Principal Investigator: Johnie Rose, MD
Sponsor: American Cancer Society Grant Funded

Title: 25-OH-Vitamin D3 Therapy in Colorectal Cancer
Principal Investigator: Smitha Krishnamurthi, MD

Title: A Multi-Center, Prospective Study of the Safety and Efficacy of the HET™ Bipolar System for the Treatment of Grade I and Grade II Hemorrhoids
Principal Investigator: Brad Champagne, MD
HET Bipolar System Study
Sponsor: HET Systems, LLC

Title: Pilot Study Evaluating the Efficacy of AlloMEM™ in Prevention of Intraoperative & Peritoneal Regeneration after Loop Ileostomy (HPM Study)
Principal Investigator: Conor Delaney, MD, PhD
Sponsor: Proxy Biomedical Limited, Ireland, Community Tissue Services

PUBLICATIONS

- Rosen, MJ., Krpata, DM., Ermlich, B., Blatnik, JA. A 5-Year Clinical Experience With Single-Stage Repairs of Infected and Contaminated Abdominal Wall Defects Utilizing Biologic Mesh. *Annals of Surgery* June 2013.
- Keller, DS, Champagne, BJ, Stein, SL, Ermlich, BO, Delaney, CP Pilot study evaluating the efficacy of AlloMEM™ for prevention of intraperitoneal adhesions and peritoneal regeneration after loop ileostomy. *Surgical Endoscopy*. 2013 May 14.
- Krpata DM, Stein SL, Eston M, Ermlich B, Blatnik JA, Novitsky YW, Rosen MJ. Outcomes of simultaneous large complex abdominal wall reconstruction and enterocutaneous fistula takedown. *Am J Surg*. 2013 Mar;205(3):354-9.
- Lawrence JK, Keller DS, Samia H, Ermlich B, Brady KM, Nobel T, Stein SL, Delaney CP. Discharge within 24 hours to 72 hours of colorectal surgery is associated with low readmission rates when using enhanced recovery pathway pathways. *J Am Coll Surg*. 2013 Jan 23.

SURGICAL RESEARCH

Title: Evaluation of a TAP Block as Part of an Enhanced Recovery Pathway in Laparoscopic Colorectal Surgery: A Prospective, Randomized, Double-Blinded, Multi-Institution Trial

Principal Investigator: Conor Delaney, MD, PhD

Title: Ongoing Study of Pancreatic Disease (IRB# 12-04-08)

Principal Investigator: Jeffrey Hardacre, MD

Title: A Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of Intravenous (IV) Ulimorelin Administered Post-Operatively to Accelerate Recovery of Gastrointestinal (GI) Motility in Subjects Who Have Undergone Partial Bowel Resection (IRB# 2-11-05)

Principal Investigator: Sharon L. Stein, MD

Sponsor: Tranzyme, Inc.

Title: Evaluating the Feasibility of the Radial Reload Stapler with Tri-Staple™ Technology During Laparoscopic Low Anterior Resection for Rectal Cancer: A Prospective Multicenter Case Series

Principal Investigator: Conor Delaney, MD, PhD

Sponsor: Covidien

Title: The Immunological Response of Biologic Mesh in Ventral Hernia Repair – Drain Fluid

Principal Investigator: Michael Rosen, MD

Title: Permacol Vs. Strattice for Abdominal Wall Reconstruction in the Contaminated Field: A Comparative Study

Principal Investigator: Michael Rosen, MD

Title: Hernia Repair Database for UHCMC Faculty

Principal Investigators: Michael Rosen, MD

Title: The Optimal Treatment Of Fulminant Clostridium Difficile Colitis: Diverting Loop Ileostomy and Colonic Lavage versus Total Abdominal Colectomy

Principal Investigator: Sharon L. Stein, MD

Title: Evaluation of a Novel Endoscopic Treatment for Achalasia: Per-Oral Endoscopic Esophagomyotomy (POEM)

Principal Investigator: Jeffrey Ponsky, MD

Title: Evaluation of Abdominal Muscle Function Following Ventral Hernia Repair

Principal Investigator: Michael Rosen, MD

Title: Ligation of the Intersphincteric Fistula with Tissue Graft Placement for Treatment of Persistent Trans-sphincteric Anal Fistula

Principal Investigator: Brad Champagne, MD

Sponsor: Cook Biotech Incorporated

Title: Development of an Assessment Tool to Measure Flexible Endoscopic Performance. (GAGES)

Principal Investigator: Jeffrey Marks, MD

Title: Prospective, Multicenter, Observational Study to Evaluate Single-Stage Complex Ventral Hernia Repair Using a Bioabsorbable Material For Midline Fascial Closure Reinforcement (GORE® BIO-A® Tissue Reinforcement)

Principal Investigator: Michael Rosen, MD

Sponsor: W.L. Gore & Associates

Title: A Prospective Randomized Trial of Biologic Mesh Versus Synthetic Mesh for the Repair of Complex Ventral Hernias

Principal Investigator: Michael Rosen, MD

Sponsor: Center for Clinical Research and Technology and American Hernia Society Grant

Title: Randomized Control Trial of Biologic Mesh (XenMATRIX™) vs. Component Separation Alone in Contaminated Ventral Hernia Repair: A Pilot Study

Principal Investigator: Michael Rosen, MD

Sponsor: Davol

Title: The Pillar II Multicenter Study

Principal Investigator: Conor Delaney, MD, PhD

Sponsor: Novadaq, Inc

Title: Health Care Disparities: A Better Metric to Measure Quality of Care in Colorectal Surgery

Principal Investigator: Sharon L. Stein, MD

Title: Socrates

Principal Investigator: Conor Delaney, MD, PhD

Title: Gastrointestinal Database

Principal Investigator: Jeffrey Marks, MD

Title: A prospective study of the functional outcomes status post diverticulitis surgery

Principal Investigator: Sharon Stein, MD

Title: Multi-Center, Single Blinded, Randomized Controlled Trial of Formal Instructional Video vs. Standard Preparation Prior to Laparoscopic Right Colectomy for General Surgery Residents

Principal Investigator: Brad Champagne, MD

Title: Prospective Pilot Trial of Laparoscopic High-Ligation Repair of Indirect Inguinal Hernias in Adults

Principal Investigator: Michael Rosen, MD

Title: The Role of Laparoscopy and a Frailty Index in Preventing HaRM in Colorectal Surgery Patients

Principal Investigator: Conor Delaney, MD, PhD

Title: Predictive Factors of Complications and Outcomes in Parastomal Hernias: A Retrospective Analysis

Principal Investigator: Michael Rosen, MD

Title: Retrospective database review of a single surgeons experience with major colorectal procedures and evaluation of standardized methods on outcomes

Principal Investigator: Conor Delaney, MD, PhD

Title: Preoperative Esophagogastroduodenoscopy should become standard of care in patients undergoing bariatric surgery

Principal Investigator: Leena Khaitan, MD

Title: C-Reactive Protein as an Indicator of Post-operative Readmission After Colorectal Surgery

Principal Investigator: Conor Delaney, MD, PhD

Title: Measurement of Low Rectal Cancer- A Need for Standardization?

Principal Investigator: Conor Delaney, MD, PhD

Title: A Risk Prediction Model for Ventral Hernia Recurrence and Surgical Site Occurrences Requiring Procedural Intervention Following Ventral Hernia Repair in Clean-Contaminated and Contaminated Surgical Sites

Principal Investigator: Michael Rosen, MD

Title: A Phase II, Double-Blind, Placebo-Controlled, Dose Finding Study to Evaluate the Safety and Efficacy of Ipamorelin Compared to Placebo for the Recovery of Gastrointestinal Function in Patients Following Small or Large Bowel Resection with Primary Anastomosis

Principal Investigator: Sharon Stein, MD

Title: Impact of type of minimally invasive approach to colectomy on clinical and economic outcomes: a nationwide review

Principal Investigator: Conor Delaney, MD, PhD

Title: Retrospective Review of Hepatobiliary Surgical Outcomes

Principal Investigator: Christopher Siegel, MD, PhD

Title: Safety, efficacy and cost-benefit comparison of laparoscopic versus open colectomy stratified by primary versus re-operative and emergency versus scheduled procedures.

Principal Investigator: Conor Delaney, MD, PhD

Title: Postoperative quality of life in laparoscopic versus open abdominal colorectal surgery

Principal Investigator: Conor Delaney, MD, PhD

Title: The Utility of the Extended Criteria Donor Label as a Function of the Kidney Donor Risk Index and Graft Outcomes

Principal Investigator: Kenneth Woodside, MD

Title: Americas Hernia Society Quality Collaborative

Principal Investigator: Michael Rosen, MD

Title: Comparing Pancreatectomy Outcomes: Community Hospital vs Tertiary Care Center

Principal Investigator: Jeffrey Hardacre, MD

Title: Trends and outcomes in the use of adjuvant chemotherapy versus adjuvant chemoradiotherapy in patients with resectable adenocarcinoma of the pancreas – a US population-based analysis from 2000-2009

Principal Investigator: Jeffrey Hardacre, MD

Title: Trends in the use of surgery, radiation and chemotherapy in patients with resectable adenocarcinoma of the stomach – a US population-based analysis from 2000-2009

Principal Investigator: Michael Rosen, MD

SURGICAL RESEARCH

DIAPHRAGM PACING RESEARCH UPDATE

There have now been nearly 1,000 Diaphragm Pacing Systems (DPS) implanted worldwide for various indications since the first implant over 14 years ago. Diaphragm Pacing (DP) was initially approved for Spinal Cord Injury (SCI) in June 2008. Since that time, we have implanted many SCI patients from around the country at University Hospitals Case Medical Center (UHCMC). DPS has freed over 400 SCI persons from mechanical ventilation.



Diaphragm Pacing Research
Left to Right: Mary Jo Elmo, ACNP; Cindy Kaplan, MSN

Diaphragm Pacing changes the lives of its users. It stimulates physiologic breathing and decreases pneumonias. It enables people to speak more normally, improves the sense of smell, increases mobility, and sense of independence.

Diaphragm Pacing received FDA approval as a HDE in 2011 for Amyotrophic Lateral Sclerosis (ALS), also called Lou Gerhig's disease. This disease is a progressive neurodegenerative disease of unknown cause that has devastating effects on the muscle of the respiratory system. The multi-center clinical trial data showed DP significantly improved survival in this population. We are currently enrolling in ALS Post Approval Study.

We have implanted a series of pediatric spinal cord injured children with the youngest being two years old. We completed a review of all diaphragm dysfunction patients implanted which included the first patient with Spinal Muscle Atrophy 2 (SMA2). Diaphragm Pacing in the diaphragm dysfunction group showed strong beneficial results ranging from liberating patients from tracheostomy mechanical ventilation to alleviation of symptoms.

Several presentations were done in 2013, including the 24th International ALSMND Symposium, Northeastern Ohio Chapter of Association of Clinical Research Professionals Sixth Annual Conference, and the 52nd Annual International Spinal Cord Society (ISCOS) Annual Meeting. A publication in the Journal of Trauma Acute Care Surgery (February 2014) showed overwhelming positive benefits of early implantation.

ANIMATE SKILLS LAB

Steve Schomisch, PhD

Instructor, CWRU

Director of the Surgical Research and Skills Lab

Dr. Schomisch was recruited from the Center for Anesthesia Research at the Cleveland Clinic in 1998. He received his undergraduate degree from John Carroll University and his PhD in regulatory biology from Cleveland State University.

Dr. Schomisch is responsible for all operations of the Animate Skills Laboratory; a surgical research

and skills training center serving the Department of Surgery at University Hospitals Case Medical Center in Cleveland, Ohio. Our directive is to enhance the training and academic achievements of our surgeons and those from other health care institutes. The laboratory uses a range of animate models; live animal, tissue explants and human cadavers to conduct research in the field of minimally invasive surgical procedures and to coordinate animate training sessions to allow "hands on" training for the medical students, surgical residents, fellows and attending surgeons in a wide array of surgical

specialties. In addition to research and training, the lab serves to facilitate the third directive of the Institute for Surgery and Innovation by using its resources to enable corporations to evaluate novel surgical devices in a simulated surgical environment.

In 2013, Dr. Schomisch coordinated the use of the Animate Skills Laboratory for over 135 training or innovative sessions. Suture Workshops were held several times throughout the year, providing medical students with an opportunity to learn basics in the use of surgical instruments, suture materials, stitching and knot tying. Surgical residents, recruited to assist in the instruction, also benefitted by gaining experience in communicating these skills. The School of Medicine Department of Anatomy also took advantage of our resources, conducting two courses; Anatomy of the Trunk and Anatomy of the Head and Neck, making use of the surgical equipment available to them in our lab only, using human cadaver models. In July, new interns in general surgery were welcomed to the lab with a workshop to introduce basic knowledge of surgical instruments and general surgical principles, and have the opportunity to work on tissue models to practice techniques. Additionally, surgical residents were scheduled to work in pairs, honing their surgical skills on an anesthetized porcine model, with instruction and evaluation from our surgical trainer. With over 70 sessions conducted in 2013, each resident was given the opportunity to attend several sessions.

Beyond the intra-institutional training sessions, attending surgeons from all over the world participated in numerous training courses offered. General Surgery conducted seven multi-day courses geared to educate surgeons in hernia repair and several courses demonstrating laparoscopic colectomy, utilizing the anesthetized porcine model to gain hands-on experience. Three courses instructing the techniques of Per Oral Endoscopy Myotomy (POEM) using tissue explants were conducted to expose surgeons and gastroenterologist to this novel, minimally invasive approach to treating esophageal achalasia. Dr. Schomisch also coordinated many training courses with other departments. Plastic Surgery used the lab for instruction in procedures to treat migraine headaches using human cadavers.

Orthopedics used the lab to educate their residents and fellows on arthroscopic repairs to cadaveric shoulders, knees and hips. Neurosurgery conducted individual courses in Epilepsy and procedures common to the Craniocervical Junction, using human cadaver models. The Ob/Gyn departments, both at UHCMC and MetroHealth Medical Center, sponsored courses using an anesthetized live porcine model for residents to gain experience in a variety of procedures and techniques. The Gastroenterologists utilized our services for a GI Fellows training course, featuring skills of EUS and ERCP; and also for endoscopic techniques and an in-service on a T-tag fastener. Vascular surgery used the lab several times during the year, enabling surgical residents to practice the highly specialized skill of vascular anastomosis using human cadaveric vascular tissues. Cardiologists used porcine hearts to explore the anatomy of the heart directly, to better conceptualize the images they routinely see via fluoroscopy.

From an innovative perspective, several companies utilized our services and expertise to facilitate non-GLP development and evaluation of their medical devices. U.S. Endoscopy conducted several sessions with our staff to refine endoscopic devices such as snares, biopsy forceps and foreign body retrieval systems. Apollo Endosurgery demonstrated their endoluminal suturing device, the Overstitch, to several of our surgeons and gastroenterologists. Coordinated with Cardiology, our laboratory supported the lab sponsored by Cardiokinetics developing their Parachute device to assist patients with heart failure, as well as the lab sponsored by Angiometrix to further evaluate their cardiac catheterization device. We also coordinated Mazor Robotics' demonstration of their robotic image guided positioning device for spine surgery and worked with Miach Medical in the development of a pressure sensing endotracheal tube, to prevent accidental intubation of the esophagus. Additionally, a group of our own researchers, including Dr. Schomisch, developed a novel over-the-scope deployment method for enteral stent placement which was deployed in several patients.

SURGICAL RESEARCH

BASIC SCIENCE RESEARCH UPDATE

Dr. Schomisch also conducts basic research aimed toward the development of novel minimally invasive surgical techniques, therapies and treatments. He currently collaborates with Dr. Jeffrey Marks, on research to investigate a novel surgical therapy for treating GI lesions and cancer of the esophagus. He is investigating a less invasive technique for endoscopic esophageal mucosectomy, the remodeling that occurs following this procedure and therapies to reduce or prevent stricture formation. In 2013, grant proposals were submitted to ASGE, CTSC, BETRnet, Harrington Foundation, Coulter Foundation and DDRCC.

BASIC RESEARCH GRANTS AND AWARDS

Funding Source: Coulter Foundation
Role on Project: Co-investigator
Project Title: Drug Eluting Stent Therapy to Prevent Stricture Following Endoscopic Esophageal Mucosectomy
Project Period: August 2013-August 2014
Award Amount (total): \$100,000

Funding Source: Boston Scientific
Role on Project: Principal Investigator
Project Title: Evaluation of Endoscopic Therapies to Prevent Stricture Formation Following Circumferential Endoscopic Esophageal Mucosectomy in a Swine Model
Project Period: 8/1/12-present
Award Amount (total): \$40,225



Basic Science Research
Steve Schomisch, PhD; Cassandra Cipriano, RVT

Cassandra Cipriano RVT Technician II

Ms. Cipriano received her degree in Veterinary Technology from Stautzenberger College in 2012. She reports to Dr. Schomisch and her primary responsibility is managing all aspects of the Animate Skills Laboratory. Additional responsibilities include assisting surgeons, residents and fellows in their research endeavors; assisting in preparation and implementation of experiments; and management of animals pre-, intra- and post-operatively. Ms. Cipriano assists with the training courses conducted by the Institute for Surgery and Innovation, by preparing and monitoring animals, maintaining and operating laparoscopic and endoscopic equipment and facilitating the needs of the surgeons and instructors during the courses.

RECENT PUBLICATIONS

- Steve J. Schomisch, Liming Yu, Yuhsin Wu, Eric M. Pauli, Cassandra Cipriano, Amitabh Chak, Richard H. Lash, Jeffrey L. Ponsky, Jeffrey M. Marks. Commercially available biological mesh does not prevent stricture after esophageal mucosectomy. *Endoscopy*. 2013 [Epub ahead of print].
- Wu Y, Schomisch SJ, Cipriano C, Chak A, Lash RH, Ponsky JL, Marks JM. Preliminary results of antiscarring therapy in the prevention of postendoscopic esophageal mucosectomy strictures. *Surg Endosc*. 2013 Oct 8. [Epub ahead of print].
- Sadava EE, Krpata DM, Gao Y, Schomisch S, Rosen MJ, Novitsky YW. Laparoscopic mechanical fixation devices: does firing angle matter? *Surg Endosc*. 2013 Jun;27(6):2076-81. doi: 10.1007/s00464-012-2713-6. Epub 2013 Jan 9.
- Jeffrey A. Blatnik, MD, Karem C. Harth, MD, MHS, David M. Krpata, MD, Katherine B. Kelly, MD, Steven J. Schomisch, PhD, and Todd A. Ponsky, MD. Stitch Versus Scar—Evaluation of Laparoscopic Pediatric Inguinal Hernia Repair: A Pilot Study in a Rabbit Model. *Journal of Laparoendoscopic & Advanced Surgical Techniques*, Volume 22, Number 8, 2012.
- Pauli EM, Schomisch SJ, Blatnik JA, Krpata DM, Sanabria JS, Marks JM. A novel over-the-scope deployment method for enteral stent placement. *Surg Endosc*. 2013 Apr;27(4):1410-1.

VASCULAR SURGERY RESEARCH UPDATE

Basic or Translational Research

- Endothelial Function in Human Peripheral Arteries
- Biomimetic Engineering of Vascular Prostheses (R01 HL087483)
- Effects of Thrombosis on Venous Endothelium
- Pilot of Intravascular Optical Coherence Tomography Axial Imaging to Assess Lower Extremity Vascular Morphology and Results of Endovascular Intervention
- Operative Staff Radiation Exposure Comparison Between a Hybrid and Standard OR Theater Using Real-Time Dosimetry

Clinical Research

- The Rheos Implantable Baroreceptor Stimulator for the Treatment of Resistant Hypertension
- Investigation of Flow Altered, Short Transcervical Carotid Artery Stenting in Patients with Significant Carotid Artery Disease with Filter (ROADSTER)
- Stenting and Angioplasty with Protection in Patients at High-Risk for Endarterectomy (SAPPHIRE WW)
- Post Approval Study Evaluating The Long Term Safety and Effectiveness Of the Endurant Stent Graft System (ENGAGE PAS)
- A Multicenter, Open Label, Prospective, Non-Randomized Study of The Incraft™ Stent Graft System in Subjects with Abdominal Aortic Aneurysms (INSPIRATION)
- MarrowStim PAD Kit for the Treatment of Critical Limb Ischemia in Subjects with Severe Peripheral Arterial Disease
- A Randomized, Double-blind, Parallel Group, Multicenter Phase IIIb Study to Compare Ticagrelor with Clopidogrel Treatment on the Risk of Cardiovascular Death, Myocardial Infarction and Ischemic Stroke in Patients with Established Peripheral Artery Disease (EUCLID)
- A Randomized, Prospective Evaluation of the Toad Anti-Gravity Brace for Use with Plantar Ulcer Off-loading and Healing (TOAD)
- Propaten® Randomized Investigation on Cost-benefit and Efficacy (PRICE)
- Hospital Associated Cost Comparison Between Patients with Carotid Occlusion and Asymptomatic Carotid Stenosis
- Comparison of Incidence of Aortic Pathology Between Patients with Normal Aortic Arch Anatomy and Bovine Arch Anatomic Variants
- Timing of Vein Mapping for Hemodialysis Arteriovenous Fistula Access



Daniel Kendrick, MD
Allen Research Scholar in
Vascular Surgery Research

2013 Cleveland Vascular Society's Research Competition

UHCMC had an unprecedented "clean sweep" of the awards:

1st place: Ben Eslahpazir, CWRU Masters student

Topic: Utility of PVRs in Stratifying PAD

2nd place: Matt Allemang, Allen Scholar in Surgical Research

Topic: Initial Use of OCT in Lower Extremity Angiography

3rd place: Alex Chang, 2nd year Vascular Surgery Fellow

Topic: Single Stage vs. Dual Stage Basilic Transposition

SURGICAL ONCOLOGY RESEARCH UPDATE

Research activities within the Division of Surgical Oncology span clinical, translational and basic and are funded from a variety of sources including the National Institutes of Health (NIH), institutional awards, and industry. Extramural grant support within the Division ranks as one of the highest within the Department of Surgery. Dr. Julian Kim is the principal investigator of an NIH award which aims to develop novel methods of adoptive immunotherapy of cancer using T cell receptor molecular signatures. The data from this NIH study is currently being used to develop a Phase I study of adoptive immunotherapy of patients with metastatic melanoma. Preclinical mouse studies are also being conducted within the Kim Lab on regulation of macrophages as a cancer therapy using the development of nanoparticles to target tumor-associated macrophages for therapy and imaging. Dr. Jeffrey Hardacre is principal investigator on a Phase III pivotal FDA registration trial evaluating a novel hyperacute pancreatic cancer vaccine in patients with resected pancreatic cancer. Dr. Robert Shenk is a co-investigator on an NIH grant in collaboration with the Department of Human Genetics and has teamed with Dr. Janice Lyons in the Department of Radiation Oncology to develop methods of partial breast irradiation. Dr. John Ammori has competed for and received an institutional NIH K12 career development award for work examining T cells responses in draining lymph nodes in patients with pancreatic cancer. Preclinical studies are underway on human draining lymph nodes, and Dr. Ammori is also starting studies on adoptive immunotherapy using a murine pancreatic cancer model.

IRB-APPROVED CLINICAL TRIALS

- “Molecular Analysis of T Cell Clones for Adoptive Therapy” (Kim, PI). Sponsor-NIH/NCI.
- “A Phase 3, Prospective, Open-Label, Multicenter Comparison Study of Lymphoseek and Vital Blue Dye as Lymphoid Tissue Targeting Agents in Patients With Known Melanoma or Breast Cancer Who Are Undergoing Lymph Node Mapping” (Kim, PI). Sponsor-Neoprobe Corporation.
- “A Phase III Clinical Trial to Evaluate the Safety and Efficacy of Treatment with 2 mg Intralesional Allovectin-7 Compared to Dacarbazine (DTIC) or Temozolomide (TMZ) in Subjects with Recurrent Metastatic Melanoma” (Kim, PI). Sponsor-Vical Corporation.
- “A Phase II study of hyperacute pancreatic cancer vaccine in subjects with surgically resected pancreatic cancer” (Hardacre, PI). Sponsor-NewLink Genetics Corporation.
- “A Prospective, Randomized Comparison of Pancreatic Stump Closure Techniques Utilizing an Autologous Falciform Patch and Fibrin Glue Compared to Standard Closure Following Distal Pancreatectomy with or without Splenectomy” (Hardacre, PI).
- “A Phase 3 Study of Chemotherapy and Chemoradiotherapy with or without HyperAcute®-Pancreatic Cancer Vaccine in Subjects with Surgically Resected Pancreatic Cancer.” (Hardacre PI) Sponsor-New Link Genetics.
- UHCMC IRB 10-10-12 “Blood and Mucosal HIV-Specific CD8+ T-Cell Responses in High-Risk Seronegatives.” Jeffrey Hardacre, Co-investigator.

IACUC APPROVED ANIMAL PROTOCOLS

- CASE 2012-0019: Adoptive immunotherapy using ex vivo activated melanoma-draining lymph node (MDLN) T cells against human melanoma xenografts.
- CASE 2010-0127: Modulation of mammary tumor growth, metastasis and tumor-induced immune suppression.
- CASE 2010-0152: Effects of KLF4 knock-out macrophages on B16 melanoma murine model.

RESEARCH GRANTS AND AWARDS

Julian Kim, MD, MS

Funding Source: NIH/NCI

Role on Project: Principal investigator

Project Title: Molecular Analysis of T Cell Clones for Adoptive Therapy

Project Period: 9/30/06-9/30/12

Award Amount (total): \$672,300

Funding Source: Case Western Reserve University Clinical and Translational Science Collaborative

Role of Project: Co-Principal Investigator (Mei Zhang, PhD)

Project Title: Adoptive Immunotherapy Using Melanoma Draining Lymph Nodes

Project Period: 7/1/2012- 6/30/2013

Award Amount (total): \$75,000

Funding Source: Case Comprehensive Cancer Center

Role of Project: Co-Principal Investigator (Mei Zhang, PhD)

Project Title: Development of Injectable Novel CNT/Fe₃O₄ Nanoparticle Complexes for TAM-Specific Targeting, Imaging and Elimination in the Treatment of Breast Cancer

Project Period: 7/1/2012- 6/30/2013

Award Amount (total): \$75,000

John Ammori, MD

Funding Source: NIH/NCI Clinical Oncology Career Development Program

Role of Project: Paul Calabresi Scholar (Gerson, PI)

Project Title: Mentored Research Experience with a 2-year Didactic Curriculum Designed to Provide Basic Background and Highly Individualized Advanced Training in Clinical and Methodological Components of Translational Cancer Research

Project Period: 2012-2014

Jeffrey Hardacre, MD

Funding Source: NewLink Genetics Corp

Role on Project: Principal Investigator

Project Title: A Phase 3 Study of Chemotherapy and Chemoradiotherapy with or without HyperAcute®-Pancreatic Cancer Vaccine in Subjects with Surgically Resected Pancreatic Cancer

Robert Shenk, MD

Funding Source: PHD NIH R18

Project Title: Use of Biometric Patient Identification System Prior to Medical Procedures

Role on Project: Co-Investigator (Principal Investigator, Jason Sohn)

PUBLICATIONS

- Mudd J. C, Murphy P, Manion M, Debernardo R, Hardacre J, Ammori J, Hardy GA, Harding C, Mahabaleswar G, Jain M, Jacobson J, Brooks A, Lewis S, Schacker T, Anderson J, Cubas RA, Haddad EK, Rodriguez B, Sieg SF, and Lederman MM. Impaired T cell responses to sphingosine-1-phosphate in HIV-1 infected lymph nodes. *Blood*. 2013 121(15):2914-22.
- Pelletier SJ, Nadig SN, Lee DD, Ammori JB, Englesbe MJ, Sung RS, Magee JC, Fontana RJ, Punch JD. A prospective, randomized trial of complete avoidance of steroids in liver transplantation with follow-up of over 7 years. *HPB (Oxford)*. 2013 Apr; 15(4):286-93.
- Bickenbach KA, Karanicolas PJ, Ammori JB, Jayaraman S, Winter JM, Fields RC, Govindarajan A, Nir I, Rocha FG, Brennan MF. Up and down or side to side? A systematic review and meta-analysis examining the impact of incision on outcomes after abdominal surgery. *Am J Surg*. 2013 Sep;206(3):400-9.
- Ammori JB, D'Angelica MI, Fong Y, Cercek A, Dematteo RP, Allen PJ, Kingham TP, Paty PB, Jarnagin WR, Kemeny NE. Conversion To Complete Resection and/or Ablation Using Hepatic Artery Infusional Chemotherapy In Patients With Unresectable Liver Metastases From Colorectal Cancer: A Decade of Experience at a Single Institution. *Ann Surg Oncol*. 2013 Sep;20(9):2901-7.
- Raigani S, Hardacre JM, Kim J, Ammori JB. Trends in the Surgical Treatment of Gastric Adenocarcinoma. *Ann of Surg Oncol*. 2013 Oct 29. [Epub ahead of print].
- Carter TI, Fong ZV, Hyslop T, Lavu H, Tan WP, Hardacre J, Sauter PK, Kennedy EP, Yeo CJ, Rosato EL. A Dual-Institution randomized Controlled Trial of Remnant Closure after Distal Pancreatectomy: Does the Addition of a Falciform Patch and Fibrin Glue Improve Outcomes? *J Gastrointest Surg* 2013;17:102-9.
Hardacre JM, Mulcahy M, Small W, Talamonti M, Obel J, Krishnamurthi S, Rocha-Lima CMS, Safran H, Lenz HJ, Chiorean EG. Addition of Algenpantucel-L Immunotherapy to Standard Adjuvant Therapy for Pancreatic Cancer: A Phase 2 Study. *J Gastrointest Surg* 2013;17:94-101.
- Mudd JC, Murphy P, Manion P, Debernardo R, Hardacre J, Hardy GA, Harding CV, Mahabaleswar G, Jain MK, Jacobson JM, Brooks AD, Lewis S, Schacker T, Anderson J, Haddad EK, Cubas RA, Rodriguez B, Sieg SF, Lederman MM. Impaired T Cell Responses to Sphingosine-1-phosphate in HIV-1 Infected Lymph Nodes. *Blood* 2013;121:2914-22.
- Blatnik JA and Hardacre JM. Management of Pancreatic Fistulas. *Surg Clin N Am* 2013;93:611-17.
- Hardacre JM (2013) Gastrectomy. In: Delaney CP (ed) *Netter's Surgical Anatomy and Approaches*, Elsevier Saunders, Philadelphia.
- Hardacre, JM (2013) Pancreaticoduodenectomy. In Delaney CP (Ed.) *Netter's Surgical Anatomy and Approaches*, Elsevier Saunders, Philadelphia.

PRESENTATIONS

- Targeted Therapy for GIST. Gastrointestinal Stromal Tumor Session, Annual Meeting of the SAGES. Baltimore, MD March 2013.
- Nipple Discharge. Benign Breast Disease Session, Annual Meeting of the American Society of Breast Surgeons. Chicago, IL. May 2013.
- Contrast of Key Sentinel Node Biopsy Parameters of Localization Rate/Patient and Degree of Localization of 99mTc-Tilmanocept-Targeted and European 99mTc-colloidal mapping agents in Melanoma. World Melanoma Congress, Hamburg, Germany. July 2013.
- Contrast of Lymph Node Localization with 99mTc-Tilmanocept and Vital Blue Dye in Melanoma Patients by Tumor Location. World Melanoma Congress, Hamburg, Germany. July 2013.
- Raigani S, Hardacre J, Kim J, Ammori JB. Trends in the Surgical Management of Gastric Cancer. Presented as a poster by Raigani at the Society of Surgical Oncology's 66th Annual Cancer Symposium, Gaylord, MD, March 2013.
- Raigani S, Ammori JB, Kim J, and Hardacre J. Trends in the Surgical Treatment of Pancreatic Adenocarcinoma. Presented orally by Raigani at the Annual Meeting of the Pancreas Club in Orlando, Florida, May 2013.
- Raigani S, Ammori JB, Kim J, and Hardacre J. Trends in the Surgical Treatment of Pancreatic Adenocarcinoma. Presented orally by Raigani at the Annual Meeting of the Society for Surgery of the Alimentary Tract in Orlando, Florida, May 2013.
- Sentinel Node Biopsy, When Less is More. Lecture at CCCC Seminar Breast Cancer 2013 Seeing the Future, 5/24/2013.
- New Day Cleveland Channel 8 Interview, Breast Cancer Risk and Prevention, 10/16/1013.
- Prevention/Genetics of Breast Cancer Lecture, Community Outreach, Shaker Country Club, 10/25/2013.
- Update on Cystic Pancreatic Neoplasms. Grand Rounds. Southwest General Hospital. August 23, 2013.
- The Management of Pancreatic Cancer. Grand Rounds, Department of Pathology, University Hospitals Case Medical Center. December 11, 2013.
- Gastroenterology and GI Surgery Update. January 18, 2014. Course Directors – Conor Delaney, MD and Fabio Cominelli, MD. Faculty for session, "Reoperative Surgery and Recurrent Cancer – Dealing with What Everyone Doesn't Want To".
- Management of Gastrointestinal Stromal Tumor. Grand Rounds. Southwest General Hospital, Middleburg Heights OH. February 22, 2013.
- Management of Gastrointestinal Stromal Tumor. Surgical Grand Rounds. University Hospitals Case Medical Center. Cleveland, OH. September 11, 2013.
- Surgical Therapy for Colorectal Cancer Metastatic to the Liver. Grand Rounds. Ahuja Medical Center. Beachwood, OH. November 18, 2013.
- Pancreatic Cancer and Cystic Neoplasms of the Pancreas. Regional Rounds Program. Parma, OH. December 12, 2013.
- Tumors of the Liver and Biliary Tract. Surgery Resident Education Conference. University Hospitals Case Medical Center. Cleveland, OH. December 16, 2013.

CHAIRMAN'S INTRODUCTION



Christopher P. Brandt, MD

MetroHealth Medical Center is the public hospital for Cuyahoga County, Ohio. MetroHealth serves as the American College of Surgeons Committee on Trauma and State of Ohio verified Level I Trauma Center and Level I Burn Center for the area. MetroHealth is also a Level II verified Pediatric Trauma Center. The Hospital functions as the tertiary care referral center for the west side of Cleveland and the surrounding counties, providing a rich and diverse mix of patients.

The Department of Surgery provides a full spectrum of clinical services, including Divisions of: General Surgery, with specialists in colorectal, endocrine, hepatobiliary, bariatric, endoscopy, and advanced laparoscopic procedures; Surgical Oncology, with emphasis in the care of breast cancer and melanoma; Trauma, Burns, and Surgical Critical Care; Vascular Surgery, including endovascular procedures; Pediatric Surgery; Plastic Surgery; Oral and Maxillofacial Surgery; Cardiothoracic Surgery; Ophthalmology; and Urology. The residency in Surgical Critical Care is based at MetroHealth and is approved to train two fellows each year.

MetroHealth is fully integrated with the surgical residency program and all faculty have full-time appointments at the Case Western Reserve University School of Medicine. In 2013, the Department had more than 4,800 surgical admissions, 2,200 trauma and 190 burn unit admissions. Our faculty performed 8,200 operations, and saw more than 82,000 surgical outpatient visits. The Medical Center has over 100,000 Emergency Department visits each year. The resources of the Institution and Department include 24 state-of-the-art surgical suites and 27 Surgical Intensive Care unit beds. There is a laparoscopic skills training facility for use by the Surgery residents, and a full Simulation Center has been opened on site.

The Department takes great pride in resident and medical student education and research. There are numerous educational conferences scheduled weekly. The faculty hold leadership positions within the Institution, the University, and in local, state, regional, and national professional organizations, including the American College of Surgeons and the American Board of Surgery. Faculty members have regularly received teaching awards from the Department and School of Medicine and are active in surgical education at a national level.

We are committed to the education and training of future surgeons in Surgery and its specialties. Our core value is that surgical care should be of high quality, patient-centered, humane, responsive, and readily accessible to all.

A handwritten signature in black ink that reads "Christopher P. Brandt MD". The signature is fluid and cursive.

Christopher P. Brandt, MD
Professor, Case Western Reserve University
Chair, Department of Surgery
MetroHealth Medical Center

"Our core value is that surgical care should be of high quality, patient-centered, humane, responsive, and readily accessible to all."

CHAPTER 15 METROHEALTH MEDICAL CENTER FACULTY



Christopher P. Brandt, MD

Chair, Department of Surgery
Professor, Case Western Reserve University
General Surgery, Surgical Endoscopy, Laparoscopy, Bui

Medical School: Case Western Reserve University, Cleveland, Ohio

Residency: University Hospitals, Cleveland, Ohio

CARDIOTHORACIC SURGERY



Inderjit Gill, MD

Director, Division of Cardiothoracic Surgery
Cardiothoracic Surgery

Medical School: Christian Medical College, India

Residency: University of Ottawa, Canada; Christian Medical College, India; Colchester General Hospital, England; Ht Royal Infirmary, U.K.

Fellowship: University of Ottawa, Canada; Cleveland Clinic Foundation, Cleveland, Ohio



Rami Akhrass, MD

Cardiothoracic Surgery

Medical School: Damascus University, Syria

Residency: University Hospitals of Cleveland, Cleveland, Ohio

Fellowship: Cleveland Clinic Foundation, Cleveland, Ohio; University Hospitals of Cleveland, Cleveland, Ohio



R. Thomas Temes, MD

Thoracic Surgery

Medical School: Johns Hopkins University, Baltimore, Maryland

Residency: University of California-Davis Medical Center, Sacramento, California

Fellowship: Barnes-Jewish Hospital, St. Louis, Missouri



Joseph Lahorra, MD

Cardiothoracic Surgery

Medical School: Johns Hopkins University School of Medicine, Baltimore, Maryland

Residency: University Hospitals of Cleveland, Cleveland, Ohio

Fellowship: Massachusetts General Hospital, Boston, Massachusetts



GENERAL SURGERY



Christopher R. McHenry, MD

Vice Chair, Department of Surgery
Director, Division of General Surgery
Acting Director, Division of Surgical Oncology
Professor, Case Western Reserve University
General Surgery, Endocrine Surgery, Head and Neck Surgery

Medical School: Northeastern Ohio Universities College of Medicine, Rootstown, Ohio

Residency: Loyola University Chicago, Maywood, Illinois

Fellowship: University of Toronto Mount Sinai Hospital, Canada



Christopher P. Brandt, MD

Chair, Department of Surgery
Professor, Case Western Reserve University
General Surgery, Surgical Endoscopy, Laparoscopy, Burns

Medical School: Case Western Reserve University, Cleveland, Ohio

Residency: Case Western Reserve University, University Hospitals, Cleveland, Ohio



Jeremy M. Lipman, MD

Assistant Professor, Case Western Reserve University School of Medicine
Director, Surgical Education; Associate Program Director, General Surgery Residency; Surgery Clerkship Director
Colorectal Surgery, Surgical Endoscopy, Minimally Invasive Surgery

Medical School: Drexel University College of Medicine

Residency: Case Western Reserve University; University Hospitals, Cleveland, Ohio

Fellowship: Cleveland Clinic, Cleveland, Ohio



Paul P. Priebe, MD

Associate Professor, Case Western Reserve University
General Surgery, Surgical Endoscopy

Medical School: Medical College of Wisconsin, Milwaukee, Wisconsin

Residency: University Hospitals of Cleveland, Cleveland, Ohio

Fellowship: University Hospitals of Cleveland, Cleveland, Ohio

ORAL AND MAXILLOFACIAL SURGERY



Michael R. Zetz, DDS

Director, Division of Oral and Maxillofacial Surgery
Associate Professor, Oral and Maxillofacial Surgery, Case Western Reserve University

Medical School: Ohio State University College of Medicine & Public Health,
Columbus, Ohio

Residency: Medical University of South Carolina, Charleston, South Carolina



Rishad Shaikh, DMD

Assistant Professor, Oral and Maxillofacial Surgery (pending)
Oral and Maxillofacial Surgery

Dental School: Case Western Reserve University, Cleveland, Ohio

Residency: West Virginia University, Morgantown, West Virginia

Fellowship: St. John's Mercy Medical Center, St. Louis, Missouri

PLASTIC SURGERY



Roderick B. Jordan, MD
Director, Division of Plastic Surgery
Assistant Professor, Case Western Reserve University
Plastic Surgery

Medical School: Case Western Reserve University, Cleveland, Ohio
Residency: University Hospitals of Cleveland, Cleveland, Ohio



Bram R. Kaufman, MD
Assistant Professor, Case Western Reserve University
Plastic Surgery

Medical School: Case Western Reserve University, Cleveland, Ohio
Residency: University Hospitals of Cleveland, Cleveland, Ohio
Fellowship: University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania



Daniel A. Medalie, MD
Assistant Professor, Case Western Reserve University
Plastic Surgery

Medical School: Cornell University Medical College, New York, New York
Residency: University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania



Ali Totonchi, MD
Assistant Professor, Case Western Reserve University
Plastic Surgery, Craniofacial and Facial Cosmetic Surgery

Medical School: Tabriz University of Medical Sciences
Residency: University Hospitals of Cleveland, Cleveland, Ohio
Fellowship: University Hospitals of Cleveland, Cleveland, Ohio

SURGICAL ONCOLOGY



Bruce A. Averbook, MD
Associate Professor, Case Western Reserve University
General Surgery, Surgical Oncology

Medical School: George Washington University, Washington, D.C.
Residency: University of California Irvine Medical Center, Orange, California; National Cancer Institute, Bethesda, Maryland



Natalie E. Joseph, MD
Assistant Professor, Case Western Reserve University
Surgical Oncology

Medical School: Temple University School of Medicine, Philadelphia, Pennsylvania
Residency: Case Western Reserve University, Cleveland, Ohio
Fellowship: Surgical Oncology, Fox Chase Cancer Center



Edward G. Mansour, MD
Professor Emeritus, Case Western Reserve University
 Surgical Oncology, General Surgery

Medical School: American University of Beirut, Lebanon
Residency: MetroHealth Medical Center, Cleveland, Ohio

TRAUMA, CRITICAL CARE, BURNS AND ACUTE CARE SURGERY



Jeffrey A. Claridge, MD
Director, Trauma, Critical Care, Burns and Acute Care Surgery
Assistant Professor, Case Western Reserve University
Interim Director, Section of Trauma
 Surgery, Trauma and Critical Care, Bariatric Surgery

Medical School: University of Rochester, Rochester, New York
Residency: University of Virginia, Charlottesville, Virginia
Fellowship: University of Tennessee, Memphis, Tennessee



John J. Como, MD
Associate Professor, Case Western Reserve University
Associate Director, Section of Trauma
 Trauma Surgery, General Surgery, Critical Care

Medical School: Robert Wood Johnson University Hospital, New Brunswick, New Jersey
Residency: Beth Israel Medical Center, New York, New York; North Shore University Hospital, Manhasset, New York
Fellowship: University of Maryland, Baltimore, Maryland



Richard B. Fratianne, MD
Director Emeritus, Comprehensive Burn Care Center
Professor Emeritus, Case Western Reserve University
 Burns, Critical Care

Medical School: Case Western Reserve University, Cleveland, Ohio
Residency: MetroHealth Medical Center, Cleveland, Ohio



Joseph G. Golob, Jr., MD
Assistant Professor, Case Western Reserve University (pending)
Associate Director Medical Informatics - Surgery PCU
 Trauma and Critical Care

Medical School: University of Pittsburgh, Pittsburgh, Pennsylvania
Residency: University Hospitals Case Medical Center, Cleveland, Ohio
Fellowship: MetroHealth Medical Center, Cleveland, Ohio



Anjay Khandelwal, MD, FICS
Associate Director, Comprehensive Burn Care Center
Assistant Professor, Case Western Reserve University (pending)

Medical School: Devaraj Urs Medical College, India
Residency: Temple University/Memorial Medical Center, Johnstown, PA
Fellowship: Burn/Burn Reconstruction, Harborview Medical Center/University of Washington, Seattle, WA
Fellowship: Surgical Critical Care, University of North Carolina, Chapel Hill, NC



Amy Ann McDonald, MD

Assistant Professor, Case Western Reserve University
Trauma Surgery, General Surgery, Critical Care

Medical School: Indiana University, Indianapolis, Indiana
Residency: University Hospitals of Cleveland, Cleveland, Ohio
Fellowship: MetroHealth Medical Center, Cleveland, Ohio



Nimitt Patel, MD

Assistant Professor, Case Western Reserve University (pending)

Medical School: St. George's University, Grenada, West Indies
Residency: Seton Hall University, St. Francis Medical Center, Trenton, New Jersey
Fellowship: University of Pittsburgh, Pittsburgh, Pennsylvania



Charles J. Yowler, MD

Director, Comprehensive Burn Care Center
Professor, Case Western Reserve University
Trauma Surgery, Burns, Critical Care

Medical School: Creighton University, Omaha, Nebraska
Residency: Walter Reed Army Medical Center, Washington, D.C.
Fellowship: Walter Reed Army Medical Center, Washington, D.C.

VASCULAR SURGERY



J. Jeffrey Alexander, MD

Director, Division of Vascular Surgery
Associate Professor, Case Western Reserve University

Medical School: University of Pittsburgh, Pittsburgh, Pennsylvania
Residency: University of Chicago, Chicago, Illinois
Fellowship: University of Chicago, Chicago, Illinois



Mireille Astrid Moise, MD

Assistant Professor, Case Western Reserve University
Vascular Surgery

Medical School: University of Pennsylvania School of Medicine, Philadelphia, Pennsylvania
Residency: Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania
Fellowship: Cleveland Clinic Foundation, Cleveland, Ohio



Christopher J. Smith, MD

Director, Endovascular Surgery
Assistant Professor, Case Western Reserve University
Vascular Surgery/Endovascular Surgery

Medical School: Tufts University School of Medicine, Boston, Massachusetts
Residency: Case Western Reserve University, Cleveland, Ohio
Fellowship: University of Cincinnati, Cincinnati, Ohio

STAFF/FACULTY

Division of Cardiothoracic Surgery

Inderjit S. Gill, MD, Director
Rami Akhrass, MD
R. Thomas Temes, MD
Joseph Lahorra, MD

Division of General Surgery

Christopher R. McHenry, MD, Director
Bruce J. Averbook, MD
Christopher P. Brandt, MD
Natalie Joseph, MD
Jeremy Lipman, MD
Paul P. Priebe, MD

Division of Oral and Maxillofacial Surgery

Michael R. Zetz, DDS, Director
Rishad Shaikh, DMD

Division of Plastic Surgery

Roderick B. Jordan, MD, Director
Bram R. Kaufman, MD
Daniel A. Medalie, MD
Ali Totonchi, MD

Division of Surgical Oncology

Christopher R. McHenry, MD, Acting Director
Bruce J. Averbook, MD
Natalie Joseph, MD
Edward G. Mansour, MD

Division of Trauma, Critical Care, Burns, and Acute Care Surgery

Jeffrey A. Claridge, MD, Director
Christopher P. Brandt, MD
John J. Como, MD
Richard B. Fratianne, MD
Joseph G. Golob, Jr., MD
Anjay Khandelwal, MD
Amy A. McDonald, MD
Nimitt Patel, MD
Charles J. Yowler, MD

Division of Vascular Surgery

J. Jeffrey Alexander, MD, Director
Mireille Astrid Moise, MD
Christopher J. Smith, MD

CHAPTER 16 METROHEALTH MEDICAL CENTER DIVISIONS OF SURGERY



METROHEALTH MEDICAL CENTER DIVISIONS OF SURGERY

RESIDENCY PROGRAM

The Department of Surgery at MetroHealth Medical Center (MHMC) is a major affiliate hospital for the surgical residency programs of Case Western Reserve University. General surgery residents spend nearly half of their residency at MHMC and have educational rotations on the two General Surgery teams, Vascular Surgery, Thoracic Surgery, Burn Surgery, Pediatric Surgery, Trauma Surgery, Acute Care Surgery and Surgical Critical Care. Residents from a number of other residency programs in the region, including the Cleveland Clinic Foundation, Akron General Hospital, and the South Pointe Consortium, send residents to spend time in the intensive care units, and on the burn and trauma services. Residents from specialty programs, including Neurosurgery, Urology, Otolaryngology, and Plastic Surgery undertake a significant portion of their training at MHMC.

In addition to weekly Grand Rounds, Morbidity and Mortality Conference and system-wide resident education conference, each clinical rotation has its own dedicated weekly teaching conference. The educational space has recently been renovated to provide residents and students with offices.

The new Simulation Center has recently opened, providing additional opportunities for teaching and practice outside of the operating room.

HONORS, AWARDS, APPOINTMENTS, AND COMMITTEES

Bruce Averbook, MD

- Society of Surgical Oncology Corporate Relations Committee (James Ewing Society) re-nominated (3/11-present [term ends March 2014])
- Member Representing the American College of Surgeons Commission on Cancer 5/11- present (Re-nominated and confirmed for a second 3-year term ending 6/17)
- American College of Surgeons Commission on Cancer (COC) Liaison to the College of American Pathologists (CAP) Cancer Committee (Nominated and accepted by the COC March 2012; Approved by the CAP 4/21/12, reappointed/reapproved 11/27/13 - present)
- Ohio Chapter ACS, Treasurer (6/1/12 – 5/31/13)

- PI Member NIH, NCI, ECOG Site Visit Thomas Jefferson University Kimmel Cancer Center (7/20/12)
- Representative of the ACS Board of Governors of the Ohio Chapter ACS- Alternate Governor (5/31/12-present [3-yr term])
- Ohio Chapter ACS, President Elect (6/1/13 – present)
- Member Faculty Senate Research Committee (9/1/12-Present)
- Member MetroHealth Medical Center Cancer Center Director Search Team (November 2012- present)
- Director, BREAST/Amigas Community Outreach Program, MetroHealth Medical Center (11/1/13 – present)

John Como, MD

- Eastern Association for the Surgery of Trauma (EAST) Leadership Development Workshop Series – Certificate of Completion
- Named to EAST Guidelines Committee -January 28, 2013 (term expires January 18, 2015)
- Named to EAST Publications Committee - January 28, 2013 (term expires January 17, 2016)
- Cleveland Surgical Society - Named Councilor on Executive Council ; term 2013-2016
- Ohio Chapter of American College of Surgeons - Named District Councilor – Northeastern Ohio; April 3, 2013

Jeremy Lipman, MD

- Surgical Education Research Foundation Fellowship through the Association for Surgical Education
- Scholarship in Teaching Award from Case Western Reserve University School of Medicine

Christopher R. McHenry, MD

- Appointed to the ACGME Milestone Committee for development of milestones for Advanced General Surgical Oncology
- Appointed to the Advisory Council for General Surgery
- Appointed to the Fellowship Accreditation Committee and made an ad hoc member of the Program Committee for the American Association of Endocrine Surgeons
- Director American Board of Surgery with appointments to the Surgical Oncology Board, the Recertification Examination Committee and the Advanced Surgical Education Committee
- Appointed to the 2013 Annual Clinical Congress Abstract Review Task Force for the American College of Surgeons
- Elected Vice Chairman of the American College of Surgeons' Surgical Care Delivery Workgroup

- Elected President of the Central Surgical Association
- Made the Chairman of the Awards Committee for the Ohio Chapter of the American College of Surgeons
- Editorial Board for the American Surgeon, the American Journal of Surgery and the International Journal of Endocrinology
- Named One of the 2013 Best Doctors, Cleveland Magazine
- Named to the US News and World Report Top Doctors
- Identified in Who's Who Among Executives and Professionals

Charles Yowler, MD

- Board of Governors, American College of Surgeons
- Consultant, American Board of Surgery, Surgical Critical Care Examination

BOOK CHAPTERS

John Como, MD

- Como JJ. Arterial Line Anatomy. In Delaney CP editor: Netter's Surgical Anatomy and Approaches, Philadelphia, 2013, Elsevier.

Jeremy Lipman, MD

- J. Lipman, "Abdominal Wall Anatomy and Ostomy Sites," in Netter's Surgical Anatomy and Approaches, C. Delaney, Ed. Elsevier, 2014, pp. 245-256.

Christopher McHenry, MD

- McHenry CR and Lo CY. The Surgical Management of Hyperthyroidism. In: Surgery of the Thyroid and Parathyroid Glands Second Edition. Randolph GW (ed), Elsevier Science, Philadelphia, PA, 2013: 85-94.
- McHenry CR. Thyroidectomy and Parathyroidectomy. In: Netter's Surgical Anatomy and Approaches. Delaney CE (ed), Elsevier Science, Philadelphia, PA, 2014:21-36.
- Jin J, Phitayakorn, R, Wilhelm SM, McHenry CR. Advances in Management of Thyroid Cancer: In Current Problems in Surgery, Mosby, St. Louis, MO, 2013:231-289.
- McHenry CR. Open neck exploration for hyperparathyroidism. In: Operative techniques in surgery; Lippincott Williams and Wilkins (in press).
- McHenry CR and Richmond BK. Anatomy and Embryology of the Pancreas. In: Textbook of Endocrine Surgery. Clark OH, M.D. and Duh QY, M.D. (eds.) Jaypee Brothers Medical Publishers, Philadelphia, PA (in press).
- McHenry CR. Thyroidectomy In: Atlas of Endocrine Surgery. Carty S (ed). Jaypee Brothers Medical Publishers, Philadelphia, PA (in press).
- McHenry CR. and Stulberg J. Central compartment lymph node dissection for papillary thyroid cancer. Surg Clin N Amer (in press).

Charles Yowler, MD

- Hughes P, Bradrick JP, Yowler CJ. Nutrition for the oral and maxillofacial surgery patient. In Fonseca (ed): Oral and Maxillofacial Trauma, 4th ed. Elsevier Saunders, St. Louis, 2013.





PUBLICATIONS

John Como, MD

- Stulberg JJ, Como JJ, Claridge JA. "Firing" the stapler in emergency general surgery patients - not so fast! *J Trauma Acute Care Surg* 2013; 75: 922-923.
- Vallier HA, Wang X, Moore TA, Wilber JH, Como JJ. Timing of orthopaedic surgery in trauma patients: development of a protocol for Early Appropriate Care. *J Orthop Trauma* 2013; 27: 543-551.
- JJ, Cullinane DC, Khwaja KA, Tyson GH, Ott M, Jerome R, Kerwin AJ, Collier BR, Pappas PA, Sangosanya AT, Como JJ, Bokhari F, Haut ER, Smith LM, Winston ES, Bilaniuk JW, Tally CL, Silverman R, Croce MA. Eastern Association for the Surgery of Trauma: management of the open abdomen, Part III - review of abdominal wall reconstruction. *J Trauma Acute Care Surg* 2013; 75: 376-386.
- Banerjee A, Duane TM, Wilson SP, Haney S, O'Neill PJ, Evans HL, Como JJ, Claridge JA. Trauma Center Variation in Splenic Artery Embolization and Spleen Salvage: A Multicenter Analysis. *J Trauma Acute Care Surg* 2013; 75: 69-75.
- McCoy AM, Como JJ, Greene G, Laskey SL, Claridge JA. A novel prospective approach to evaluate trauma recidivism: the concept of the past trauma history. *J Trauma Acute Care Surg* 2013; 75: 116-121.
- Nahm NJ, Como JJ, Vallier HA. The impact of major operative fractures in blunt abdominal injury. *J Trauma Acute Care Surg* 2013; 74: 1307-1314.
- Como JJ, Schieda J, Claridge JA. Laparoscopic cholecystectomy after isolated blunt gallbladder trauma resulting in intraluminal hemorrhage: computed tomography and operative findings. *Am Surg* 2013; 79: 160-161.
- Savarise M, Como JJ. ACS Fellows provide surgical leadership and service in India. *Bull Am Coll Surg* 2013; 98: 30-35.
- Banerjee A, Zhou HY, Kelly KB, Downs BD, Como JJ, Claridge JA. Anterior abdominal stab injury: a comparison of self-inflicted and intentional third party stabbings. *Am J Surg* 2013; 205: 274-279.

Jeremy Lipman, MD

- Visioni A, Lipman, JM. "Abdominoperineal Resection and Pelvic Exenteration", multimedia module for the American Board of Surgery SCORE curriculum, on line, 2013.
- Lee, JK, Lipman, JM. "Anal Dysplasia and Sexually Transmitted Diseases", multimedia module for the American Board of Surgery SCORE curriculum, on line, 2013.
- Crawshaw, B, Lipman, JM. "Laparoscopic Small Bowel Resection", multimedia module for the American Board of Surgery SCORE curriculum, on line March, 2013.

Christopher McHenry, MD

- Jin J, Allemang MT, McHenry, CR. Levothyroxine replacement dosage determination following thyroidectomy *Am J Surg* 205(3): 360-4, 2013.
- Van Fossen VL, Wilhelm SM, Eatron JL, and McHenry CR. Association of thyroid, breast and renal cell cancer: a population – based study of the prevalence of second malignancies. *Ann SurgOncol.* 20 (4): 1341-1347, 2013 (E pub 12/21/12)
- Welch, KC, McHenry CR. Selective lateral compartment neck dissection for thyroid cancer. *J Surg Res.* 184:193-199, 2013
- Wagner E, Ganesan S, McHenry CR. Invasive tall cell variant of papillary cancer originating from the pyramidal lobe of the thyroid gland with extension to the base of the tongue. *World Journal of Endocrine Surgery* (in press).
- Kim JH, Somach S, McHenry CR. Image of the month. *Arch Surg* (in press).
- Chen J, Pace S C, Khiyami A, McHenry CR. Should atypia of undetermined significance be subclassified to better estimate risk of thyroid cancer? *Am J Surg* (in press)
- Khoncarly SM, Tamarkin SW, and McHenry CR. Can ultrasound be used to predict malignancy in patients with a thyroid nodule and indeterminate fine needle aspiration biopsy? *Surgery* (in press)

Charles Yowler, MD

- Brown M, Coffee T, Yowler CJ. Outcomes of outpatient management of pediatric burns. *J Burn Care Res.* In Press.

PRESENTATIONS AND INVITED LECTURESHIPS

Bruce Averbook, MD

- ECOG-ACRIN Melanoma Vaccine/Core Subcommittee Meeting. "The Impact of Sentinel Lymph Node (SLN) Biopsy on Patient Prognosis and Survival after Selective Nodal Basin Dissection in Patients with Locally Recurrent Melanoma." Concept presentation for LOI, 5/18/13.
- Living Healthy MetroHealth Systems Program. "Malignant Melanoma" Mayfield Public Library, Mayfield Heights, Ohio, 9/24/13.

John Como, MD

- Como JJ, Dixon SD, Banerjee A, Claridge JA. Trauma recidivists: surprisingly better outcomes than non-recidivists. Presented at the Midwest Surgical Association 56th Annual Meeting in Grand Traverse, MI on July 30, 2013.
- Penetrating Thoraco-abdominal Trauma. South Point Hospital Trauma Rounds – Department of Surgery. October 31, 2013.
- Interesting Trauma Cases - Panel Discussant. Northern Ohio Trauma System 2013 Symposium. October 29, 2013.
- Practical Considerations in the Construction of Practice Management Guidelines. Eastern Association for the Surgery of Trauma 26th Annual Scientific Assembly, Scottsdale, FL – Sunrise Session. January 17, 2013.
- Annual Trauma Case Review. Metro LifeFlight Lecture Series. March 4, 2013.
- Initial Care of the Multiply-Injured Trauma Patient. Orthopaedic Surgery Grand Rounds, MetroHealth Medical Center. February 19, 2013.

Christopher McHenry, MD

- Panel discussion: Parathyroidectomy for Asymptomatic Hyperparathyroidism. Annual Meeting of the Central Surgical Association, Amelia Island, Florida, March 14, 2013.
- Clinical features, genetics, risk assessment and surgical management of Multiple Endocrine Neoplasia Syndromes. Genetic counseling students and genetic fellows, Case Western Reserve University March, 25, 2013.
- Visiting Professor, Wright State University, Boonshoft School of Medicine, Dayton, Ohio. Contemporary Management of Thyroid Cancer. April 16, 17, 2013.
- In Search of Balance. Invited speaker for The Alpha of Ohio Chapter of Alpha Omega Alpha Honor Medical Society, Class of 2013 Spring Banquet, Case Western Reserve University School of Medicine. April 24, 2013.
- Prophylactic central lymph node dissection in papillary thyroid cancer: The answer is no. International Association of Endocrine Surgeon, Helsinki, Finland, August 27, 2013.
- Work-up and management of the thyroid nodules. American college of Surgeons postgraduate course in endocrine surgery, Washington, DC, October 5, 2013.
- Prophylactic central neck dissection for papillary thyroid cancer: Worth it or not? Controversies in thyroid surgery. American College of Surgeons, Washington, DC, October 7, 2013.

Charles Yowler, MD

- Gill B and Yowler CJ. Eradication of multi-drug resistant *Acinetobacter baumannii* in a burn unit. Eastern Great Lakes Burn Study Group, Dayton, OH. October 2013.
- Brown M, Coffee T, Yowler CJ. Evaluation, treatment and outcomes of 295 consecutive pediatric hand burns. Eastern Great Lakes Burn Study Group, Dayton, OH. October 2013.

METROHEALTH MEDICAL CENTER 2013 VISITING PROFESSORS

27th Annual William D. Holden, M.D. Lecture
Saturday, March 30, 2013
Teaching Novel Surgical Skills: Lessons
Learned from the Introduction of
Laparoscopy



Gerald M. Fried, M.D., F.R.C.S.(C), F.A.C.S.
Edward W. Archibald Professor and Chairman
Department of Surgery, McGill University
Surgeon-in-Chief
McGill University Health Centre

1st Annual Brown M. Dobyns, M.D., PhD
Endowed Lecture in Endocrine Surgery
Saturday, May 11, 2013
Surgical Approaches to Thyroid Cancer:
Strategies for Optimal Individualized Surgical
Management



Clive S. Grant, M.D.
Consultant, Mayo Clinic
Rochester
Professor of Surgery in the
College of Medicine, Mayo Clinic
Program Director, Endocrine
Surgery Fellowship, Mayo Clinic

1st Annual Richard B. Fratianne, M.D.
Endowed Lectureship in Trauma
Saturday, July 13, 2013
The Evolution of Blunt Cerebrovascular Injury
Management



Timothy C. Fabian, M.D.
Professor and Chair
Department of Surgery
The University of Tennessee
Health Science Center

9th Annual Edward G. Mansour, MD
Lectureship in Surgical Oncology
Saturday, October 26, 2013
Contemporary Issues in Soft Tissue Sarcoma



Raphael E. Pollock, MD, PhD
Professor of Surgery
Director of Surgical Oncology
The Ohio State University

CHAPTER 17

DIVISION OF CARDIOTHORACIC SURGERY

Director

Inderjit S. Gill, MD

Faculty

Rami Akhrass, MD

R. Thomas Temes, MD, MBA

Joseph Lahorra, MD

The Division of Cardiothoracic Surgery at MetroHealth Medical Center is committed to providing state-of-the-art cardiothoracic care. The service focuses on all aspects of adult cardiac and thoracic surgery including thoracic aortic surgery.

We are actively involved in a variety of innovative methods, such as robotic cardiac, beating heart surgery, minimal access approaches and endoscopic saphenous vein harvest. We also are the only Westside program performing robotic and thoracoscopic minimally invasive thoracic surgery.

The Division is involved in training general surgery residents on the thoracic surgery service. The educational responsibilities are complemented by clinical research and the Division has published regularly in peer-reviewed journals on topics such as robotic cardiac surgery, traumatic aortic disruptions and other aspects of cardiac and thoracic surgery.



CHAPTER 18 DIVISION OF GENERAL SURGERY

Director

Christopher McHenry, MD

Staff/Faculty

Bruce J. Averbrook, MD

Christopher P. Brandt, MD

Jeffrey A. Claridge, MD

John J. Como, MD

Joseph F. Golob, Jr., MD

Natalie E. Joseph, MD

Anjay E. Khandelwal, MD

Jeremy M. Lipman, MD

Suzanne Miller-Spalding, RN, MSN, CNP

Edward G. Mansour, MD

Amy A. McDonald, MD

Jessics McCullough, RN, BSN, CNP

Nimitt J. Patel, MD

Paul P. Priebe, MD

Debra L. Valadez, RN, BSN

Charles J. Yowler, MD

The Division of General Surgery at MetroHealth Medical Center consists of 12 full-time and one part-time faculty member. Four surgeons have their principal appointment in the Division of General Surgery:

Christopher P. Brandt, MD; Jeremy M. Lipman, MD; Christopher R. McHenry, MD; and Paul P. Priebe, MD. Ten surgeons have secondary appointments in the Division of General Surgery, seven with their principal appointment in the Division of Trauma, Critical Care and Burns: Jeffrey A. Claridge, MD; John J. Como, MD; Joseph F. Golob, Jr., MD; Anjay E. Khandelwal, MD; Amy A. McDonald, MD; Nimitt J. Patel, MD; and Charles J. Yowler, MD. Three general surgeons have their principal appointment in the Division of Surgical Oncology: Bruce Averbrook, MD; Natalie Joseph, MD; and Edward Mansour, MD. All are certified by the American Board of Surgery. Suzanne Miller-Spalding, RN, MSN, CNP is the clinical nurse practitioner for the Division of General Surgery, Deb Valadez, RN is the bariatric nurse coordinator for the Division, and Jessica McCullough RN, MSN, CNP is the clinical nurse practitioner for the Division of Surgical Oncology

The Division of General Surgery is divided into two clinical services: a Green Surgery Service and a Blue Surgery Service. The Green Surgery Service consists of Drs. Brandt, Claridge, Como, Golob, Lipman, and McHenry. The Blue Surgery Service consists of Drs. Averbrook, Joseph, McDonald, Patel, and Priebe. One attending from each service covers the outpatient General Surgery responsibilities for one to two-week intervals. There is also an Acute Care Surgery service which handles all of the Emergency Department and inpatient General Surgery consultations. One general surgeon covers the service for a one-week interval. The General Surgery attendings are responsible for training General Surgery residents and providing core training in General Surgery for third and fourth year medical students.

There are several areas of specialized expertise in the Division of General Surgery, including bariatric surgery, colorectal surgery, endocrine surgery, flexible endoscopy, gastrointestinal surgery, hepatobiliary surgery, oncologic surgery, pancreatic surgery, and advanced laparoscopy. Dr. Jeffrey Claridge provides bariatric surgical services to morbidly obese patients. He works closely with their medical, mental health and nutritional colleagues to provide care in a multidisciplinary fashion. The majority of the procedures are performed using minimally invasive techniques. We are currently recruiting a second bariatric surgeon.



GENERAL SURGERY

Dr. Jeremy Lipman offers a wide range of colorectal disease treatments, including the comprehensive, multidisciplinary management of colorectal malignancies, the coordinated care of patients with inflammatory bowel disease, the diagnosis and treatment of complex pelvic floor disorders, and minimally invasive surgery for both benign and malignant colorectal conditions. All patients treated for colorectal malignancies are managed by a team of care providers including physicians, nutritionists, nurses, geneticists, and others, ensuring a comprehensive, patient-focused approach to cancer care. Patients with inflammatory bowel disease are cared for in coordination with a team of gastroenterologists, ensuring the multidisciplinary needs of these patients are fully addressed. Together with colleagues from gastroenterology and urogynecology, women with pelvic floor disorders, including urinary and fecal incontinence, are treated by a team of physicians with special interests in these areas. MetroHealth has a variety of physicians trained in minimally invasive surgery and are capable of offering laparoscopic colon resection for cancer and benign conditions.

Dr. Christopher McHenry has a focused interest in endocrine surgery and is involved with the treatment and follow-up of patients with endocrine tumors involving the thyroid, parathyroid and adrenal glands and the endocrine pancreas. Specialized endocrine evaluation and testing is performed in the outpatient surgery clinic. This includes fine needle aspiration biopsy of thyroid nodules, neck masses and cervical lymph node metastases; office-based ultrasound examination of the neck; vocal cord evaluation using flexible fiberoptic laryngoscopy; functional evaluation of adrenal and pancreatic tumors; and coordination of genetic testing for familial endocrinopathies. Modern, state-of-the-art surgical techniques are utilized for treatment of patients with endocrine tumors including: minimally invasive parathyroidectomy, and the use of the "quick PTH assay" for intraoperative parathyroid hormone monitoring and laparoscopic adrenalectomy.

Dr. Christopher Brandt has an interest in advanced laparoscopic techniques and has been a leader in this initiative for the Division of General Surgery. Minimally invasive procedures are presently performed at MetroHealth Medical Center for treatment of diseases of the adrenal gland, colon, small bowel, stomach, liver, and pancreas, as well as for the management of obesity, gastroesophageal reflux disease, achalasia and abdominal wall hernias. The use of laparoscopy in trauma and critical care patients has also been an active focus of clinical investigation.

Gastrointestinal surgery at MetroHealth Medical Center features expertise in gastroesophageal, pancreaticobiliary, liver and colorectal surgery. Expertise in open surgical techniques is now complemented by laparoscopic approaches to gastroesophageal reflux disease and diaphragmatic hernia, hepatobiliary disease and colorectal disease. Gastrointestinal endoscopy is provided by our surgeons, including therapeutic endoscopy for benign and malignant esophageal disease, peptic ulcer disease and endoscopic retrograde cholangiopancreatography for biliary and pancreatic disease, as well as therapeutic colonoscopy for benign and malignant colonic disease. Dr. Paul Priebe has led the Division's efforts in flexible endoscopy and has had a strong interest in remedial gastrointestinal surgery.

There is a long track record for outstanding surgical education provided by the faculty in the Division of General Surgery at MetroHealth Medical Center. Seven faculty members have been awarded the faculty teaching award in the Department of Surgery at Case Western Reserve University. This is an award that is given based on voting by the residents in General Surgery. The past recipients of this award include: Drs. Brandt, Lipman, Mansour, McDonald, McHenry, Priebe and Yowler. Dr. Joseph, recruited from the Fox Chase Cancer Center, has also received an "Excellence in Teaching" award.

The Division of General Surgery is responsible for six weekly educational conferences. There is a Blue Surgery Conference on Tuesday mornings and a Green Surgery Conference on Friday mornings in which residents and medical students are exposed to interactive case-based learning. Dr. Brandt leads the weekly Morbidity and Mortality Conference which occurs on Tuesday mornings. This is a quality assurance and improvement conference in which all surgery patients who develop a complication or die as a result of their surgical disease are critically reviewed. There is a General Surgery Conference on Thursday afternoons, organized and moderated by Dr. McHenry, in which a wide variety of topics are reviewed, with special emphasis on surgical pathology, hematology/ oncology, management of critically ill General Surgery patients and case management controversies. Dr. Jeremy Lipman is responsible for the Resident Education series occurring at MetroHealth Medical Center on Monday mornings.

Dr. Jeremy Lipman is the Director for the Core Clerkship in Surgery for third year medical students at MetroHealth Medical Center. He is responsible for the organization of the clerkship and evaluation of the students. He coordinates the didactic teaching sessions for the medical students in which all of the general surgical faculty participate. He also facilitates the acting internship program for fourth year medical students. Dr. Lipman is the Associate Program Director for the General Surgery Residency Program at MetroHealth.

Christopher P. Brandt, MD

Dr. Brandt completed medical school and a residency in General Surgery at Case Western Reserve University. He joined the faculty at MetroHealth Medical Center and Case Western Reserve University School of Medicine in July, 1989. He is a Professor of Surgery at Case Western Reserve University School of Medicine. He was named Chair of the Department of Surgery in 2011 and also serves as the Co-Director of the Comprehensive Burn Care Center and the Director

of the Outpatient Burn Clinic. He received the Department of Surgery Faculty Teaching Award in 1998 and 2004, Scholarship in Teaching Awards at Case Western Reserve University School of Medicine in 2004, 2005 and 2006, the Kaiser Permanente Award for Excellence in Teaching in 2009, and the Philip J. Wolfson Outstanding Teacher Award for the Association for Surgical Education in 2010. He has authored 41 papers in peer-reviewed journals and ten book chapters. He serves on the Editorial Committee for the Midwest Surgical Association and the Executive Committee for the Association for Surgical Education, for which he serves as Secretary. He is a past president of the Cleveland Surgical Society. Dr. Brandt's clinical interests are in general surgery with focused interests in gastrointestinal surgery, advanced laparoscopy and burns.

Jeremy M. Lipman, MD

Dr. Lipman earned his Bachelor of Arts degree from Boston College and his medical degree from Drexel University College of Medicine in Philadelphia, Pennsylvania. He completed his General Surgery Residency at Case Western Reserve University and did a Colorectal Surgery fellowship at the Cleveland Clinic Foundation, where he received the Outstanding Clinical Fellow Award. He is board certified by the American Board of Surgery and American Board of Colon and Rectal Surgery. Dr. Lipman joined the staff of MetroHealth Medical Center in July, 2010 and is an Assistant Professor of Surgery at Case Western Reserve University School of Medicine. He received the Case Department of Surgery Faculty Teaching Award in 2012. He has published many peer-reviewed articles and presented his work at several national meetings. Dr. Lipman serves as a reviewer for the American Journal of Surgery, The Surgeon, and others. He is the Director of Surgical Education at MetroHealth, associate program director for the Case General Surgery Residency, clerkship director for the 3rd and 4th year medical students and Co-Chair of the Clinical Competency Committee. He is a member of the Residents Committee of

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the American Society of Colon and Rectal Surgeons and serves on the Medical Advisory Committee of the Northeast Ohio Chapter of the Crohn's and Colitis Foundation. His clinical interests include laparoscopic colorectal surgery, colorectal cancer, inflammatory bowel disease, diverticular disease, colonoscopy, re-operative abdominal surgery and benign anorectal disease.

Christopher R. McHenry, MD

Dr. McHenry is the Director of the Division of General Surgery. He is also the Vice-Chairman of the Department of Surgery and the Interim Director of the Division of Surgical Oncology. Dr. McHenry graduated from a six-year combined BS/MD program at Northeastern Ohio Universities College of Medicine. He completed his General Surgery residency training at Loyola University Medical Center followed by a fellowship in Endocrine and Head and Neck Surgery at the University of Toronto. He joined the faculty at Case Western Reserve University and MetroHealth Medical Center in 1990. He is a tenured Professor of Surgery at Case Western Reserve University School of Medicine. In addition to broad-based General Surgery, Dr. McHenry has a focused interest in endocrine and neck surgery.

Dr. McHenry is a Director of the American Board of Surgery, serving on the Advanced Surgical Education Committee, the Recertification Examination Committee and the Surgical Oncology Board. He is the President of the Central Surgical Association. He is a past President of the American Association of Endocrine Surgeons, the Midwest Surgical Association, the Cleveland Surgical Society, and the Ohio Chapter of the American College of Surgeons. He is on the Editorial Board for the American College of Surgeons Web Portal, the American Journal of Surgery, the American Surgeon and the International Journal of Endocrinology. Dr. McHenry has authored 134 papers in peer-reviewed journals and 45 book chapters.

In 2013, Dr. McHenry gave seven invited lectures. He gave an invited lecture on "Prophylactic Central Lymph Node Dissection: The Answer is No" at the meeting of the International Association of Endocrine Surgeons in Helsinki, Finland. He discussed the work-up and management of thyroid nodules at the American College of Surgeons postgraduate course in Endocrine Surgery. He gave an invited lecture on prophylactic central compartment neck dissection and participated on a panel dealing with controversies in thyroid diseases at the annual meeting of the American College of Surgeons in Washington D.C. He was a visiting professor at Wright State University, Boonshoft School of Medicine. He was also the invited speaker for the Alpha of Ohio Chapter of Alpha Omega Alpha Medical Society, class of 2013 Spring Banquet and spoke on "In Search of Balance." He is a previous recipient of the Kaiser Permanente Award for Excellence in Teaching Award at Case Western Reserve University School of Medicine and a Department of Surgery Faculty Teaching Award.

Paul P. Priebe, MD

Dr. Priebe completed medical school at the Medical College of Wisconsin followed by a General Surgery residency at Case Western Reserve University School of Medicine. He joined the faculty at MetroHealth Medical Center in 1988. He is an Associate Professor of Surgery at Case Western Reserve University School of Medicine. He is the past President of the Cleveland Surgical Society and the Northeastern Ohio Society for Gastrointestinal Endoscopy. He received the Department of Surgery Teaching Award in 1995. In addition to his interest in broad based general surgery, Dr. Priebe has a focused interest in complex gastrointestinal surgery and endoscopy, including endoscopic retrograde cholangiopancreatography. Dr. Priebe also has a special interest in complex abdominal wall reconstruction and hernia.

Suzanne Miller-Spalding, RN, MSN, CNP

Ms. Miller-Spalding is a clinical nurse practitioner for the Division of General Surgery. She completed a Bachelor of Science Degree from Bowling Green State University, later changing her focus and completing an Associate's Degree in Nursing from Owens Community College and her Master of Science Degree from the University of Toledo in Family Nurse Practitioner. Ms. Miller-Spalding is nationally certified through the Academy of Advanced Practice Nurses and is a member of the Midwest Nursing Research Society and the Ohio Association of Advanced Practice Nurses. Prior to joining the Division of General Surgery, she primarily worked in community health facilities including juvenile corrections, women's health, and child welfare. She has been in her current position since August 2012 working in the outpatient Surgery clinic, evaluating General Surgery patients, managing benign

breast diseases, as well as assisting with and performing minor surgical procedures.

Debra L. Valadez RN, BSN

Ms. Valadez received her Bachelor's Degree from Bowling Green State University in consortium with the Medical College of Ohio School of Nursing (BSN, 1998). She came to MetroHealth in 2000 and worked in the Surgical Intensive Care Unit. Currently, Ms. Valadez has 15 years of professional experience which includes critical care nursing and coordination of NIH-sponsored research and pharmaceutical trials. She is currently the bariatric surgery nurse coordinator for the Department of Surgery. She is responsible for patient education, support group leadership, and facilitating the care of morbidly obese patients during their hospital stay.



CHAPTER 19 DIVISION OF ORAL AND MAXILLOFACIAL SURGERY

Director

Michael R. Zetz, DDS

Faculty

Rishad Shaikh, DMD

The Division concentrates on facial trauma, pathology, implant placement, TMJ surgery, orthognathic surgery, dentoalveolar surgery and reconstruction cases. The Division sees approximately 4,000 patients per year in the ambulatory clinic. Multiple procedures are done by the faculty and residents in the clinic under local anesthesia, general anesthesia and intravenous sedation. In 2012, the MetroHealth Oral Surgery residency merged with Case Western Reserve University Oral Surgery program.

Rishad Shaikh, DMD

Dr. Shaikh is an Assistant Professor of Oral and Maxillofacial Surgery and started as a full-time faculty at MetroHealth in September, 2012. Dr. Shaikh graduated from Case Western Reserve University School of Dental Medicine. He completed his residency training at West Virginia University and his fellowship at Mercy Medical Center, St. Louis, Missouri. Dr. Shaikh's areas of interest include maxillofacial trauma, orthognathic surgery, TMJ surgery, reconstruction and facial cosmetics.

Michael R. Zetz, DDS

Dr. Zetz is the Division Director of Oral and Maxillofacial Surgery and is an Associate Professor of Oral and Maxillofacial Surgery. He graduated from The Ohio State University College of Dental Medicine. His internship was at Phoenix Medical Center. Dr. Zetz completed his residency at Medical University of South Carolina. In 2012, Dr. Zetz became full-time faculty and Division Director of Oral and Maxillofacial Surgery at MetroHealth. He spent the last 28 years in private practice in Akron and Canton. Dr. Zetz trained Case Oral Surgery residents in their last year of residency during a rotation to his private practice.



CHAPTER 20 DIVISION OF PLASTIC SURGERY

Director

Roderick B. Jordan, MD

Faculty

Bram R. Kaufman, MD

Daniel A. Medalie, MD

Ali Totonchi, MD

Andrea E. Gallup, CNP

The Division of Plastic Surgery has four full-time board certified faculty members and a certified nurse practitioner who provide a full spectrum of plastic surgical services. Patient care is delivered on campus at MetroHealth Medical Center, off-campus at the MetroHealth Ambulatory Surgery Center, and in three suburban outpatient offices. The Division performs in excess of 900 major surgical procedures and has over 6,800 outpatient visits yearly. The Division is teamed with the Orthopedic Service to provide hand services for the community and northeastern Ohio. Other services include craniofacial trauma, bariatric reconstruction, pediatric plastic surgery, gender re-assignment surgery, aesthetic and reconstructive breast surgery, lower extremity reconstruction, and facial aesthetic surgery.

Roderick B. Jordan, MD

Dr. Jordan received his medical degree in 1982 from Case Western Reserve University School of Medicine in Cleveland, Ohio. He then completed his training in General Surgery and Plastic Surgery at University Hospitals of Cleveland. A member of the faculty at MetroHealth Medical Center since 1988, Dr. Jordan is an Assistant Professor of Surgery at Case Western Reserve University and Director of the Division. He is a past-president of the Ohio Valley Society of Plastic Surgeons. Dr. Jordan's special practice interests include body contouring after massive weight loss, aesthetic breast surgery, and the treatment of maxillofacial trauma.

Bram R. Kaufman, MD

Dr. Kaufman received his medical degree in 1987 from Case Western Reserve University School of Medicine in Cleveland, Ohio. He completed his residency in General Surgery at University Hospitals of Cleveland. Dr. Kaufman completed fellowships in Plastic Surgery



PLASTIC SURGERY

and Hand and Microsurgery at the University of Pittsburgh. He is an Assistant Professor of Surgery at Case Western Reserve University School of Medicine. Dr. Kaufman holds a Subspecialty Certificate in Surgery of the Hand (formerly CAQ Hand). Dr. Kaufman's practice interests include breast and body contouring, facial aesthetic surgery, trunk reconstruction, hand surgery, and microsurgery. He has a special interest in lower extremity reconstruction and works closely with leading orthopedic surgeons to facilitate bone transport for limb salvage cases.

Daniel A. Medalie, MD

Dr. Medalie attended Harvard University and then spent a year studying at the Parsons School of Design and Art Students League in New York City. He subsequently earned his medical degree from Cornell University School of Medicine. His General Surgery and Plastic Surgery residencies were completed at the University of Pittsburgh. He also completed a burn fellowship at Massachusetts General Hospital and Shriners Burns Institute in Boston. A full-time faculty member and an Assistant Professor of Surgery at Case Western Reserve University School of Medicine, Dr. Medalie's special interests include aesthetic breast and body contouring, reconstructive breast surgery, reconstructive microsurgery of the head, neck and extremities, gender re-assignment surgery, and facial aesthetic surgery.

Ali Totonchi, MD

Dr. Totonchi received his medical degree in 1996 from Tabriz University of Medical Sciences. He completed his residency in Plastic Surgery at University Hospitals Case Medical Center in Cleveland, Ohio. Dr. Totonchi completed fellowships in Craniofacial/Pediatric Plastic Surgery at University Hospitals Rainbow Babies and Children's Hospital in Cleveland and Facial Cosmetic Surgery at

University Hospitals Case Medical Center. He joined MetroHealth Medical Center in 2010. Dr. Totonchi is an Assistant Professor of Surgery at Case Western Reserve University School of Medicine. His practice interests include pediatric plastic surgery, surgical treatment of migraine headaches, craniofacial surgery, cosmetic surgery and post-oncologic reconstruction. Dr. Totonchi received the 2011 American Society of Maxillofacial Surgeons National Fellowship Award.

Andrea E. Gallup, CNP

Ms. Gallup joined the Division of Plastic Surgery at MetroHealth in 2004. She received her BSN degree from the University of Pittsburgh in 1996. She earned her master's degree from and completed the Family Health Nurse Practitioner program at Gannon University in 2001. Ms. Gallup participates in all patient care activities including in-patient/out-patient care, patient education and perioperative services.

Currently, residents from the integrated Plastic Surgery residency based at University Hospitals rotate through the Division of Plastic Surgery at MetroHealth. The first and second year residents each spend two months at MetroHealth. The PGY-6 residents from the program spend 6 months at MetroHealth. Cleveland Clinic Plastic Surgery residents also complete rotations with the Division of Plastic Surgery at MetroHealth Medical Center. The residents gain experience in all clinical areas with emphasis on the treatment of major traumatic defects and burn injuries.

Current Division research includes post-bariatric reconstruction, reconstruction of the burn defects of the hand and upper extremity, fat metabolism, craniofacial surgery and treatment of facial trauma, migraine surgery, and facial aesthetics.

CHAPTER 21 DIVISION OF SURGICAL ONCOLOGY

Acting Director

Christopher R. McHenry, MD

Staff/Faculty

Bruce J. Averbook, MD

Natalie E. Joseph, MD

Edward G. Mansour, MD

Jessica McCullough, RN, MSN, CNP

The Division of Surgical Oncology is a key component of the Comprehensive Cancer Care Center at MetroHealth Medical Center. Dr. Christopher McHenry is the Acting Director of the Division of Surgical Oncology and serves on the Surgical Oncology Board of the American Board of Surgery. There are two full-time faculty members in the Division: Bruce Averbook, MD and Natalie Joseph, MD, who specialize in the surgical management of cancer with additional expertise in the areas of breast cancer, colorectal cancer, hepatobiliary cancers and melanoma. Edward Mansour, MD has retired from his full-time Surgical Oncology practice; however, he continues to see outpatients and provide teaching in the Breast Surgery Clinic. He also runs a “lump and bump” clinic performing minor procedures in the outpatient surgery clinic and sees patients in follow up for cancer.

The surgical oncologists are responsible for staffing a weekly outpatient clinic for evaluation and management of patients with benign and malignant breast disease. A new comprehensive breast center was opened at the outpatient surgery center at West 150th Street under the leadership of Dr. Joseph. Jessica McCullough, RN, MSN, CNP is the nurse practitioner whose responsibilities include coordination of services as well as assisting in management of patients with breast disease at the new center. In addition, the faculty provides surgical care for cancer patients, educates medical students and residents on surgical oncology, and participates in multidisciplinary Tumor Boards.

The Division of Surgical Oncology is actively involved in clinical trials through the Eastern Cooperative Oncology Group (ECOG). Dr. Bruce Averbook is the Principal Investigator for the Case Western Reserve



University ECOG program. In this capacity, he administers clinical trials at MetroHealth Medical Center, University Hospitals Case Medical Center and four affiliate institutions. The Division also maintains databases on all breast cancer and melanoma patients cared for at MetroHealth since 1975 and is involved in clinical research in these areas.

The Division has been active in community outreach through a project entitled Bringing Education, Advocacy, and Support Together (BREAST), which provides free breast cancer screening services in community locations for uninsured minority women over 35 years of age. Along with MetroHealth, the Susan G. Komen for the Cure Northeast Ohio Affiliate, the American Cancer Society/Walmart, PNC Bank, and the William Bingham Foundation fund this effort. Dr. Averbook has been named the new Director of this program. The program is recognized as a leader in community outreach and best practices in Cleveland. It has received numerous awards from the American Cancer Society (induction into the Hall of Fame, Ohio Latino Breast Cancer Practices, and East Central Division Citation Award), Inside Business Magazine, Ohio Partners for Cancer Control, and Susan G. Komen for the Cure Northeast Ohio Affiliate's Power of a Partner Award. This year, prostate screening will be added to the outreach effort in response to the community requests and further health offerings. Expansion into other underserved and minority communities is also planned.

Bruce J. Averbook, MD

Dr. Averbook completed medical school at the George Washington University, followed by a General Surgery residency at the University of California, Irvine. He completed a resident postdoctoral fellowship in Cancer Immunology at the University of California, Irvine in the Department of Molecular Biology and Biochemistry. Following his General Surgery residency, Dr. Averbook completed a Surgical Oncology fellowship at the Surgery Branch of the National Cancer Institute. He is an Associate Professor of Surgery and has a joint appointment in the Division of General Medical Sciences (Oncology) at Case Western Reserve University School of

Medicine. He recently received a joint appointment as an Associate Professor in Dermatology at MetroHealth Medical Center. He has been an attending at MetroHealth Medical Center since 1993. He has a special interest in the management of melanoma, sarcoma and breast cancer and is the Toxicity Monitor for the Eastern Cooperative Oncology Group (ECOG) Melanoma Core Committee. He is the Principal Investigator (PI) for the Case Western Reserve University Eastern Cooperative Oncology Group and the institutional PI for the American College of Surgeons Oncology Group (ACOSOG). He has funding from the NIH exceeding \$1.3 million after competitive renewal for the ECOG grant that is now entering its 39th consecutive year. He was the institutional PI for the Neoprobe/Navidea Lymphoseek Trial and was a co-author on a manuscript that was recently published in the *Annals of Surgical Oncology*. He recently published a paper in *Cancer* on the results of an international registry evaluating melanoma in children (Pediatric Melanoma: Analysis of an International Registry). Dr. Averbook has published 22 papers in peer-reviewed journals, five book chapters and numerous invited discussions. An invited editorial on melanoma staging appeared in the *Journal of Clinical Oncology* in 2011. He is currently the President-Elect for the Ohio Chapter of the American College of Surgeons (OACS) and Chairman of the Audit Committee. He completed service as the Councilor for Northeast Ohio for the OACS. He was Program Chairman for the Annual Meeting in 2009 and is responsible for the Annual Meeting Program in 2014. He completed service in October 2010 as the Alternate Governor Representative for the ACS Board of Governors for the Ohio Chapter. He was re-nominated for and represents the American College of Surgeons for The Commission on Cancer (CoC) and continues as the liaison for the CoC to the College of American Pathologists. He has been on the Corporate Relations Committee for the Society of Surgical Oncology/James Ewing Society since 2008, raising money for the annual meeting and the fellow's institute. He has just been accepted to the U.S Malignant Melanoma Advisory Board for Merck Sharp & Dohme Corp. He completed service as a member of the Case Western Reserve

University Faculty Senate and has served on the Case School of Medicine Nominating Committee. He currently is a member of the Case Western Reserve Faculty Senate Research Committee. He initiated the Cutaneous Oncology Tumor Board at MetroHealth, which is a multidisciplinary team of dermatologists, plastic surgeons, medical oncologists, otolaryngologists, radiation oncologists and surgical oncologists focused on the care of a variety of skin and soft tissue cancers. He is now a member of the MetroHealth Cancer Care Center VAC committee, geared toward fund raising for cancer patients and cancer services. In addition, through MetroHealth, he is now contributing to the services at the Louis B. Stokes Cleveland VAMedical Center in the surgical care for breast, melanoma and sarcoma military veteran patients.

Natalie E. Joseph, MD

Dr. Joseph earned a Bachelor of Arts degree at the University of Pennsylvania where she majored in Biological Basis of Behavior. She obtained her medical degree from Temple University School of Medicine where she was also inducted into the Alpha Omega Alpha Honor Society. She completed her General Surgery residency training at Case Western Reserve University followed by a Fellowship in Surgical Oncology at the Fox Case Cancer Center. Prior to her being recruited to MetroHealth Medical Center, Dr. Joseph was an Attending Surgeon in the Department of Surgical Oncology at the Fox Chase Cancer Center and an Assistant Professor of Surgery at Temple University School of Medicine for five years. While at the Fox Chase Cancer Center, she was the Liaison Physician for the American College of Surgeons Commission on Cancer. She has previously earned an American Society of Clinical Oncologist Merit Award. She has distinguished herself as an educator and received an Excellence in Teaching Award. She is the Medical Director of the Breast Center at MetroHealth Medical Center and serves as the Quality Officer for the Department of Surgery. Dr. Joseph is a council member of the Ohio Chapter of the American College of Surgeons, is a member of the local Committee on Applicants for the American College of Surgeons, and is a member of the Educational Products Committee for the

Society of Surgical Oncology. She has published several peer-reviewed articles, presented at national meetings, and has been an invited speaker on a number of cancer-related topics. Dr. Joseph has a special interest in the management of breast cancer, colorectal cancer, and hepatobiliary cancers.

Edward G. Mansour, MD

Dr. Mansour completed medical school at the American University of Beirut followed by General Surgery residency training at MetroHealth Medical Center. He is a Professor of Surgery and Oncology. He has been an attending surgeon at MetroHealth Medical Center for 36 years. He is the past Director of the Division of Surgical Oncology and the past Director of the Cancer Care Center at MetroHealth Medical Center. He was a Principal Investigator for the Eastern Cooperative Oncology Group, earning continuous funding from the National Cancer Institute for 30 years. He is internationally recognized for his expertise in Surgical Oncology, particularly in the areas of breast cancer and melanoma. Dr. Mansour is past President of the Ohio Division of the American Cancer Society and the Cleveland Surgical Society. He has authored 47 papers and 12 book chapters. He was the recipient of the Department of Surgery Faculty Teaching Award in 2001. He was inducted into the Cleveland Medical Hall of Fame in 2002, the American Cancer Society Cancer Hall of Fame in 2003 and the MetroHealth Hall of Honor in 2011.

Jessica McCullough, RN, MSN, CNP

Ms. McCullough is a Certified Family Nurse Practitioner. She joined the Division of Surgical Oncology at MetroHealth in 2013. She received her BSN from the University of Akron in 2006 and most recently, graduated from the University of Cincinnati, where she received her Master of Science in Nursing degree. Prior to coming to MetroHealth, Ms. McCullough taught clinical nursing at Cuyahoga Community College and is still actively involved in teaching an online BSN nursing program at Wesleyan University. She has a key role in coordinating services in the Breast Center as well as in assisting in evaluation and management of patients with breast disease.

CHAPTER 22

DIVISION OF TRAUMA, CRITICAL CARE, BURNS AND ACUTE CARE SURGERY

Director

Jeffrey Claridge, MD, MS

Staff/Faculty

John Como, MD, MPH

Joseph Golob, MD

Anjay Khandelwal, MD

Amy McDonald, MD

Nimitt Patel, MD

Charles Yowler, MD

Tammy Coffee, MSN, RN, ACNP-BC

MetroHealth Medical Center is the only American College of Surgeons verified Level I Trauma Center for more than two million people in the metropolitan Cleveland area. MetroHealth is also verified by the American College of Surgeons as a Level II Pediatric Trauma Center and by the American Burn Association as a Level I Burn Center. The faculty consists of six surgeons with Board Certification in Surgical Critical Care and an Anesthesiologist with Board Certification in Anesthesia Critical Care. Upon arrival to MetroHealth, the trauma patient is evaluated and treated by a multidisciplinary team consisting of trauma surgeons, emergency physicians, and surgical subspecialists. Approximately 3,100 trauma patients are admitted annually, making this one of the busiest Trauma Centers in Ohio and in the U.S. We are also dedicated to the treatment of injured children with assistance from subspecialty teams of pediatric medical and surgical specialists.

The Division supervises two Intensive Care Units. A dedicated Trauma Intensive Care Unit has 12 beds and the Surgical Intensive Care Unit has 15 beds. Almost 2,000 patients are admitted annually to the Intensive Care Unit, making this one of the busiest Intensive Care Units in the City. The 14-bed Burn Intensive Care Unit at MetroHealth Medical Center is the only adult and pediatric Burn Center for the metropolitan Cleveland area. We treat 1,700 burn patients annually with more than 100 patients having burns severe enough to be admitted.

Dr. Christopher Brandt, the Chair of the Department of Surgery, is also one of the Burn Surgeons within our Division.



Jeffrey Claridge, MD, MS

Dr. Claridge is an Associate Professor of Surgery and is the Division Director of Trauma, Critical Care, Burns, and Acute Care Surgery. He also serves as the Medical Director of Trauma at MetroHealth Medical Center. He has had continuous NIH-funded research in the areas of trauma outcomes, surgical infections, and medical informatics. He is also primarily responsible for the two-year resident research fellowship offered by the Division and supervises multiple studies and study coordinators. His clinical interests besides trauma are in the areas of Acute Care Surgery and Advanced Laparoscopic Surgery, including bariatric surgery. Dr. Claridge has been a Counselor for the Surgical Infection Society. Dr. Claridge has completed and received his Masters Degree in clinical outcomes research from Case Western Reserve University after coming to Cleveland in 2005. He is also the Medical Director for the Northern Ohio Trauma System (NOTS) which is a partnership of hospitals across northern Ohio. The mission of NOTS is to provide the highest quality of care to trauma patients across the region, by rigorously evaluating and improving outcomes, optimizing resources, and providing education across the region, utilizing a collaborative approach with hospitals, emergency medical services, and the public health services.

John Como, MD, MPH

Dr. Como is an Associate Professor of Surgery and serves as Associate Director for Trauma. Dr. Como is responsible for prevention activities and treatment guidelines used for our injured and critically ill patients. He has a broad background in guideline development and has a key leadership role in the Eastern Association for the Surgery of Trauma Guidelines Committee. His clinical interest is in the area of Acute Care Surgery with emphasis on trauma and complex hernia repair. Dr. Como earned a Master's of Public Health degree at Case Western Reserve University, which he obtained while working full time as a trauma surgeon.

Joseph Golob, Jr., MD

Dr. Golob joined the Division after completing his Critical Care Fellowship at MetroHealth. Dr. Golob

was a general surgery resident at Case Western Reserve University and did a two-year trauma research fellowship. The two fellowship years were very productive; Dr. Golob published 14 peer-reviewed articles as a result of his work during that time. Dr. Golob won the National Best Trauma paper from the American College of Surgeons Committee on Trauma in 2008. His interests are in critical care, medical informatics and improving quality. He will be having an increased leadership role in the Surgical Intensive Care Unit. In 2013, Dr. Golob was named Medical Director of Patient Safety for MetroHealth Medical Center.

Anjay Khandelwal, MD

Dr. Khandelwal joined The MetroHealth Comprehensive Burn Care Center in 2013 as Associate Director. Dr. Khandelwal has extensive experience in burn reconstruction and complex wound management, including utilizing the latest in laser therapy for scar management. He treats both adults and pediatrics. Dr. Khandelwal is dual fellowship-trained and board-certified in Burn Reconstruction and Critical Care. Dr. Khandelwal has been appointed as Associate Professor at Case Western Reserve University School of Medicine. Dr. Khandelwal is trained to utilize the Lumenis Ultra Laser for reconstruction. Included in his role at MetroHealth, Dr. Khandelwal will attend as a Trauma surgeon, covering all areas of trauma surgery. In addition to his new clinic at MetroHealth, Dr. Khandelwal is passionate about his one-of-a-kind Burn Camp in India. The camp's mission is to help treat children that have been burned severely.

Amy McDonald, MD

Dr. McDonald is an Assistant Professor of Surgery and is the Director of the Trauma Intensive Care Unit. She is responsible for the education of surgical residents and medical students rotating through the Division. Her clinical interests, besides the care of the traumatically injured, are in the areas of Acute Care Surgery and Surgical Infections. Dr. McDonald has received recognition for her outstanding teaching and has been invited for multiple international presentations.

TRAUMA, CRITICAL CARE, BURNS AND ACUTE CARE SURGERY

Nimitt Patel, MD

Dr. Patel joins the Division after completing his two-year fellowship in trauma and acute care surgery from Pittsburgh. Dr. Patel covers Trauma, Critical Care, and Acute Surgery throughout the year. His research interests are in the areas of trauma resuscitation and trauma outcomes. Dr. Patel is a great addition to the Division and looks forward to an increasing leadership role in EMS outreach, resuscitation protocols, and acute care surgery.

Charles Yowler, MD

Dr. Yowler is a Professor of Surgery and is Director of the Comprehensive Burn Care Center and Program Director for the Surgical Critical Care Fellowship. His primary clinical interest is in trauma and burn injury. As Director of the Comprehensive Burn Care Center, he also treats a wide range of complex wound problems including necrotizing tissue infections. Dr. Yowler is the immediate past Chairman of the Ohio Committee on Trauma and serves nationally for the American College of Surgeons in the verification process of trauma and burn centers.

Tammy Coffee, MSN, RN, ACNP-BC

Ms. Coffee received her diploma from Akron General Medical Center School of Nursing in 1984 and her

Bachelor's Degree in Nursing from the University of the State of New York in 1995. She went on to receive her Master's Degree in Nursing from Case Western Reserve University. She is board certified as an Acute Care Nurse Practitioner. For 25 years, Ms. Coffee has dedicated her career to caring for the burn victim and their families. She currently sits on the American Burn Association Board of Trustees and has presented at national meetings and published in journals and nursing books.

The Division offers two ACGME-approved Fellowships in Surgical Critical Care and also offers a Trauma Research Fellowship. The Division provides education in the areas of Trauma, Surgical Critical Care, and Burn Care to the residents of the Case Western Reserve University Surgical Program and the Cleveland Clinic.

Divisional research is centered in the area of trauma outcomes, burn care, medical informatics, and surgical infection. Approximately eight to twelve peer-reviewed articles are published annually by the attending staff. The group is very active nationally and presents at several nationally recognized general surgery, trauma, and critical care meetings throughout the year.



The Division of Vascular Surgery at MetroHealth Medical Center is committed to providing exceptional care for patients with arterial and venous disorders. To achieve this goal, it is linked with the Divisions of Cardiology, Cardiothoracic Surgery, and Vascular and Interventional Radiology to form the Heart and Vascular Center, whose overall goal is to provide broad-based screening and preventative programs, as well as to offer a comprehensive diagnostic and therapeutic plan utilizing a patient-centric and disease-oriented approach. The surgical service focuses on the treatment of extracranial, aortic, visceral, and extremity arterial occlusive disease, arterial aneurysms, vascular trauma, and venous disease.

In addition, it is active in providing and maintaining hemodialysis access. Diagnosis of these varied conditions is assisted through its ICAVL-accredited vascular laboratory, and by means of other advanced diagnostic modalities such as enhanced MRA, CTA, and standard or biplanar angiography. Treatments provided by the service include both conventional surgical approaches and newer endovascular options including angioplasty, stent placement, stent graft repair of abdominal and thoracic aneurysms, ultrasound guided treatment of pseudoaneurysms and thrombolytic therapy. The Division is also involved with more innovative approaches to enhance the treatment of arterial and venous disease catheter-based atherectomy, cryoplasty and endoluminal vein ablation.

Educational activities of the Division are diverse. Weekly didactic conferences are held with students, residents and interventional fellows to discuss the evaluation and treatment of vascular patients. Monthly conferences are also held in conjunction with the Division of Nephrology to review issues specific to hemodialysis access. In addition, regular lectures are given to medical students rotating on the surgical service. Rotating podiatry students take advantage of teaching within the busy outpatient clinics. These educational activities are complemented by clinical research studies which have focused on such topics as arterial bypass in patients with renal failure,

CHAPTER 23 DIVISION OF VASCULAR SURGERY

Director

J. Jeffrey Alexander, MD

Faculty

Mireille Astrid Moise, MD

Christopher J. Smith, MD

Amy Green, CNP



VASCULAR SURGERY

the use of vena caval filters, venous thrombosis in trauma patients, the outcome of ruptured aortic aneurysms and the natural history of carotid occlusive disease. Current projects are concerned with arterial reconstruction in the younger patient, the prevalence of aspirin resistance in patients with peripheral vascular disease, and the use of vagal stimulation for the treatment of congestive heart failure.

J. Jeffrey Alexander, MD

Dr. Alexander is Director of the Division of Vascular Surgery and Director of the Noninvasive Vascular Laboratory at MetroHealth Medical Center. He graduated from the University of Pittsburgh School of Medicine and completed both his surgical residency and vascular surgical fellowship at the University of Chicago. He is a tenured Associate Professor of Surgery at Case Western Reserve University and is board-certified in general and vascular surgery. He is also a certified vascular technologist. His concentration has been on the operative treatment of carotid and peripheral vascular disease, aortic aneurysms and visceral arterial occlusive disease. He is also active in the treatment of vascular trauma and in arteriovenous access surgery. He has authored more than fifty articles in peer-reviewed journals and several book chapters. He is a member of many regional and national vascular societies. He has received the honor of Best Doctors in America.

Christopher J. Smith, MD

Dr. Smith graduated from Tufts University School of Medicine where he was distinguished with induction into the AOA Honor Society. He received his general surgical training at Case Western Reserve University

and completed his vascular surgery fellowship at the University of Cincinnati. He has since held attending positions at Case Western Reserve University, Tufts University and Temple University. He currently holds the rank of Assistant Professor of Surgery at Case Western Reserve University. He is board certified in vascular and general surgery. Dr. Smith has a focused interest in advanced endovascular therapy and is the Director of Endovascular Surgery. He also has a wide interest in the surgical treatment of arterial and venous disease and is active in program development, vascular quality initiatives and vascular screening.

Mireille Astrid Moise, MD

Dr. Moise graduated from the University of Pennsylvania School of Medicine, where she received awards for humanitarianism and academic achievement, and where she later served as a postdoctoral research fellow. She completed her vascular fellowship at the Cleveland Clinic Foundation and joined the Vascular Surgery Division at MetroHealth Medical Center as an Assistant Professor of Surgery at Case Western Reserve University. Dr. Moise has special expertise in the endovascular treatment of arterial disease and has an interest in open surgical treatment modalities as well.

Amy Green, CNP

Ms. Green received her BSN degree from Cleveland State University and her MSN degree from Case Western Reserve University. She has received specialized training in wound care and currently participates in out-patient evaluation and treatment of both arterial and venous disease, and in wound care.

The Louis B. Stokes Cleveland VA Medical Center is the flagship hospital for VISN 10 (Veterans' Integrated Service Network in Ohio). The Cleveland VA serves northeast Ohio and serves as the tertiary care referral center for all of Ohio and portions of western Pennsylvania and West Virginia. It is one of the Veterans' Health Administration's top spinal cord injury centers, as well as a "Center of Excellence" in Cardiothoracic Surgery. It houses a major inpatient psychiatry service and a unique domiciliary. For many years, there have been two campuses — the Wade Park facility and a facility in the south suburb of Brecksville. A major consolidation initiative was completed in 2011 which brought many Brecksville services to the Wade Park campus, to the recently completed and newly constructed C.A.R.E.S. Tower and other new facilities across East 105th Street. A new state-of-the-art, community-based outpatient clinic was also completed in the suburb of Parma, Ohio. More than 2,600 new parking spaces have been added to the campus in the past one-and-a-half years. The makeover of the Cleveland VA Medical Center was made possible by a more than \$500 million investment by the federal government and partners in the City of Cleveland. A coordinated network of 13 community-based outpatient clinics (CBOC's) across northeast Ohio provide convenient access to care for the region's veteran population.

The Department of Surgery consists of 11 Sections (General Surgery, Vascular, Cardiothoracic, Plastics, Otorhinolaryngology and Head and Neck Surgery, Orthopedics, Ophthalmology, Urology, Optometry, Podiatry, and Surgical Intensive Care). General Surgery has two Divisions: Surgical Oncology and Colorectal Surgery. Over 500 operations a month are performed by our faculty in our eight surgical suites. We have ten surgical critical care beds and a dedicated surgical nursing floor. Construction is underway to completely renovate the operating theater and the surgical intensive care unit. There will be a net gain of two operating suites and two critical care beds.

The Department participates in a robust quality surveillance and management program, as well as VASQIP (Veterans Administration Surgical Quality Improvement Program) and SCIP (Surgical Care Improvement Program).

The Louis B. Stokes Cleveland VA Medical Center is fully integrated with the surgical residency programs of University Hospitals and our faculty have appointments at Case Western Reserve University School of Medicine. Our faculty is intimately involved in resident and medical student education and regular teaching conferences are conducted by surgical specialties and subspecialties.

Research opportunities for residents interested in longitudinal database projects and some funded opportunities are available in conjunction with our faculty with Merit and Young Investigator awards. An on-site Assistant Residency Program Director works closely with the Program Director to assure good communication with our faculty and compliance with the objectives of the Case Surgery educational program. A laparoscopic skills training facility is located across the street from the hospital on the VA campus, which is utilized on a regular basis by the residents during their rotation at the VA Medical Center, and protected time is provided for them to utilize the opportunity. Residents have access to a broad and complex case volume. Inpatient care is shared with physician extenders to maximize the educational experience of the resident, and to promote compliance with ACGME work hour requirements, while maintaining high quality patient care.

Our surgeons are extremely proud of their unique responsibilities, which is for the care of the men and women who have 'borne the battle' and sacrificed in war and peace for our freedoms.

Brian Cmolik, MD, FACS
Service Chief, Department of Surgery
Louis B. Stokes Cleveland VA Medical Center

CHAIRMAN'S INTRODUCTION



Brian Cmolik, MD, FACS

"Our surgeons are extremely proud of their unique responsibilities, which is for the care of the men and women who have sacrificed in war and peace for our freedoms."

CHAPTER 24 LOUIS B. STOKES CLEVELAND VA MEDICAL CENTER FACULTY



Brian Cmolik, MD

Chief, Surgical Service

Off-pump cardiac surgery, aortic root and great vessel surgery, Video Assisted Thoracic Surgery

Medical School: Northeastern Ohio Universities College of Medicine

Residency: Allegheny General Hospital

Fellowship: Allegheny General Hospital, Transplant Research

CARDIOTHORACIC SURGERY



Yakov Elgudin, MD, PhD

Section Chief

Cardiothoracic Surgery

Medical School: School of Medicine, Kemerovo, Russia

Residency: Exempla-Saint Joseph Hospital

Fellowship: UCLA



Jason Robke, MD

Thoracic and Esophageal Surgery

Thoracic Oncology, Esophageal Surgery, Minimally Invasive (VATS) Surgery, Airway and Esophageal Stenosis, GERD, Paraesophageal Hernia Surgery, and YAG Laser Therapy

Medical School: Medical College of Ohio at Toledo

Residency: Allegheny Hospital

Fellowship: Allegheny General Hospital



Diana Whittlesey, MD

Cardiothoracic Surgery and Thoracic Oncology

Medical School: Johns Hopkins University

Residency: Johns Hopkins Hospital, Case Western Reserve University / University Hospitals of Cleveland

Fellowship: Case Western Reserve University / University Hospitals of Cleveland

GENERAL SURGERY



Eric Marderstein, MD, MS

Section Chief, General Surgery

Director of Colorectal Surgery

Colorectal and Anal Cancer, Inflammatory Bowel Disease and Benign Colorectal Diseases

Medical School: University of Virginia School of Medicine

Residency: University of Pittsburgh School of Medicine

Fellowship: Cleveland Clinic Foundation – Colorectal Surgery



Photo
not
available

Ray Wong, MD

General Surgery

Medical School: Tufts University, Boston MA

Residency: Mount Sinai New York, New York-General Surgery

Fellowship: Medical College of Wisconsin, Milwaukee WI , Hepatobiliary Surgery



Mujjahid Abbas, MD

General Surgery

Medical School: King Edward Medical College

Residency: Montefiore Medical Center/Albert Einstein College of Medicine, New York, New York

PLASTIC SURGERY



Devra Becker, MD

Section Chief

Plastic and Reconstructive Surgery

Medical School: Washington University School of Medicine, St. Louis, Missouri

Residency: Washington University School of Medicine, St. Louis, Missouri

Fellowship: Paris, France (with Dr. Marchac/University of Case School of Medicine)



David Rowe, MD, MS

Plastic and Reconstructive Surgery

Medical School: Albany Medical College

Residency: Medical College of Wisconsin

VASCULAR SURGERY



Jessie Jean-Claude, MD

Section Chief

Peripheral Vascular Surgery and Endovascular Surgery

Medical School: Columbia University College of Physicians and Surgeons, New York, New York

Residency: St. Luke's/Roosevelt Hospital Medical Center, New York, New York

Fellowship: University of California at San Francisco; University of Lund/Malmo, Sweden



Gilles Pinault, MD

Peripheral Vascular Surgery, Endovascular Surgery and Surgical Critical Care

Medical School: McGill University Faculty of Medicine, Quebec, Canada

Residency: Case Western Reserve University School of Medicine / University Hospitals of Cleveland

Fellowship: Peripheral Vascular Surgery, University Hospitals of Cleveland



Preet Singh Kang, MD
Section Chief, Interventional Vascular Radiology

Medical School: MMBS, Maulana Azad Medical College, New Delhi, India, University of Delhi
Residency: Radiology Residency, Hospital of Saint Raphael, Yale University, New Haven, Connecticut
Fellowship: Vascular and Interventional Radiology, Yale New-Haven Hospital, Yale University, New Haven, Connecticut



Lleowell Garcia, MD
Peripheral Vascular Surgery

Medical School: St. Louis University School Of Medicine
Residency: University of Florida, Jacksonville, Florida
Fellowship: Vascular Surgery, University of Virginia, Charlottesville, Virginia

SURGICAL CRITICAL CARE



Edward Noguera, MD
Director of Surgical Critical Care

Medical School: Universidad Nacional de Colombia
Residency: Anesthesiology, The Cleveland Clinic Foundation
Fellowship: Critical Care Medicine, The Cleveland Clinic Foundation



Joel Peerless, MD
Surgical Critical Care

Medical School: University of Cincinnati College of Medicine, Cincinnati, Ohio
Residency: Internal Medicine, Metropolitan General Hospital, Cleveland, Ohio; Anesthesiology, Northwestern University Hospital, Chicago, Illinois
Director: Surgical Intensive Care Unit, MetroHealth Medical Center, Cleveland, Ohio 1986-2009



Nakul Vakil, MD
Surgical Critical Care

Medical School: SUNY Stony Brook NY
Residency: Cleveland Clinic Foundation-General Surgery
Fellowship: Cleveland Clinic Foundation- CT Surgery



Cliff Perez, MD
General Surgery, Surgical Critical Care

Medical School: Medical University of South Carolina
Residency: Creighton University-General Surgery
Fellowship: Hartford Hospital, Hartford Conn. – Surgical Critical Care

CHAPTER 25 LOUIS B. STOKES CLEVELAND VA MEDICAL CENTER DIVISIONS

The Surgical Service (Department of Surgery) at the Louis B. Stokes Cleveland VA Medical Center provides a full range of surgical care to the Nation's veterans. The General Surgery, Vascular Surgery, and Cardiothoracic Surgery Sections, with which the surgical residency is involved, are lead by section chiefs Eric Marderstein, MD (Assistant Professor, Case Western Reserve University School of Medicine), Jesse Jean-Claude, MD (Associate Professor, Case Western Reserve University School of Medicine), and Yakov Elgudin, MD, PhD, FACS (Assistant Professor, Case Western Reserve University School of Medicine), respectively. The Service is comprised of 12 sections, including general surgery, vascular surgery, cardiothoracic surgery, gynecologic surgery, plastic surgery, podiatry and podiatric surgery, ophthalmology, optometry, orthopaedic surgery, otorhinolaryngology, surgical critical care, and urology.

The Cleveland VA has regional programs within the VA system for cardiac surgery and minimally invasive vascular surgery. A new program in robotic surgery, fenestrated endovascular grafts, and hybrid cardiac surgery were implemented in 2012-13 and continue to expand. Facilities include 8 operating rooms, an endoscopy suite, and a 10-bed surgical intensive care unit with overflow capacity into the Medical Intensive Care Unit. In late 2012, a complete makeover of the operating rooms began; when finished, there will be a net addition of two rooms, bringing the total to ten operating rooms. This major renovation project is well underway with three temporary operating rooms now completed and ready for use. The Surgical Intensive Care Unit will also undergo complete reconstruction in 2013-14 with updates to state-of-the-art equipment and infection control measures. An outpatient Surgical Ambulatory Care Center is being constructed one mile from the main campus, which will provide two additional operating rooms and an endoscopy suite. Completion is planned for late 2013. This new facility will help to decompress the busy operating suite and the Short-Stay Unit in the main hospital, where there is demand for additional major operations; it will also increase the capacity to manage the outpatient demands in ophthalmology, podiatry, otorhinolaryngology, orthopedics, plastics, and general surgery.

Two of the new hospital operating rooms will be outfitted as hybrid suites for evolving minimally invasive peripheral vascular and cardiac operations. The new surgical intensive care unit facility will be updated to the latest standards for infection control, noise control, technology, and patient safety. The surgical patient care wards were completely



LOUIS B. STOKES CLEVELAND VA MEDICAL CENTER DIVISIONS

renovated a few years ago, including updated patient care technology, resulting in improved patient privacy and satisfaction over previous years. A Tele-health Clinic was started remotely to the Wade Park facility from the Akron Community-Based Outpatient Clinic in early 2011.

The Louis B. Stokes Cleveland VA Medical Center is the flagship tertiary care medical facility of Veteran's Integrated Service Network-10 (VISN 10) with a total of over 600 beds (approximately 275 acute care beds). It serves 13 Community-Based Outpatient Clinics located across northeast Ohio.

CARDIOTHORACIC SURGERY

The Cardiothoracic Surgery section is comprised of three full-time and one part-time surgeons, as well as two physician assistants, a nurse practitioner, and a nurse scheduler. Two of our surgeons specialize in non-cardiac thoracic surgery and thoracic oncology. About 275 cardiac operations are performed yearly at the Cleveland VA, with patients referred from throughout the state of Ohio, as well as from Indiana, Kentucky, and West Virginia. More than half of the cardiac surgery cases are referred from more than 50 miles away. The cardiac group led the VA in the use of off-pump cardiac bypass, and is actively involved in an ongoing study comparing outcomes of off-pump with on-pump bypass surgery. Plans are underway to include transcatheter valve surgery. A destination therapy program using the HeartMate II device has been approved and is actively enrolling patients. Surgical outcomes, as assessed by the VA Continuous Improvement in Cardiac Surgery Program, are excellent. Thoracic surgical procedures are performed using both open and minimally invasive techniques, and include a large number of lung and esophageal cancer cases.

GENERAL SURGERY

The General Surgery Section is staffed by three full-time surgeons, four nurse practitioners, a physician's assistant, a scheduling nurse, and a wound care and ostomy nurse, providing expertise in surgical oncology, colorectal surgery, and general gastrointestinal and soft tissue surgery. Surgical oncology represents the largest component of the General Surgery Section, offering care of major tumors of the stomach, esophagus, pancreas, large

bowel, bile duct, retroperitoneum, endocrine organs, breast, and malignant melanoma.

Three residents, at both junior and senior levels, are assigned to the Service. There are third-year medical students rotating for their core surgery rotations. The Section performed nearly 1,200 operations last fiscal year, affording the residents significant experience in management of a wide range of surgical problems. There is one half-day of general surgery clinic per week. The Section operates four days per week, running two rooms each day. There has been a significant increase in clinical activity at the Cleveland VA, which has been consistent and continues to grow.

VASCULAR SURGERY

Vascular Surgery is staffed by two full-time surgeons and one part-time surgeon, in addition to three nurse practitioners, and a research nurse. Trainees include a vascular surgery fellow, a PGY-4 as chief resident, and a PGY-1 rounding out the team. There are third-year medical students who rotate in 2-week blocks. A non-invasive vascular laboratory is staffed by four vascular technologists. The Vascular Surgery group provides care for patients with aneurysmal and occlusive disease of the extremity, visceral, and extracranial vessels and the aorta. Our vascular surgeons have an active endovascular program and recently added fenestrated grafts to their surgical offerings. They work collaboratively with our interventional radiologists both in the operating rooms and radiology suite. Each case is presented and discussed in a multidisciplinary format where treatment planning is initiated. The Vascular Surgery section sees patients in the outpatient clinics one day per week and operates four days per week. More than 450 vascular operations were performed at the Cleveland VA in fiscal year 2011. The vascular laboratory serves not only the Wade Park division, but outlying clinics throughout northern Ohio.

DIVISION EDUCATION

The Louis B. Stokes Cleveland VA Medical Center is an integrated teaching site for the general surgical residency program at Case Western Reserve University. Residents rotate on general surgery, vascular surgery, and cardiothoracic surgery. Residents are afforded significant responsibility for patient care in the operating rooms, on the

wards, in the surgical intensive care unit, and in the outpatient clinics with attending supervision. In addition to teaching in the clinical setting, each of the VA rotations has a structured educational program. The general surgical experience includes weekly, half-day sessions dedicated to education with SICU teaching rounds, a general surgery conference with case-based teaching, and pathology conference where specimens from the previous week are reviewed with the pathology staff. The vascular surgical service also has a formal weekly half-day of teaching, including SICU teaching rounds, case-based teaching rounds, an angiography conference, and an Indications Conference. Residents on the cardiothoracic surgery service have one-on-one weekly teaching sessions with faculty, including technical teaching of bedside procedures. These residents also participate in a weekly tumor board with their faculty. Residents from all services participate in the weekly morbidity and mortality conference.

Residency programs in the surgical subspecialties, including plastic surgery, ophthalmology, orthopaedic surgery, otorhinolaryngology and urology, include the VA as a primary teaching site and share faculty with University Hospitals Case Medical Center. The Cleveland VA Medical Center also sponsors two VA-based residency programs; one in podiatry and podiatric surgery in conjunction with the Ohio College of Podiatric Medicine; and one in optometry in conjunction with the Ohio State University.

DIVISION RESEARCH

Surgical sections at the Cleveland VA are active participants in the VA cooperative studies program and have served as sites for a number of cooperative studies projects. Current cooperative studies include comparison of open and endovascular repair of aortic aneurysms and a comparison of outcomes in coronary artery bypass surgery performed versus off-pump bypass. Several members of the Service are involved with the Cleveland Functional Electrical Stimulation (FES) program and have primary responsibility for projects within the FES center. There is ongoing clinical research in the areas of outcomes in carotid disease, atherectomy, hernia repair, colorectal cancer, and urologic surgical oncology. One surgical faculty member has obtained

a grant to study and initiate novel approaches to the multidisciplinary care of patients with breast cancer which will be expanded to include our large population of colorectal cancer patients in its second phase, anticipated to begin in 2014.

A state-of-the-art, fully integrated electronic medical record system provides the opportunity to investigate a large volume of clinical data across the spectrum of each patient's care and across the VA population. Utilization of this capability can lead to some very interesting database clinical research projects. Residents and students are strongly encouraged to take advantage of these longitudinal research opportunities during their training.

PATIENT CARE

The Surgical Service at the Cleveland VA Medical Center offers a wide range of surgical care. Patient care is provided by house staff under the supervision of full-time and part-time faculty and with the assistance of a number of nurse practitioners and physician assistants. Over 4,400 surgical procedures were performed in the operating rooms in 2011. Surgical outcomes at the Cleveland VA are quite good, with the Service achieving better than predicted outcomes in the Veterans Administration Surgical Quality Improvement Project (VASQIP) in 9 of the last 12 years and serving as a model for quality in the Veterans' Integrated Service Network in Ohio and in the Cleveland surgical community.

ON-CALL COVERAGE AT THE CLEVELAND VA MEDICAL CENTER

A surgical hospitalist covers the Surgical Service, along with junior residents, four of the seven nights of the week from 5 PM to 7 AM, providing senior in-house supervision, back-up, and teaching for the junior residents. In addition, the surgical hospitalist takes all responsibility for patients in the Surgical Intensive Care Unit those four nights of the week. The chief resident is expected to cover one of the three weekend nights in the SICU as the only in-house responsibility, providing optimum opportunity for the chief resident to participate in operative cases throughout the week, to manage his/her service, and to prepare for teaching conferences and other administrative responsibilities.

TEACHING CONFERENCE SCHEDULE

MONDAYS

GI Multidisciplinary Tumor Board Conference

12:00 – 1:00 p.m.

Lincoln Conference Room

TUESDAYS

Vascular Section Walk Rounds

7:30 – 9:00 a.m.

Ward 5A

Multidisciplinary Vascular Conference

9:00 – 10:00 a.m.

SICU Conference Room

THURSDAYS

Morbidity and Mortality Conference (General and Vascular Surgery Sections)

7:00 – 8:00 a.m.

Conference Room K-119

Tumor Board Conference

8:00 – 9:00 a.m.

Conference Room K-119

General Surgery Indications Conference

9:00 – 10:00 a.m.

SICU Conference Room

Critical Care Walk Rounds

10:00 – 11:00 a.m.

SICU

Pathology Gross and Microscope Conference

11:00 a.m. – 12:00 p.m. (monthly only)

Dept. of Pathology Morgue Conference Room

FRIDAYS

CV Surgery/Cardiology Multi-disciplinary Catheterization Conference

7:00 – 8:00 a.m.

Cardiac Catheterization Lab Conference Room

DEPARTMENT OF SURGERY RESEARCH ACTIVITY

- VA Cooperative Studies Program, “Open versus Endovascular Repair of Aortic Aneurysms (OVER).” Jessie Jean-Claude, MD, Site PI.
- VA Cooperative Studies Program, “VA Coronary Artery Revascularization in Diabetes Study (VACARDS).” Brian Cmolik, MD, Site PI.
- Clinical Trial of the ON-X Valve Using Low Dose Anticoagulation, Brian Cmolik, MD, PI.
- VA Cooperative Studies Program, “Outcomes Following Cardiovascular Revascularization: On and Off Cardiopulmonary Bypass.” Diana Whittlesey, MD, Site PI.
- VA Cooperative Studies Program “REGROUP study” examining open versus endoscopic saphenous vein harvest for coronary artery bypass grafting. Brian Cmolik MD, Site PI.
- VA Career Development Award, “Photoreceptors During Chromophore Deprivation and Supplementation.” Johnny Tang, MD, PI.
- VA Merit Review, “Joint Replacement Utilization Disparity: The Role of Communication.” Denise Kresevic, RN, PhD, PI.
- Cuff Electrodes in Functional Electrical Stimulation, Gilles Pinault, MD, PI.
- VA Center of Excellence Research Grant, “Multidisciplinary Breast Cancer Care”.

DIVISION GOALS

Goals include expansion of services to meet ever increasing veteran patient demand. This will include the need to expand our operating rooms. New construction is underway. We also plan to expand our outpatient clinics to accommodate a significant increase in demand across the surgical sections and to reduce outpatient clinic waiting times. The General Surgery section plans to expand its educational program with a teaching series of core topics frequently encountered in the VA population. The Vascular Surgery Section will anticipate participating in a VA cooperative study of carotid stent outcomes. A large study of catheter-based atherectomy outcomes will begin soon.

In conjunction with interventional radiology, we have established a minimally invasive Vascular Center of Excellence for our network. The Cardiac Surgery staff has pursued training in minimally invasive techniques and plans to participate in a clinical study comparing outcomes of coronary artery bypass grafting with angioplasty and stenting in diabetic patients. We have expanded our non-physician clinical staff to meet both patient care needs and resident duty hours restrictions. We are also working to expand our research activities in all sections.

Department of Surgery
Case Western Reserve University School of Medicine

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Department of Surgery
Case Western Reserve University
School of Medicine
11100 Euclid Avenue
Cleveland, OH 44106

Telephone: 216.844.8087
Facsimile: 216.983.7230

www.casesurgery.com

University Hospitals
Case Medical Center
Department of Surgery
11100 Euclid Avenue
Cleveland, Ohio 44106

MetroHealth Medical Center
Department of Surgery
2500 MetroHealth Drive
Cleveland, Ohio 44109

Louis B. Stokes Cleveland
VA Medical Center
Surgical Services 112
10701 East Boulevard
Cleveland, Ohio 44106