an additional $5.5 million in new funding secured this past year through various grants.

On a more recreational (and team-building) note, we recently held our 2nd annual Surgical Mountain Assault Series Hike (SMASH-2). This year’s challenge was the 14,060 foot peak of Mt. Bierstadt. Approximately 70 participants from around campus joined the Department Surgery in our ascent. We sincerely hope you enjoy this newsletter.

Richard D. Schulick, MD, MBA, FACS
The Aragón/Gonzalez-Giustí Chair Professor & Chair

A GENEROUS GIFT FROM GREG FOX

CU-Boulder Leeds School of Business graduate Greg Fox has a passion for fighting pancreatic cancer. New technologies are accelerating the pace of discoveries in the basic, translational and clinical sciences, and cancer researchers—and ultimately patients—are reaping the benefit.

A generous $100k gift from Fox will help to fund referring physicians to create awareness of the University of Colorado Hospital Pancreatic & Biliary Center as a Center of Excellence—broadening awareness of the center’s quality care and outstanding outcomes. “This gift supports the community by providing prospective patients with the awareness and access to a top center—thereby enhancing patient care with leading CU physicians right here in Colorado,” Fox says.
A team of researchers has found a new way to block the activity of a protein that is known to drive cancer growth.

University of Colorado Cancer Center researchers stated that a protein called Ral is linked to the growth and spread of pancreatic, prostate, lung, colon and bladder cancers.

“When you want to keep an alligator from biting you, you can tie its mouth shut. We took another approach—we put a stick in its mouth to hold it open.” said Dan Theodorescu, MD, PhD, professor of Urology and Pharmacology, according to a news release.

The researchers set out to find what changes drove inactive Ral protein to become active. They found that inactive Ral protein has a cavity that disappears when the protein is activated. The team wanted a molecule that could act as a “stick” to keep this mouth open.

The team looked at 500,000 potential compounds that could fit into this cavity. They shortlisted 88 molecules and conducted trials on human cancer cells to find one molecule that could block the protein. The researchers found some molecules that reduced Ral activation in lung cancers. One compound—RBC8—was the most successful in inactivating the protein in metastasis form.

The team then refined their research and produced derivatives of RBC8. One such derivative called BQU57 was more effective than the parent compound in blocking the activity of Ral.

“We still need to optimize these compounds and then characterize these agents for toxicity in several animal species and determine their optimal route of delivery, such as oral or intravenous before moving to the clinic,” Theodorescu said in a news release. “But we see this work as a valuable first step in the development of a novel class of therapeutic agents directed at Ral. The concept of targeting sites on proteins that collapse upon activation, and whose collapse is required for activation, could in principle be used to discover drugs aimed at other proteins driving human disease as well.”

The study is published in the journal Nature.

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“SMASH 2 HIKE - CONQUERING MT. BIERSTADT

Dr. Schulick and Dr. Meacham
Hike Organizers
The American Society of Transplant Surgeons (ASTS) continues its commitment to provide qualified ASTS Members with research funding in the field of organ transplantation. It is designed to support a junior faculty member in the development of transplant research so that further funding can be obtained.

This year's recipient is Dr. Trevor Nydam below is his submission.

**Defining the role of XIAP in renal cold ischemia and apoptosis**

**Synopsis:** Failure of a kidney post-transplant is referred to as Delayed Graft Function (DGF). DGF occurs in up to 50% of cadaveric transplants and independently predicts reduced 1- and 5-year kidney transplant survival. Before transplantation, donor kidneys are cooled to 4°C (referred to as cold ischemia-CI) to delay ex vivo cell death. Kidneys can only sustain limited CI, and DGF significantly increases when CI time exceeds 30 hours. Prolonged CI followed by warm reperfusion (WR) during implantation is a risk factor for DGF. Widespread apoptotic renal tubular epithelial cell (RTEC) death caused by caspase-3 is a feature of kidneys with prolonged CI/WR. CI/WR during hibernation is a unique natural model we have used to understand DGF. Hibernating ground squirrel (GS) kidneys survive CI for several days in torpor followed by WR in Arousal without kidney injury or RTEC apoptosis. Protection from apoptosis in hibernating GS is associated with increased X-linked inhibitor of apoptosis protein (XIAP).

Our preliminary data indicates that CI/WR of non-hibernating mouse RTECS is associated with decreased XIAP, increased caspase-3 and apoptosis. XIAP is inhibited by a protease HTRA2, which can be chemically inhibited by UCF-101. Use of UCF-101 to prevent injury to donor kidneys subjected to prolonged CI/WR is a unique and untried approach derived from studies of hibernators. Specific Aim 1 investigates the protective effect of XIAP upregulation (by UCF-101) in a mouse kidney transplant model. Specific Aim 2 investigates XIAP expression and RTEC apoptosis in biopsies from human kidney transplants with prompt graft function or DGF.

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**Don’t forget to pick up your hat and mug!**

Stop by Academic Office Building One, 6th floor, room 6111 to get yours.
This year marked the 10th Annual Alan R. Hopeman Lectureship in Cardiothoracic Surgery. Dr. Richard J. Shemin of the David Geffen School of Medicine at UCLA was our invited speaker. Since 2008, Richard J. Shemin, MD, one of the nation’s top heart surgeons, has held the position of Executive Vice Chairman of the Department of Surgery, Chief of Cardiac Surgery, and Co-director of the Cardiovascular Center at the David Geffen School of Medicine at UCLA. His national reputation in performing valvular (mitral and aortic) repair and replacement serves as a platform for his pioneering studies to evaluate new technology for mechanical prostheses and bioprostheses, as well as surgical therapy for improving the long-term survival of heart-failure patients. He continues to be a leader in the development of minimally invasive cardiac surgery, specializing in robotic-assisted procedures, and collaborates with UCLA’s Center for Advanced Surgical and Interventional Technology. Dr. Shemin initiated UCLA’s participation in the Society of Thoracic Surgeons National Database to standardize quality improvement and patient safety. His current research aims to induce stem cells to become cardiovascular cells, in order to repair or replace damaged areas of the heart.

Dr. Shemin attended Boston University’s six-year medical program and received his medical degree in 1974. He received his bachelor’s degree magna cum laude, was elected to Phi Beta Kappa, and was elected to the Alpha Omega Alpha Honor Medical Society in his junior year. After his surgical training at Harvard’s Peter Bent Brigham Hospital, Dr. Shemin served as clinical associate in cardiac surgery at the National Heart, Lung and Blood Institute of the National Institutes of Health. He also trained in cardiothoracic surgery at New York University Medical Center. Dr. Shemin is a certified Diplomate of the American Board of Thoracic Surgery, for which he served as director for six years. He was elected vice chair in 2011 and became chair in 2013 for two years. After pursuing work in heart transplantation at Stanford University, Dr. Shemin helped lead the team at Brigham and Women’s Hospital to perform, in 1984, the first heart transplant in New England. He also served as the director of its Cardiac Surgery Intensive Care Unit. He was recruited back to Boston University School of Medicine, becoming Professor and Chairman of Cardiothoracic Surgery, and later was named Vice Chairman, Division of Surgery. In addition, he co-directed the Cardiovascular Center at Boston Medical Center that participated in the Medicare Participating Heart Bypass Center Demonstration to evaluate clinical, financial, and operational performance.

Dr. Shemin has held many leadership and board positions with prestigious associations, societies, and other organizations. He has been honored with the Distinguished Alumnus Award from both the Boston University School of Medicine and Boston University, and he was recognized for Outstanding Leadership from the Thoracic Surgery Foundation for Research and Education. Dr. Shemin frequently lectures worldwide and has been awarded multiple research grants from peer-review organizations, serving as co-principal investigator for major revascularization trials and new technologies in valvular heart disease. Dr. Shemin currently serves on the editorial board for both the Journal of Cardiac Surgery and the Journal of Thoracic and Cardiovascular Surgery, was an associate editor for Circulation and is a guest reviewer for numerous other leading journals.
Congratulations to our 2014 Top Doctors!

**Department of Surgery**

University of Colorado Denver

DEPARTMENT OF SURGERY 2014

**Complex General Surgical Oncology**
- Richard D. Schulick
  - University 1855 Aurora Court | Aurora, 80045

**Congenital Cardiac Surgery**
- David N. Campbell
  - Children’s Hospital 1323 E. 18th Ave. | Aurora 80045
- James Jaggers
  - Children’s Hospital 1323 E. 18th Ave. | Aurora 80045

**Pediatric Surgery**
- Denis D. Bensard
  - Children’s Hospital 777 S. Franklin St | Denver 80224
- Jennifer L. Bruny
  - Children’s Hospital 1323 E. 18th Ave. | Aurora 80045
- Frederick M. Karrer
  - Children’s Hospital 1323 E. 18th Ave. | Aurora 80045

**Pediatric Urology**
- Duncan T. Wilcox
  - Children’s Hospital 1323 E. 18th Ave. | Aurora 80045

**Pediatric Transplant Hepatology**
- Frederick M. Karrer
  - Children’s Hospital 1323 E. 18th Ave. | Aurora 80045

**Surgery**
- Robert C. McIntyre, Jr.
  - Children’s Hospital 12031 E. 17th Ave. | Aurora 80045

**Surgery of the Hand**
- Michael J.V. Gordon
  - University of Medicine 1805 Aurora Court | Aurora 80045

**Surgical Critical Care**
- Robert C. McIntyre, Jr.
  - Children’s Hospital 12031 E. 17th Ave. | Aurora 80045

**Thoracic and Cardiac Surgery**
- Joseph C. Cleveland, Jr.
  - University of Medicine 12031 E. 17th Ave. | Aurora 80045
- John D. Mitchell
  - University of Medicine 1805 Aurora Court | Aurora 80045

**Urology**
- Paul D. Maroni
  - University of Medicine 1805 Aurora Court | Aurora 80045

**Vascular Surgery**
- Mark Nehler
  - University of Medicine 1805 Aurora Court | Aurora 80045
WELCOME NEW HIRES!

Cardiothoracic Surgery

- Shantel Ho, MD
  - Patient Affairs Coordinator I

- Courtney Matter, PA
  - Instructor

- Jeanne Wiser, PA
  - Instructor

GI, Tumor, Endocrine & Burn Surgery

- Christian Bartsch, PA-C
  - Instructor

- Nanette LaFrance
  - Executive Assistant

- Melissa Quist, PA-C
  - Instructor

- Arik Wiktor, MD
  - Assistant Professor

- Franklin Wright, MD
  - Assistant Professor

Pediatric Surgery

- Ann Kulungowski, MD
  - Assistant Professor

- Jonathan Roach, MD
  - Assistant Professor

- Ahmed Marwan, MD
  - Assistant Professor

- Junwang Xu, PhD
  - Assistant Professor

- Carlos Zghieb
  - Post Doc Fellow

Plastic and Reconstructive Surgery

- Pamela Herrera, RN
  - Health Care Professional

- Felicia Martinez
  - Patient Affairs Coordinator

- Megan Olson
  - Patient Affairs Coordinator

Urology

- Kirk Anderson, MD
  - Fellow/Instructor

- Joseph Hypolite
  - Professional Research Assistant

- Anna Malykhina, PhD
  - Associate Professor

- Steven Steinberg, MD
  - Assistant Professor

Transplant Surgery

- Chelsea Ruller
  - Professional Research Assistant

Vascular Surgery

- Darci Dreiling
  - Division Manager

- Natalia Glebova, MD, PhD
  - Assistant Professor

- Ashley Vavra, MD
  - Assistant Professor
The Department of Surgery held its inaugural Research Symposium on Monday, June 2, 2014.

Out of 40 proposals submitted by residents within the Department of Surgery, 16 were selected for presentation at the symposium.

Eight presentations were in clinical research and eight in basic-science research. Topics covered a wide range of interest too numerous to list.

The featured speaker at the symposium was Dr. Clifford Ko, Director of the American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP). Dr. Ko's presentation, Achieving Optimal Care in Surgery: Observations from the American College of Surgeons was well received.

Thanks to the coordination efforts of Dr. Robert Meguid and his team the event was a great success and there are plans to make this an annual occurrence.

Clifford Ko, MD, MS, MSHS, FACS
Director, American College of Surgeons National Surgical Quality Improvement Program

ONE FAMILY, TWO HEARTS
by Vicki Hildner | University Communications

On Dec. 17, 2011, 48-year-old Brian Sherry was folding laundry when he first experienced an unusual electric sensation on the left side of his chest. A veteran elementary school teacher, Brian is an easygoing guy with a wry sense of humor and a passion for producing homemade wine. He walked upstairs, took a shower, sat down at his computer and searched “heart attack” on WebMD.

Then he dialed 911.

That call began a three-year medical odyssey for Brian Sherry. Today, he has a new heart and a new wife, who has her own story to tell about heart transplants.

“He was always positive,” Brian said. “He had my heart in his hands, but he was just another person. I’m so happy he was my doctor.”

For the complete story about Brian and Holly please follow the link: OneFamilyTwoHearts
Upcoming Events

October 13, 2014  
**Grand Rounds**  
**Contemporary Management of Breast Disease**  
Colleen Murphy, MD  
Assistant Professor, GITES  
**Current State of Minimally Invasive Liver Surgery**  
Trevor Nydam, MD  
Assistant Professor, Transplant

October 20, 2014  
**Grand Rounds - Visiting Professors 2014 ACS International Guest Scholars**  
**Caudate Lobectomy; History and Update**  
Jiang-Tao Li, MD, Associate Professor of Surgery  
Vice-Chief, Heparto-Pancreato-Biliary Surgery Service  
Second Affiliated Hospital, Zhejiang University School of Medicine  
**Molecular Profiling for Predictive & Prognostic Classifiers in Surgical Oncology**  
Roland S. Croner, MD, MA, FACS, Professor of Surgery  
Department of Surgery  
University Hospital Erlangen, Germany  
**Gall Bladder Cancer in India**  
Mallika Tewari, MBBS, MS, MCh, MRCS, USMLE  
Associate Professor & Head of Department of Surgical Oncology  
Institute of Medical Sciences Banaras Hindu University, India

November 3, 2014  
**Grand Rounds**  
**Is There a Future for Heart Transplantation?**  
Ashok Babu, MD  
Assistant Professor, Cardiothoracic  
**Renal Malignancy in Young People**  
Nicholas Cost, MD  
Assistant Professor, Urology

November 10, 2014  
**Grand Rounds**  
**Cancer Immunotherapy**  
Yuwen Zhu, PhD  
Assistant Professor, GITES Research  
**Left Lobe Living Donor Liver Transplant**  
Michael Wachs, MD  
Associate Professor, Transplant

November 17, 2014  
**Grand Rounds - John R. Lilly Memorial Lectureship**  
**Allometric Scaling in Clinical Practice**  
Thane A. Blinman, MD, FAAP  
Assistant Professor of Surgery  
Perelman School of Medicine  
University of Pennsylvania

December 1, 2014  
**Grand Rounds**  
**Mechanical Circulatory Support for Children**  
Max Mitchell, MD  
Professor, Cardiothoracic  
**Population Management and the Value Based Modifier**  
Christina Finlayson, MD, Med  
Professor, GITES

December 8, 2014  
**Grand Rounds**  
**Blunt Cerebrovascular Injuries**  
Clay Cothren-Burlew, MD  
Director, SICU-Denver Health Medical Center  
Associate Professor, GITES  
**Role of EMR in Research and Quality Improvement**  
Vijaya Vemulakonda, MD  
Assistant Professor, Urology

December 15, 2014  
**Grand Rounds**  
**Evaluation and Treatment of Bladder Cancer**  
Shandra Wilson, MD  
Associate Professor, Urology  
**Risk Factors for Major Operations in the Elderly: Chronological Age and Beyond**  
Csaba Gajdos, MD  
Associate Professor, GITES

No Grand Rounds November 24, 2014 due to Thanksgiving Holiday.