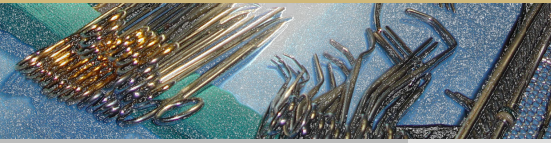




NEWS

Improve Every Life

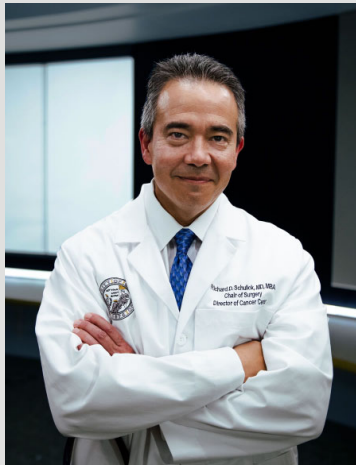


JULY 2020

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NOTES FROM THE CHAIR



Richard D. Schulick, MD

I think it's safe to say this year has not gone as expected. The COVID-19 pandemic and the renewed awareness of inequities in our systems for people of color has thrust our communities into unknown territory. I want to remind everyone we are in this together.

Our vision statement of "Improve Every Life" and our core values of Dedication, Excellence, Diversity, Integrity, Compassion, Advancing Innovation, Teamwork, and Exemplary Leadership provide a foundational approach to all we do. As a department, we are committed to the work of dismantling racism that affects our profession, our patients and our society. Many of us

participated in the White Coats for Black Lives event to show our intent in continuing the work of ending biases and systemic inequities.

Although we are living in challenging times, the innovative work continues. Many of our faculty are involved in research to aide in the treatment of COVID-19, while others on campus work to find a vaccine. This has not slowed our work in other areas; we continue to develop treatments for pancreatic cancer and rectal cancer. While surgical reconstruction techniques and a new hospital-based violence intervention program help others find new life.

Even our hiring and onboarding processes have become innovative as we welcome new faculty and staff during this pandemic. I continue to be impressed by the work of my clinical colleagues as they put in many hours caring for patients and the work of my research and academic colleagues who continue to make great contributions.

During this trying time it's important to remember our vision to "Improve Every Life" sometimes applies to ourselves. Take time to find

ways to maintain your mental health and overall wellbeing in addition to looking for ways to support those around us.

As always, it continues to be my privilege to share these highlights with you. I hope you enjoy the newsletter that follows, and please take care of yourself and your loved ones.

Richard D. Schulick

Richard D. Schulick, MD, MBA
Professor & Chair, University of Colorado Department of Surgery
Director, University of Colorado Cancer Center
The Aragón/Gonzalez-Gústí Chair

Improve Every Life

- Innovating Surgical Care
- Curing through Discovery
- Enlightening Tomorrow's Leaders
- Daring to be Exceptional



Medical professionals take a knee #whitecoatsforblacklives.

'WHITE COATS FOR BLACK LIVES'; MEDICAL PROFESSIONALS KNEEL IN SOLIDARITY

By : Dan Daru, FOX31 News, June 5, 2020

DENVER (KDVR) — Hundreds of health professionals across the country gathered to protest racism and show support for George Floyd, a black man who was killed by a Minneapolis police officer after kneeling on Floyd's neck for nearly nine minutes.

Doctors, nurses, technicians and others gathered at East 17th Ave. and Colorado Blvd. and at the CU Anschutz medical campus where they took a knee in solidarity. The public event was called, "White Coats for Black Lives."

"What America has been doing to the African-American community and to those of minority, this is just unacceptable," said Dr. Patrick Mahar of Children's Hospital.

"We understand that black folks have faced an unbelievable amount of discrimination and hatred built into a system of society," said Dr. Noelle Northcutt.

The protest started at 11 a.m. with eight minutes of silence, broken only by honks of support from passing cars.

"It's not just society, it's not just police, every part of the system is problematic," said Dr. Shannon Tapia.

"People across the nation are crying out for justice, and we are seeing direct reaction because of those protests," said Jeremy Ansahtwum, a second-year medical student.

"For people who have an unconscious racism, I think the prognosis is good. For people who are flat out racist, I think we have a long way to go," said Dr. Mary Katherine Husney.

Protests in response to the death of Floyd have been held in downtown Denver at the Capitol for over a week straight. Protesters are not only calling for justice for Floyd, but for equality as well as an end to police brutality. 🌱

WELCOME NEW HIRES

Faculty

Alison Barker, PA-C
Instructor
Cardiothoracic Surgery

Kimberly Berry, NP
Instructor
GI, Trauma, & Endocrine Surgery

Kelly Calero, PA-C
Instructor
GI, Trauma, & Endocrine Surgery

Shannon Chevront, PA
Instructor
Urology

Anna Cleveland, MA
Research Instructor
GI, Trauma, & Endocrine Surgery

Nicole Garduno, PA-C
Instructor
Surgical Oncology

Brittany Hicks, PA
Instructor
GI, Trauma, & Endocrine Surgery

Kirsten Jacobson, PA-C
Instructor
GI, Trauma, & Endocrine Surgery

Whitney Jensen, MD
Assistant Professor
GI, Trauma, & Endocrine Surgery

Casey Johnson, NP
Instructor
GI, Trauma, & Endocrine Surgery

Amy Kelso, PA-C
Instructor
Plastic & Reconstructive Surgery

Kaylee King, PA-C
Instructor
Cardiothoracic Surgery

Aaron Mason, MD
Associate Professor
Plastic & Reconstructive Surgery

Steffen Meiler, PA
Instructor
GI, Trauma, & Endocrine Surgery

Shannon Phillips, PA
Instructor
Plastic & Reconstructive Surgery

Amanda Raube-Miceli, PA-C
Instructor
GI, Trauma, & Endocrine Surgery

Amy Reppert, MD
Sr. Clinical Instructor
GI, Trauma, & Endocrine Surgery

Cristianna Ruple, PA-C
Instructor
GI, Trauma, & Endocrine Surgery

Hope Simmons, CPNP
Instructor
Pediatric Surgery

Patrick Smith, ANP
Instructor
GI, Trauma, & Endocrine Surgery

Jessica Suprise, PA-C
Instructor
GI, Trauma, & Endocrine Surgery

Staff

James Bardill, PhD
Post-Doctoral Fellow
Pediatric Surgery

Darya Cogswell
Professional Research Assistant
GI, Trauma, & Endocrine Surgery

Victoria Curreri
Business Services Sr. Professional
Urology Division

Amanda Garza
Academic Services Professional
Finance & Administration

Cassandra Jasent
HR Professional
Finance & Administration

Afrasiyab "S.K." Khan
Communications Professional
Plastic & Reconstructive Surgery

Nancy Kirykowicz
Business Services Program Manager
Finance & Administration

Kevin Koffenberger
Division Administrative Director
Pediatric Surgery

Chanthy Na
Assoc. Director of Communications
Finance & Administration

Luis Pacheco
IT Technician I
Finance & Administration

Grant Uba
Professional Research Assistant
Transplant Surgery

Travis Walrath, PhD
Post-Doctoral Fellow
GI, Trauma, & Endocrine Surgery

NEW STUDY IDENTIFIES VALUABLE TOOL FOR TREATING PANCREATIC CANCER PATIENTS

By: Julia Milzer, CU Anschutz Today, March 10, 2020



Dr. Richard Schulick and team in the OR.

Pancreatic cancer is predicted to become the second leading cause of cancer-related deaths by 2030. However, recent developments in staging and treatment provide options to improve the long-term survival rate for an otherwise devastating diagnosis.

Today, new research published in *Annals of Surgery* from the University of Colorado Department of Surgery at the Anschutz Medical Campus offers a roadmap to new guidelines for physicians in prioritizing treatments and improving outcomes through surgery.

The study suggests a new concept of resectability and identifies objective pre-operative prognostic factors that can predict long-term survival of patients affected by pancreatic ductal adenocarcinoma (PDAC), the most common type of pancreatic cancer.

“Our research suggests that a new concept of resectability should be considered that is meant to reflect the biology of the tumor and response to chemotherapy,” said Marco Del Chiaro, MD, PhD, FACS, Chief of Surgical Oncology and Director of the National Pancreas Foundation Center of Excellence at the Anschutz Medical Campus. “Therefore, this will partially overcome the existing guidelines that are mostly based on tumor anatomic features. Tumor anatomic features are extremely subjective and vary between center to center and surgeon to surgeon.”

In the study, researchers analyzed nearly 8,000 patients who underwent pancreatic resection for PDAC from January 2010 to December 2016. The research found that the main prognostic factors for survival were age, sex, levels of carbohydrate antigen CA 19-9, tumor size,

primary site, neo-adjuvant treatment (a treatment given to shrink a tumor before surgery), Charlson/Deyo score and facility type. For example, academic facilities were associated with better survival rates. The strength of the findings were validated by a high significant randomized test, log-rank test and simple hazard ratio.

One of the most critical findings is that the tumor engagement of peri-pancreatic arteries at pre-operative scans, historically considered by several centers a contraindication for surgery, does not have a negative impact on survival rates after resection.

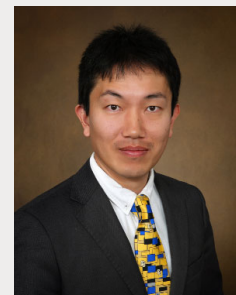
“This is the only existing nomogram based on pre-operative objective variables able to assess the chance of long-term survival after surgery for PDAC,” said Atsushi Oba, MD, PhD, research associate for surgical oncology, University of Colorado Department of Surgery, and lead author of the paper. “Our results suggest that current classifications of resectability on local anatomic and radiologic features should no longer be considered accurate and that more precise prognostic criteria should be defined. The new PDAC nomogram can become a useful tool for patients and counseling physicians in selecting therapy.”

The study offers the advantage of estimating the outcome of each patient before an operation, and regardless of local anatomic features of the tumor, to understand if a patient qualifies or not for an operation based on his or her long-term predicted survival. The use of the nomogram in clinical practice should be proposed after a prospective validation.

“These results support the direction we’re taking at the University of Colorado Anschutz Medical Campus,” said Dr. Richard Schulick, MD, MBA, FACS, Chair of the Department of Surgery and Director of the University of Colorado Cancer Center on the campus. “By providing a multidisciplinary approach to the treatment of pancreatic

diseases, we offer patients personalized care and can match candidates with different kinds of therapies that will work best for their individual case. The result is introducing a new concept of prognosis-based staging for

patients and the possibility to overcome the old concept and limitations of the anatomical staging of the disease.”



Atsushi Oba, MD, PhD



Drs. Gene and Hunter Moore

COLORADO FAMILY OF DOCTORS HOPEFUL BLOOD CLOT RESEARCH WILL HELP NEAR-DEATH COVID-19 PATIENTS

By: Lori Jane Gliha, FOX31 News, March 27, 2020

DENVER (KDVR) — A family of medical professionals is hopeful its research into anti-blood clotting medication could help in the fight against COVID-19.

“We’re approaching this with optimism that it’s going to work,” said Dr. Hunter Moore, a transplant surgery fellow at the University of Colorado Denver School of Medicine.

Moore is a co-author on a medical research article published last week in the *Journal of Trauma and Acute Care Surgery*, a publication that is edited by his father, world-renowned trauma surgeon Dr. Gene Moore.

Gene Moore, his other son, Dr. Peter Moore, and his brother, Dr. Frederick Moore, are also co-authors on the study along with a group of others from Beth Israel Deaconess Medical Center at Harvard Medical School and at the Massachusetts Institute of Technology.

“Extraordinary times may call for extraordinary measures. If an observational trial of this treatment in the first series of patients is effective and safe, the approach could be readily broadened,” the paper said. “This would have multiple patient-related and public health benefits including... earlier weaning from the ventilator to free up more ventilators for other patients in need.”

“All of us are very concerned having seen what’s happened in Italy, in China, and now it’s happening in New York City. It almost seems like there’s this impending healthcare crisis that we’re trying our best to prepare for but we’ve never seen before,” said Peter Moore, a pulmonary sciences and critical care medicine fellow at the University of Colorado and National Jewish Hospital.

Next week, he will be on the front lines, treating COVID-19 patients at UHealth’s Intensive Care Unit.

The men are researching a drug, alteplase or tPA (tissue plasminogen activator), used to treat heart attacks and strokes and whether its ability to dissolve blood clots might be effective for COVID-19 patients who cannot breathe properly.

“The underlying problem we are trying to address is the blood clots that form in the small vessels – the blood vessels- that provide oxygen to the lung and the air spaces within the lung that brings oxygen through the air and exchanges it into the blood,” said Gene Moore, a trauma surgeon for whom the hospital trauma wing at Denver Health is named.

“These small blood clots...are blocking the ability to take oxygen from the air and transmit it into the body, so we are proposing a potential treatment approach to eliminate these clots,” he said.

Hunter Moore said the drug’s purpose is to break down the clots.

“When you break down the clots, it should improve the amount of blood that goes into the lung that has the ability to get the oxygen from when you breathe in, and so that improves the ability for the lungs to put oxygen into your blood and then reduce your need for using a ventilator,” he said.

He said there have been smaller studies on animals and humans who had “really bad pulmonary failure” for whom death was imminent.

“This was used as a salvage therapy,” said Moore of a 2001 study that involved 20 patients. “Of these 20 patients that were given this clot-breaking medication, 80 percent of them had improvement in their oxygenation and the expected mortality rate of 100 percent was reduced to 70 percent.”

“There are abundant animal experiments that suggest our therapy is effective, (but) we have no idea until its tested as

to whether it – No. 1, is effective or – No. 2, has dangerous side effects,” said Gene Moore. “All we can do is try to balance the risk versus the benefit and pick out a population in which we believe that balance is appropriate.”



Peter Moore, MD

Peter Moore said he imagines this treatment could be used in COVID-19 patients who have severe lung failure who would not survive if they were not breathing on a ventilator and do not have access to a ventilator.

“And that patient population, by giving them this medication, we’d hope that the amount of oxygen transferred from the lungs to the blood vessels would be improved by breaking up these clots could allow them

COMPLETE FIBRINOLYSIS SHUTDOWN SEEN IN SEVERE COVID-19

By: Megan Brooks, Medscape, May 28, 2020

to survive without a ventilator," he said.

He also said if this treatment speeds up recovery of lung injuries, it could reduce the amount of time someone is on a ventilator and free up the machine for other sick patients.


"If these clots are really driving this process of advanced lung failure, I'm pretty encouraged that it will work," said Hunter Moore.

The doctors have proposed testing this on patients – with proper consent – who would otherwise die.

Gene Moore said people from around the world have asked for information about the therapy protocol.

"This protocol, at this very moment, is being used in New York City," he said.

They said treatment has also begun with their research counterparts in Boston.

"We hope to be able to use this in Colorado once we get through some of the regulatory red tape," said Peter Moore. 



Watch the news coverage at: <https://tinyurl.com/MooreClotResearch>

COVID-19 causes not only hypercoagulability, but also "fibrinolysis shutdown," which is associated with venous thromboembolism (VTE), stroke, and renal failure, clinicians from Colorado have observed.

They have found that the complete lack of clot lysis at 30 minutes on a thromboelastogram (TEG) assay, coupled with a D-dimer value above 2600 ng/mL, identifies high-risk individuals who will potentially require more aggressive anticoagulation.

"Our findings support a growing body of evidence that patients with COVID-19 are at high risk of blood clots, both in small and large blood vessels," Frank Wright, MD, Department of Surgery, University of Colorado Anschutz Medical Campus, Aurora, told theheart.org | Medscape Cardiology.

The study also suggests a method to identify patients at highest risk for these complications "with a goal of providing more aggressive blood-thinning medications to attempt prevent these complications," said Wright.

The study was published online May 7 in the Journal of the American College of Surgeons.

Coagulation Derangements

Wright and colleagues did a retrospective study of 44

COVID-19 patients (28 male; median age, 54 years) admitted to the intensive care unit who had at least one TEG assay performed early in the course of illness, as well as other conventional coagulation assays.



Franklin Wright, MD

The primary study outcomes were VTE events and new-onset renal failure requiring dialysis. Forty-one (93%) patients required mechanical

ventilation, 16 (36%) had acute renal failure requiring dialysis, 11 (25%) had a VTE, and six (14%) had a thrombotic stroke.

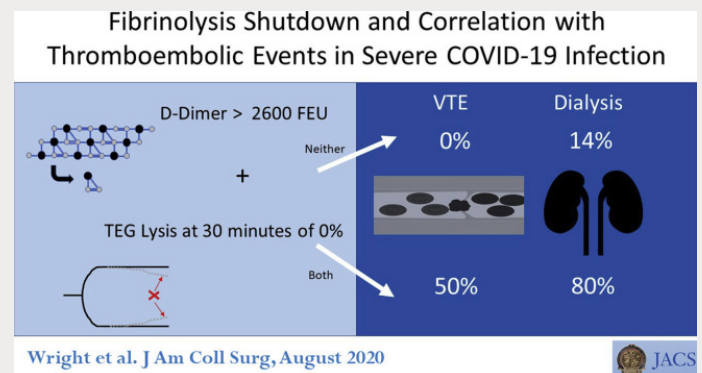
Derangements in coagulation laboratory values included an elevated D-dimer level

disseminated intravascular coagulation (DIC) score was 0, with no patient having a score higher than 4. TEG variables were consistent with a hypercoagulable state with an elevated maximum amplitude and low lysis at 30 minutes.

On TEG testing, more than half of patients (57%) had a complete lack of clot lysis at 30 minutes (LY30), and this was a significant predictor of VTE, with an area under the receiver operating characteristic curve (AUROC) of 0.742 (P = .021).


A D-dimer cutoff of 2600 ng/mL was a significant predictor of need for dialysis, with an AUROC of 0.779 (P = .005).

Overall, patients with no clot lysis at 30 minutes on TEG



and elevated fibrinogen, with normal platelet counts in the majority of patients and mildly elevated prothrombin time (PT) and partial thromboplastin time (PTT), with median values at or slightly above the upper limits of normal.

The median International Society on Thrombosis and Haemostasis (ISTH)

assay and a D-dimer value above 2600 ng/mL had a rate of VTE of 50%, compared with 0% for patients with neither risk factor (P = .008). The time to VTE was also significantly shorter in patients with fibrinolysis shutdown. 

View Research paper on PubMed PMID: 32422349



Steve and Don Becker

VETERAN'S PANCREATIC CANCER CAUGHT 'AT JUST THE RIGHT TIME'

By: Chris Casey, CU Anschutz Today, January 16, 2020

Steve Becker always looks forward to Veteran's Day. He and his father, Don, did hitches in the Navy, so it's a special day they set aside to hang out and reflect on their service to the nation.

About five years ago, however, they got a shock. A physician in Longmont, investigating a bulge in Don's abdomen, discovered a mass on his pancreas. The doctor and Don's daughter, who is a nurse, both recommended he immediately get an appointment with Richard Schulick, MD, director of the University of Colorado Cancer Center and chair of the Department of Surgery.

The Cancer Center multidisciplinary team consulted on Don's case, and the diagnosis was one of the worst anyone can hear: pancreatic cancer.

"When I heard the diagnosis, I was kind of shocked," said Steve, who works in Facilities Management at the CU Anschutz Medical Campus. "I was real concerned about my dad."

A 'lucky' hernia

Knowing many medical people on campus helped put Steve "more at ease," but he was all too aware that three people in his department had died of pancreatic cancer as well as a friend's mother. "It's not normal to survive it."

Because there's no way to detect pancreatic cancer until it's generally too late, it often comes down to luck if a tumor is found at an early stage. Don's luck was the hernia that prompted a visit to the doctor.

"That hernia saved my life, so to speak," Don said.

"It was a ticking time bomb," said Schulick. Don's tumor was stage 2B and "high grade," meaning it was dangerous. "We caught it at just the right time. It had already spread to some lymph nodes, and it was on its way to spreading everywhere."

Schulick performed the surgery at University of Colorado Hospital on Oct. 1, 2014, about a month shy of Veteran's Day.

Shared service

Don was in the Navy from 1955 to 1959, serving on the East Coast and in the Mediterranean and Caribbean before finishing his tour in Corpus Christi, Texas. Steve did four years active service and 16 more in the Navy Reserve. At the end of his active tour in the mid-1980s, Steve called Don and asked if he'd like to meet the ship in Seattle and join the final leg to San Diego.

"He said, 'Just tell me where I need to be and I'm there,'" Steve recalled. "I never had so much fun with my dad. To be with him and kind of bring back those memories (of his time in the Navy). That to me was the highlight of my career."

When Steve retired from the Reserve 15 years ago, he presented his dad with a U.S. flag. It signified both respect – Don had inspired him to join the Navy – and the shared experience of serving at sea.

'A wonderful job'

Don had a neuroendocrine tumor, which represents only 5 percent pancreatic cancers. It's the type that Steve Jobs, the co-founder of Apple Inc., died from in 2011.

With Schulick and the many other renowned experts on his team, the CU Cancer Center is able to operate on 30 percent or more of pancreatic cancer patients, nearly double the national average. The Cancer Center was recently named a National Pancreas Foundation Center of Excellence for

pancreatic cancer, the only such center in the Rocky Mountain region.

In Don's case, Schulick removed 40 percent of the pancreas as well as a few lymph nodes. He also repaired the hernia.

"I was told (Dr. Schulick) is a top doctor in pancreatic surgery and very specialized," Don said. "I was very much at ease when I went in for surgery, and Dr. Schulick did not let me down. He did a wonderful job and was very caring afterward."

Back to normal

After the surgery, Don underwent several cycles of chemotherapy, leaving him cancer free. He's had CAT scans



Steve Becker

every six months since, and they've been clear until two years ago when it appeared something was growing on the remainder of his pancreas. The small mass disappeared after several more rounds of chemo and, since then, Don has remained cancer-free.

The removal of nearly half of his pancreas caused an onset of diabetes, which Don manages by taking pills twice a day and

watching his diet. He suffered a mini stroke a couple years ago and now walks with a cane.

“His life expectancy is pretty much back to normal at this point,” Schulick said. Upon meeting Don and Steve recently in his office – the first time he’d seen Don in a few years – Schulick said, “This is what it’s all about. It’s why I and the whole team do this – to see you and other patients like you years later.”

At age 82, Don enjoys a relatively high quality of life. He and his wife recently moved into a senior independent living facility in Longmont and regularly see their three children, seven grandchildren and one great-grandchild.



Becker, Don Becker, and Dr. Richard Schulick

Savanna Becker, 14, plays for her high school golf team, following in her grandfather’s love for the sport. Savanna, one of Steve’s children, also has ties to CU Anschutz as she recently enhanced the campus by painting two table tops on the balcony of the third floor of the Education 2 Building.

While Don doesn’t play golf anymore, he enjoys strolling the links in support of Savanna.

“I could probably use my 7-iron as a cane,” he jokes.

‘Very fortunate’

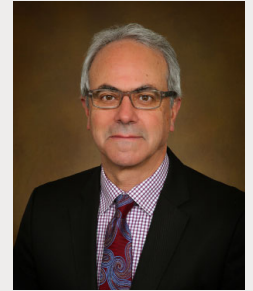
While there’s no way to be certain, Don believes it was the 14 years he worked at the now-shuttered former nuclear weapons factory Rocky Flats that caused his cancer. He notes that several of his plant coworkers have died of cancer. “We knew the materials we were working with were dangerous,” he said. “We respected that and handled them very carefully.”

The only remnant of his pancreatic cancer is a hardly visible scar. He looks forward to many more family gatherings and Veteran’s Days with Steve.

“I had the best surgeon,” Don said. “Pancreatic cancer is one of the worst. I feel very fortunate the way things turned out, that Dr. Schulick got it all.”

VASCULAR SURGERY CLINIC RECEIVES TCAR CENTER OF EXCELLENCE DESIGNATION

The UHealth University of Colorado Hospital Vascular Surgery Clinic has been named a TCAR Center of Excellence by Silk Road Medical, for the high quality of its care team and patient outcomes for transcatheter aortic valve replacement (TCAR) to treat carotid artery stenosis.



Donald Jacobs, MD

Silk Road Medical is the only company to manufacture an FDA-approved flow reversal device to reduce the stroke risk for a carotid stent by 66%. As such, they developed the recognition program and the procedure, a minimally invasive approach for treating carotid artery disease – or plaque buildup in main arteries of the neck. The condition significantly increases the risk of stroke, when a blockage restricts blood flow leading to particles showering into the brain that may cause a transient ischemic attack (TIA) or, worse, a stroke.

Severe carotid artery disease can be treated with surgery or stenting. TCAR adds additional stroke protection during the procedure. It involves temporarily reversing blood flow so dislodged plaque pieces travel away from the brain. A stent is then placed in the artery to stabilize plaque and minimize the likelihood of a future stroke.

The TCAR program at UHealth University of Colorado Hospital is led by Donald Jacobs, MD chief of vascular surgery at the

University of Colorado School of Medicine and director of the vascular clinic.

The UHealth University of Colorado Hospital Vascular Surgery Group is dedicated to providing comprehensive and state-of-the-art care for all blood vessel conditions, from carotid disease, to aortic disease in the chest and abdomen, to arterial and vein disease in the arms and legs.

Referrals for carotid disease potentially treatable with TCAR and any other vascular condition can be directed as follows:

Anschutz Medical Center:
Drs. Jacobs, R. Malgor, Wohlauer, Yi and Zarkowsky - 1-800-VASCULA

Highlands Ranch Hospital:
Dr. E. Malgor 720-516-3064

Broomfield Hospital:
Dr. Zarkowsky 720-705-0682

Long’s Peak Hospital:
Dr. Zarkowsky 720-705-0682



Pamela Jacobsen with granddaughter Honor Grace. Photo courtesy of Pamela Jacobsen.

CHALLENGING URETERAL RECONSTRUCTION PAYS OFF

By: Todd Neff for UCHHealth, July 7, 2020

Pamela Jacobsen had undergone 103 surgeries. Many of them involved bowel-cancer treatments – and, later, fixes for damage done by those treatments. Other procedures targeted blood clots that increasingly formed in her veins. One surgery, though, was a particular drag on her life.

Her abdominal surgeries had led to scarring, and the scarring had blocked a ureter, one of two nearly foot-long tubes that connect the kidneys to the bladder. The workaround had involved a nephrostomy tube, or “nep tube.” The nep tube, inserted through the lower back into the center of her kidney, mimicked the job of the ureter. But rather than link kidney to bladder, the nep tube exited her back to connect the kidney to a bag she now had as a constant, unwelcome companion.

That surgery was in 2017. For two years, doctors told the Aurora resident she’d have that nep tube for the rest of her life.

Jacobsen asked more than once whether there wasn’t a surgical fix. The answer was always the same: “Impossible. Can’t be done.”

Then a nurse at a local community hospital, one who had once worked at UCHHealth University of Colorado Hospital on the Anschutz Medical Campus (UCH), suggested otherwise. Jacobsen should touch base with the UCHHealth Urology Clinic - Anschutz Medical Campus, the nurse said. Physicians there handled cases similar to hers. Perhaps one of them could help.

The nurse was referring to Dr. Brian Flynn and Dr. Ty Higuchi. They worked with patients with blockages of the ureter caused by scarring from cancer, kidney stones, and other causes. Jacobsen sat in an exam room with Higuchi, a University of Colorado School of Medicine and UCHHealth urologist and surgeon, less than two weeks later.

Is ureteral reconstruction the right choice

Before Jacobsen’s visit, Higuchi reviewed a long and winding medical history and looked over her many scans. The surgery, should she be a candidate for it, would involve a ureteral reconstruction. The operation involves identifying the section of ureter that’s blocked (a dye-sensing X-ray unit in the operating room helps with this), removing that section, and reconnecting the kidney to the bladder via the healthy ureter that remains. Often, the surgeon must stretch or surgically alter the bladder to compensate for the shorter ureter. It’s a painstaking procedure, but Higuchi and Flynn are skilled enough at it that they can perform it with minimally invasive da Vinci robotic surgery. The smaller incisions generally mean much faster recovery times.

With a case such as Jacobsen’s, robotic surgery wasn’t an option. She had had 25 bowel surgeries. There was a lot of scarring in her abdomen that introduced a high risk of bleeding. In typical cases, should Higuchi find that the surgically shortened ureter no longer quite reaches to the bladder, he can use a section of small intestine to fashion an extension to the ureter and anchor it to the bladder. That

backup plan wouldn’t be an option for Jacobsen because previous surgeries had removed much of her small intestine. Plus she was a smoker, which surgeons have long known can result in slower healing.

Weighing pros and cons for ureteral reconstruction

On the other hand, Higuchi saw that Jacobsen had been hospitalized more or less monthly for the last two years, often for multidrug-resistant infections from the nep tube. These were dangerous infections that a ureteral reconstruction could end. Her nutrition was good, and she was only 49 – both positives. And living with a nep tube is hard.



Ty Higuchi, MD

“I couldn’t go swimming. No baths; no hot tubs. At night you’ve got to be careful or you’ll pull the stitches out,” she said. “Walking around with bags and tubes hanging out of me just pulls me down as a person.”

Higuchi was faced with a tough call on whether to perform the surgery. He described it as being an “an emotional-physical decision.”

“I think all surgeons have an overwhelming feeling that they want to help the patient,” he said. “But then you have the harder decision based on what you’re seeing and the objective inputs.”

HOSPITAL-BASED VIOLENCE INTERVENTION PROGRAM SET TO START IN AURORA

By: Marc Sallinger, 9News, June 23, 2020

In that UCHealth Urology Clinic exam room, Jacobsen told Higuchi a story that jibed with and augmented the one he had read in her medical record and seen in her scans. She then said, "I've heard there's a doctor here who could do away with my nephrostomy tube."

Choosing ureteral reconstruction

Higuchi had made his emotional-physical decision. "I can do that," he said.

"You can do that?" Jacobsen asked.

"I can do that," Higuchi said.

The news brought her to tears.

Jacobsen quit smoking, and on Halloween 2019, Higuchi went to work on Jacobsen's 104th surgery. The two-and-a-half-hour procedure involved identifying the blockage and removing a roughly three-inch section of scar-choked ureter, shifting the bladder up, and connecting the bladder to the healthy ureter.

There were no complications, and in December, Jacobsen's nep tube was removed for good.

"Kudos to Dr. Higuchi for doing what others could not," Jacobsen said. "I am forever thankful. He gave me back some of the things that life with a nep tube took from me. I'm blessed to have found him." 🌿



Catherine Velopulos, MD

AURORA, Colo. — The hours and days after someone gets shot or stabbed or assaulted can change the course of the rest of their lives.

From the hospital beds at Denver Health, outreach workers have been trying to break the cycle of violence. Now Aurora will start using the same strategy to try and bring down its violent crime.

"The first thing I do is say, 'How are you doing? How are you feeling right now? I know this is traumatic for you,'" said Johnnie Williams, the executive director of the Gang Rescue and Support Project and an outreach worker for the hospital-based violence intervention program at Denver Health. "Just talking with them and helping them through that. Then after that, talk to them about what can we do to prevent this from happening to you again."

In 2019, a team of six outreach workers met with 496 people at Denver Health impacted by violent crime. They said the program is working, so much so the city of Aurora recently approved funding to start its own At-risk Intervention and Mentoring (AIM) program at the University of Colorado Hospital.

The program is set to start on July 1.

Trauma surgeons like Dr. Catherine Velopulos see hundreds of patients that could benefit every year.

"We need to have programs that are actually able to help the whole person and intervene in people's lives instead of just putting band aids on things," Velopulos said.

Case workers stay with the victims of violent crime that they meet in the hospital for as long as it takes to get them the help they need, up to 18

months. The main age group they deal with is 14 to 28, but case workers said they often see kids even younger.

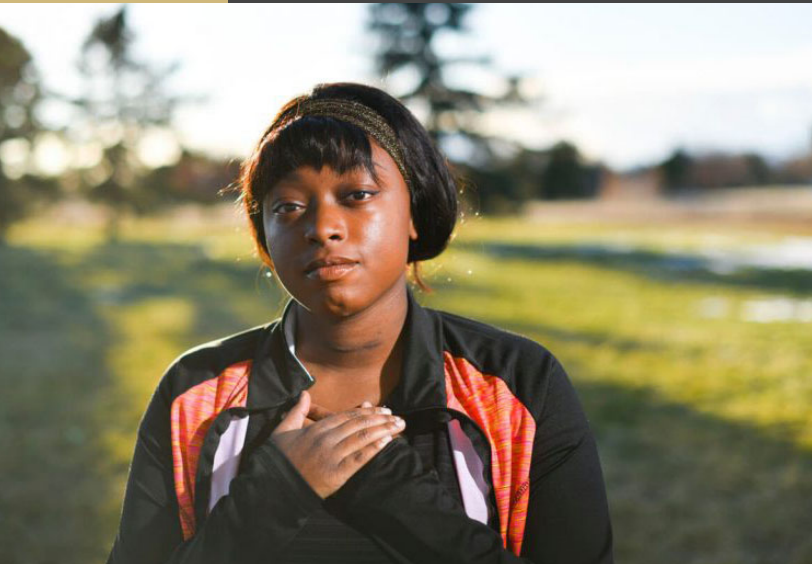
"Our way of understanding if it's really working or not is the interactions we have with our patients or clients," said Michelle McDaniel, an AIM Program manager and outreach worker. "We can measure them differently based on outcomes whether they are connected to education or employment. Sometimes I measure it if my kid is having a good day. Our main role is just to build a relationship with them, so when they are ready for that, we are here for them."

Through the COVID-19 pandemic, Denver Health said it's seen a smaller number of people who were victims of violent crime come into the hospital. The number of people allowed into the hospital was also limited.

Now it's starting to pick back up again and the program in Aurora will start next week. 🌿



Watch the news coverage at:
<https://tinyurl.com/Velopulos>



Once the root of her breathing difficulties had been identified, Aunjane Ayers faced serious surgery. Her UHealth team fortunately had uncommon experience with such cases. Photos by Cyrus McCrimmon for UHealth.

MYSTERIOUS BREATHING DIFFICULTIES SOLVED THROUGH EXPERT COLLABORATION

By: Todd Neff for UHealth, June 2, 2020

Irma Ayers had gotten her daughter Aunjane into kickboxing. The child was on her own sometimes because Irma was a single mom working full-time, and being able to protect yourself is a good thing. Aunjane found that she liked the intensity of the sessions and learning what she called “cool stuff” to the point that she even got into mixed martial arts training. But soon, she found her workouts cut short by shortness of breath.

The culprit, more than one doctor concluded, was exercise-induced asthma. When Aunjane’s inhaler had no effect at all, anxiety became the prevailing theory. Aunjane neither felt particularly anxious nor seemed so to others. Her breathing difficulties led her to abandon combat sports, and over time less and less exertion led to labored breathing. This went on, and grew gradually worse, for years, to the point that walking to the bus stop had her gasping for air. Finally, she

arrived at the Multidisciplinary Complex Airway Clinic, part of the Comprehensive Lung and Breathing Program at UHealth University of Colorado Hospital on the Anschutz Medical Campus.

Breathing difficulties

Aunjane’s was a case that very good doctors had not cracked. This UHealth clinic also had very good doctors – not to mention speech-language pathologists and experienced nurses and other staff. But even the elite surgeons who would lead Aunjane’s care admit that they wouldn’t have figured out and ultimately fixed the very real problem that ailed Aunjane if they and other specialists had not collaborated closely, thought creatively, and been determined not to leave her without an answer yet again.

Stairs as medical device

Aunjane’s first stop was with Dr. Matthew Clary, a University

of Colorado School of Medicine ear, nose, and throat surgeon at UHealth. Clary specializes in voice, airway, and swallowing disorders. He looked at her chart and recognized a patient who had been dealing with worsening symptoms for a solid decade, “bouncing around from one doc to another, into the ER and out of the ER, with nobody talking to each other.”

With a flexible laryngoscope – used to examine the vocal cords and adjacent windpipe – Clary saw nothing out of the ordinary. He wondered if the problem wasn’t something called paradoxical vocal fold movement (also called vocal cord dysfunction), in which the vocal cords close rather than open when one breathes. He sent Aunjane straight to Juliana Litts, a UHealth speech language pathologist, to check on that. Aunjane took the Anschutz Outpatient Pavilion stairs on the way. She was having a hard time breathing by the time she got there.

But when Litts examined Aunjane, she concluded that the vocal cords weren’t the culprit. When she got back to Clary’s office a bit later, he realized that, if the stairs were triggering symptoms, he could employ them as an impromptu medical device. Together with a nurse, Aunjane jogged up and down a hospital stairwell a few times, which triggered symptoms that were clear as day when she walked back into the exam room. Clary performed another flexible laryngoscopy.

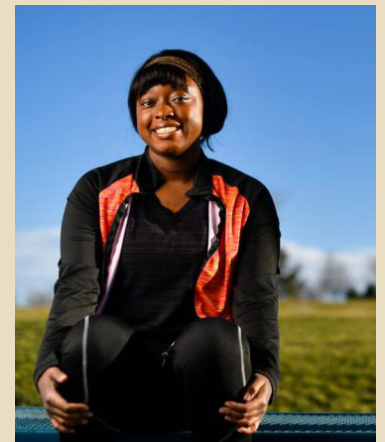
This time, there it was. Once the scope was back out, they checked out the video together.

“Whoa,” Clary said.

“See – I knew it!” Aunjane said.

The next step was with Dr. Robert Meguid, a CU School of Medicine and UHealth cardiothoracic surgeon with whom Clary works closely. With Aunjane under anesthesia, Meguid checked her airway with a bronchoscope, which reaches past the larynx and into the lower windpipe and, if need be, the lungs.

Without the stress imparted by the stairs, the trachea looked fine. Afterward, Meguid called Clary. “I don’t see anything I can correlate with her symptoms,” he told his colleague. They agreed that an awake bronchoscopy would be the next step. A few days later, Aunjane took to the stairs again, then Clary performed



Aunjane Ayers waited for a long time for what turned out to be a very tricky diagnosis for her breathing difficulties. Photos by Cyrus McCrimmon for UHealth.

an awake bronchoscopy on Aunjane with local anesthesia in his clinic.

Clary met with Meguid shortly thereafter so they could check out the bronchoscope video together. A section of Aunjane's trachea just below her



Robert Meguid, MD

voice box twisted and collapsed with each breath. The weak section was less than an inch long, and, unusually, on the side rather than the front or back of her windpipe. After so many years, Aunjane's condition had been discovered.

Challenging surgery

There were a couple of ways to fix it. The first was to use a laser to scar the inside of the trachea, thereby firming it up and, ideally, preventing its collapse. Clary tried this minimally invasive procedure first; it didn't take. Aunjane faced a big decision.

The way forward now would be a surgery involving the resection of the damaged part of the windpipe and anastomosis of the now-separated trachea. In other words, Meguid and Clary would cut out the problem section and sew the resulting open ends back together. They have done many of these

surgeries together and are counted among the few U.S. surgeons with such experience. With complicated cases like Aunjane's, they've found that they can get better outcomes when they work together.

It's a challenging procedure, and there are risks, Clary says. The nerves that control the voice box can be damaged. With time, the point of repair can narrow into tracheal stenosis. The freshly sewn airway can come partially undone, possibly leading to, as Meguid put it, "life-threatening complications and tracheostomy."

By now it was early 2019. Aunjane was 22 and had exhausted all other options. Her mom Irma worried about the risks but left it up to Aunjane. She decided to have the surgery.

Before the March procedure, Clary and Meguid met with Aunjane and Irma. The surgeons walked through what would happen, the possible complications, and the recovery process. They then asked if there were any questions.

Meguid and Clary performed the surgery together, and it went well. Its last step was simple and strange: Meguid temporarily sutured Aunjane's chin to her chest – necessary to help ensure the trachea's healing. At one point, while walking around the inpatient unit, Aunjane stopped at a

vending machine. A medical student observed her chin-to-chest posture and asked, "Are you alright?"

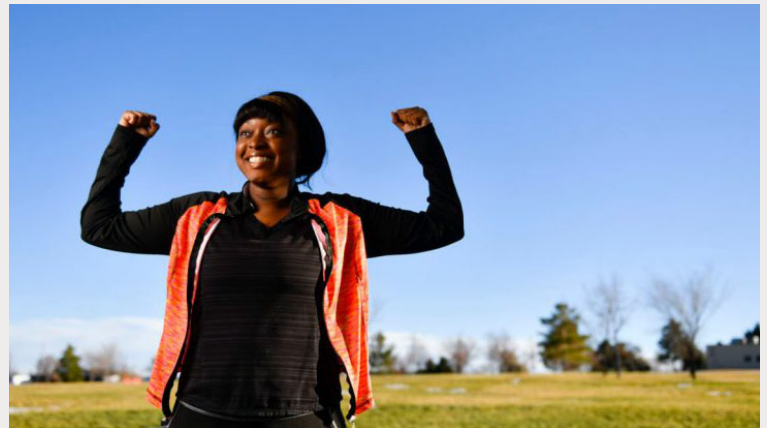
"Yeah, I just want my Snickers," Aunjane replied.

Her breathing was far better. Irma was relieved.

Aunjane's chin was freed again after a week. It was three months before Aunjane was working again as an endoscopy technician at a local hospital. By November, she was back at the gym, though lifting weights rather than kickboxing – at least for now. "I feel good. I'm pretty sure I can probably get back into it again," Aunjane said.

She's busy between work and taking college classes with the ultimate aim of being a doctor herself. If she does so, one would expect her to embrace multidisciplinary collaboration. She's a living case study of the benefits it can bring, and she's grateful to the team at UCHHealth that has her breathing deeply again.

"They're awesome," she said. "They're the people that listened to me." 🌱



Her trachea now stable and her breathing difficulties over, Aunjane is back at work, back in the gym, and taking classes with the ultimate aim of becoming a doctor herself one day.



Jeff Armentrout (left) with his younger brother Jeremy. Jeff credits his family, as well as friends and faith, for helping him through his battle with rectal cancer, which included treatment without surgery. Photo courtesy of Jeff Armentrout.

RECTAL CANCER TREATMENT WITHOUT SURGERY

By: Tyler Smith, UCHealth, June 17, 2020

Jeff Armentrout is a first, a designation he never sought and in many ways he wishes he never had, but his cancer put him in that position.

In August 2016 Armentrout, then 39, was in the midst of life as a law enforcement officer in northern Colorado when he began experiencing fatigue and saw blood in his stool. The tiredness was a puzzle to a guy who moved from high school sports in his native Omaha to a college career as an offensive lineman for the University of South Dakota’s football team and a discus thrower with the school’s track-and-field unit. The physician he saw attributed the bloody stools to hemorrhoids – perhaps the result of the mountain biking, running and lifting he did regularly.

The problems didn’t clear up, so in December 2016 Armentrout got a colonoscopy, a key screen for precancerous and cancerous polyps in the intestinal tract. The procedure revealed suspicious lesions, and the news worsened when

a biopsy confirmed that Armentrout had rectal cancer: tumors in the lowest section of the large intestine. Some 43,000 new cases of the disease are diagnosed each year in the United States, about a third of the 130,000 colorectal cancer cases annually diagnosed in the country.

Armentrout’s gastroenterologist told him that he needed surgery to remove the tumors and handed him a list of general surgeons with the advice to have the procedure done before Christmas, a couple of weeks away.

The situation was urgent. Armentrout’s cancer was Stage III B, meaning it had spread to nearby lymph nodes, though not yet to other organs. Shortly after his tests, he passed a large amount of blood and had to go to the emergency department. Still, after doing his own research, he decided to seek a second opinion about the best course of treatment. That led him to UCHealth University of Colorado Hospital on the Anschutz Medical Campus

and put him on the road to becoming a first in UCHealth’s innovative treatment of colorectal cancer.

A new consideration: rectal cancer treatment without surgery

At UCH, Armentrout met with a multidisciplinary team, including a medical and a radiation oncologist and a surgeon, who considered his possible paths forward. After reviewing his case, the care team offered a treatment approach called neoadjuvant therapy that involves doing complete regimens of chemotherapy and radiation in the hopes of shrinking tumors as much as possible before surgery, rather than adding rounds of chemo after surgery, said Dr. Christopher Lieu, associate professor of Medicine-Medical Oncology and director of the Gastrointestinal Medical Oncology Program at the University of Colorado School of Medicine. Lieu was among those who met with Armentrout.

The approach also offers a new measure of hope for a small group of patients who achieve a “complete clinical response” – eradication of the cancer cells from the rectum – after chemo and radiation, Lieu said. These patients might even be able to recover without surgery, an idea pioneered by a group of surgeons in São Paulo, Brazil in the early 2000s. Memorial Sloan Kettering Cancer Center in New York successfully tested the nonsurgical strategy, dubbed “selective nonoperative management,” with studies that began in 2014, he added.

For this select group (about 30% of patients), the chances of remaining cancer-free for the rest of their lives are about 70%, said Dr. Jon Vogel, professor of Surgery-GI, Trauma, and Endocrine Surgery and head of the Colorectal Surgery Section at the CU School of Medicine, who also met with Armentrout. In addition, selective nonoperative management allows some patients to avoid a permanent colostomy – an opening in the abdomen attached to the top of the colon to allow waste to leave the body for capture in a bag, he added.

Surgical challenges for rectal cancer

Rectal cancer surgery presents a number of difficulties, Vogel explained. He noted that the rectum is confined to a narrow space, surrounded by blood vessels, muscles and nerves.

“It’s a particularly challenging environment to work in because of the anatomical restrictions,” he said. Even a surgery that goes well can weaken nerves and muscles in the bowel already injured by chemo, radiation and the cancer itself, he added. In most cases, patients can recover with a temporary opening (ostomy) for waste to evacuate, but that means waiting for the bowel to heal and then a second surgery to close the opening.

There are other surgical risks, Vogel said, including nerve damage that may lead to sexual and/or urinary dysfunction, Vogel said. “There is just a lot of baggage that comes with rectal surgery.”

But Vogel stressed that the nonsurgical option, even for those who qualify, is not a slam dunk. “Our concern is that we could be undertreating the cancer,” he said. He noted that there is a roughly 20% chance that the cancer will regrow



Jon Vogel, MD

in the rectum and require potentially more difficult surgery than the one the patient sought to avoid. If the cancer regrows, it may also spread to other areas of the body, Vogel said.

Groundbreaking choice of neoadjuvant therapy

When Armentrout met with Lieu and his colleagues in December 2016, UCH had not tested the nonsurgical approach on a patient with colorectal cancer, though the hospital had adopted the neoadjuvant therapy strategy in 2015 with the arrival of radiation oncologist Dr. Karyn Goodman, who brought it with her from Memorial Sloan Kettering, Lieu said.

With no guarantees other than the promise of constant support from his providers, Armentrout chose neoadjuvant therapy and began his chemotherapy on Jan. 2, 2017. He traveled only a few blocks from his home to get it, at UCHealth Cancer Care and Hematology

Clinic – Harmony Campus in Fort Collins, under the care of oncologist Dr. Lynn Mathew.

The trip was short, but the chemo road was rocky. During the second treatment, Armentrout said his heart rate “went through the roof,” to about 180 beats per minute. Lieu told him if that happened again, they’d have to stop the treatment and go to surgery. Mathew referred him for acupuncture treatments, which helped to ease his anxiety. His mother and younger brother, Jeremy, came in from Nebraska to ease him through the ordeal with companionship and home-cooked meals. His faith also helped to carry him through the disease and beyond.

“The cancer was a wake-up call for me spiritually to rebuild my relationship with Jesus and God,” Armentrout said. The reawakening “re-centered” him and helped him to focus on taking care of himself and doing the things that were in his power to fight the disease. Meanwhile, he worked light- and part-time duty at his job, which offered a welcome distraction from the challenges of treatment.

Passing the first test for rectal cancer treatment without surgery

Armentrout completed eight rounds of chemotherapy and 28 radiation treatments, also at the Harmony Campus clinic, in June 2017. He was still scheduled for surgery that August, but he learned through a support group that Memorial Sloan Kettering had successfully treated

rectal cancer patients without surgery. Vogel did not rule out surgery, but he considered that Memorial Sloan Kettering’s support of the option “the Good Housekeeping Seal of Approval,” if tests there verified that Armentrout had achieved the coveted complete clinical response to his treatments.

At Memorial Sloan Kettering, Armentrout got an MRI and a flexible sigmoidoscopy – a thin tube fitted with a camera that allows providers to see inside the lower intestine. The images showed only a thin white scar. The faint image indicated Armentrout was free from cancer, and he became UCH’s first selective nonoperative management colorectal cancer patient. But the emphasis was on “management.” Armentrout and the patients who have followed him require close scrutiny by providers.



Jeff during one of his chemotherapy treatments in Fort Collins in 2017. Photo courtesy of Jeff Armentrout.

Treatment for rectal cancer without surgery required strict surveillance

Returning to Colorado, Armentrout began a “very strict surveillance period,” as Lieu put it. That meant meeting with all his providers every three months for physical exams,

blood work, imaging tests and, if necessary, additional scopes of his intestines.

“We keep a close eye on all these patients to make sure the cancer has not come back,” Lieu said. “If it does, we can pounce on it.”

That’s not a theoretical fear, he added. “In a study of patients receiving non-operative management, the data from UCHealth is similar to other institutions in that about 20 percent of patients saw their cancer return locally,” he said.

Happily, Armentrout is not in that group. In December 2019, he met with Vogel, who smilingly introduced him to colleagues as “Patient Number One,” a pioneer of a new strategy for treating selected rectal cancer patients. As of this June, Armentrout has been cancer-free for three years, a key milestone because in a majority of cases, cancer recurs within that period, Vogel said. He now makes surveillance visits every six months.

Armentrout’s battle continues, however. His rectal cancer treatment without surgery left him with bladder and nerve pain, occasional incontinence and sexual dysfunction. He prefers, though, to focus on the things he values most, which he sums up as “family, faith and friends.” A return to full-time work is also on the horizon, along with many more days of hiking, biking and fishing.

Continued on page 16



Jim Page and his wife, Ginny, ski a glacier in New Zealand just months after surgery at UCHealth removed cysts in his pancreas. Photo courtesy of Jim Page.

SURGICAL OPTIONS TO REMOVE CYSTS IN THE PANCREAS HAVE GREATLY IMPROVED

By: Tyler Smith, UCHealth, May 7, 2020

Jim Page has had a 70-year love affair with skiing. If the oft-quoted observation that geography is destiny is true, he grew up in the right place to meet the object of his affection.

That would be Lake Placid, New York, which averages 102 inches of snowfall a year. A guy could spend months shoveling the white stuff and waiting for the spring thaw. Page had other ideas.

“You had to do something in Lake Placid in the winter,” Page said. “I chose skiing.”

For Page, now 78, hitting the slopes became far more than a diversion. He began skiing competitively in high school and went on to compete at Ivy League Dartmouth College in New Hampshire. Page won three individual NCAA championships, including one for cross country in 1962 and consecutive titles in 1962 and 1963 for skimeister (awarded for the best all-around performance in downhill, slalom, cross-country and ski jumping).

In 1964, Page qualified for the Winter Olympics in Innsbruck, Austria, and competed in ski jumping. A bronchial infection he couldn’t shake hurt his performance. He finished 28th, putting an end to his competitive skiing career, but not to his connection to the sport. He went on to return to Dartmouth to coach for six years, a stint that included an NCAA championship in 1976. He also coached with the U.S. Olympic Ski Team for nine years before moving on to a long stint with the United States Olympic Committee (USOC).

Sticking to the slopes

Page retired from the USOC in 2005, but not from the slopes. He still skis recreationally, traveling to Colorado resorts like Vail and Copper Mountain a couple of times a week from his home in Manitou Springs.

“I have been fortunate to have skiing in my life,” Page said. “I’ve been able to spend time with athletes and travel extensively and ski in some

of the greatest environments around the globe. I need to get in as many days as I can because I love doing and it and because it’s just part of my soul.”

The brush with ill health that cost him at Innsbruck sharpened Page’s focus as he built his career. He devoted much of his years after setting aside competitive skiing to finding ways to use science and medicine to help train athletes to reach their peak performance.

Last year, however, he needed help from science and medicine himself. Page faced an opponent that threatened not only his ability to ski but also his life. He’s back to making turns in fresh powder, thanks to care he received from the UCHealth Pancreas and Biliary Multidisciplinary Clinic and to insights he gained from the sport he loves. His uplifting story also carries a cautionary message.

Surprise discovery: possible cysts in the pancreas

Early in 2019, Page had an MRI with a Colorado Springs provider to check out a suspicious lesion on his liver. That didn’t turn out to be a problem, but the test also showed a possible cyst in the pancreas, an organ that regulates digestion and blood sugar levels in the body. An MRI three years before had also revealed a spot, but Page wasn’t told to follow up. Now, however, the suspect area seemed to have grown. Page’s

gastroenterologist advised him to get it looked at by a specialist.

On his own, Page located Dr. Marco Del Chiaro, chief of Surgical Oncology and director of the Hepatopancreatobiliary Program at the University of Colorado School of Medicine. In July 2019, Page traveled from his home to Aurora for two



Marco Del Chiaro, MD

endoscopic ultrasound probes of the pancreas at UCHealth University of Colorado Hospital on the Anschutz Medical Campus. The tests showed that he had precancerous cysts dilating the main duct of his pancreas, a condition called intraductal papillary mucinous neoplasm (IPMN).

Options to remove cysts in pancreas

Without treatment, the cysts in his pancreas would almost certainly have progressed to pancreatic cancer, Del Chiaro said. Prevention and early detection are important for all cancers, but especially so for pancreatic cancer, which had an improving but still low five-year survival rate of just 9.3 percent for the period 2009-2015, according to the National Cancer Institute. By comparison, the five-year

survival rate for lung cancer, the number-one cancer killer, was 19.4 percent for the same period.

Had Page not gotten the MRI for the liver lesion, it's unlikely he would have discovered the IPMN, as he experienced no symptoms. The element of luck involved is all too common, said Del Chiaro, who noted he has recently operated on several patients who tell a story similar to Page's. It's why it is important that providers tell patients of any unusual finding on an image of the pancreas. Patients who receive the news should visit a medical center that is dedicated to treating pancreatic disease and can recognize the often subtle signs of it, he added.

"Recognizing a lesion is part of prevention of pancreatic disease," Del Chiaro said. "But you cannot identify it if you cannot recognize it."

Commitment to excellence in pancreas health care arena

The expertise that benefited Jim Page has not gone unnoticed on the national stage. University of Colorado Cancer Center was recently named a Center of Excellence by the National Pancreas Foundation. The designation reflects the Cancer Center's broad range of medical, educational and social services as well as its commitment to research. The backbone of the program is multidisciplinary care that includes specialists in surgery, medical and radiation oncology, diagnostic and interventional

radiology, pathology, gastroenterology, genetics, pain, and endocrinology.

The multidisciplinary team holds weekly pancreas-specific meetings to discuss all cases and arrive at a mutually agreed-upon treatment plan tailored to each patient's needs. "Each team member has a role to play in taking care of the patient," said Dr. Richard Schulick, chairman of CU's Department of Surgery and director of the Cancer Center.

The team's recommendation for Page was surgery, which Del Chiaro performed in early August 2019. In a Whipple Procedure, Del Chiaro removed half of Page's pancreas; the distal bile duct, which runs through the pancreas into the small intestine; the gallbladder; and the first part of the small intestine. He then reconnected the remaining pancreas to Page's digestive organs.

The Whipple Procedure is most often performed on patients with pancreatic cancer, Del Chiaro said. "What's exceptional [in Page's case] is that we caught the lesion, and that saved his life. Now he has a normal life. The lesion is cured."

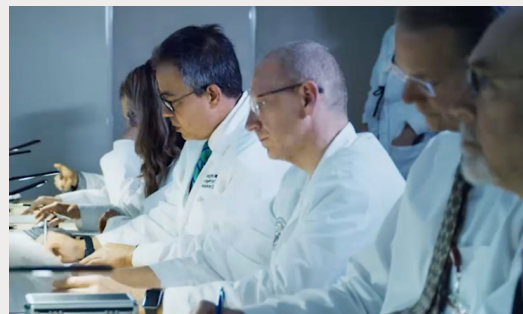
Taking on tough cases of pancreatic cancer

Pancreatic cancer is a stubborn opponent. It's situated deep in the body and is therefore difficult to reach. As yet there is no reliable test for it. But experience helps to level the playing field, Del Chiaro said, noting the Cancer

Center performed some 200 procedures for pancreatic disease last year. That, along with early diagnosis and improved radiation and chemotherapy treatment, can boost patient outcomes.

"Centralization of pancreatic surgery is the key to improved results," Del Chiaro said. "The volume of a center's patients makes a difference."

One such difference is the willingness of the Cancer Center to more often consider surgery for patients with pancreatic cancer, Schulick said. He noted, for example, that many surgical oncologists will not operate on pancreas cancer that has invaded the main arteries and vein that feed the organ.



Drs. Del Chiaro and Schulick during a multidisciplinary clinic.

"Few people will take that on, but we will," said Schulick, explaining that the center's surgical team has expertise dealing with both the cancer and the blood vessels involved. The cancer must not have metastasized (spread outside the pancreas), he stressed. Other factors, including a favorable response to chemotherapy and time for

observation, go into the decision.

Del Chiaro added that cancer that does not metastasize is a sign of hope, even if it seems that a patient's treatment hasn't progressed. For example, if chemotherapy doesn't shrink a tumor, it's not necessarily a sign of failure. If the cancer has not spread, surgery could still be an option. Patients in that situation could consider seeking a second opinion, he maintained.

"If you can control the disease, you can be more aggressive in removing the source of the cancer cells, which is the primary tumor," Del Chiaro said.

"We're doing operations today that we would not have done 10 years ago," Schulick said. "If we put these patients through [our] multidisciplinary process, and they have gone through all the appropriate steps, we are very confident taking patients to the OR

for resection and that we will get good results."

Aggressive surgery is not the choice for every patient, he cautioned. "As important as selecting the right patient, is not doing very aggressive surgery on the wrong patient," Schulick said. "If you do, you're going to get bad results."

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NEWS

Improve Every Life



Surgical Options - Continued from page 15



Back to the slopes after cysts in the pancreas were removed

Jim Page is grateful that the help he got from Del Chiaro and the team has for now headed off even more difficult decisions. He spent 10 days at UCH following the Whipple surgery and is back to skiing in the winter, golfing and hiking with renewed vigor and no limitations. The incomparable vistas of the Garden of the Gods that lie just outside his door provide an added spur.

He credits Del Chiaro and the expertise of the entire multidisciplinary team for helping him to make an informed decision about his surgery.

“The entire staff was fabulous,” Page said. “I went into the surgery with a high level of confidence in part because of the successful surgeries the physicians had done, but also in part because I trusted that the people at the center would make me better. I think the confidence that I had that I could recover completely was a

big driver in getting me going afterwards,” Page said.

That point demonstrates that with any procedure, a patient committed to recovery makes even the most highly skilled medical team better. Page’s disappointing experience at the Olympics more than half a century ago taught him an important lesson that he used as he prepared for his pancreatic battle.

“I learned that if you are not in good shape, you can’t perform at a high level,” he said.

Page carried that insight forward in his career as a coach and USOC committee member, establishing volunteer physician and trainer programs to support athletes and prepare them to reach their maximum competitive potential. The effort paid off most notably at the 2002 Winter Olympics in Salt Lake City, where the United States team won 34 medals, nearly triple its best previous effort.

Nearly 20 years later, Page committed to preparing for surgery and recovering from it with the same sense of purpose.

“I knew going into surgery that you have to be in the best shape you can be,” he said. “I intensified my walking, hiking and time in the gym. Dr. Del Chiaro is a great surgeon, but he says surgery is all about how a patient recovers. That’s up to me.”

Rectal Cancer Treatment - Continued from page 13



The summer after finishing his rectal cancer treatment without surgery, Jeff enjoyed a trip to the beach in California. Photo courtesy of Jeff Armentrout.

At the dawn of 2017, Jeff Armentrout thought his days might be numbered. Three-and-a-half years later, he thinks about the possibilities that lie ahead. “Hopefully someday I’ll settle down again and have a family,” he said.

As for the multidisciplinary team at UCH’s University of Colorado Hospital, Armentrout is also plainspoken. “They saved my life,” he said. “Coming to them was a blessing.”