

Steadman Philippon Research Institute + Vail Valley Medical Center





# TOGETHER

We will advance groundbreaking discoveries in for elite athletes and outdoor enthusiasts—young and old alike—here in our region and worldwide.





# TOGETHER

We will build a world-class hospital for Eagle County, ensuring that extraordinary healthcare convenient, close-to-home setting.



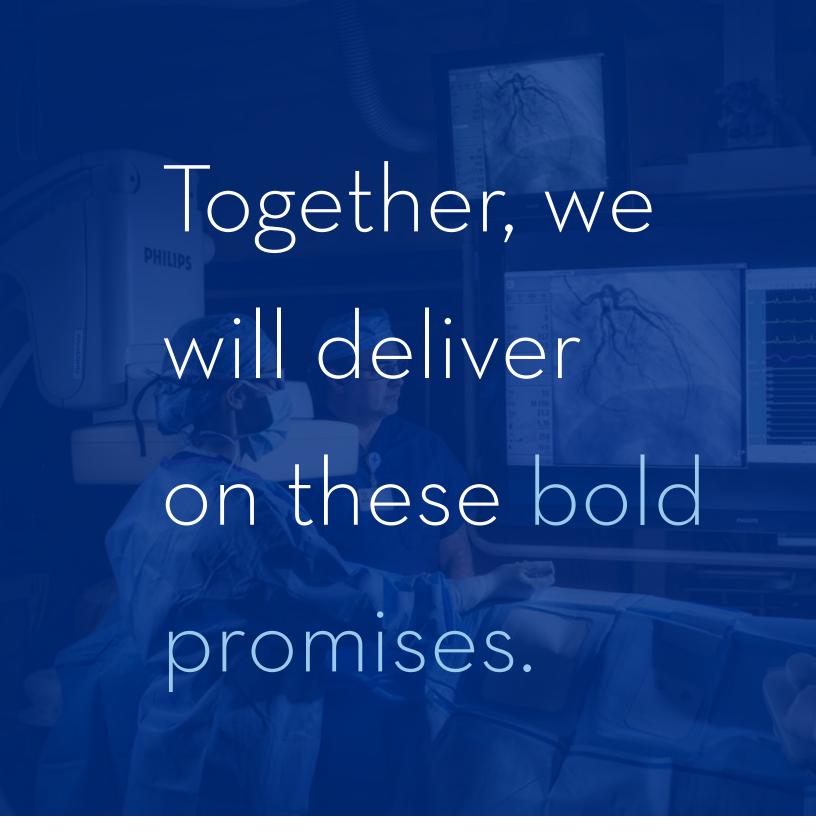
# TOGETHER We will continue to attract many of the nation's leading physicians, specialists and researchers—to





# TOGETHER

We will combine trailblazing research and superior patient care to create a healthy, active tomorrow—for our community and people around the globe, securing Vail as a destination medical center.



### IT WILL TAKE:

# Persistence.

Promises kept at Vail Valley Medical Center and Steadman Philippon Research Institute are measured in decades, not years. VVMC and SPRI have collectively served our community for more than three-quarters of a century. And we'll be here far into the future.

# Foresight.

The people of SPRI and VVMC are innovators. We're always striving to find new discoveries and improve patient care. That pioneering spirit has resulted in a level of advanced care and leading-edge research unimagined a generation ago.

# Talent.

People, not technology, heal wounds, cure diseases, forge new innovations—and save lives. By linking the talent, expertise and aspirations of VVMC and SPRI, and by uniting our fundraising efforts, we can make the greatest impact on the health and well-being of people everywhere.

# Let's make our shared ambition a reality.

Vail Valley Medical Center and Steadman Philippon Research Institute share a common commitment to excellence, collaboration and innovation. We know that today's best will not be good enough for tomorrow.

So we ask, again and again, how we can improve patient care, promote health and well-being across our region, and advance new ideas and discoveries that benefit the Vail Valley and the world.

That shared responsibility extends to residents and visitors alike. The generosity of people who believe in our mission is critical to our future success. Together, we will:

- Invest in research that will revolutionize the practice of medicine worldwide and expand stem cell research at one of the premier centers for regenerative medicine.
- Completely update and expand the VVMC campus in Vail and build the hospital of tomorrow, where our patients will be the first to benefit from the latest medical discoveries.

Expand community outreach programs and educational services to prevent disease and injury and to keep people and families healthy and safe.

We invite you to read on and learn how you can join with us and make a difference.

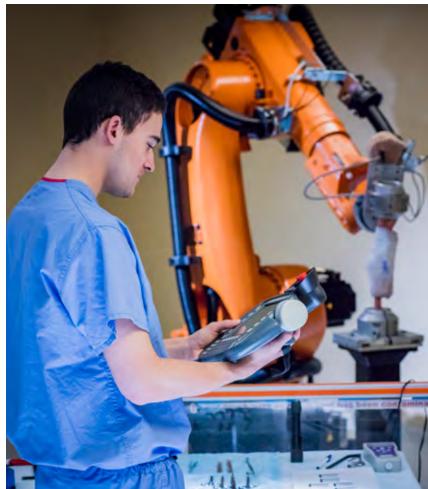














### PAYING IT FORWARD— AND COMING FULL CIRCLE

When Shaw Regional Cancer Center opened in the fall of 2001, Vail resident Debbie King Ford—who had undergone a lumpectomy earlier that year at VVMC, followed by radiation in Denver—wanted to help other women battling breast cancer. She joined the Shaw Outreach Team (SOT), a volunteer group that includes many cancer survivors.

SOT's founders went to Dr. Patti Hardenbergh, the cancer center's director, and asked, "What do you need?"

"Housing," Dr. Hardenbergh said. "I've got outof-town patients sleeping in their cars."

SOT took the need to heart. In less than a year, they raised \$4.5 million to build a warm, lodgelike facility for cancer patients and their families: "Jack's Place," named for Dr. Jack Eck, who had played a pivotal role in creating Shaw.

At that point—the money raised, the facility built—King Ford rotated off the SOT board. "Mission accomplished," she thought. *All done with cancer.* Except—she wasn't.

A 2014 mammogram showed microcalcifications in King Ford's left breast, tiny white dots that can be an early sign—sometimes the only early sign—of breast cancer. "I was stunned," she recalls. "I'm healthy. *Really* healthy. Ski-all-day healthy. Bicycle-over-Vail-Pass healthy."

She's also decisive. One day after learning of her mammogram results, she met with Shaw's multidisciplinary tumor board to discuss prognosis and treatment. Two weeks later, taking no chances, King Ford had a double mastectomy and preliminary reconstructive surgery. Thanks to Shaw's comprehensive facilities and specialists, she didn't have to leave Vail.

King Ford *liked* the convenience; she *loved* the care she received. "The service was impeccable," she says. "The doctors, the nurses, the nurse navigator—everyone was wonderful. I was so thrilled and honored that the facilities I'd helped raise money for could be the place I got my treatment."

# Research That Defines the Future of Medicine.





Athletes are becoming bigger, faster and stronger, but their connective tissue has not kept pace. Injuries are becoming more commonplace and complex—not just among elite performers but among those who stay active as skiers, runners, bicyclists and hikers, and through normal day-to-day pursuits.

Steadman Philippon Research Institute's research of knees, hips, spines, shoulders and ankles, and the therapies that research has yielded, is recognized worldwide. Now SPRI, in partnership with VVMC, is embarking on the most significant and promising expansion of its research programs in its history—the study of stem cells as a new standard of care worldwide for injury and disease.



### HERE'S HOW YOU CAN HELP

Your gift to the campaign will further research initiatives at SPRI and VVMC that lead to better patient outcomes and quicker recovery times, securing Vail as a destination medical center.

Top funding priorities include:

# BREAKING NEW GROUND IN REGENERATIVE SPORTS MEDICINE

SPRI scientists are furthering what we have begun to learn about harnessing the body's innate power to heal from within—leading to less-invasive treatments and faster, fuller recoveries. The time is now to expand research at one of the world's premier centers for regenerative medicine. Current studies are exploring the use of the patient's own stem cells to significantly accelerate healing of sports injuries, cancer, heart disease, muscular dystrophy and bladder disorders. SPRI is well positioned to advance our knowledge and use of adult musclederived stem cells to promote healing, slow aging and keep people physically active.

# FURTHERING BENCH-TO-BEDSIDE ORTHOPAEDIC RESEARCH

SPRI's acclaimed biomedical engineering research program continues to add expertise, technology and equipment to better treat injuries to the musculoskeletal system—the bones, muscles, cartilage, tendons, ligaments and joints that support and stabilize our bodies. Staff are integrating research, patient care and education to maintain and enhance the health and performance of professional and amateur athletes and everyone else wanting to stay active.

# ADVANCED IMAGING TO PROMOTE HEALING OF THE JOINTS

Sports injuries to the knee, hip, shoulder and other joints can be devastating at worst, a temporary setback at best. Thanks to advanced medical imaging at SPRI, physicians can draw from an extensive and growing database of patient CAT scans and MRIs—including state-of-the-art 3.0 Tesla (T) imaging technology with twice the strength of conventional MRI scanners. These technologies, combined with expanded, leading-edge research, will result in more accurate diagnoses and improved treatment plans.

# BUILDING ON TWO DECADES OF OUTCOMES DATA

SPRI's Center for Outcomes-Based Orthopaedic Research is a virtual goldmine of data, with staff meticulously gathering and analyzing the end results of medical treatments over the course of 20 years. No other organization has such rich and comprehensive information on orthopaedic treatments and outcomes. The result: an incredibly valuable data bank that provides a wealth of scientific evidence to drive expanded research, validate treatment protocols and inform patient and physician decisions.

# EXTENDING VAIL'S STANDING AS A DESTINATION FOR SPORTS MEDICINE

Howard Head Sports Medicine has served the Vail Valley and surrounding counties since 1990. Today, Howard Head continues to set new standards for research and innovation in physical therapy and rehabilitation, generating breakthroughs used by practitioners worldwide. Your support will help advance research at Howard Head clinics, strengthen Vail's standing as an international hub of orthopaedic excellence and return patients to their active lives faster and fully healed.





### STEADMAN PHILIPPON RESEARCH INSTITUTE: **WORLDWIDE IMPACT**

Steadman Philippon Research Institute was founded in 1988 as the "Steadman Sports Medicine Research Foundation," an extension of the orthopaedics practice of renowned surgeon Dr. J. Richard Steadman. Located within Vail Valley Medical Center, SPRI is an independent, nonprofit research institute dedicated to solving medical conditions that limit an individual's ability to maintain an active lifestyle.

In just a quarter of a century, SPRI has become one of the most productive and respected research centers of its kind, with profound impact not just in the Vail Valley but throughout the world. Its work has led to dramatic innovations in surgical and rehabilitation techniques-particularly those involving knees, hips, ankles, shoulders and backs-which have been adopted by the global medical community.

Our goal is to advance groundbreaking research on the causes, prevention and treatment of orthopaedic injury as well as cancer, heart disease, muscular dystrophy and bladder disorders—always in ways that dramatically improve patient care. In collaboration with our partners, including VVMC and The Steadman Clinic, we have established Vail as a destination medical center.



# UNLOCKING THE SECRETS OF CELLULAR HEALING

Johnny Huard starts his day with a five-mile run. Like most runners, he loves the endorphins. The knee pain? Not so much. "I feel it today," he says, "and I'll feel it tomorrow."

But Huard isn't just gritting his teeth and swallowing ibuprofen. Johnny Huard, Ph.D., regenerative-medicine researcher, is racing toward a remedy: a way to help the body age slower and heal faster. And he's doing key components of that work in Vail, where he is Chief Scientific Officer at Steadman Philippon Research Institute and Director of the Center for Regenerative Sports Medicine.

In addition, Huard remains the Distinguished Wallace Professor of Orthopaedic Surgery at the University of Texas Health Science Center in Houston.

Why the partnership in Vail? "Some of the best orthopaedic surgeons in the world are here," he says. "And they want to be even better and help their patients heal more swiftly."

The key is stem cells, those jack-of-all-trade cells that can morph into any type of tissue in the body. Dr. Huard should know: He's spent 20 years unlocking the secrets of cell damage and tissue repair.

The goal of his research is to turbocharge the body's repair mechanism by culturing a patient's own stem cells and boosting the supply—essentially sending in the cellular cavalry. "If we take a muscle biopsy that contains a million cells," he explains, "about 100 of those will actually be stem cells. But we can culture those 100, and in three weeks, we'll have 20 million stem cells."

Studies suggest that for injured patients—elite athletes and amateurs—stem-cell reinforcements can speed healing. And for aging patients, a stem-cell boost can help the body resist normal wear and tear and potentially even fight such diseases as cancer and heart disease.

"Stem cells can't make you younger," Dr. Huard points out. "But they can keep you healthier and help you age better."

# Unmatched Patient Care— Delivered in a World-Class Hospital





The early days of medicine in the Vail Valley were modest, for sure. Expectations were straightforward: suture lacerations, set broken bones, treat fevers and sore throats. All that was sufficient a half-century ago when Eagle County had a population of just over 5,000 and a fledgling ski resort that operated a single gondola and two lifts.





Today, the growing population, increasing number of visitors and mounting healthcare needs in the region require modern facilities to support the great work of physicians, researchers and others. All of our medical care at VVMC is first-class, and some of it is truly world-class. But our main facility is not.

### HERE'S HOW YOU CAN HELP

Your gift to the campaign, alongside VVMC's financial commitment, will support a five-year plan to update and expand our current hospital to provide the best care possible. We're essentially designing the hospital of tomorrow for residents and visitors, replacing an aging facility that no

longer supports the demands of a 21st-century medical center. The benefits to our community are many:

### TOP PHYSICIANS AND SPECIALISTS

A state-of-the-art facility and new technology will be a magnet for talent, helping VVMC attract even more of the best minds in medicine.

### **CLOSE-TO-HOME EXPERT CARE**

Most patients with serious health conditions or injuries can remain in the region for big-city care; they will have access to top physicians and clinical services right here in Vail.

### **UPGRADED PATIENT CARE UNITS**

More single rooms will be added, providing patients with increased privacy and a more pleasant environment—leading to improved care, shorter hospital stays and better medical outcomes.

### IMPROVED TRAUMA AND CRITICAL CARE

A new, expanded emergency department and a new, expanded intensive care unit will be built, staffed and equipped to provide high-level trauma and critical care when every second counts.

## EXPANDED SPORTS MEDICINE AND RESEARCH LABS

A larger footprint for sports medicine and orthopaedic research will allow for greater capabilities and make it possible to move discoveries to patients quicker.

### RELOCATED HELIPAD

When delivering emergency medicine, time is of the essence. A new helipad will be constructed on the hospital campus to eliminate ambulance transport and expedite life-saving care.

### **ENHANCED PATIENT EXPERIENCE**

A warm, comfortable hospital setting promotes healing and wellness. By creating a more efficient hospital layout, we not only ensure the most effective delivery of care but also provide easy wayfinding to ease anxiety and frustration for patients and their families.

### **INDEPENDENT STATUS**

As an independent healthcare organization, VVMC can provide many specialties not commonly available in a rural community. Our autonomy also ensures that patient care is tailored to the needs of the community.







### **VAIL VALLEY MEDICAL CENTER:** FOR YOU AND YOURS

VVMC, a nonprofit community hospital, has served the people of Eagle County since 1965. We provide a level of advanced healthcare unmatched by any other mountain-region hospital in the U.S. Our services include Level III emergency and trauma care, cardiology (and an advanced Cardiac Catheterization and Electrophysiology Lab), childbirth, physical therapy and cancer care through Shaw Regional Cancer Center.

Our sports medicine program is sought out by patients from around the world, including professional athletes and public figures. VVMC's Howard Head Sports Medicine is augmented by partnerships with The Steadman Clinic, Vail-Summit Orthopaedics and Steadman Philippon Research Institute-presenting seamless, top-level care informed by the latest knowledge and innovations.

VVMC is Eagle County's second-largest employer, providing close to 900 jobs. Our status as an independent hospital, at a time when large healthcare conglomerates are taking over community hospitals, means that decision-making rests with those who care most about the health of area residents and visitors.



### YOU GOTTA HAVE HEART

Despite antibiotics, Alma resident Rob Monroe—diagnosed with the flu—kept getting weaker and shorter of breath. "I couldn't lie down," he recalls "Couldn't breathe."

Monroe saw a second doctor. This one ran an EKG, but Monroe couldn't believe the results. "She said I'd been having heart attacks in my sleep!" The doctor called Vail cardiologist Jerry Greenberg, Director of VVMC's Cardiac Catheterization and Electrophysiology Lab, for another opinion.

Dr. Greenberg urged Monroe to get to the cath lab immediately. "They put me on a treadmill for a stress test," Monroe says, "and within three minutes, I was almost falling off. I couldn't finish the test."

To get a better picture of the problem,
Greenberg did an angiogram, injecting fluorescent
dye through a thin catheter threaded into the
coronary artery . . . where the dye virtually
stopped flowing. "My main coronary artery was
100 percent blocked," Monroe says, "and the
next biggest one was 80 percent blocked." A third

artery was 40 percent obstructed. It was a wonder Monroe was alive.

Using balloon catheters, Dr. Greenberg expanded the worst two arteries, inserting stents to hold them open; he prescribed medication to reduce the third blockage. Three days later, Monroe was hauling hay and feed for his horses—tasks that had become nearly impossible before his visit to the cath lab. "Now," he notes, "I can lift two 40-pound feed sacks with no trouble."

And then there's skiing, which had grown exhausting and arduous. "I'm tearing it *up* now," he beams. "Jumping off the lift and *smoking* down the mountain."

Monroe and his wife had moved from New Jersey to Colorado eight years ago. One key factor in their move was the quality of care at VVMC. "It's probably the best in the world," he says.

These words, it's clear, come straight from the heart.

# Education and Outreach to Serve Our Community





Ensuring a healthy, active tomorrow for Eagle County residents and visitors takes more than innovative research and excellent patient care. It also takes a commitment to education and community outreach.

As not-for-profit institutions, both VVMC and SPRI take pride in giving back to the people we serve. It's not just an obligation but a moral imperative. We work together not only to heal those who are sick and injured but, equally important, to prevent illness and injuries from happening whenever possible.

### HERE'S HOW YOU CAN HELP

Your gift to the campaign will make it possible to strengthen and expand several key community outreach programs. Here is a sampling of ways in which your support will promote health and wellness and use the power of education to touch future generations:

### Education

### ADVANCING KNOWLEDGE AND EXPERTISE

VVMC's Howard Head Sports Residency is a full-time, 13-month program designed to advance the skills of physical therapists. Residents spend half their time learning from and conducting research with board-certified physical therapists and top orthopaedic surgeons and athletic trainers. The other half of their time is spent applying their knowledge to orthopaedic and emergency department patients. In addition to clinical hours, residents, alongside Howard Head therapists, provide sports medicine care for area schools and sports organizations, including the U.S. Ski and Snowboard teams and the USA Climbing team.

# TRAINING SURGEONS FROM AROUND THE GLOBE

Orthopaedists from as far away as Europe and South America come to Vail to expand their knowledge and skills through SPRI's fellowship and visiting scholar programs. Each year, approximately 15 doctors learn from our renowned surgeons and researchers, study new treatment techniques and procedures and apply those discoveries to caring for patients. Both programs are dedicated to specific orthopaedic specialties, such as sports medicine, foot and ankle, and imaging. Participants spend one to two years furthering their education and honing their expertise.

### IMPROVING SURGICAL SKILLS

Skills laboratories have revolutionized surgical training at Steadman Philippon Research Institute. Surgical fellows and seasoned surgeons alike are able to hone their surgical skills and employ emerging best practices with the use of computer simulators and virtual reality technology. Additionally, VVMC's Mobile Medical Training Lab travels the Central Rockies, using human simulators to create high-risk, low-frequency medical events to train healthcare professionals.

### Outreach

### **EMPOWERING CANCER SURVIVORS**

Cancer has a lasting impact on the body, mind and spirit. The Spirit of Survival Program at VVMC's Shaw Regional Cancer Center empowers survivors to thrive during and after treatment. The program provides ongoing clinical care, education and emotional support as part of the recovery process. The center's comprehensive wellness program addresses the physical and emotional effects of cancer, long-term health goals and the impact of cancer on day-to-day life.

### PREVENTING DEVASTATING INJURIES

Children and teens are at high risk for injury due to sports and recreational activities. That's why VVMC supports the ThinkFirst Program in the Vail Valley, educating young people to protect their bodies and prevent serious injuries. We also support local athletic training programs, providing baseline testing for sports concussion management at area high schools and for recreational and youth sports programs. More than 800 area kids receive free health screenings each year through these programs.

### INSPIRING NEXT-GENERATION SCIENTISTS

SPRI is helping fill the pipeline of next-generation scientists and researchers through its popular Education and Public Outreach Committee (EPOC). The program, aimed at students in grades 5–12, gives Eagle County youth upfront exposure to SPRI's front-line research and researchers. Activities include laboratory tours—highlighted by a close encounter with the KR60 Robot—as well as school visits by staff and hands-on research projects for selected high school students who are mentored by SPRI scientists. Nearly 1,400 area students have benefited from this program over the past three years.













### CAN'T KEEP A GOOD MAN DOWN

Fifty feet up a cliff, climber Mike Kimmel gripped a tiny ledge with his right fingertips, his left hand straining up and across for the next hold.

Pain tore through his shoulder, and Kimmel fell. He didn't fall far—a rope caught him in midair but the fall crushed Kimmel's hopes.

An MRI confirmed what he'd suspected instantly: His rotator cuff—the web of muscles and tendons around the shoulder—had torn.

Again. "A massive tear," Kimmel recalls, the third in three years.

The first tear had cost Kimmel a dream job as a climbing guide in China. The second sent him back to school for a master's degree so he could teach.

Anywhere but Vail, that third tear might have ended his climbing. But Dr. Peter Millet, a renowned shoulder specialist, performed an innovative surgery, topping the repair with a collagen patch: a scaffold for regrowing cartilage. Millett then sent Kimmel to VVMC's Howard Head Sports Medicine, the healthcare provider for

the U.S. national climbing, skiing, snowboarding and freestyle skiing teams.

Kimmel, Millett and Howard Head therapists created a new shoulder-rehab regimen for Kimmel: exercises tailored to the specific movements and strains of climbing. For months Kimmel worked, each exercise laying groundwork for the next.

Three years post-surgery, the shoulder feels as good as new, and Kimmel reports that he's never climbed better.

Thanks to innovative surgery at VVMC and groundbreaking physical therapy at Howard Head, the third time proved the proverbial charm for Kimmel—and for other shoulder-surgery patients as well. The innovative and effective post-op protocols developed for Kimmel are the new standard of care at Howard Head and will soon be taught nationwide to help professional and amateur athletes alike get active again.

Faster. Better. Stronger.

## Please Join Us



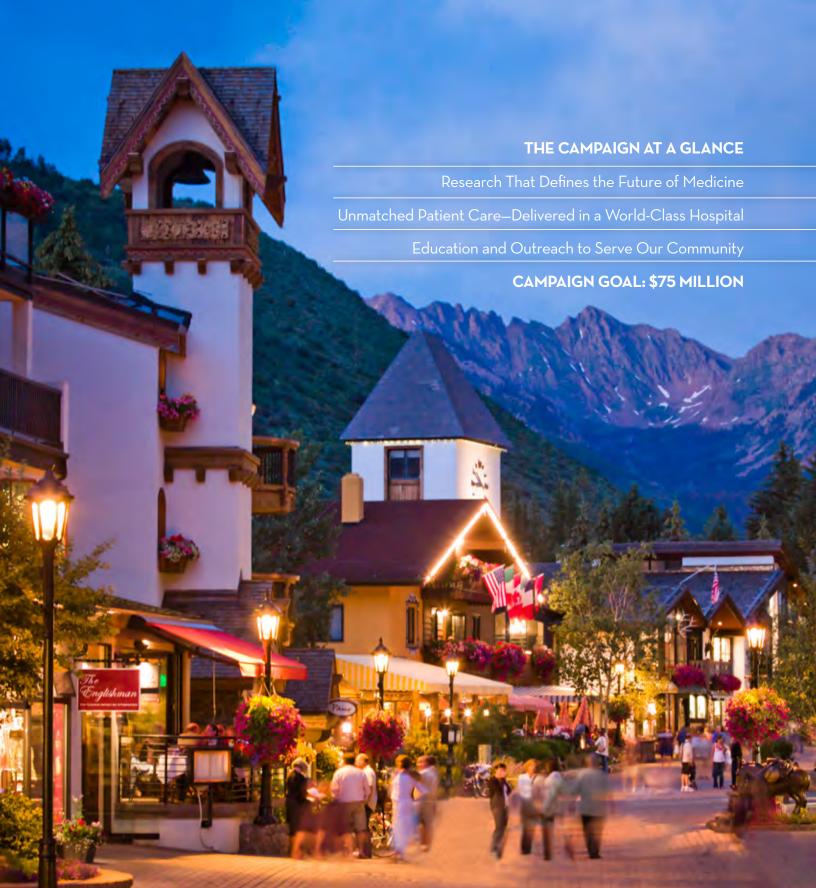


### Timing matters—not just in medicine but in philanthropy too.

The time is now—clearly, urgently *now*—to invest in a state-of-the-art hospital for Vail and the surrounding area, to advance research that has the potential to revolutionize all types of medical treatment and to expand community outreach and education programs to keep people healthy and safe.

The time is now to invest in a healthy, active tomorrow by supporting world-class research, outstanding patient care and the latest in healthcare facilities.

It will take innovators and healers, volunteers and caregivers, visionaries and philanthropists. Please join us and give generously. Together, we *can* and *will* keep our region at the forefront of healthcare.



# TOGETHER We will create a healthy, active tomorrow—for our community and people around the world.