

## Program sparks love of science in local kids

Thanks to you, 500 students benefit from SPRI educational programs annually.

Imagine. Invent. Inspire. This is the mission of EPOC, SPRI's program for students of all ages in Eagle County. EPOC stands for Educational and Public Outreach Committee.

"EPOC is designed to light a spark in students, cultivating their desire to become the next generation of scientists," says Senenne Philippon, founder and chair of EPOC.

### TRAINING TOMORROW'S RESEARCHERS TODAY

EPOC introduces students to advanced math and science. It offers hands-on experiences for 5th graders in SPRI's labs. Our researchers visit local middle schools. It expands high schoolers' knowledge through its Science Club.

"SPRI has a legacy of education," says Travis Turnbull, PhD, deputy director, Biomedical Engineering and EPOC leader. "This principle found its roots in our fellowships and scholars program. But our commitment to educating future researchers, scientists and medical professionals comes to life through EPOC."

### BUILDING A FOUNDATION FOR SCHOLASTIC SUCCESS

Ten juniors and seniors are selected for EPOC's Science Club each year. They learn

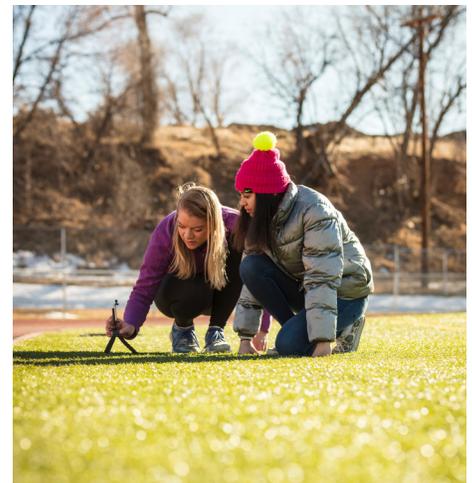


research methods and conduct two small projects during the fall semester. In the spring, they become primary investigators of a major research project.

The Science Club has led many of its alumni to study at universities like Johns Hopkins and Stanford.

"Being in the Science Club has been great," says junior Alessie Acosta. "I've learned a lot about myself and my potential. It's been a challenging, yet rewarding experience. It has truly shown me what being a scientist is all about."

She adds, "EPOC has helped me harness skills that will allow me to succeed in the real world."



Science Club members Katie Smith (left) and Alessie Acosta are studying whether shoe design can contribute to injury.



## Heritage of education continues

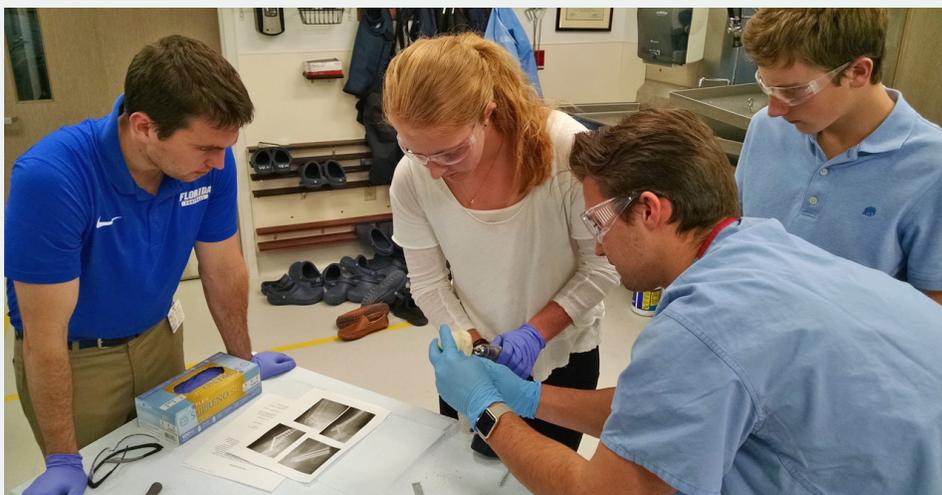
New youth science camp expands EPOC mission this summer.

SPRI is well known for its commitment to science education—from 5th graders to seasoned surgeons. With your support, SPRI will extend its educational reach with a new high school camp this summer.

“The camp will allow us to engage more local youth and expand their knowledge of science and research,” says Travis Turnbull, PhD, deputy director, Biomedical Engineering. “It will be a compact version of our Science Club.”

### CAMP OFFERS WEEK OF DISCOVERY

During the five-day session, approximately 20 high school students will shadow our scientists and learn research basics. They’ll even conduct small studies.



Dr. Turnbull adds, “The new camp is one more way we’re investing in the future of science and medicine.”

EPOC’s Science Club experience (pictured) will be available to more students at its new summer camp.

## Practice for perfection in Surgical Skills Lab

Lab helps surgeons fine-tune procedures and advance research.

“The Surgical Skills Lab sets SPRI’s fellowship apart,” says Jon Godin, MD, a former sports medicine fellow.

“It’s an invaluable resource for practicing our skills and applying what we learn in the OR,” he adds. “You can essentially complete a mini fellowship in the lab.”

The lab not only benefits surgeons in training, but also SPRI researchers. They test new ideas and perfect them in the lab before ever entering the operating room.

### LAB EXTENDS SPRI IMPACT

The Surgical Skills Lab is located next to The Steadman Clinic. This proximity enhances collaboration between fellows and scholars, and the clinic’s surgeons. This leads to greater innovation.

“The lab’s location makes it easier for surgeons to provide real-time feedback to fellows and scholars, enhancing their learning,” says Colin Robbins, lab coordinator.

The Surgical Skills Lab is also the site of continuing medical education. For example, our surgeons demonstrate the latest procedures in the lab as part of the annual Vail Hip Symposium.

“SPRI’s lab has greatly contributed to my development as a surgeon,” says Sandeep Mannava, MD, PhD, a 2016-2017 fellow. “It’s one of the finest surgical skills labs in the world.”



SPRI fellows and scholars research prevention and cure of diseases and injury in the lab.

# Scientific discoveries advance patient care

Your gifts to SPRI education lead to better treatments and faster recovery.

Our shoulders have amazing mobility, enabling us to reach into cupboards, pluck books from shelves and simply play catch with our kids. But the shoulder is also the body's most vulnerable joint. In fact, it accounts for half of all major joint dislocations. And once you dislocate a shoulder, it can happen again and again.

That's why our fellows and international scholars are studying the Latarjet procedure, popular for treating recurrent shoulder dislocation.

## STUDENTS INVESTIGATE INNOVATIVE PRACTICES

Latarjet involves removing a piece of bone from the shoulder and grafting it on the joint's socket. This blocks or limits the shoulder's motion so it doesn't slip out of place.

The procedure can produce excellent results, but it also has a high rate of complication. Nerves or blood vessels can be damaged during surgery.

To better understand why these complications occur, they're studying the shoulder's structure following Latarjet. Their goal—define a “safe zone” where surgeons can operate and prevent damage.

In addition, the metal screws used in Latarjet can fail, which often leads to more surgery. These physicians are evaluating whether suture buttons are a better alternative for affixing the bone block.

## PHILANTHROPY FUNDS GROUNDBREAKING RESEARCH

One former sports medicine fellow said that many fellowships only provide exposure to surgical skills or just



SPRI fellows like Dr. Andrew Bernhardson (left) and former scholar Dr. Gilbert Moatshe are studying ways to improve treatment of recurrent shoulder dislocation.

biomedical research. He explained that at SPRI, fellows and scholars have easy access to both—under one roof.

With your support, their work could lead to a new best practice for treating dislocated shoulders.

# Witness science in action as researcher for a day

Go behind the scenes at Steadman Philippon Research Institute.



Leading-edge research. That's what you'll experience through our Researcher for a Day Program at Steadman Philippon Research Institute.

Tour our labs. See scientists in our Biomotion Lab study human motion in real time. Watch researchers explore the power of stem cells in the Center for Regenerative Sports Medicine. And witness innovative procedures in the Surgical Skills Lab.

Choose one of the following dates for your up-close look at SPRI. Sessions are 9:30-11 a.m.

- Tuesday, July 17
- Wednesday, August 15

Reserve your spot today by emailing [development@SPRI-VailHealth-Together.org](mailto:development@SPRI-VailHealth-Together.org). Or call (970) 569-7573. Space is limited.

# Medical training with global impact

SPRI post-residency programs train tomorrow's leaders in orthopaedics.

Thanks to you, orthopaedic surgeons from around the world further their education at Steadman Philippon Research Institute. Our Clinical Fellowships and International Scholars Program are training tomorrow's leaders in orthopaedic medicine.

Each year, as many as 10 surgeons are chosen from nearly 200 candidates to be SPRI fellows. In addition, up to six physicians from around the globe come to SPRI as scholars.

“By mentoring these young doctors, we're shaping the future of orthopaedics,” says Marc Philippon, MD, SPRI co-chairman and director of the Sports Medicine Fellowship.

## TOP EDUCATION FOR ELITE POST-RESIDENTS

SPRI's educational programs are considered among the world's best. Fellows and scholars spend an intensive 12 months

refining their skills in surgery and research. They learn from our renowned faculty, studying new surgical techniques and procedures. Fellows also hone their skills through onsite care of the U.S. Ski and Snowboard team.

In addition, these physicians investigate the causes and cures of degenerative diseases. They research treatments and the prevention of joint injury. Many of their studies are published in peer-reviewed journals and presented at national and international conferences.

## FELLOWS TRAIN TO BE THE BEST IN THEIR FIELD

Even though they're fully trained surgeons, fellows come to SPRI to become the best in their field. The 2017-2018 cohort is no exception.

Currently, there are seven sports medicine fellows, a foot and ankle fellow and an adult reconstruction fellow.

These physicians received their medical degrees from such prestigious schools as Johns Hopkins University, Dartmouth College and Tufts University. They also have served as college and professional sports team doctors.

## INTERNATIONAL SCHOLARS SPREAD EXPERTISE WORLDWIDE

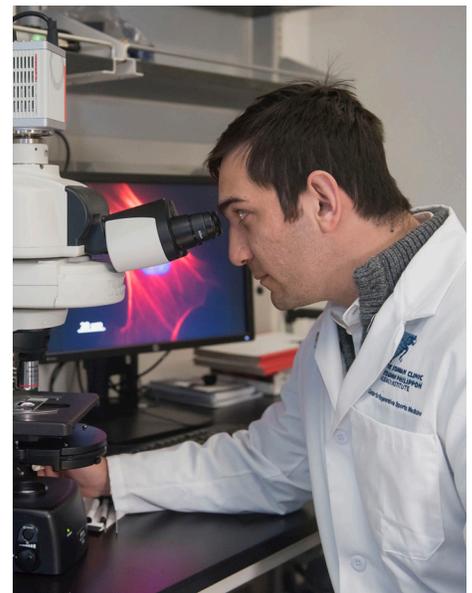
Our International Scholars Program has been the backbone of SPRI research for nearly a decade.

This year's scholars are conducting studies of such disorders as shoulder and elbow injury and knee and hip reconstruction. They come from as far away as Japan and Germany.

“Working at SPRI has been a life-changing experience,” says Burak Altintas, MD, an international scholar from Germany. “The knowledge I gain here will help me advance medicine far beyond what I could have ever imagined.”



SPRI fellows and scholars learn the latest orthopaedic procedures alongside our faculty, including Dr. Marc Philippon, SPRI-co-chair.



Burak Altintas, MD, one of this year's scholars, is helping to advance scientific discoveries at SPRI.

Above Surgery Image and Masthead Image on Page 1: John Kelly