



Institute Benefactor Ephi Gildor at the summit of Mt. Vinson, elevation 16,050 ft., Antarctica's highest mountain. See Patients in the News, Ephraim Gildor and Dr. Peter Millett, inside page 8.

INSTITUTE INSIGHT

A RECORD YEAR OF SUPPORT

By Mike Egan, Chief Executive Officer, Steadman Philippon Research Institute

On behalf of the Institute, we wish to thank you for your continued support that allowed us to have another record year in 2010! Your commitment makes it possible for us to carry out our mission of "Keeping People Active" and educating the worldwide orthopaedic community. Orthopaedic care of the patient is improving around the world directly through the advances we are making in our research.

2010 began with our name change to the "Steadman Philippon Research Institute." Our name changed to ensure our succession and to give our individual donors and corporate supporters the confidence that we will be here in the future to continue our mission.

Your record support in 2010 of \$6.2 million resoundingly indicates that you believe in our mission and that we have carried out our succession. We are carefully managing your donations and corporate commitments. In fact, our overhead rate is now below 25 percent, which means we are directly applying more than 75 percent of your donations to our research programs. Other well-known research institutions have overhead rates many times higher than ours.

Your support is also responsible for our ability to carry out ambitious plans for clinically relevant research. We are very close to completing our new Biomechanics Laboratory, which will be the most advanced of its kind in the world. We will feature the new lab in our next newsletter. We have also successfully recruited outstanding individuals to manage new biomechanics research programs. In this newsletter, you will

(continued on page 2)

INSIDE

- ◆ Page 3
Two World-Class Biomedical Engineers Join Biomechanics Research Department
 - ◆ Page 6
Lauren Matheny Plays Key Role in Advancement of Clinical Research
 - ◆ Page 8
Patients in the News: Ephraim Gildor – Turning Challenges Into Opportunities
 - ◆ Page 10
Alex Rodriguez: The Importance of Evidence-Based Medicine
 - ◆ Page 11
Research Update: Research Validates Medial Knee Reconstruction Technique
 - ◆ Page 12
Research Update: Institute Study Shows Pediatric Patients May Benefit from Microfracture
 - ◆ Page 12
Research Update: Research Validates Medial Knee Reconstruction Technique
 - ◆ Page 13
Sports and Wellness: Shin Splints
 - ◆ Page 18
Save the Date: July 5, 2011 Darius Rucker in Concert
- August 18, 2011 Vail Valley Medical Center 2011 Steadman Philippon Research Institute Golf Classic, presented by RE/MAX International at The Sanctuary



BOARD OF DIRECTORS

J. Richard Steadman, M.D.

Founder and Chairman
The Steadman Clinic
Vail, Colo.

H.M. King Juan Carlos I of Spain
Honorary Trustee

Adam Aron
Chairman and Chief Executive Officer
World Leisure Partners, Inc.
Miami, Fla.

Howard Berkowitz
Chairman and Chief Executive Officer
BlackRock HPB
New York, N.Y.

Robert A. Bourne
Vice Chairman
CNL Financial Group, Inc.
Orlando, Fla.

Lodewijk J.R. de Vink
Blackstone Healthcare Partners
Avon, Ohio.

J. Michael Egan
President and Chief Executive Officer
The Steadman Philippon Research Institute
Vail, Colo.

Julie Esrey
Trustee Emeritus
Duke University
Vail, Colo.

Stephanie Flinn
Hobe Sound, Fla.

Earl G. Graves, Sr.
Chairman and Publisher
Earl G. Graves, Ltd
New York, N.Y.

Ted Hartley
Chairman and Chief Executive Officer
RKO Pictures, Inc.
Los Angeles, Calif.

Frank Krauser
President and CEO
NFL Alumni (retired) and Pro Legends, Inc.
Ft. Lauderdale, Fla.

Greg Lewis
President
Greg Lewis Communications
Basalt, Colo.

Thomas A. Mars
Executive Vice President and Chief Administrative Officer
Walmart
Rogers, Ark.

John G. McMillian
Chairman and Chief Executive Officer (retired)
Allegheny & Western Energy Corporation
Coral Gables, Fla.

Peter Millett, M.D., M.Sc.
The Steadman Clinic
Vail, Colo.

Larry Mullen, Jr.
Founder, Partner
U2
Dublin, Ireland

Cynthia L. Nelson
Cindy Nelson LTD
Vail, Colo.

Mary K. Noyes
Freeport, Me.

Al Perkins
Chairman Emeritus
Rev Gen Partners
Denver, Colo.

Marc J. Philippon, M.D.
The Steadman Clinic
Vail, Colo.

Senenne Philippon
Vail, Colo.

Cynthia S. Piper
Trustee
Hazelden Foundation
Long Lake, Minn.

Steven Read
Co-Chairman
Read Investments
Lafayette, Calif.

Damaris Skouras
Global Reach Management Company
New York, N.Y.

Gay L. Steadman
Vail, Colo.

William I. Sterett, M.D.
The Steadman Clinic
Vail, Colo.

Stewart Turley
Chairman and Chief Executive Officer (retired)
Jack Eckerd Drugs
Bellaire, Fla.

Norm Waite
Vice President
Booth Creek Management Corporation
Vail, Colo.

In Memoriam:
The Honorable Jack Kemp
Chairman and Founder
Kemp Partners
Washington, D.C.

EMERITUS

Harris Barton
Managing Member
HRJ Capital
Woodside, Calif.

Jack Ferguson
Founder and President
Jack Ferguson Associates
Washington, D.C.

George Gillett
Chairman
Booth Creek Management Corporation
Vail, Colo.

H. Michael Immel
Executive Director (retired)
Alabama Sports Medicine and
Orthopaedic Center
Lafayette, La.

Arch J. McGill
President (retired)
AIS American Bell
Scottsdale, Ariz.

Betsy Nagelsen-McCormack
Professional Tennis Player (retired)
Orlando, Fla.

Our advances in knee, hip, shoulder, foot and ankle, and spine research have dramatically increased the number of presentations made at scientific meetings and the number of articles published in peer-reviewed journals. These presentations and publications are the means by which we inform and educate the national and international orthopaedic communities. This ultimately improves the care of patients everywhere. In this newsletter, Lauren Matheny, one of our talented researchers, will discuss these new and enhanced systems for clinical research.

WITH YOUR HELP, WE ARE ABLE TO MAKE A DIFFERENCE.

On behalf of our board members, researchers, physicians, scientists, and staff, thank you for your support. Our success — indeed all of our work — is funded by friends like you who step forward to make certain that we continue our clinically relevant research. We are counting on your support of the Steadman Philippon Research Institute, and we will keep you updated on our work throughout the year.

Respectfully yours,
J. Michael Egan

(continued from page 1)

read about Mary Goldsmith and Erin Lucas, who are preparing to conduct very exciting and advanced research in biomechanics.

Our Clinical Research area is undergoing significant advancements in both hardware and software. We are now managing over 50 million data points, and by the end of March we will be entirely paperless for data input. This will significantly reduce our labor and allow our clinical researchers to devote more time to writing papers and preparing presentations regarding our advances.

Blending Your Giving

Times continue to be uncertain, and we frequently field calls from our friends and supporters who have questions:

- Should I give now?
- Should I give later?
- What assets should I give?
- Should I give an irrevocable gift?
- Is a revocable gift better?

With every circumstance unique, it's difficult to answer these questions. A gift during your lifetime allows SPRI to pursue its immediate objectives for our leading-edge programs in treatment, research and education. It also allows you to derive certain tax benefits. A gift through your estate gives you control of your assets and cash flow during your lifetime. That future gift to the Institute helps contribute to our long-term financial strength.

Simultaneous Giving

Many of our supporters are choosing to navigate their financial and philanthropic objectives by combining lifetime and estate giving. Blending your support with gifts today of cash, publicly traded securities, or real estate with future gifts through your will or beneficiary designations on other financial instruments gives you control of your finances and your philanthropy during uncertain times.

Two World-Class Biomedical Engineers Join Biomechanics Research Department

Meet Mary Goldsmith, M.Sc., Robotics Engineer, and Erin Lucas, M.Sc., Research Engineer

By Jim Brown, Editor, SPRI News

The future of biomedical engineering — applying engineering principles to the field of medicine — has arrived. It is young, talented, dedicated, and confident, and it will change the way orthopaedic surgery is practiced. It even has a name. Two names, in fact. They are Mary Goldsmith and Erin Lucas.

The standards for an appointment to any position at the Steadman Philippon Research Institute are incredibly high. In the Biomechanics Research Department's search for a Research Engineer and a Robotics

(continued on page 4)

German-Speaking Association of Arthroscopy Endorses Visiting Scholar Program Directed by Dr. Peter J. Millett and Sponsored by Arthrex

The German-speaking Association of Arthroscopy (AGA) is endorsing and supporting a one-year Research and Clinical Visiting Scholar Program with Dr. Peter J. Millett at the Steadman Philippon Research Institute. The selected Fellow must be an "up and coming" orthopaedic surgeon with an interest in shoulder surgery and arthroscopy and must have presented or authored at least three lectures or publications on shoulder arthroscopy. He or she will be mentored by Dr. Peter Millett, chief of shoulder service for the Steadman Clinic, and will conduct research in the Biomechanics Research Laboratory and assist in the clinical practice.

AGA is Europe's largest professional society for arthroscopy with 2,800 members. It was founded in 1983 in Zurich, Switzerland, in collaboration with German, Austrian, and Swiss doctors. AGA organizes an annual conference, provides grants and scholarships,

(continued on page 15)



Dr. Peter Millett

Photo: John Kelly

Gifts can be made in many ways, including the following:

- Outright Gifts may be made in the form of cash or securities.
- Pledged Gifts allow you to make a generous commitment with a flexible payment plan of up to five years.
- IRA Rollover Gifts can be made under certain circumstances by directing your account custodian to make a gift from your IRA account directly to SPRI.
- Gifts of Real Estate can be an outright gift of real estate or a retained life estate gift of your primary or vacation residence. A retained life estate allows you to retain the right to live in that residence for your lifetime. You benefit from an income tax deduction. At your passing, the property comes to SPRI.
- Bequests may be made through your will or trust. Generally, bequests can be a specific bequest of a particular amount, asset or percent of your estate. They can also be a residuary bequest that designates all or part of the remainder of your estate after expenses and specific bequests have been made.
- Beneficiary designations to SPRI on your retirement plan can, in some circumstances, provide strategic benefits to your heirs. We encourage you to talk with your estate planning advisor for the proper estate tax considerations. You can also designate

SPRI as full or partial beneficiary on other financial instruments such as brokerage accounts or fully funded life insurance policies.

No Tax Consequences for IRA Giving Through 2011

In December, the President signed into law the Tax Relief, Unemployment Insurance Reauthorization and Job Creation Act of 2010. This much-anticipated legislation features continuation of tax cuts that were scheduled to expire, extension of unemployment benefits, and other measures designed to stimulate the economy.

Of particular interest was the extension of the "IRA Rollover." The provision allows individuals 70½ or older to make tax-favored gifts (up to \$100,000 per individual IRA owner) to SPRI directly from a traditional or Roth IRA. Because the distribution comes directly to the Institute from your IRA custodian, there is no tax liability for you. Additionally, this type of giving from your IRA can satisfy your minimum annual distribution requirement allowing you to redirect reportable, taxable income.

This opportunity to increase your overall giving is in place through 2011. Please call us with any questions about using your IRA to make a gift to SPRI. You can reach John McMurtry, Vice President, Program Advancement, at 970-479-5781 or mcmurtry@sprivail.org. Please visit us online as well: www.sprivail.org.



Mary Goldsmith, M.Sc.,
Robotics Engineer

(continued from page 3)

Engineer, Mary Goldsmith and Erin Lucas exceeded even those lofty expectations.

"We were looking for two individuals who would be able to work as team members in a very active research group, as well as work independently and with little supervision," says Coen Wijdicks, Ph.D., Deputy Director of the Biomechanics Research Department and Senior Staff Scientist. "We also wanted them to have a strong competency in programming, to be proficient in technical writing, and to spread their research through presentations and publications."

Robert LaPrade, M.D., Ph.D., Director of the Biomechanics Research Department, and Dr. Wijdicks are charged with fulfilling the department's mission of advancing patient care and setting global standards in orthopaedic biomechanics research. Dr. LaPrade and Dr. Wijdicks, along with Senior Staff Scientist Dr. Erik Giphart, who has a Ph.D. in biomedical engineering, know where to look for talent and what to look for.

The search for the two engineering positions was "massive," according to Dr. Wijdicks, and involved contacting professional colleagues and university biomechanical engineering departments that have a reputation for preparing great scientists.

"We were very lucky to have recruited both of these highly qualified engineers to join our team," adds Dr. Wijdicks. "Each one of them outpaced more than 100 applicants. In both cases, the number one candidate was clearly superior."

MARY GOLDSMITH, M.SC., ROBOTICS ENGINEER

Mary Goldsmith, a magna cum laude graduate of Boston University with a bachelor of science degree in Biomedical Engineering, continued her education with a master of science in Biomedical Engineering at B.U.

She is a native of Plano, Texas, and was not exactly a late bloomer. "I won a science fair in kindergarten, using the scientific method to determine which popcorn pops best," she recalls.

She was placed in talented/gifted classes in elementary school, took an introduction-to-engineering summer course at Southern Methodist University after the 7th grade, and spent a week while in high school working with engineers at NASA in Houston. There was also the "like-father-like-daughter" factor. Her father is an engineer.

Goldsmith studied abroad in Germany, was a research assistant at Spaulding Rehabilitation Hospital's Motion Analysis Lab in Boston, worked as a teaching assistant at Boston University, and was employed as an engineering intern with MEMtronics in Texas.

Her focus on robotics began to develop at Spaulding. "I had a moment when I realized that I wanted to include a more human aspect to my engineering training, which led me to projects that involved full-body mechanics. I worked with different robotics systems, including those that taught people how to walk," she says. "I discovered that I liked programming and robotics, and that allowed me to look at other interesting applications.

"I seemed to be drawn to fields that are traditionally male-dominated," says Goldsmith. "The gender issue has been a bit of a challenge. Stereotypes come into play when you tell someone you are an engineer. They say things like, 'Good for you,' or 'Really?' or 'You don't look like an engineer.' But I enjoy that moment of opening minds up and helping them understand that engineers can come in all forms."

ERIN LUCAS, M.SC., RESEARCH ENGINEER

Erin Lucas graduated magna cum laude from Virginia Tech with a bachelor of science degree in Mechanical Engineering and later earned a master of applied science in Biomedical Engineering at the University of British Columbia.

Photo: Joe Kania

She grew up in Richmond, Virginia, was always good in math, and enjoyed the sciences, especially biology. Her mother is a nurse and her father is in the health insurance business, and prior to going to college, Lucas thought she wanted to be an orthopaedic surgeon.

"My brother was really the one who encouraged me to get into engineering," she adds. "He is a role model for me, and I tend to follow in his footsteps." Scott Lucas has a Ph.D. in biomedical engineering and works for the ECRI Institute in Philadelphia.

Erin's first job in mechanical engineering was with Lockheed Martin. "While I was there, I did volunteer work with individuals who had disabilities," she says. "I began to realize that I enjoyed the volunteer work more than my full-time job. That's when I began looking for opportunities in the biomedical field."

Before joining the Steadman Philippon staff, she went to the Prince of Wales Medical Research Institute in Sydney, Australia, for a research position in biomedical engineering, then on to the University of British Columbia for her graduate studies.

As with Mary Goldsmith, the gender issue has not been a problem for Lucas. "I never saw it as an obstacle," she says. "If anything, it may have helped. Everybody wanted to see me succeed, and now I encourage girls and young women who tell me they want to become engineers to go for it."

GETTING TO VAIL

The process of getting to Vail was similar for both young engineers. They were looking for positions that involved engineering, orthopaedic injury research, computer programming, and a chance to use their skills working with other scientists, physicians, engineers, and researchers. Both admit that the allure of Vail, Colorado, itself was very strong.

When ads appeared online for a robotics engineer and a research engineer, respectively, they immediately applied. Their impressive resumes got quick responses from the staff at Steadman Philippon.

"I went down the list of what they were looking for," Goldsmith remembers. "I said to myself, 'I can do that, I can do that, I can do that.' It seemed to be a perfect fit. When I read more about the Institute and the kind of research being conducted there, I really got excited."



Photo: Joe Kania

Goldsmith had a series of telephone interviews, then flew to Vail to visit with Dr. Wijdicks and other Steadman Philippon staff members. Before she got back on the plane, she had been invited to become part of the team. "It was such a good opportunity, I couldn't turn it down. It was a great way to begin the year."

Erin Lucas, M.Sc., Research Engineer

The first time Erin Lucas saw the Steadman Philippon Research Institute was January 10, 2011 — the day she reported for work. Everything prior to that date had happened online or on the telephone. "After I got the offer," she says, "I took a day to decide. But when I saw the offer letter, I said to myself, 'Yep, I'm doing this.'"

SETTLING IN

Now that the two engineers have settled into their jobs at Steadman Philippon, their responsibilities are clearly defined by Dr. Wijdicks. "Using Mary Goldsmith's expertise and experience in robotic programming and technology, the department will be on the sports medicine research industry's leading edge of joint testing to enhance and validate joint reconstruction techniques."

Goldsmith adds, "At Steadman Philippon we have a very talented, motivated group of people using best tools available to better understand human biomechanics and to further the goal of improved patient care."

Lucas is developing software to quantify cartilage health using 3T MRI techniques.

(continued on page 6)

(continued from page 5)

Physicians and patients will be able to see the progress of their treatment by looking at a color-coded, full-picture of the hip, knee, and later, of other joints. Although assigned to the Biomechanics Research Department, Lucas works closely with her colleagues in Imaging Research and with the doctors who perform surgery.

MAKING THE CONNECTION

Erin Lucas makes the connection between the Institute's new research capabilities work and how it will affect the average person. "The body is incredible in what it can do and how it can repair itself. But there is still a lot to be discovered and there are many new surgical techniques being developed. It's great to have engineers, scientists, researchers, and clinicians who can work together here to evaluate these techniques and to show how this research will benefit people around the world."



Lauren Matheny Plays Key Role in Advancement of Clinical Research

By Jim Brown, Editor, SPRI News

Lauren Matheny has seen significant advancements in almost every phase of Clinical Research since she joined the staff six years ago. Not only has she seen them, she has played an important role in developing new systems that maintain the Institute's position on the leading edge of research.

"Lauren is a bright, young, dedicated researcher, and an excellent example of the type of committed professional we are attracting to support our mission," says Mike Egan, Chief Executive Officer of the Research Institute. "She has been a vital part of published national and international papers that report on our clinical findings and that lead to improved orthopaedic care."

Steadman Philippon has a well-documented history of identifying and securing the services of up-and-coming scientific talent. Lauren Matheny is a good example. After graduating from Miami University of



Photo: John Kelly

Lauren Matheny

Ohio with a major in zoology and a minor in neuroscience, she accepted a one-year appointment as an intern at Steadman Philippon in 2005. That didn't last long. After two months, she was hired full time as a Clinical Research Associate, a title she holds today.

The title may be the same, but her responsibilities have increased as rapidly as the technology and research capability of the Clinical Research Department itself.

"When I came in as an intern," says Matheny, "my main job was to collect data. Now I get to participate in the research process from conception to finalization."

Her duties include initiating the data collection process, navigating the Institute's database (which now includes 50 million pieces of patient, physician, and procedure information), assembling a study population, collecting follow-up data, making presentations, writing and editing manuscripts and papers, and submitting them to national and international journals and professional associations.

IMPROVING PATIENT OUTCOMES AND CARE

"What we try to do is improve patient outcomes and care," she continues. "That's the big idea. It's what all of this research is about. If a certain procedure works well, we want to talk about it. If it doesn't, we want people to know. We want our patients and our physicians to be informed, and we want to improve communication between those

two groups. Many of our studies involve patient expectations. Have we accomplished what the patient actually expected? But the goal always remains one of improving patient care."

The process that makes Steadman Philippon one of the world leaders in producing scientific papers, presentations, and publications is continuously being refined and upgraded. And the pace of that process has increased significantly since Mathney arrived in Vail — probably not a coincidence.

GROWING THE DATABASE

Under the leadership of Karen Briggs, Director of Clinical Research, Mathney has helped build (and re-build) the Institute's massive database. She works to make the database information more accessible. She collaborates with more physicians and scientists than at any time in the Institute's history. She helps develop the forms that each patient and physician completes to support the Institute's evidence-based approach to surgical innovations.

GOING PAPERLESS

As of April 1, Briggs, Mathney, and their colleagues completed the Institute's transition to an entirely paperless method of data input.

"We've created new forms that patients complete on the web and that our attending physicians can complete on electronic tablets or other devices," says Mathney. "We've basically either developed a new system of collecting data and determining outcomes from the ground up, or we've converted it from the existing database.

"The new system will save time and provide more complete and accurate collection of data," says Mathney. "There is not much room for error with these forms — only one answer, nothing handwritten, and less need for redundant checks."

By vastly reducing the time and energy that used to be spent on verifying data, the entire Steadman Philippon team (attending physicians, fellows, scientists, researchers, and staff members) can be more productive in other areas. The team can now conduct studies in less time, evaluate research results efficiently, write more papers, make more presentations, and let the world know what has been learned.

JUST GETTING STARTED

Based on the contributions Lauren Mathney has made during her first six years, it's safe to say she's just getting warmed up. Her expectations of what will be accomplished in clinical and biomechanical research during the next decade are high.

She continues to enhance her own professional development. In addition to her responsibilities at the SPRI, she is ready to begin work on a master's degree in statistical analysis and research design.

This should not be a surprise. Mathney already co-authored more than a dozen articles published in peer-reviewed professional journals, and she has made multiple presentations at national and international scientific meetings. She may have already written the equivalent of several master's theses.

Her next degree — and not necessarily her last one — will be one more accomplishment for one of Steadman Philippon Research Institute's brightest young researchers.



Photo: John Kelly

PATIENTS IN THE NEWS

Ephraim Gildor and Dr. Peter Millett: Working Together, Turning Challenges into Opportunities

The Gildor Foundation's \$1,000,000 grant opens new areas of shoulder and sports medicine research.

By Jim Brown, Editor, SPRI News

Take the talent, resourcefulness, and energy of a leader in the world of finance whose philanthropy supports the sciences, arts, and education. His name is Ephraim Gildor.

Combine his qualities with those of Dr. Peter Millett, an equally talented, resourceful, and energetic leader in the world of orthopaedic surgery and sports medicine research.

A shoulder injury brings Mr. Gildor and Dr. Millett together at the Steadman Clinic and later they begin exchanging ideas about the innovative research being conducted at the Steadman Philippon Research Institute. What happens next? Something big.

EPHRAIM GILDOR

Ephraim Gildor doesn't just accept difficult challenges. He turns them into opportunities. Consider some examples of his personal and professional achievements.

- Military Service: fighter pilot, Israeli Air Force.
- Academic Honors: B.S., magna cum laude, mathematics and computer science, Tel Aviv University; M.B.A., with honors, University of Chicago.
- Business/Finance Initiatives: Founder, Arbitrade Holdings and Axiom FX, an Aspen-based hedge fund.
- Philanthropic Endeavors: Board of Directors, the Lincoln Center Theater in New York and the School of Art and Science of Jerusalem; Board of Governors, Tel Aviv



Ephi Gildor at the summit of Mt. Vinson.

University; Member, Israel Center for Excellence Through Education; and the Gildor Foundation.

The Gildor Foundation contributes to programs in sciences, arts, and education in the United States and Israel. Its recent recipients include the Mayo Clinic, Brown University, and now the Steadman Philippon Research Institute.

"Our foundation is focused on supporting individuals and programs that will have a positive impact on lives both here and in Israel," says Mr. Gildor.

Mr. Gildor has always been physically active. He runs, (mountain) bikes, hikes, and skis. He is also a highly skilled mountain climber who is in the process of challenging the most famous peaks in the world. They are known as the "Seven Summits," the highest mountains on each of the seven continents.

DR. PETER MILLETT

Dr. Peter J. Millett is a partner at the Steadman Clinic and an internationally recognized orthopaedic surgeon who specializes in disorders of the shoulder and all sports-related injuries. Consistently selected as one of the "Best Doctors in America," Dr. Millett serves as an international shoulder and sports medicine consultant and has

treated elite athletes from the NFL, NBA, MLB, X-Games, and the Olympics.

Before coming to the Steadman Clinic and the Steadman Philippon Research Institute, Dr. Millett held a faculty appointment at Harvard Medical School and was Co-Director of the Harvard Shoulder Service and the Harvard Shoulder Fellowship. He also founded and directed the Musculoskeletal Proteomics Research Group at Harvard, where his team discovered and patented the protein profile for osteoarthritis.

Dr. Millett uses leading-edge open and arthroscopic surgical techniques to restore damaged joints, ligaments, and bones. A focus of his research is advanced shoulder arthroscopy and the treatment of athletes with shoulder injuries. He is often sought out nationally and internationally for his expertise in complex and revision shoulder surgery and total joint replacement. He has the advantage of using research conducted at the Institute to improve the outcomes of these procedures.

INJURY, RESEARCH INTERESTS RESULT IN MILLION-DOLLAR GRANT

Mr. Gildor leads an extremely physically active life that occasionally involves the risk of injury. In 2008, he suffered a serious shoulder injury while mountain biking. SPRI Board Member Damaris Skouras, a friend of Ephi, introduced him to Dr. Millett and the Institute.

Dr. Millett performed successful shoulder separation surgery and, in the process, detected a tumor in the shoulder that was determined to be benign.

Following the shoulder injury, surgery, and recovery, Ephraim and his wife, Catherine, committed their Foundation's support to the Steadman Philippon Research Institute for the work of Dr. Millett. That support came in the form of a \$1,000,000 grant for research on the shoulder and sports medicine disorders.

"I was fortunate enough to have known Dr. Millett and have him perform surgery that brought my shoulder back to full health," says Mr. Gildor. "This research grant allows our foundation to continue its mission, allows me to recognize a very special doctor, and helps fund important research that will lead to critical medical advancements now and in the future."



Dr. Peter Millett

Photo: John Kelly

BETTER CARE, REAL CURES

"I cannot thank Ephi Gildor enough for his more than generous research grant," says Dr. Millett. "Donations of this kind are largely responsible for the progress we make every day in treating people suffering from shoulder injuries and other sports-related disorders. Supporting our efforts leads to better treatment, better patient care, real cures, and ultimately, better health. We are very grateful."

Ephraim Gildor's personal life, professional accomplishments, and philanthropic generosity perfectly reflect the Steadman Philippon Research Institute's mission of keeping people active through orthopaedic research and education.

Dr. Peter Millett and his colleagues ensure that grants like that of Ephraim and Catherine Gildor are translated into better orthopaedic care and treatment of people around the world.

WHAT'S NEXT?

The Gildor grant will enable Dr. Millett and his colleagues to initiate or continue studies involving shoulder joint preservation, joint reconstruction, nerve damage, osteoarthritis, rotator cuff repair, management of cartilage injuries, and overall improvement of shoulder surgery outcomes.

What's next for Ephraim Gildor? In March, he left to climb Mount Everest — number six on his "Seven Summits" list. After that, Kilimanjaro.

And after that? Expect something else very big. It's what he does.



The Importance of Evidence-Based Medicine

By Mike Egan, Chief Executive Officer, Steadman Philippon Research Institute

The Yankees won the 2009 World Series principally due to the tremendous comeback of Alex Rodriguez. This ended a storybook season for the Yankees and their inaugural year in their new home in the Bronx.

But the 2009 season didn't start out nearly as bright as the finish. At the start of the year, the Yankees were getting ready to play their first season in their new stadium and their superstar, Alex Rodriguez, was suffering from a damaged hip.

Marc Philippon, M.D., was contacted and asked for a diagnosis. "I was able to make the diagnosis of Alex's condition and propose a plan which included surgery and rehab, based on our extensive database of evidence-based research, which allowed me to accurately predict Alex's return to the team."

Dr. Philippon knew of Alex's reputation as a very hard worker and was confident Alex

would carry out his rehab plan diligently. "Alex has a tremendous work ethic, which together with a well-thought-out surgical plan, made his comeback a reality."

We asked Alex to comment on his experience. "Dr. Philippon and I formed a close bond. He's the best doctor in the world for sports-related hip injuries and I trust his abilities and judgment."

Alex learned more about the Steadman Philippon Research Institute during his treatment. "I've learned about how the people in Vail are dedicated to improving sports medicine, including the scientists, researchers, staff and others who support Dr. Philippon and give him his ability to accurately diagnose and carry out his therapy. I recognize what Dr. Philippon's research and innovation has done for me and is doing for others, and I'm grateful."

Alex continued to break records in 2010, including becoming the youngest player to hit 600 home runs. His future looks bright. Alex and the Yankees knew of Dr. Philippon's reputation as an outstanding surgeon. They have learned the importance of evidence-based medicine and its direct affect on his care, and we affirmed the importance of diligence in rehab through Alex.



New York Yankees' Alex Rodriguez hits a three-run home run during the first inning of a baseball game against the Baltimore Orioles, Friday, May 8, 2009, in Baltimore. Rodriguez joined the team for the first time after recovering from hip surgery by Dr. Philippon.



(AP Photo/RobCarr)

Steadman Philippon Research Institute Develops and Scientifically Validates Medial Knee Reconstruction Technique That Restores Stability and Long-Term Ligament Viability

The Institute states that many forms of treatment are acceptable, but their technique is most effective long-term.

By Robert F. LaPrade, M.D., Ph.D., Sports Medicine and Complex Knee Surgery, The Steadman Clinic; Director, Biomechanics Research Department, Steadman Philippon Research Institute

Coen Wijdicks, Ph.D., Deputy Director, Senior Staff Scientist, Biomechanics Research Department, Steadman Philippon Research Institute

The Steadman Philippon Research Institute (SPRI), a world leader in orthopaedic sports medicine research and education, has developed and scientifically validated a novel reconstruction technique associated with the medial collateral ligament (MCL) of the knee. The institute claims that while many forms of treatment for this specific injury are available today, their technique using an anatomic reconstruction is the most effective for long-term viability. An anatomic reconstruction replaces torn structures with tissue at their anatomical attachment points.

The medial collateral ligament (MCL) is located on the inner side of the knee joint and represents one of the four major ligaments within the knee. Injuries to the MCL and other associated medial knee stabilizers occur in about 24 percent of the knee injuries reported in the United States in any given year. These injuries occur predominantly in young athletic patients participating in sporting activities, with the injury involving contact to the outside of the knee, external rotation, or combined force impacts seen in such sports as skiing, ice hockey, and soccer, where knee flexion is present.

Researchers at SPRI confirmed that an anatomic medial knee reconstruction technique can restore native stability to the knee that has an acute or chronic medial knee injury. Through biomechanical testing, we evaluated the precise position and mechanics of the ligaments in healthy knees.

The reconstruction technique can use a tendon from the patient (also referred to as an autograft) to reconstruct the injured ligament by placing it in the exact anatomically correct location. This aspect is important because in many countries where tissue banks do not exist, an autograft procedure provides a practical approach.

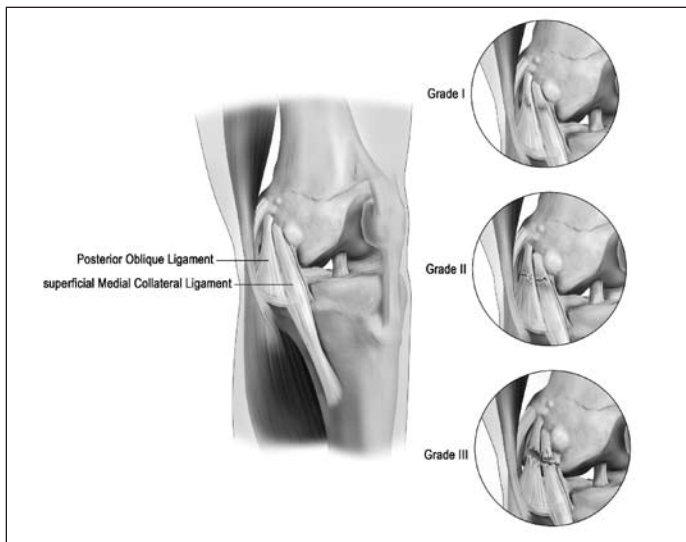
SPRI developed this reconstruction technique with the goal of making it possible for orthopaedists around the world to perform the surgery with available resources. The procedure can also be performed with an allograft, which is tissue that has been harvested from a cadaver.

This anatomic procedure provides a viable option for patients who may require surgery, and it has been validated for superior outcome because it is stronger, conforms better with the other structures of the knee, and provides the same dynamic range of motion that the natural ligament allowed.

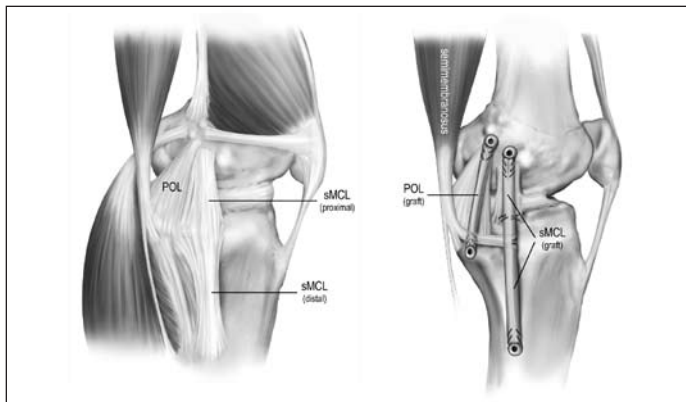
Dr. Robert LaPrade, complex knee injury surgeon and Director of the Biomechanics Research Department at the Steadman Philippon Research Institute, along with Deputy Director Dr. Coen Wijdicks, recently published their findings in various peer-reviewed journals. They, along with their colleagues at SPRI, continue to push the envelope as leading researchers of anatomic restoration, preservation, and reconstruction techniques for joints.

(continued on page 12)

(continued from page 11)



(Figure 1) Left knee, showing the injury grading scale established by the American Medical Association Standard Nomenclature of Athletic Injuries. Isolated grade-I injuries present with localized tenderness and no laxity. Isolated grade-II injuries present with a broader area of tenderness and partially torn medial collateral and posterior oblique fibers. Isolated grade-III injuries present with complete disruption, and there is laxity with an applied valgus stress.



(Figure 2) An intact medial knee and an anatomical reconstruction.



(Figure 3) MRI showing an avulsion of the medial structures of the knee.

Institute Study Shows Young Patients May Benefit from Microfracture Knee Procedures

Surgical treatment using microfracture for pediatric knee injury repair may improve activity outcomes, according to Institute research presented at the American Orthopaedic Society for Sports Medicine’s Specialty Day in San Diego (February 19). The study shows patients are able to regain function and return to a normal activity level following surgery and rehabilitation.

“Our study focused on patients with articular cartilage injuries to the knee, which can be a debilitating source of pain and a



Photo: John Kelly



strong limitation to function in pediatric patients,” said lead researcher Richard Steadman, M.D., Founder, Steadman Philippon Research Institute.

“Articular cartilage defects are known to increase the risk of developing osteoarthritis and so it is advisable to treat the defect in order to minimize future joint disorders. Using microfracture might be one way to treat these issues.”

Microfracture is a technique surgeons use to remove damaged cartilage and increase blood flow from the underlying bone. Holes made in the affected area allow the formation of new, healthy cartilage.

The study examined 26 patients (12 men and 14 women between the ages of 12 and 18 years) with articular cartilage knee defects. All patients were diagnosed with a standard knee arthroscopy procedure and then treated with microfracture holes placed 3 to 4 mm in depth.

Patients were evaluated for knee function (limp, support, stair climbing, squatting, instability, swelling, pain, locking) and reported an average function score of 90 (in a range of 50-100). Patients reported a median activity level of a 6 (in a range of 2-10), demonstrating ease in recreational activities following surgery.

“This is a good first step in learning about the overall outcome of this procedure on pediatric patients,” said Steadman. “While we have limited data on this specific population, we have seen this procedure be effective in young athletes who share similarly active lifestyles. This study confirms what we have already seen in this group.”

The American Orthopaedic Society for Sports Medicine (AOSSM) is a world leader in sports medicine education, research, communication and fellowship, and includes national and international orthopaedic sports medicine professionals. The Society works closely with many other sports medicine specialists, including athletic trainers, physical therapists, family physicians, and others to improve the identification, prevention, treatment, and rehabilitation of sports injuries.



Shin Splints

By Lindsay Winninger, M.P.T., Sports Physical Therapist,
Howard Head Sports Medicine Center, Vail, Colorado

Do you feel sharp pains along your shin when running or jumping? Have you noticed an increase in tenderness along your shinbone or has swelling become evident?

If your answers are yes, it is likely that you have developed shin splints. The term shin splints is a general term that is used to describe exercise-induced lower leg pain. Pain from shin splints can be experienced in the front, back, or inside part of your leg, and multiple conditions can cause this pain. Three of the most common forms of exercise-induced leg pain are stress fractures, compartment syndrome, and medial tibial stress syndrome. Medial tibial stress syndrome (MTSS) has the highest prevalence.

Medial tibial stress syndrome is a condition that develops when too much stress is placed on the bone and muscles surrounding the tibia. Symptoms can include a dull or sharp pain along the tibia with palpation, redness, and even swelling. This condition is common in runners, hikers, and athletes who participate in sports such as basketball and soccer.

(continued on page 14)



Photo: John Kelly

(continued from page 13)

This pain develops due to inflammation of the tendons, muscles, and periosteum (thin layer of tissue covering the bone) of the tibia. The pain in the lower leg can last from hours to days, and four grades of pain have been established when looking at MTSS:

- Grade 1:** Pain occurring after athletic activity
- Grade 2:** Pain occurring before and after activity, but does not affect performance
- Grade 3:** Pain occurring before, during, and after an athletic activity and does affect performance
- Grade 4:** Performance is not possible

While there is no definitive cause of MTSS, several factors have been thought to precipitate these symptoms. MTSS can occur due to overuse, repetitive activities, or a sudden increase in the intensity of your workouts. Running or walking on uneven, hard, or downhill surfaces; flat feet or abnormally rigid arches that cause a lack of motion at the foot and ankle complex; weak anterior leg muscles; tight heel cord musculature;

and poor footwear can contribute to these symptoms as well.

The goals of treating MTSS are to alleviate the discomfort, nurture the healing, and prevent the problem from reoccurring. To achieve these goals, discontinue the activity causing pain and let your leg rest for a few days. Icing periodically for 15-20 minutes will help decrease any inflammation that is present.

When returning to activity, it is important to gradually ramp up to full participation. Walking, running, and jumping should all be pain free. If adequate rest is not taken and you push through the pain, MTSS can lead to more serious and more painful conditions such as a fracture. To lessen the chances of getting shin splints, wear well-cushioned, supportive, shock-absorbing shoes when exercising, increase the intensity of your workout slowly, and warm up and stretch thoroughly (especially the calf musculature).

If the pain persists and does not improve with rest, a doctor should be consulted. A doctor can evaluate you, rule out other possible causes, and develop an appropriate plan of care.



Photo: John Kelly

(Steadman Philippon Update, continued from page 3)

and publishes the journal *Arthroscopy*. "The endorsement of our program by an international educational body with the prestige of AGA really sets this program apart and brings it to a new level of academic credibility," said Dr. Millett.

The Shoulder Visiting Scholars Program was developed in 2006 by Dr. Millett and has been generously supported by Arthrex, Inc., an orthopaedic medical device company. Arthrex's founder and president, Reinhold Schmieding, who has had a long-time commitment to surgeon education, commented, "Arthrex is pleased to support the visiting scholars' program and to contribute annually to the Institute."

The sponsorship of a research scholar endorsed by AGA exemplifies Arthrex's commitment to orthopaedic research to advance knowledge for the global medical community and to help surgeons treat their patients better.



Arthroscopy Association of North America Awards Grant to Institute

Dr. Peter Millett from the Steadman Clinic and Senior Scientist Erik Giphart, Ph.D., from the Biomechanics Research Department of the Steadman Philippon Research Institute, were awarded a prestigious \$25,000 Research Grant by the Arthroscopy Association of North America for 2011. After a careful peer review of 38 different proposals by scientists and clinicians, their grant proposal investigating rotator cuff tears and repair was one of three that were awarded.

Rotator cuff tears are very common shoulder injuries, and not all rotator cuff repairs lead to fully healed tendons and excellent function. The purpose of this one-year study is to accurately measure the motion inside the shoulder joint using our biplane fluoroscopy system in patients with full-thickness rotator cuff tears both before and after surgical repair. The biplane fluoroscopy system is a unique stereoscopic x-ray system capable of measuring very small (sub-millimeter) motions inside the shoulder.

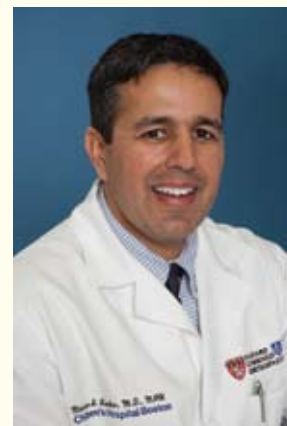
We believe that improvements in shoulder motion will be highly associated with improvements in functional and patient outcomes. This study will help improve patient care by helping determine whether treatment needs to be more focused on treating pain or on restoring proper motion inside the shoulder joint. Moreover, improved care of rotator cuff patients will lead to improved activity and quality of life for these patients. This research grant further validates the Steadman Philippon Research Institute as an international leader in developing new means to make people healthy.

The Arthroscopy Association of North America is an Accredited Council for Continuing Medical Education-approved organization. The Association exists to promote, encourage, support, and foster, through continuing medical education functions, the development and dissemination of knowledge in the discipline of arthroscopic surgery. This is done to improve upon the diagnosis and treatment of diseases and injuries of the musculoskeletal system.



Scientific Advisor and Former Fellow Mininder Kocher, M.D., Elected to American Academy of Orthopaedic Surgeons Board of Directors

San Diego, Calif. — Orthopaedic surgeon Mininder Kocher, M.D., was elected to the Board of Directors of the American Academy of Orthopaedic Surgeons (AAOS) at its 2011 Annual Meeting in San Diego. Dr. Kocher currently serves as an associate professor of orthopaedic surgery at Harvard Medical School in Boston and as a member of the Scientific Advisory Committee of the Steadman Philippon Research Institute.



Mininder Kocher, M.D.

"The healthcare landscape is changing very rapidly, and now could not be a more important time to be serving in a leadership capacity with this preeminent orthopaedic organization," said Dr. Kocher. "My background in clinical research and other public health issues will bring a unique perspective to this group, and I am honored to serve in this capacity."

He earned his medical degree from Duke University in North Carolina, and also completed a master's degree in public health at Harvard. His research there focused on pediatric hip arthritis and later won him a Kappa Delta Award, one of the most prestigious musculoskeletal research awards.

After completing a combined orthopaedic surgeon residency rotating through Massachusetts General Hospital, Brigham and Women's Hospital, Children's Hospital, and Beth Israel Hospital, Dr. Kocher went on to a pediatric orthopaedic fellowship at Children's Hospital Boston and a sports medicine fellowship at the Steadman Philippon Research Institute in Vail, Colorado.

(continued on page 16)

(continued from page 15)

As a current Board member for the American Orthopaedic Society of Sports Medicine (AOSSM) and a past Board member of the Pediatric Orthopaedic Society of North America (POSNA), Dr. Kocher anticipates his new position on the AAOS Board of Directors will bring even greater collaboration between the three organizations. "This type of collaboration can only unify the orthopaedic specialties as a whole, and ultimately benefit the patients we serve. One of my goals in this position is to continue to nurture and grow the Academy's relationship with the specialty societies."

Throughout his medical career, Dr. Kocher has been the recipient of many honors and awards, including multiple mentions on the annual *Best Doctors in America* list. He is the author of four textbooks, 41 book chapters and more than 100 peer-reviewed journal articles. A frequent guest speaker, Dr. Kocher has lectured at 255 meetings and conferences educating his peers nationally and internationally about pediatric sports medicine.

Dr. Kocher is still active in several other professional societies, including the American Orthopaedic Society for Sports Medicine, Pediatric Orthopaedic Society of North America, and the sports medicine think tank, the Herodius Society.

When not in the operating room, conducting research, or seeing patients, Dr. Kocher enjoys spending time outdoors skiing, kayaking, or hiking with his wife, Mich, and their five children, and in the barn with their horses, sheep, and barn cats.



In the Media

INSTITUTE PHYSICIANS AND SPRI RESEARCH HAVE BEEN MENTIONED OR FEATURED IN NATIONAL AND INTERNATIONAL NEWS.

The *New York Times* recently featured both Drs. Richard Steadman and Marc Philippon in two separate articles.

In a January 6 article, "Stoudemire's Knee? So Far, So Good," by Matthew Staver, **Dr. Steadman** commented on the microfracture procedure he performed on New York Knicks basketball star Amar'e Stoudemire in 2005.

Stoudemire, 28, is playing at his peak, averaging 26.4 points, 9 rebounds and 2.3 blocks for the Knicks. He has had six operations in eight years, none more worrisome than the left knee surgery he had in October 2005. Stoudemire had microfracture surgery, a procedure designed to spur cartilage growth. Stoudemire's existing cartilage had become damaged and the knee had become painful.

Stoudemire is now leading a Knicks resurgence. Indeed, Stoudemire has thrived since the operation and has played in at least 79 games in three of the last four seasons. By all appearances, he is in the clear.

Dr. Steadman, who pioneered the microfracture procedure in the 1980s, said his follow-up studies — with patients who were, on average, 11 years removed from surgery — had shown no decline in function. "In general, if the procedure's successful, the tissue remains resilient indefinitely," he said.

The patients in those studies were not NBA players. But **Steadman** has performed the surgery on many athletes, including the Denver Nuggets' Kenyon Martin and the Portland Trail Blazers' Greg Oden. "I think in general, if people have gone six years and there are no signs of slowing, they have a good chance of going indefinitely," Steadman said.

Dr. Philippon was featured in a February 21 *New York Times* article, "Rodriguez, With Leaner Physique and Healed Hip, Has Renewed Focus," by Ben Shpigel.

"Rodriguez had been on a strict program prescribed by his surgeon, **Dr. Marc Philippon**, designed to strengthen his right hip. An off-season visit to **Philippon** in Vail, Colorado, revealed that Rodriguez's hip had made significant progress and needed nothing more than regular maintenance, allowing him to concentrate on baseball. There still exists a chance that Rodriguez will need a second operation, but it is not a concern now.

" 'I just feel lighter,' Rodriguez said. I feel quicker on my feet. I think over all, it's just been an uphill battle ever since that surgery. We had the short off-season with the World Series and over all, we were just rehabbing, trying to get it back to what I call 100 percent. This is as healthy as I've felt.' "

Dr. Philippon was featured in a February article from the *Minneapolis Star Tribune* about the "butterfly effect."

"**Marc Philippon** of the Steadman Clinic in Vail, Colorado, has repaired more than 5,000 labral tears, including 700 on professional and Olympic athletes. Vikings doctor Chris Larson, of Minnesota Orthopedic Sports Medicine Institute at Twin Cities Orthopedics, has performed 1,700 of these surgeries, now averaging 350 to 400 a year.

"Both agree, as **Philippon** says, that the butterfly style puts the hip at risk.

"But the surgeons also say it's uncommon to have a labral tear without an underlying hip problem called femoroacetabular impingement (FAI). FAI is an abnormality in which the ball and socket of the joint don't match.

" 'Imagine trying to make something that's not perfectly round fit in a socket,' said **Philippon**, who has

operated on such star athletes as Mario Lemieux, Alex Rodriguez, Marian Gaborik, Paul Kariya, and Dino Ciccarelli. 'If you force it in, it's going to cause friction. That's what's happening with these goalies.'

"FAI affects 15 to 20 percent of people. **Dr. Philippon** operated on Backstrom and Harding and says they were just two of the unlucky ones.

" 'When you do the butterfly multiple times, it's an awkward goalie geometry that puts a lot of stress on the hip,' said Philippon, a former hockey and soccer player. 'Now, if you have the impingement, your muscles will overwork to make the hip fit properly, causing a damaged labrum.' "

Toronto Raptors View Dr. Steadman as Number One in the World.

In an interview by Erildas Budraitis of RealGM Basketball, Maurizio Gherardini, Assistant General Manager of the NBA Toronto Raptors, referred to **Dr. Steadman** as "number one in the world." He was discussing the future of his star player Linas Kleiza, who was recently lost for the season. Kleiza underwent microfracture surgery on February 2 by **Dr. Steadman**.

"Nobody was expecting how delicate the situation was. The surgery was very successful. Like I said, his doctor is number one in the world and we have to be confident with what happened. Now we'll see how the rehabilitation process will go."

The interview was posted February 23 on RealGM Basketball blog.

In the February 16 USA Today article, "Indians' Grady Sizemore burning to return after lengthy knee rehab," Dr. Steadman is referenced.

Journalist Jorge L. Ortiz reported on the progress of Cleveland Indians Grady Sizemore following microfracture surgery. At the time he underwent the operation, performed by noted knee specialist **Dr. Richard Steadman**, Sizemore didn't know what he was in for. He had injured the knee sliding into a base during a spring training game and played through the discomfort for 33 games, performing way below his usual standards (.211 average, zero homers, four steals). But MRI exams did not reveal the extent of the damage, and it wasn't until Steadman went in that he realized the best course of action was microfracture to promote cartilage growth.

In a March 1 posting, MLB.com, journalist Corey Brock reported on the progress San Diego Padres catcher Rob Johnson is making following double hip surgery by **Dr. Philippon**. In the article "Johnson feels rejuvenated, looks to the future," Brock writes, "Johnson holds **Dr. Marc Philippon** in high regard after he performed surgeries to repair labrum tears on each of Johnson's hips in October 2009. After the season, Johnson had surgery on his left

hip in Vail, Colorado, by **Philippon**, who is a renowned hip specialist. Three weeks later, **Philippon** did the right hip."

Dr. Steadman was prominently mentioned in the March 9 article in the Oakland Tribune: A's outfielder recovering medically, but playing time could be an issue.

By Carl Steward, Oakland Tribune

"Phoenix, Arizona. Ryan Sweeney has his knees back. Now it's time to see about his job. The Oakland A's regular right fielder and arguably their best pure hitter for much of the past three years — at least when healthy — Sweeney's status as an everyday player is suddenly in limbo in the A's fortified outfield.

"But he's not worried about that just yet. On Wednesday, Sweeney will simply be elated to play in his first live baseball game since July 11, when he went on the disabled list and subsequently had season-ending surgery on his right knee to correct long-standing issues with patella tendinitis.

"Sweeney, 26, has had chronic tendinitis issues in both knees, but after having surgery performed by renowned Colorado orthopedist **Dr. J. Richard Steadman** on July 30th, he believes his problems may be over. He rehabbed his left knee while undergoing therapy for his surgically repaired right knee, and said he is feeling no pain in either knee for the first time in two years.

" 'They both feel great, and hopefully it's past me now and I don't have to worry about it anymore,' Sweeney said. ' I can just go out there and play. I'm hoping that'll make me a better player, too.' "



Dr. J. Richard Steadman

Photo: John Kelly

FREQUENTLY ASKED QUESTIONS

HOW DID THE INSTITUTE GET STARTED?

In 1988, Dr. Richard Steadman had a vision of documenting the results of every patient treated at the Steadman Clinic, but he didn't have a vehicle to make his vision a reality. As a result, he founded what is now known as the Steadman Philippon Research Institute — the perfect platform to house a base of scientific evidence that would track his outcomes.

NOW IN ITS 23RD YEAR, HOW HAS THE INSTITUTE PROGRESSED?

Tremendous growth and progress have occurred since inception. We have become an internationally recognized research institute that is leading the world in sports medicine clinical research. Our new biomechanics laboratory, which is nearing completion, will be the most advanced of its kind. We will feature the new lab in our next newsletter.

The Institute makes it possible to collect, organize, and analyze hundreds of data points on every patient. We are now managing more than 50 million data points and, by the end of March, we will be entirely paperless for data input. This will significantly reduce our labor and allow our clinical researchers to devote more time to writing papers and prepare presentations regarding our advances.

Our advances in the knee, hip, shoulder, foot and ankle, and spine have dramatically increased our presentations and publications. These presentations and publications are the means by which we inform and educate the orthopaedic community worldwide. This ultimately improves the care of patients everywhere.

HOW IS THE INSTITUTE DIFFERENT FROM OTHER RESEARCH ORGANIZATIONS?

We are fortunate because our model is a 21st century model, meaning that compared to other programs, we are not supporting a university-based 19th or 20th century model of bureaucracy, departments spread out across campuses, and bricks and mortar. Rather, we are all in close proximity, have daily direct contact between the Clinic, Research Institute, Howard Head rehabilitation, and most importantly, our patients. We

are forming alliances where we feel necessary, whether national or international, in order to ensure we have the opportunity to be the best in a particular area of interest.

Overall, we are more efficient because we require less bureaucracy, work in close proximity, and make decisions more quickly, which allows us to be more nimble. Our overhead rate is now below 25 percent, which means we are directly applying more than 75 percent of philanthropic support to our research programs. Other well-known university-based research programs have overhead rates many times higher than ours.



SAVE THE DATE

Darius Rucker in Concert



Country music star Darius Rucker returns for the second year to perform in the Steadman Philippon Research Institute summer fundraiser July 5, 2011, at the Gerald R. Ford Amphitheater.

"We are so pleased to have Darius Rucker return after last year's very successful concert," says Sheri Wharton, Director of Special Events for SPRI. "We are thankful to Darius, who offered to do this concert for us because of his relationship with Dr. Steadman. He's one of country music's hottest stars and

it speaks volumes about the value of this organization that he recognizes how important our mission is and is willing to help."

Tickets include V.I.P. seating at the Darius Rucker concert, a private dinner, and a live and silent auction. All proceeds from the event go to SPRI for research and education in the areas of arthritis, healing, rehabilitation, and injury.

Darius Rucker's first country music album, "Learn to Live," debuted as #1 on Billboard charts following the multi-week #1 debut of his first country music single, "Don't Think I Don't Think About It." On November 11, 2009, Rucker won the Country Music Association New Artist of the Year award (formerly known as the Horizon Award), making him the first African American to do so since the award was introduced in 1981. Darius just released his new album "Charleston, SC 1966" in October 2010. The album debuted at #1 on the Top Country album chart and at #2 on U.S. Billboard 200. He is widely considered one of the country music industry's hottest new male stars.

Tickets can be purchased by contacting Sheri Wharton at 970-479-5788, Wharton@sprivail.org.



Steadman Philippon Golf Tournament

**THE VAIL VALLEY MEDICAL CENTER 2011
STEADMAN PHILIPPON RESEARCH
INSTITUTE GOLF CLASSIC PRESENTED BY
RE/MAX INTERNATIONAL SET FOR
AUGUST 18, 2011**

Proceeds from the golf tournament will support the orthopaedic research and educational programs of the Steadman Philippon Research Institute. The event will be held at the Sanctuary, a private golf course south of Denver near Sedalia. Known throughout the world for its research into the causes, prevention, and treatment of orthopaedic disorders, the Institute is committed to solving orthopaedic problems that limit an individual's ability to maintain an active life.

The team event will include a shotgun start with a modified scramble. The tournament is open to the public. Sanctuary orga-



nizes and hosts charitable events to support organizations devoted to the arts, children, health care, and crisis management.

Since 2004, the Institute has raised more than \$1,000,000 from this golf tournament to support its research programs. Renowned course architect Jim Engh, *Golf Digest's* first-ever "Architect of the Year" in 2003, designed the course that protects a private oasis of 220 acres, effectively complementing the 40,000 surrounding acres of dedicated open space.

Golf Digest listed Sanctuary as the best new private course in 1997. Gary McCord, CBS golf analyst and senior PGA tour professional, has said, "Sanctuary is simply the most spectacular golf course I have ever seen."

The Steadman Philippon Research Institute is grateful to Dave and Gail Liniger, owners and co-founders of **RE/MAX International**, who built this course and created this unique fundraising opportunity for the Institute to develop and enhance relationships with those who support our mission.

The Institute is also very grateful for the support from the **Vail Valley Medical Center** who for the second year in a row, is our title sponsor.

Sponsorship opportunities and team slots are available now. More information can be obtained by visiting our website (sprivail.org) under "Upcoming Events," or by calling the Development office at (970) 479-5781. To request an invitation or for more information on other upcoming events, please contact John McMurtry at the Steadman Philippon Research Institute, (970) 479-5781.





181 West Meadow Drive
Suite 1000
Vail, Colorado 81657
970-479-9797
970-479-9753 FAX
<http://www.sprivail.org>

Non-profit Org.
U.S. Postage
Paid
Ft. Collins, CO
Permit #266

Steadman Philippon Research Institute is a tax-exempt 501 (c) (3) charitable organization dedicated to keeping people active.

The Steadman Philippon Research Institute is dedicated to keeping people of all ages physically active through orthopaedic research and education in the areas of arthritis, healing, rehabilitation, and injury prevention.

ADMINISTRATION

J. Michael Egan
President and Chief Executive Officer
Marc Prisant
Executive Vice President and Chief Financial Officer
William G. Rodkey, D.V.M.
Chief Scientific Officer
Amy Ruther
Human Resources and Accounting Manager

DEVELOPMENT

John G. McMurtry, M.A., M.B.A.
Vice President for Program Advancement
Maricela Pinela
Development Associate

BASIC SCIENCE

William G. Rodkey, D.V.M.
Director

SURGICAL SKILLS LABORATORY

Kelly Adair
Surgical Skills Manager

BIOMECHANICS RESEARCH LABORATORY

Robert F. LaPrade, M.D., Ph.D.
Director
Coen A. Wijdicks, Ph.D.
*Deputy Director
Senior Staff Scientist*
J. Erik Giphart, Ph.D.
*Senior Staff Scientist
Director, Bio Motion Laboratory*

Mary Goldsmith, M.Sc.
Robotics Engineer

Kyle Jansen, B.S.
Research Engineer

Jacob Hvidsten
Intern

Erin Lucas, M.Sc.
Research Engineer

Justin Stull
Intern

Oliver Van der Meijden, M.D.
European Visiting Scholar

Dan Westcott
Intern

CLINICAL RESEARCH

Karen K. Briggs, M.B.A., M.P.H.
Director

Bruno Nogueira, M.D.
Brazilian Visiting Scholar

Marilee Horan, M.P.H.
Research Associate

Lauren Matheny
Research Associate

Joanna Grenawalt
Intern

Mackenzie Herzog
Intern

IMAGING RESEARCH

Charles P. Ho, Ph.D., M.D.
Director

Anna Chacko, M.D.
Imaging Fellow

EDUCATION

Greta Campanale
Coordinator

OFFICE OF INFORMATION SERVICES

Joe Kania
Coordinator

Barry Eckhaus
Coordinator

Mark Your Calendar:

JULY 5, 2011

Darius Rucker in Concert
Gerald R. Ford Amphitheater
Vail, Colo.

For more information, contact Sheri Wharton
at (970) 479-5788 or wharton@sprivail.org.

AUGUST 18, 2011

*Vail Valley Medical Center 2011 Steadman
Philippon Research Institute Golf Classic,
presented by REIMAX International
at The Sanctuary, Sedalia, Colo.*

For more information, contact John McMurtry
at (970) 479-5781 or mcmurtry@sprivail.org.

Executive Editor:

Jim Brown, Ph.D.

**Your Legacy, Our Future. Please remember Steadman Philippon
Research Institute in your will, trust, or other estate plan.**



SPRI has a Facebook page! Search for "Steadman Philippon" on Facebook and click "like" on our page. Watch our wall for updates on our research as well as lecture series, orthopaedics in the news and more!