



Photo: John Kelly

FOUNDATION FOCUS

Two World-Renowned Physicians Join the Foundation

By Mike Egan, Chief Executive Officer

Our vision of becoming the premier independent sports medicine research institute in the world is closer to becoming a reality. Two more internationally recognized physicians and researchers have recently committed to helping us achieve that ambitious goal.

Lars Engebretsen, M.D., Ph.D., of Oslo, Norway, agreed to join our Scientific Advisory Board, and Thomas Clanton, M.D., has become one of our physicians at the Clinic in Vail and will be conducting research at the Foundation.

DR. LARS ENGBRETSSEN

Dr. Engebretsen's list of achievements, appointments, publications, and leadership is long, impressive, and reflected in the medical societies he has led. He was recently appointed Head of Science and Research for the International Olympic Committee, and he currently serves as President of the European Society of Sports Traumatology, Knee Surgery, and Arthroscopy (ESSKA). He previously served as President of the International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine, which is the world's largest society for sports medicine and arthroscopy.

He is a Professor and Director of Research at Orthopaedic Center, Ullevål University Hospital and University of Oslo

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Lars Engebretsen at the summit of Norway's Slogen.

Medical School, as well as Professor and Co-Chair of the Oslo Sports Trauma Research Center. He is also Chief Doctor for the Norwegian Federation of Sports, he heads the medical service at the Norwegian Olympic Center, and serves as chief team physician for the Norwegian Olympic teams.

He is the Associate Editor and Editor in Chief of a new professional publication titled *Injury Prevention and Health Protection* and serves on the editorial boards of several major sports journals. His publications number more than 200 papers and book chapters.

Dr. Engebretsen has a previous connection with the Foundation. He and his colleagues scientifically demonstrated that microfracture to treat isolated articular chondral defects, a procedure developed and refined by Dr. Richard Steadman in the late 1980s, was as effective as a more expensive two-surgery procedure that was more commonly used at the time. His verification of microfracture was pivotal in the procedure's being accepted on a worldwide basis.

The main area of Dr. Engebretsen's research is resurfacing techniques of cartilage injuries, combined and complex knee ligament injuries, and prevention techniques of sports injuries.

Lars and his wife, Brit, and their two sons, Jonas and Truls, are very active people who personify the Foundation's mission of keeping active people active throughout their lives.

Recently, I was very fortunate to have the opportunity to celebrate Dr. Engebretsen's 60th birthday (and my brother's 55th) by climbing Norway's highest peak, Galdhøpiggen.

We hope that Lars will begin to spend significant time in Vail during the summer months helping the Foundation conduct its research.

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The Way to the Future

We are fortunate so many of you support the Foundation with regular annual gifts. *What if we could show you how to keep making your annual gift even after your lifetime?* Called an endowment fund, you simply leave a bequest to the Foundation that is invested for all time and never invaded. Your annual gift is paid out from the fund based on a fixed percentage of the income it earns.

A Gift Box

Think of it as a gift box. Your gift goes into the box. The earned income generated by your gift becomes current annual support for the Foundation, but your gift remains untouched in the gift box. If the earned income exceeds the prescribed endowment payout rate, that additional income is added to the box. The box continues to fill while simultaneously generating annual support in perpetuity.

Giving Now and Forever

To determine what your bequest should be to perpetuate your annual giving, follow this formula: If you give \$10,000 every year, divide this by an endowment payout of 5 percent. You get \$200,000. Your bequest of \$200,000 would continue your \$10,000 annual gift forever.

Another easy way to determine the amount of your ultimate gift is to multiply your annual giving by 20.

If your annual gift is:	Perpetuate it with a bequest of:
\$2,500	\$50,000
\$5,000	\$100,000
\$7,500	\$150,000
\$10,000	\$200,000
\$25,000	\$500,000
\$50,000	\$1,000,000
\$100,000	\$2,000,000
\$1,000,000	\$20,000,000

An added benefit in establishing an endowment is that the principal value and thus the annual income can increase over time given favorable market performance. Setting up an endowment could be the most farsighted and enduring act of your lifetime.

There are several variations on endowments, but no matter how you choose to create one, endowments provide perpetual financial security for the Foundation to continue its ever-increasing impact on today's health. If you want to be part of that legacy, contact John McMurtry, Vice President, Program Advancement, at john.mcmurtry@shsmf.org or 970-479-5781.

Larry Mullen, U2 Founder, Partner, Lead Drummer, Renowned Musician and Business Leader Moves Beyond the Music to Bring an International Perspective to the Foundation's Board of Directors

By Jim Brown, Executive Editor, *The Foundation News*

Although Larry Mullen describes himself as just a “street drummer,” he is, by the highest of standards, considerably more. As founder, partner, and lead drummer for one of the world’s most famous rock bands, U2, he has moved beyond entertainment to make a difference in the lives of people around the world.

This should not be a surprise to those who have followed the careers of Larry and his fellow U2 band members. This legendary group has a well-deserved record of using its high-profile platform to promote philanthropy, service, and social responsibility to a worldwide audience. Now he has added his voice to the mission of the Foundation as a member of its Board of Directors, the governing group he joined in 2007.

THREE REASONS

Why? “Three reasons,” explains Mullen. “Firstly, I have benefitted so much from the incredible, cutting-edge resources, expertise, and practices available here in Vail and I thought it important to share the news. Secondly, I feel strongly that this level of care should be available to everybody—celebrity and non-celebrity, sportsman and non-sportsman—all over the world. Lastly, the Foundation’s willingness to invest money and resources back into the community was probably the single biggest part of my signing on with the Board.”

Like other board members, athletes, and exercisers, Larry first became aware of the Clinic through injury. “I was having trouble playing due to a knee problem. I saw Dr. Muller-Wohlfahrt in Germany. He recom-



AP Photo/Julie Jacobson

Larry Mullen, Jr.

mended surgery, and suggested that I have it done by surgeon Richard Steadman in Vail at the Clinic. I had been told that Dr. Steadman was a pioneer in his field and I was desperate and intrigued.”

The rest is history, but it is history still in the making. “I have already seen Dr. Steadman, Dr. Philippon, and Dr. Millett, among other physicians, as well as receptionists, lab technicians, imaging specialists, scientists, administrators—practically everyone in the building, and the way things are going with my body, I’ll probably meet the rest of them by the end of the year.”

OCCUPATIONAL HAZARDS

“I’m a street drummer and I’ve physically abused—neglected may be a better word—my body for a long time, through bad posture, questionable technique, throwing myself around a stage, not eating or hydrating as I should have, and sitting too much. Almost all the things I do as part of my job are bad for my body. It’s not just the physical act of hitting things. Rock and roll is about freedom and escapism, it’s like running away to the circus. That’s okay for about 10 years,

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(Larry Mullen, continued from page 3)

then bits start to fall off. I was not trained as an athlete, but I have to perform like one.”

His travel schedule is frenetic, exciting, and adds to the problem. The day before he made a stop in Vail to have a hamstring injury checked (and to give us this interview), he performed before 70,000 people at the new Dallas Cowboys football stadium. He left Vail and flew to Houston for another concert the next day. During the two weeks that followed, his schedule included dates in Phoenix; Los Angeles; Norman, Oklahoma; Las Vegas; Vancouver and New York, before performing in Berlin to finish the tour. Larry Mullen is not a member of a flier program; he IS a frequent flier program.

CONFIDENCE BASED ON EVIDENCE

“That’s why Vail has become so important to me,” he says. “It’s a ‘one-stop-shop’ for anybody with sports-related injuries. I consider it an integral part of my maintenance and recovery. The doctors are willing to listen and are anxious to develop new ways to treat you and heal you quickly, based on their expertise and supported by the Foundation’s research. This is very important for me. What sets the Clinic and Foundation apart is the confidence the doctors, scientists, and staff members have in their own ability.”

Mullen now sees an opportunity to get this message out to the rest of the world. “Larry’s international viewpoint and expertise at branding and message delivery is invaluable to our Foundation,” says Mike Egan. “Larry agrees with our mission of taking our expertise and ability to educate around the world so that we can have a positive impact on the next generation.”

MULLEN’S MESSAGE:

“We have an incredible resource here,” concludes Mullen. “I want to re-emphasize that this facility, its resources, the data it has amassed, and its educational programs are not exclusively for the privileged. It is available to all, and we should figure out ways to share this treasure with people in the rest of the world so that their quality of life can be improved.”



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Photo: John Kelly

Thomas Clanton, M.D.

DR. THOMAS CLANTON

Dr. Thomas Clanton joined the Clinic in Vail last August as an orthopaedic surgeon and Director of Foot and Ankle Sports Medicine. He is known around the world for his foot and ankle research and as a physician. He has had many years of accomplishments as a physician, researcher, and leader in the world community of orthopaedic surgeons.

He received his M.D. degree from Baylor College of Medicine, followed by a five-year orthopaedic residency program at The University of Texas Health Science Center—San Antonio. After completing this work in 1981, he did additional training in foot and ankle with Roger A. Mann, M.D., in Oakland, California. Further training in knee and sports medicine was undertaken in Jackson, Wyoming, under the tutelage of John Feagin, M.D., Ken Lambert, M.D., and Bill Mott, M.D., before beginning his own orthopaedic practice in Houston in 1982.

While in Houston, Dr. Clanton served as team physician for the Houston Rockets, Houston Texans, and at Rice University.

Dr. Clanton’s accomplishments include serving as past president of the American Foot and Ankle Society, Professor of Orthopaedic Surgery at the University of Texas Medical School at Houston, Chief of Orthopaedic Surgery at Memorial Hermann Hospital in Houston, and Co-Medical Director of the Sports Medical Institute at Memorial Hospital. He also served as President of the Texas Society for Sports Medicine.

At the Clinic, Dr. Clanton will treat lower extremity injuries, with special emphasis on

disorders of the foot and ankle. He brings strong academic and leadership skills to the Clinic and Foundation. We are very excited to have Tom begin his research on one of the most important joints in the body.

Dr. Clanton lives with his wife, Kay, in Edwards, Colorado. Their two daughters, Kelly and Laura, live in Eagle County with their families. He enjoys spending time with his grandchildren and fly fishing.

The appointments of Drs. Engebretsen and Clanton represent another step in the succession plan that will ensure quality diagnosis, treatment, and rehabilitation at the Clinic for decades to come, as well as orthopaedic and sports medicine research that will strengthen the position of the Foundation as a world leader.



MEET OUR STAFF

Erik Giphart, Ph.D. Raising the Level of Biomechanical Research

When asked about working with so many world-class scientists and physicians at the Foundation, Erik Giphart, Ph.D., replied, "It makes this environment unique. The questions asked are at a different level. The presence of colleagues like this raises the level of the entire discussion."

Dr. Giphart is Senior Staff Scientist in the Biomechanics Research Laboratory. Does that create extra pressure to perform? "No, it adds to the challenge," he responds. "Pressure has a negative connotation, but I see pressure as a positive thing. It presents opportunities and possibilities. Trust me, there is never a dull moment working here. I prefer that over sitting around and wondering what's next."

Dr. Giphart is eminently qualified to take his position at the conference table with his esteemed colleagues at the Foundation. A citizen of the Netherlands, he earned his M.S. degree in electrical engineering from Delft University of Technology in 1994 with a focus on computer science and information theory. As part of his degree program he was required to complete a three-month internship, which he completed

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In the Media

New York and National Media Feature Dr. Marc J. Philippon Following Surgery of Yankees Super-Star Alex Rodriguez

The operation by Dr. Philippon to repair the torn labrum of Alex Rodriguez has generated plenty of media interest.

"The surgery went exactly as we planned," Dr. Philippon said in a March 9, 2009, interview in *The New York Times* article, "Alex Rodriguez to Begin Rehab After Hip Surgery," by Joe Lapointe. "There were no surprises. Exactly what we prepared for was there. The labrum was repaired and the cartilage was stabilized." A second surgery in November was scheduled to correct pincer and cam impingement in Rodriguez's hip.

Seven months later, Dr. Philippon was again interviewed by *The New York Times* in an article titled "Rodriguez's Hip Health Impresses His Doctor," published on October 9. Dr. Philippon examined Rodriguez's hip at Yankee Stadium as the Yankees prepared for their American League playoff series. "I am impressed with his progression. We accomplished most of what we needed to in the first surgery, and we got a very positive response. At this point in time, based on my clinical examination and what I saw in batting practice—I need a few more tests—so far, I don't think he will need surgery."

Dr. Philippon has pioneered an arthroscopic procedure to repair impingement (femoroacetabular impingement) of the labrum. He has operated on Greg Norman, Priest Holmes, Mario Lemieux, Kurt Warner, and Marian Gaborik of the New York Rangers. He has performed more than 3,500 hip arthroscopies and treated more than 380 elite Olympic and professional athletes.

Recognition

Dr. Marc J. Philippon Founding Member of the International Society for Hip Arthroscopy

On May 18, 2008, in Paris, France, Dr. Philippon joined 11 other orthopaedic surgeons to formally establish the International Society for Hip Arthroscopy (ISHA). The society's role is to be the premier international society for education and research in arthroscopic hip surgery. ISHA's Founding Members represent but a few of the many individuals around the world who are interested in this evolving area of hip surgery and research. Dr. Philippon serves on the executive committee as research secretary.

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Marc J. Philippon, M.D.

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 at the NeuroMuscular Research Center (NMRC) in Boston. "That experience," he remembers, "sparked my interest into the human physiology and human motion areas and away from strict computer science."

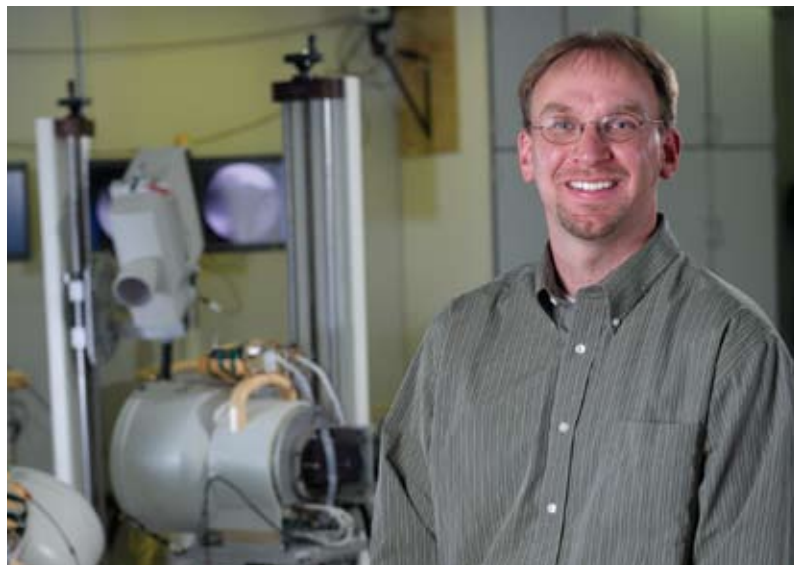


Photo: John Kelly

J. Erik Giphart, Ph.D.

In 2001 he received his Ph.D. in biomedical engineering at Boston University after performing his dissertation work at the NMRC on postural control. After graduation, he created a virtual reality laboratory at Sargent College of Health and Rehabilitation Sciences, Boston University, to study how deficits in perception modify movement in patients who suffer from various diseases.

"You have to be flexible to take advantage of great opportunities," says Erik. "I was going to visit the U.S. for three months, plus a vacation. That was 16 years ago." "While I was at Boston University, my colleagues in the Athletic Training Department told me about the Foundation and said I ought to check it out. I liked what I saw, was able to get an internship, and later join the Foundation as a staff member."

The decision to join the Foundation was both professional and personal. "My wife, Courtney (who has her own architecture firm in the town of Eagle), and I wanted to be closer to our families," he recalls. "She is from Colorado and I am from Holland, so we had to decide between 300 days of rain a year or 300 days of sunshine. We chose sunshine." He adds that Colorado is also a great place to raise their two children.

Dr. Giphart's career was also influenced by his family. His mother had polio when she

was a child that caused partial paralysis of her ankle. After several less-than-successful operations, Erik began to realize that there had to be a better way to treat his mom's condition. "That got me interested in orthopaedics," he says. His sister also developed an interest in medicine and is now a physician who serves as Country Director for the Elizabeth Glaser Foundation in Tanzania, Africa.

Why didn't Erik become a physician? "At the time, I wasn't very comfortable with blood and needles. But I'm much better now. In fact, we just published a study in the *American Journal of Sports Medicine* in which we used dual-plane fluoroscopy to examine the biceps tendon in cadaver shoulders."

At the Foundation, Dr. Giphart's primary focus is working on research projects that use a state-of-the-art high-speed dual-plane fluoroscopy system. The sophisticated technology creates movies of moving bones and shows joint motion that can be tracked with sub-millimeter accuracy. This allows for the measurement of ligament lengthening and perhaps even cartilage indentation during real-time activities such as walking, running, and throwing a ball. Not only are these measurements currently unknown, they are critical in understanding ligament and cartilage function, their surgical reconstruction or repair, and their contribution to the development and progression of osteoarthritis.

"Incorporating this system into the work of the Foundation took a while and involved many people (such as Drs. Michael Torry and Kevin Shelburne) who were here before I arrived," says Erik. "But I learned that when Dr. Steadman says something is a good idea, it will happen."

"When I joined the Foundation in 2004," he continues, "we concentrated on establishing the dual-plane fluoroscopy system, dealing with technology issues, and learning how to best use the technology. Now we can focus on clinical research questions that are providing scientific support and validating certain procedures our physicians are performing. I see the Biomechanics Laboratory as a unit that is between Basic Science Research and Clinical Research. We can look at the mechanics of movement and see what goes on inside a joint—how bones move relative to each other and how various

loads affect joint structures.

"Now that our dual-plane fluoroscopy system is in full force for the knee and shoulder, we are beginning to look at more joints in the body, including the hip, and foot," concludes Dr. Giphart. "The Foundation already has a grant from the National Institutes of Health to use dual-plane fluoroscopy to investigate the unusually high incidence of anterior cruciate ligament (ACL) injuries in female athletes and exercisers."

Dr. Giphart is as active locally as he and his colleagues are nationally and internationally. In February, he became the acting President of the Rocky Mountain Chapter of the American College of Sports Medicine. He was elected at the annual meeting in 2008 and will serve a total of three years on the Governing Board. The Rocky Mountain Chapter consists of over 200 academic, medical, professional, and student members in the Colorado and Wyoming area.

Regarding the future of the Foundation, Dr. Giphart observes, "The Foundation is in a position today to continue the exciting dual-plane fluoroscopy research programs already underway and to explore bigger and longer-term projects. And we're also starting to publish a lot of the data that has resulted from the hard work of the people in the Biomechanics Research Laboratory at the Foundation. Lastly, we are eager to start incorporating 3T MRI data into our work, which will add another level and dimension to our research."



Less Common Injuries in the NFL Provide Opportunities for Outcomes Research

By Dr. Martin Boublik

Dr. Boublik is an orthopaedic surgeon and principal at the Steadman-Hawkins Denver Clinic.

One of the most challenging and rewarding aspects of sports medicine is helping high-level athletes overcome injuries and return to play as soon as possible and in a safe manner. The success of any sports team is partly dependent on how quickly injured

players can return. In the NFL, with only 16 regular season games, this can have a significant impact on the team. In Denver, Drs. Ted Schlegel and Martin Boublik have been caring for the orthopedic injuries of the Denver Broncos since 1994.

Certain injuries, such as the common muscle contusions and strains, respond quite well and fairly predictably to standard treatment modalities including rest, ice, compression and anti-inflammatories. This is followed by progressive rehabilitation and gradual return to practice and play. In the most recent *Foundation News* (Summer 2009), the use of platelet-rich plasma (PRP), a new modality, was discussed.

The speed and strength of NFL athletes sometimes results in injuries not commonly seen in recreational sports. Less is known about these injuries, and the expectations for recovery are often not clearly defined in the orthopaedic literature. This poses both a challenge and an opportunity to the treating team physician. Screening evaluations at the annual NFL Scouting Combine and the NFL database allow for research about these uncommon injuries.

For example, a few years ago one of the defensive backs for the Denver Broncos sustained a rupture of his patellar tendon (below the kneecap) during a football game. The standard treatment for this injury is surgical repair of the tendon. However, the literature provided little information on recovery expectations following this injury in a high-level athlete.

There were only five reported cases of professional athletes (three basketball, one jai alai, and one football) sustaining this injury. Motivated in part by this paucity of information, Drs. Boublik and Schlegel and coauthors Ryan Koonce, M.D., and Steve Antonopoulos, A.T.C., elected to research the NFL experience with this particular injury. They identified 25 cases of patellar tendon rupture in NFL players over a 10-year period. All patients underwent surgical repair.

Following rehabilitation, all 25 patients were able to pass a football team's physical examination and return to the NFL the season following injury. This was presented in one of the annual NFL Team Physicians'

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Meetings in Indianapolis and is being submitted for publication.

Another rare injury in professional athletes is an isolated tear of the lateral collateral ligament (LCL) on the outside of the knee. When LCL injuries occur, simultaneous injury to other knee structures and one of the cruciate ligaments is common. When one of the Denver Broncos sustained an isolated LCL injury, Drs. Schlegel and Boublik and coauthor Seth Bitting, M.D., looked to the literature for guidance regarding this rare entity. There was even less information published on this than on patellar tendon injuries. Their subsequent research of the NFL experience demonstrated nine cases over a 10-year period. Four had been treated surgically with repair of the ligament and five were treated nonsurgically. The four surgically treated patients all missed the remainder of the football season, while four of the five nonsurgically treated patients returned to play in less than three weeks.

This data suggests that isolated, complete LCL injuries in high-level athletes can be treated without surgery and affords the team physician the opportunity to return the athlete to the playing field much more expeditiously. This study was also presented at the NFL Team Physicians' Meetings in Indianapolis and has been accepted for publication in the *American Journal of Sports Medicine*.

Research studies such as these can lead to the advancement of our knowledge and care of athletes of all abilities who sustain these injuries in training or competition.



EDUCATION

Welcome 2009-2010 Fellows: Six New Physicians Introduced

Six new members of the incoming "class" of Fellows started their year in August, refining their skills as they make final preparations for a career as orthopaedic surgeons. Regarded as one of the most rigorous academic fellowship programs in orthopaedic sports medicine, six new orthopaedic

surgeons are selected from a pool of more than 160 applicants.

The Fellows spend their year learning new surgical techniques that include an opportunity to participate in research with Foundation scientists. Each Fellow will be actively involved in Clinical, Basic Science, Biomechanics, Imaging, and Rehabilitation research.

The Fellows, having completed their formal training in leading orthopaedic programs, share knowledge they have gained from years of training with the physicians and scientists of the Foundation.

2009-10 FOUNDATION FELLOWS

John C. ("Jack") Carlisle, M.D.

Dr. Carlisle graduated summa cum laude from Duke University, where he earned a bachelor of science degree and membership in Phi Beta Kappa. He completed his medical school and residency training at Washington University in St. Louis, where he was a member of the Alpha Omega Alpha Medical Honor Society. During his time there, he provided care for high school and collegiate athletes and assisted with team coverage of the St. Louis Blues and Rams. His research background includes a focused interest in the arthroscopic management of young adult hip pathology. He has published articles in multiple orthopaedic journals, including *The Journal of Bone and Joint Surgery*, *American Journal of Sports Medicine*, *Clinical Orthopaedics and Related Research*, and *The Journal of Knee Surgery*.

Chad M. Hanson, M.D.

Dr. Hanson graduated summa cum laude with a degree in biology from the University of Nebraska at Omaha. He was the class president and a member of the Alpha Omega Alpha Medical Honor Society while earning his medical degree at the University of Texas Southwestern Medical School in Dallas. While completing his orthopaedic surgery residency at UT Southwestern, Dr. Hanson assisted with local football team coverage. He received the G. Truett James Excellence in Teaching Award as a chief resident and was a national finalist for best clinical paper on his work with *Adolescent Tibia Vara*. He has played basketball competitively all of his life and recently began participating in triathlons.



Andrew T. Pennock, M.D.

Dr. Pennock graduated summa cum laude from Dartmouth College with a degree in chemistry. During his time in New Hampshire, he captained the ski team and was a two-time All-American. For his athletic achievements, he was inducted into Dartmouth's athletic Hall of Fame, The Wearers of the Green. After college, he attended medical school at the University of Chicago, where he graduated with honors and became a member of the Alpha Omega Alpha Medical Honor Society. Dr. Pennock went on to residency training at University of California San Diego. At UCSD, he completed a research fellowship focusing on cartilage repair techniques. His work has been presented internationally and has resulted in multiple publications and awards.

Bradley C. Register, M.D.

Dr. Register graduated from the University of Georgia, where he was a three-year letterman at offensive guard on the football team. He was awarded the Dean Tate Award, which is given to the top male scholar athlete at UGA, as well as the "Peach of an Athlete" Outstanding Community Service Award. Brad attended Johns Hopkins University in Baltimore, Maryland, for medical school and completed his orthopaedic surgery residency at Emory University in Atlanta, Georgia. His collegiate football experience, coupled with his love for medicine, led him to a career in sports medicine. He has worked on multiple research projects during his medical studies. His research interests have included cervical myelopathy, cerebral palsy, and rotator cuff reconstruction.

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Back row, left to right:
 William I. Sterett, M.D.;
 John C. Carlisle, M.D.;
 Suketu B. Vaishnav, M.D.;
 Marc J. Philippon, M.D.;
 Andrew T. Pennock, M.D.;
 Tom Hackett, M.D.;
 David C. Karli, M.D.
Front row, left to right:
 J. Richard Steadman, M.D.;
 Carl H. Wierks, M.D.,
 Bradley C. Register, M.D.;
 Chad M. Hanson, M.D.;
 Peter J. Millett, M.D., M.Sc.;
 Randy W. Viola, M.D.

Thank you

A special "thank you" to our sponsors who make the Fellowship Program possible. We'd like to recognize those individuals and foundations that support the entire Fellowship Class through the sponsorship of Academic Chairs.

Chair sponsors of the 2009/2010 Fellowship Class are **Mr. and Mrs. Lawrence Flinn, The Gustafson Foundation** (Biomechanics Research Laboratory), **Mr. and Mrs. Brian P. Simmons, Mr. and Mrs. Peter Kellogg, Mr. and Mrs. Al Perkins,** and **Mr. and Mrs. Steven Read.**

Fellowship Benefactors fund the research of one Fellow for one year. Each benefactor is assigned a Fellow, who provides written reports and updates of his or her work. We extend our gratitude to the following individuals for their generous support: **Mr. and Mrs. Milledge Hart, the Fred and Elli Iselin Foundation, Mr. and Mrs. John W. Jordan, Mr. and Mrs. S. Robert Levine, Mr. Tim McAdam, Mr. and Mrs. Jay Precourt,** and **Mr. and Mrs. Stewart Turley.**

Where Are They Now...?

The graduating class of 2008/2009 Foundation Fellows are busy establishing new careers in orthopaedics.

Christopher B. Dewing, M.D., is practicing for the U.S. Navy at the Naval Medical Center San Diego. Dr. Dewing, his wife Jill, and their children were happy to move to southern California, close to Jill's family, and perhaps a happy medium between Guantanamo Bay, Cuba, and Vail, Colorado.

Jason M. Hurst, M.D., joined a private practice, Joint Preservation Institute at Joint Implant Surgeons, in New Albany, Ohio.

R. Timothy Greene, M.D., moved to Greenwich, Connecticut, and is practicing with the group, Orthopaedic & Neurosurgery Specialists.

Jarrod T. King, M.D., lives in nearby Boulder and has joined the Longmont Clinic.

Ryan G. Miyamoto, M.D., moved to Fairfax, Virginia, and practices with Fair Oaks Orthopaedics.

Charles J. Petit, M.D., joined a private practice, Cascade Orthopaedics and Sports Medicine, located in The Dalles and Hood River, Oregon.

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Suketu Vaishnav, M.D.

Dr. Vaishnav earned his bachelor of science degree in physiology/neuroscience at the University of California, San Diego. He was a member of the Alpha Omega Alpha Medical Honor Society at the University of Southern California, School of Medicine. During his orthopaedic surgery residency, also at the University of Southern California, he assisted with covering the Trojan football and basketball teams. He has been involved in several research projects involving shoulder arthroplasty with meniscal allograft resurfacing of the glenoid, total elbow arthroplasty, and biomechanical evaluation of the native elbow. Dr. Vaishnav has published articles in *The Journal of Shoulder and Elbow Surgery*, *The Journal of Hand Surgery*, and *Foot and Ankle International*. Dr. Vaishnav would like to spend his time in Vail mastering complex reconstructive knee and shoulder surgery. Because of his particular interest in shoulder arthroplasty, he will then spend next year at the San Francisco Shoulder, Elbow, and Hand Institute with Dr. Tom Norris while completing a shoulder and elbow surgery fellowship.

Carl H. Wierks, M.D.

Dr. Wierks studied kinesiology at Wheaton College and stayed in the Chicago area to attend Loyola-Stritch School of Medicine. He then completed his orthopaedic surgery residency at The Johns Hopkins Hospital. His research interests include biceps tendon and rotator cuff repair. One report on the complications of reverse total shoulder replacement was published in CORR, presented at the AAOS, and won a Maryland Orthopaedic Association resident research award. He also had the opportunity to provide sports coverage for the Baltimore Orioles baseball team.

Dr. Wierks' greatest achievement by far is recently becoming a father to his twin girls, Ella and Collette. He and his wife, Rebecca, have always enjoyed sports and look forward to some of the outdoor pursuits that Vail has to offer. Dr. Wierks looks forward to honing his ability to diagnose and treat injuries while working with some of the most admired and respected surgeons in orthopaedics.



Meet Our Brazilian Visiting Scholar, Bruno Souza, M.D.: Samba, Soccer and Science

My name is Bruno Goncalves Schroder e Souza, and I am a Brazilian orthopaedic surgeon working on the new Visiting Scholarship Program in Hip Arthroscopy and Biomechanics of the Foundation. I graduated in my home town of Juiz de Fora, and completed my residency in orthopaedics and fellowship in hip surgery at Santa Casa de Sao Paulo. I have a beautiful wife, Elaine, and I have been married now for almost five years.

When I first heard about the opportunity to come to the USA to do research and improve my skills in hip arthroscopy, I was in Paris in a meeting at LaConcorde Hotel. Dr. Giancarlo Polesello, my supervisor during my hip surgery fellowship, had invited me to go to Europe and attend the course on advances in hip arthroscopy. That was a special occasion because the International Society for Hip Arthroscopy (ISHA) was being founded, and I had the chance to have dinner with all its founding members in what happened to be the very first official meeting of the Society. On that occasion, I heard from Dr. Marc Philippon that he was going to have a fellow from Brazil in the following year. I applied immediately.

It was not until some months later that I went through the selection program, along with many other doctors. Besides written tests, language skills assessment, and curriculum analysis, I took a flight to Rio, where I was interviewed by a renowned surgeon and the Director of the just-established Instituto Brasil de Tecnologias da Saude (Brazilian Institute of Health Technologies), Dr. Leonardo Metsavaht. Our meeting proved to be very productive and I could then envision that the objectives of the scholarship met all my aspirations. That is why I am so proud to receive the first Jorge Paulo Lemann Award, along with the one-year scholarship at the Foundation.

Vail was a very receptive town and I was impressed by its scenic landscapes. An even better surprise was the great infrastruc-



Elaine and Bruno in Vail.

ture and organization of the Foundation. I started to work both in the Biomechanics department and Clinical Research. I was very well treated, and the staff was great helping me feel at home. I had the feeling, though, that they did not know much about my country, and demystifying some aspects about my country became a goal for me to. Yes, we are the country of samba. This enchanting rhythm is probably the best expression of genuine Brazilian culture (just as jazz represents original American music). It conveys the happiness and energy of our people.

We are much more than that, though. Brazil is a young (509 years) country that covers most of South America. We speak Portuguese (not Spanish) and our 185 million people are proud of our natural beauties, our democracy, our history, our culture, and of our recent developments. Brazil, along with Russia, India, and China (a group now known as "BRICs"), is one of the biggest economies in the world, being self-sufficient in petroleum, possessing one of the greener energy matrices in the world, and being guardian of two of the biggest treasures on earth: 40 percent of the world's potable water and the biggest rain forest on the planet. In recent years, Brazil's participation in the world economy has increased dramatically, and our commitment to develop leading-edge technology can be exemplified by the airplanes we produce and our involvement with the international space station.

Yes, we also play soccer. And by the way, we are very proud of our national team that

possesses five world titles (an undisputed feat). Nevertheless, I was taken aback when I enrolled in the local soccer league here in Vail this spring and found that not only Americans liked soccer but also they played very well (both women and men). Despite the fact that you don't call the sport football, as do all the other 206 countries affiliated with FIFA (Fédération Internationale de Football Association), I really feel you already have the spirit of it. Your women's team has beaten ours on various occasions, and the men's team is not far from there. It was a great relief for me to see my team turn the game and win the Confederation's Cup this year against the U.S. team in the finals, but I feel that we had a little bit of luck.

I could stop my description at this point and most people would already have changed their minds about my country. However, I couldn't miss one of the most important points. Among the many friends I made during this year, one of them came up with a commentary that helped me understand one of my primary objectives in this program. As the first of many Visiting Scholars coming from Brazil, I heard positive feedback about my work so far.

Besides being amused, I always felt curious about the way people really felt about that. It was only when a colleague confessed that nobody expected much from a scholar from a developing country that I understood why people looked so impressed. That motivated me to work harder and try to undo some of the misconceptions about my country. We are increasingly investing and participating in research because we believe in science's ability to make people's life better. The Visiting Scholarship program at the Foundation is an example of our interest to collaborate and advance. Americans should know we see the U.S. as a strategic partner to further progress with our scientific and development goals. So, the next time you think or hear about Brazil, you should remember we have good samba, we are proud of our soccer, we are working hard to help with the progress of science, and we have the 2016 Olympics!



The Visiting Scholar program

The Visiting Scholars programs are sponsored by corporate and individual donors. Our Visiting Scholars program was developed in conjunction with Arthrex, Inc., an orthopaedic medical device company. Arthrex's founder and president, Reinhold Schmieding, has had a long-time interest in education. He approached the Foundation with an idea for educating a European orthopaedic surgeon with interest in research, committed to funding it, and the Visiting Scholars program was created. Reinhold Schmieding commented, "Arthrex is pleased to contribute annually to the Foundation. The sponsoring of a European research fellow exemplifies Arthrex's commitment to orthopaedic research to advance knowledge of the global medical community and to helping surgeons treat their patients better." Arthrex, Inc., is annually sponsoring the European Visiting Scholars program and due to its success, Jorge Paulo Lemann is supporting our Brazilian Visiting Scholar. These scholars learn new surgical techniques and conduct research, which is submitted for publication in leading orthopaedic journals. In 2010, the Foundation will be offering a unique, first-of-its-kind Sports Medicine Imaging Research Fellowship, sponsored by Siemens.

Put your gift to work immediately by going to www.shsmf.org and donating online. Thank you!

PATIENTS IN THE NEWS

Lindsey Vonn: On a Mission to Conquer the World

By Jim Brown, Executive Editor, *The Foundation News*

Lindsey Vonn, professional skier and a former Steadman-Hawkins patient, has a global view of things. As in Lindsey Vonn, Olympian, winner of two World Cup overall titles, four World Championship medals, two-time gold medalist already in 2009, and winner of a World Super G title. And that's just the short list.

At 24, Lindsey has been called the most successful American skier in history, but thanks to her great talent, competitive nature, and cutting edge surgical techniques developed at the Foundation, she wants more and is likely to get it.

When your day job is to fly down the side of a mountain on skis at 60 miles per hour without a trapeze artist's safety net or a NASCAR roll bar, getting health insurance can be a challenge. A sprained knee here, another knee injury there, a busted hip, and a severed tendon in her hand can make for high premiums or high deductibles—take your pick. At one point, Lindsey had to ski with her hand duct-taped to her ski pole (one of the few high-tech procedures not developed or refined at the Foundation) because she couldn't grip it tight enough without help.

SUPER G CRASH IN AUSTRIA

Downhill skiers know about injuries, so when Lindsey fell—make that crashed—during a 2006 Super G training run in Austria, she knew something bad had happened. "I was going real fast and something caught the edge of my ski. I did a few somersaults and hit my left knee 'kind of



Lindsey Vonn speeds down the course during the first run of an alpine ski, Women's World Cup Giant Slalom race, in Ofterschwang, Germany, Friday March, 6, 2009.

(AP Photo/Alessandro Trovati)

funny’,” she recalls. “I knew it was bad right away.”

She had considerable pain, swelling, bruising, and a MRI that showed a probable small fracture. The first race of the season was coming up, so she took a week off and kept skiing. That’s what skiers do, and Lindsey kept doing it for the next few months.

“Toward the end of the season, I went to Vail to see Steadman-Hawkins orthopaedic surgeon, Dr. William Sterett,” says Lindsey. “I had suffered an injury to my other knee when I was 14, and he was my doctor then. He found cartilage damage and recommended surgery.” Dr. Sterett, is a partner in the Clinic and a former Fellow sponsored by the Foundation. During his Fellowship, Dr. Sterett learned many of the innovative techniques created by Dr. Steadman and validated by the Foundation.

The procedure performed by Dr. Sterett is called “The Package,” which is a series of arthroscopic procedures conducted during one operation designed to treat pre-arthritis and arthritic patients and to preserve joints. It was invented by Dr. Steadman and has been validated through several years of research at the Foundation.

“In the American and international skiing communities,” says Lindsey, “it’s just known that Steadman-Hawkins is the place to go if you have a knee injury. That’s where my mom took me when I was a kid. Dr. Sterett took good care of me then and he’s been my doctor ever since. He’s the best around and he’s my guy. I trust him.”

“The surgery didn’t take long,” she says. “When I woke up, I felt like a million dollars—like I had been sleeping several days. My husband, a nurse, and the anesthesiologist were there right after the operation, and Dr. Sterett came in shortly to check on me.”

Lindsey recalls that, at first, the rehab program was tough. “The knee was swollen and moving it through a range of motion was difficult. I did rehab at the Howard Head facility three-four hours a day, then continued icing my knee and doing exercises at home (Lindsey now calls Vail, Colorado home). When they repair cartilage, you have



Photo: John Kelly

to give it time to heal. If not, you could have even more damage.”

THE STEADMAN-HAWKINS EXPERIENCE

“The whole procedure and rehab program worked out great. I got stronger each week. By the time I got back on the snow, it felt great. No pain and I haven’t had any problems since. I’m 100 percent back. Even the three small scars have faded away. The procedures performed by Dr. Sterett allowed me to continue doing what I do, and now I have healthy knees.”

“I’ve been in other hospitals, but in my opinion, none of them take care of you like they do at Steadman-Hawkins,” says Lindsey. “And not just because I am a skier. I actually like to go back and visit with the staff. My surgery was easy because everyone made me feel so comfortable. That’s not normal.”

“Somewhere else they might have told me to either deal with the pain or stop skiing,” says Lindsey. “But because of the research conducted at the Foundation and the training and expertise of Dr. Sterett, I can do whatever I want to do.”

What she wants to do now is to conquer the skiing world. Watch for her when World Cup competition starts this fall and in the 2010 Winter Olympic Games in February.



SPORTS AND WELLNESS

Can You Really Play Your Way to Fitness?

Steve Stalzer, M.S.P.T., S.C.S.

Managing Partner, Howard Head Sports Medicine Centers

Have you ever wanted to work out and have fun at the same time? Avoid the crowd at the gym, break up your current routine, or get in an extra 20 minutes of exercise in the morning? How about engaging in a routine that will jumpstart your child's or grandchild's exercise habits? If you answered yes to any of these questions, Nintendo's Wii may be a great addition to your exercise program.

Wii Fit combines stress relief, cardio exercise, muscle training, balance, and, just as important, entertainment. Wii Sports simulate games and sports that increase heart rate and improve the efficiency of oxygen intake. These changes result in more calories burned.

There are four core areas of Wii Fit: yoga, muscle training, aerobic exercise, and balance. Fifteen different yoga poses allow you to measure your own center of gravity by using a balance beam and offer a friendly trainer who attempts to relieve stress in the process.

Muscular exercises include simple games that range from a Hula Hoop event that works the abdomen, to push-ups for upper body strengthening, to balancing lunges that are sure to get your quads and gluts burning. As with other disciplines, strength exercises vary from easy to demanding and progress according to individual performance.

Cardio exercise includes traditional aerobics and running in place, which do burn calories, but is arguably the weak link of the program. Balance games aim to strengthen the vestibular system that controls balance and the muscles that keep you upright. This is a great way to get the family involved with a variety of games—from heading footballs to tightrope walking!



Photo: John Kelly

The Wii also gives patients immediate feedback on their progress and a mental boost. It allows people to simulate skiing and soccer activities months before they are able to get back on the slopes and field.

Recent research conducted at the University of Wisconsin—La Crosse Exercise and Health Program examined the health benefits of playing Wii Sports. According to the American Council on Exercise (ACE), several games, including baseball, bowling, boxing, golf, and tennis, increase heart rate, maximum oxygen intake, and perceived exertion, which ultimately translates to calories burned. While Wii Sports offer cardio benefits, ACE chief science officer Cedric Bryan, Ph.D., states, “There is no substitute for the real sport.” Coming in at number one in the study, Wii boxing produced the most significant results, approximately 216 calories per 30 minutes, followed by tennis, baseball, bowling and, lastly, golf, which expended 159, 135, 117, and 93 calories, respectively. None of the Wii games burned more calories than participating in the “real” activity. Actual bowling burns twice as many calories. Tennis and baseball also show significant differences.

Howard Head Sports Medicine Centers recently began incorporating the Wii video game system into rehabilitation programs for a number of patients. Under the supervision of a physical therapist and in conjunction with a traditional rehabilitation program, patients are able to progress in their therapy using this new and entertaining method of treatment. The game format challenges our inner competitiveness. While skiing, boxing, or playing tennis, individuals are playing to beat their opponents while they simultaneously work on balance, strength, stability, and mobility.

Several of the most popular rehab



Edward Breer, a patient at the Howard Head clinic in Silverthorne, is using the Wii as part of his rehab for an ACL tear with physical therapist Ami Doyle.

games involve sports—skiing, soccer, boxing, tennis, golf, and baseball. Using similar motions required in sports, players wave the wireless controller that directs their animated athlete on the screen or, by standing on the fit platform, shift their weight to simulate sports such as skiing and soccer.

The Wii also gives patients immediate feedback on their progress and a mental boost. It allows people to simulate skiing and soccer activities months before they are able to get back on the slopes and field.

So can you really play your way to fitness? Yes, if you are looking for a home workout that will challenge your strength and balance, or if you are looking for an alternative to yoga classes. Dropping your cardio workout for Wii, however, will likely decrease your calorie expenditure in most cases.





Photo: John Kelly

Holiday Food Safety

By Melanie Hendershott R.D., C.S.O.

Editor's Note: Melanie is the outpatient dietitian for the Shaw Regional Cancer Center in Edwards, Colorado.

'Tis the season for fond memories, gift giving, and hosting parties and family gatherings with good food! As you prepare your festive holiday spreads, remember to keep foods fresh and safe to eat. If food containing harmful bacteria is consumed, it could cause food-borne illness. So, when planning the big feast, follow this food safety checklist.

CLEAN UP

- Thoroughly wash your hands with soap and water for a full 20 seconds before and after handling raw products.
- Use plastic or other non-porous cutting boards. Cutting boards should be run through the dishwasher—or washed with soap and hot water—after each use.

COMBAT CROSS-CONTAMINATION

- Store raw meat, poultry, and seafood on a plate or tray, so raw juices don't drip onto other foods.
- Use one cutting board for raw meat products and another one for salads and other ready-to-eat foods, or wash cutting boards in between each use.
- Never place cooked food on a plate that

previously held raw meat, poultry, or seafood unless the plate has been washed.

- Don't spread bacteria with dirty sponges, dishcloths, or towels. Bacteria often thrive in the moist areas of these items where bits of food may also exist. Use paper towels or freshly-cleaned sponges or cloths and soap and hot water to clean food preparation surfaces.

COOK SAFELY

- For meat, poultry, and other dishes, use a food thermometer to make sure foods are cooked to a safe internal temperature.
- When reheating sauces, soups, and gravies, bring them to a boil. Heat other leftovers thoroughly to 165° F.

CHILL THOROUGHLY

- Make sure the refrigerator temperature is 40° F or below and 0° F or below in the freezer. Occasionally verify these temperatures using an appliance thermometer.
- Refrigerate or freeze perishables, prepared foods, and leftovers within two hours.
- Never defrost or marinate food at room temperature. Use the refrigerator. You can also thaw foods in airtight packaging in cold water (change the water every 30 minutes, so the food continues to thaw). Or, thaw in the microwave, if you'll be cooking the food immediately.
- Divide large amounts of leftovers into shallow containers for quick cooling in the refrigerator.
- Don't over-stuff the refrigerator. Cold air must circulate to keep food safe.

THAW TURKEY PROPERLY

Allow approximately 24 hours per 5 pounds of turkey. After thawing, keep turkey refrigerated for only 1-2 days, or use this chart to help you countdown to the holiday.

Thawing Time in the Refrigerator	
Size of Turkey	Number of Days
8 to 12 pounds	1 to 2 days
12 to 16 pounds	2 to 3 days
16 to 20 pounds	3 to 4 days
20 to 24 pounds	4 to 5 days

Happy Holidays!



(Foundation Update, continued from page 5)

Foundation Receives First Grant from National Institutes of Health

Dr. Steadman, Mike Torry, Ph.D., Kevin Shelburne, Ph.D., and Erik Giphart, Ph.D., of the Biomechanics Laboratory, in collaboration with Dr. Savio L.Y. Woo and researchers at the University of Pittsburgh, were awarded \$375,345 from the National Institutes of Health (NIH) to investigate anterior cruciate ligament (ACL) injuries in female athletes. This represents the first government peer-review grant procured by the Foundation since its inception and was a testament to the quality of work and recognition this group is receiving from its fellow scientists.

“Dr. Woo deserves all the credit for securing this award,” states Torry. “As Principal Investigator of the award and as an individual who has a substantial track record with NIH, he championed this grant through to its current funding. Getting NIH funding is a process. Not only is this key funding in terms of the actual money, but this also allows for important exposure of the Foundation to NIH reviewers. Quite simply put, we are now listed on the NIH books and this alone can open the door to successful funding in the future.”

The incidence of ACL injuries in females has been reported to be two to eight times higher than that of males participating in the same sport, which has drawn increasing attention from investigators studying the underlying mechanisms of noncontact injuries.

The overall objective of the proposed studies is to obtain quantitative data on potential gender-specific mechanisms of noncontact ACL injuries. The specific aims of the four-year study will be to investigate gender differences in the force distribution in the ACL in response to landing from a jump; to investigate whether an ACL injury prevention training regimen would reduce the force and alter the force distribution in the female ACL during landing from a jump; and to investigate the correlation between the force and strain in the ACL and anatomical parameters of the lower extremity.



Photo: John Kelly

European Traveling Fellows Visit Foundation



Left to right: Lars Engebretsen, M.D., Ph.D.; Gino Kerkhoffs, M.D.; J. Richard Steadman, M.D.; Elizaveta Kon, M.D.; Elvire Servien, M.D.

On July 5-8, 2009, the Foundation and the Clinic served as hosts in the final stop of the 2009 European Traveling Fellows tour of North America, sponsored by the AOSSM (American Orthopaedic Society for Sports Medicine). Each year, the AOSSM and its counterparts in Europe, Latin America, and Asia select three young and promising orthopaedic sports medicine specialists and one senior surgeon as mentor.

The traveling fellows tour six to eight sports medicine centers in North America and attend the AOSSM Annual Meeting during their month-long stay. This year, Dr. Gino Kerkhoffs from the Netherlands, Dr. Elizaveta Kon from Italy, and Dr. Elvire Servien from France, along with mentor Dr. Lars Engebretsen from Norway, spent three days visiting the Foundation and Clinic before heading over to Keystone Resort for the AOSSM Annual Meeting. While visiting, the traveling fellows observed patient care in clinic and surgery, exchanged research presentations with Foundation physicians and scientific staff, and enjoyed whitewater rafting, hiking, biking, and dining in Vail.

Before arriving at the Foundation, the traveling fellows visited the sports medicine facilities at The Cleveland Clinic, University of Iowa, University of Pittsburgh, University of Minnesota, Duke University, University of North Carolina—Chapel Hill, and Stanford University. This Traveling Fellowship Program serves as a vital link between American sports medicine physicians and their international colleagues, resulting in a valuable exchange of knowledge, collegiality, and a positive impact on the careers and personal lives of the traveling fellows and hosts alike.



FREQUENTLY ASKED QUESTIONS

WHAT ARE THE FOUNDATION'S PRIMARY AREAS OF RESEARCH AND EDUCATION?

The Foundation has five research and education divisions:

- **Basic Science Research** undertakes biological studies to investigate the causes and effects of degenerative arthritis, techniques of cartilage regeneration, and basic biological healing processes.
- **Clinical Research** conducts evidence-based medicine "outcomes" research based on actual clinical data that aid both physicians and patients in making better-informed treatment decisions.
- **Biomechanics Research** studies dynamic joint function using motion analysis, computer modeling, and dual-plane fluoroscopy imaging in an effort to understand injury mechanisms and to enhance rehabilitation techniques and outcomes.
- **Imaging Research** collects clinical imaging data for clinical research, and develops imaging modeling with biomechanics research.
- **Education and Fellowship Program** administers and coordinates the physicians-in-residence fellowship training program, hosts conferences and international medical meetings, and produces and distributes publications and teaching visual media.

WHAT IS AN EXAMPLE OF A PROPOSED RESEARCH PROJECT?

Magnetic Resonance Imaging (MRI) Analysis of Cartilage before Treatment for Femoroacetabular Impingement and after Treatment.

Femoroacetabular impingement (FAI) is an emerging diagnosis that afflicts the hip joints of adolescents and adults. The correlation between femoroacetabular impingement and early osteoarthritis has been described but is not completely understood.

Magnetic resonance imaging of the hip is a common procedure that is typically employed to evaluate femoroacetabular impingement. During a typical MRI femoroacetabular examination it is difficult to completely evaluate the health of articular cartilage. However, with a more powerful MRI, techniques are available to assess the articular cartilage. We are proposing a study that utilizes the technology of the 3-Tesla MRI to document the condition of hip articular cartilage before and after arthroscopic treatment for femoroacetabular impingement.

EXPECTED IMPACT:

This study is designed to determine whether arthroscopic intervention for FAI will improve the health of the cartilage in the hip. In doing so, we hope to be able to make recommendations on appropriate intervention such as surgical technique and patient selection. Ultimately, our objective is to preserve the hip joint.

HAS FOUNDATION-RELATED RESEARCH BEEN CONDUCTED AT PLACES OTHER THAN VAIL, COLORADO?

Yes, the Foundation has strong relationships with research universities throughout the world, including the Orthopaedic Research Center and Orthopaedic Bioengineering Research Laboratory at Colorado State University; the Musculoskeletal Research Center at the University of Pittsburgh; the Mechanical and Biomedical Engineering Department at the University of Melbourne, Australia; the Department of Biomechanics at Columbia University; and the Comparative Orthopaedics Research Laboratory at Michigan State University.



Photo: John Kelly

SAVE THE DATES

Foundation On the Links

THE 2010 GOLF CLASSIC, PRESENTED BY RE/MAX INTERNATIONAL, SET FOR AUGUST 19, 2010

Proceeds from the seventh annual tournament will support the development of new procedures and methodology to battle degenerative arthritis. The team event will include a shotgun start with a modified scramble. The tournament is open to the public. Sanctuary organizes and hosts charitable events to support organizations devoted to the arts, children, health care, and crisis management.

Through 2008, more than 235 charities have raised more than 46 million dollars to benefit the constituents they serve. Renowned course architect Jim Engh, *Golf Digest's* first-ever "Architect of the Year" in 2003, designed the course that protects a



Photo: John Kelly

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 Foundation is grateful to Dave and Gail Liniger, owners and co-founders of RE/MAX International, who created this unique opportunity for the Foundation to develop and enhance relationships with those who support our mission. Sponsorship opportunities and team slots are available now. To request an invitation or for more information on other upcoming Foundation events, please contact John McMurtry at (970) 479-5781 or e-mail him at john.mcmurtry@shsmf.org



Photo: John Kelly

Habervision Is Here!

The Foundation would like to offer all our supporters and their families and friends the opportunity to purchase the new and exciting line of Habervision Polarized Eye-wear products and accessories at a 50 percent savings! A portion of the proceeds from each sale goes to the Foundation.

The sunglasses and ski goggles incorporate the very best polarized technology available. There is something for everyone. Go to www.habervision.com and enter Affinity Member Code: FOUNDATION. There is no expiration date. Share the code! Shop and enjoy.

Put your gift to work immediately by going to www.shsmf.org and donating online. Thank you!



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Mark Your Calendar:

AUGUST 19, 2010

The 2010 Golf Classic, presented by RE/MAX International at Sanctuary in Sedalia, Colo. For more information, contact John McMurtry at (970) 479-5781.



Photo: John Kelly

Your Legacy, Our Future. Please remember the Foundation in your will, trust, or other estate plan.

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