#### Fall 2008

Researc

Padman + Hawki

## Foundation News



photo: John Kelly

#### FOUNDATION FOCUS

## Steadman-Hawkins Adds Chief Scientific Officer, Three New Board Members

By Mike Egan, Chief Executive Officer, Steadman+Hawkins Research Foundation

Te are pleased to announce that Dr. William Rodkey has been named to the newly created position of Chief Scientific Officer of the Steadman+Hawkins Research Foundation. We believe that it is appropriate to create this position because, as reported in the Spring 2008 issue of Foundation News, we now have four distinct areas of scientific research, with Imaging Research being the newest. Dr. Rodkey is also chairman of the Steadman-Hawkins Scientific Advisory Committee, which is represented by scientists and physicians from the various disciplines and subspecialties, and which guides us to make sure we are adhering to our mission. It is a natural extension for Bill to become our Chief Scientific Officer. He also serves as Director of Basic Science Research and will continue in that role. Dr. Rodkey has received numerous awards during his career and this past summer was selected Senior Traveling Scientist for the ACL Study Group, the organization's most prestigious honor. Bill has been with the Foundation since the beginning and has a unique perspective on its role. He is really a perfect fit for this new assignment.

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#### **Stephanie Flinn**

We are equally pleased and excited to announce the addition of three new Foundation board members. The first is Stephanie Flinn. Stephanie and her husband, Larry, live on the East Coast. They have been patients of the Clinic over the years, as well as significant, long-term supporters of the Foundation. Stephanie and Larry are representative of our patient base — very active, fit people who desire to remain that way. Stephanie has spent quite a bit of time with us learning all aspects of our research. She brings an experienced perspective on philanthropy, extraordinary energy, and is sincerely interested in helping us achieve our vision. We are very pleased she has accepted our offer of joining our board.

#### Larry Mullen, Jr.

The second new Board member is Larry Mullen, Jr., founder, partner, and lead drummer of the musical group U2. Larry became familiar with the Foundation because of its international reputation. Larry is extremely active in his business, and much like world-class athletes, his profession requires constant repetitive motion. He must remain physically fit and healthy in order to maintain his level of excellence. He lives with his family in Dublin, Ireland, and has seen Dr. Steadman, Dr. Philippon, and several other Steadman-Hawkins physicians. Larry is an incredibly successful businessman, partner, and entertainer, and he has special expertise in international brand development.

#### **Dr. Peter Millett**

The third new Board member is our own Dr. Peter Millet, who has practiced and conducted research at the Clinic and the Foundation for the past three years. He is a former Steadman+Hawkins Research Foundation Fellow, was also trained at the Hospital for Special Surgery in New York, and did post-graduate work at Cambridge University in England. Dr. Millett was on the faculty at Harvard before coming to Vail and is a world-renowned scientist and academician. At Steadman-Hawkins, he has also been very effective in the area of corporate and individual donorships.

As we celebrate our 20th anniversary, and as we look forward to the next 20 years, Dr. Rodkey, Ms. Flinn, Mr. Mullen, and Dr. Millet will have a significant impact on the mission, direction, and work of the Steadman+Hawkins Research Foundation.

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### IRA Rollover Extension Passes With the Financial Rescue Bill

On October 3, 2008, President Bush signed into law the *Emergency Economic Stabilization Act of 2008*. Included in the legislation was an extension of the charitable IRA rollover provision from the Pension Protection Act of 2006. While the 2006 Act expired at the end of 2007, this new bill makes no changes in the original Act. It simply revises the 2006 language to apply to gifts made in 2008 and 2009 retroactive to January 1, 2008.

The Act again provides incentives for those 70<sup>1</sup>/<sub>2</sub> years of age and older who would like to make charitable gifts from potentially taxable Individual Retirement Accounts (IRAs). The new law allows you to make tax-free gifts from IRA funds that would normally be subject to income tax if withdrawn voluntarily or because of mandatory withdrawal requirements.

By making your gift directly to a qualified charity, such as the Foundation, from a traditional or Roth IRA, the transaction is income tax-free. Without the extension of this law, a gift of IRA assets would have to be withdrawn, declared as taxable income, and then given to the Foundation. While there would be an income tax deduction for the gift, the new law actually makes it easier to use this asset for fulfilling your philanthropic interests. It can be particularly appropriate for older donors who have retirement accounts containing significant assets.

#### Key points include the following:

- You must be age  $70^{1/2}$  or older at the time the gift is made.
- Your gift must be made directly from your IRA to the Foundation.
- You can give a maximum of \$100,000 in 2008 and an additional \$100,000 in 2009. Your spouse can give an equal amount from his or her IRA.
- You can make as many gifts, in any amount, to as many charities as desired, as long as the total does not exceed \$100,000 for 2008 and an additional \$100,000 in 2009.
- If you have reached age 70<sup>1</sup>/2 and are required to make minimum required distributions, the legislation allows you to satisfy that distribution with your gift, which may also prevent taxes from increasing on your Social Security income.
- Your gift is a tax-free gift versus a gift that provides an income tax deduction.
- To be eligible, you can give only to a qualified 501(c)(3) charity, not a private foundation, donor advised fund, or supporting organization.
- The gift cannot fund a charitable gift annuity or charitable remainder trust

Let us help you take advantage of this tax window for 2008. For more information, please contact **John McMurtry at 970-479-5809 or john.mcmurtry@shsmf.org.** 

## An Interview with Dr. William G. Rodkey, Chief Scientific Officer, Steadman Hawkins Research Foundation

By Jim Brown, Executive Editor, Steadman+Hawkins Research Foundation News

The Steadman+Hawkins Research Foundation has named William G. Rodkey, D.V.M., to the newly created position of Chief Scientific Officer. Dr. Rodkey currently serves as chairman of the Steadman-Hawkins Scientific Advisory Committee and Director of Basic Science Research for the Foundation, and he will continue to serve in both capacities.

Dr. Rodkey is recognized as one of the preeminent orthopaedic scientists in the world, and he has authored more than 100 articles, book chapters, and abstracts. Among the honors he has received are the American Orthopaedic Society for Sports Medicine Excellence in Research Award, the International Knee Society Albert Trillat Award, and the GOTS-Beiersdorf Research Award, which is the most prestigious orthopaedic research award in the Germanspeaking world.

In his new position, Dr. Rodkey will oversee the day-to-day scientific operations that are being conducted in the four research divisions of the Foundation: Basic Science, Biomechanics, Clinical Research, and the newest department, Imaging Research.

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STEADMAN-HAWKINS UPDATE

## **Charlie Rose Hosts Dr. Richard Steadman**

On Friday, October 24, the PBS-syndicated *Charlie Rose Show* featured Dr. Steadman in a 22-minute interview session. Topics during the interview included rehabilitation and joint mobility following surgery, harnessing the body's own healing powers, imaging, and microfracture. Charlie Rose is an American television interview show, with Charlie Rose as producer and host.

One viewer commented, "You featured someone I greatly admire, and who made a significant contribution to my life, Dr. Steadman. After what he called a 'career-ending injury,' when my anterior cruciate ligament was torn from bone in a soccer game, he helped my knee re-attach the ACL through an arthroscopic procedure that punctured the bone at the previous attachment site. Today, 13 years later, no one can tell at all that my ACL was once injured, and I have no pain. And I am far short of an outstanding athlete. He wants to help anyone over 35 stay active. I am 58 and still playing hockey. Thanks for having him on!"

Rose interviews well-known thinkers, writers, politicians, athletes, entertainers, business leaders, scientists, and other newsmakers. Guests have included Presidents Bush and Clinton, Senator John McCain and President-elect Barack Obama, American investor and businessman Warren Buffett, and Mikhail Gorbachev, former President of the Soviet Union.

To view the interview online, go to the Foundation's website, www.shsmf.org, and click on "Charlie Rose."

## **Publications, Presentations, and Research** *Foundation research leads the world.*

Karen Briggs, M.B.A., M.P.H., director of Clinical Research, reports that 2009 will be another prolific year for the Foundation as numerous papers have been accepted by prestigious medical and scientific societies and journals.

## 2009 ANNUAL MEETING OF THE AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS

The 76th Annual Meeting of the American Academy of Orthopaedic Surgeons (AAOS) will take place in Las Vegas, February 25-28. The Academy has accepted four podium and six poster presentations highlighting Foundation research.

The Academy provides education and practice management services for orthopaedic surgeons and allied health professionals. The Academy also serves as an advocate for improved patient care and informs the public about the science of orthopaedics. Founded as a not-for-profit organization in 1933, the Academy has grown from a small organization serving less than 500 members to the world's largest medical association of musculoskeletal specialists. The Academy now serves more than 34,000 members internationally. Additionally, The American Orthopaedic Society for Sports Medicine (AOSSM) Specialty Day has accepted two podium presentations and the American Shoulder and Elbow Surgeons (ASES) Specialty Day has accepted one presentation.

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We can better focus on our emphasis, which is on biological healing — not the metal and plastic approach of replacement surgery.

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Dr. Rodkey has been with the Steadman Hawkins Research Foundation since its inception. As we celebrate the 20th anniversary of the Foundation, we thought it would be appropriate to get Dr. Rodkey's perspective on the work of the Foundation over the past 20 years and to get his vision of what the Foundation can accomplish during the next two decades. Below are his answers to our questions.

#### Foundation News: Looking back over the past 20 years, what is the most significant development in terms of the Foundation's organization?

*Dr. Rodkey:* "It is the fact that the Foundation has evolved from an idea the brainchild of Dr. Steadman — into a structured organization with four distinct divisions. The organization and the physicians and scientists it has attracted have allowed the Foundation to become one of the world leaders in orthopaedic research. That position is based on our peer-reviewed publications, national and international presentations, and clinical outcomes."



photo: John Kelly

#### Foundation News: What are the most significant breakthroughs or accomplishments in terms of research of those four divisions?

Dr. Rodkey: "I'll give you something for each division. In Basic Science we've been able to define the underlying molecular and cellular biological events that occur within the healing response for ACL injuries. Also, the work we've done on microfracture was a major event, especially in identifying the importance of removing calcified cartilage as part of the process and of being able to quantify molecular and cellular events at two, four, six, and eight weeks following the microfracture procedure. In doing so, we've been able to validate the rehabilitation protocol.

"The most important event in Clinical Research has been the development of a comprehensive patient database that is almost unique in the world. It is significant because we were doing evidence-based medicine (EBM) before there was even such a term. Now it's one of the hottest buzzwords in the medical and medical research communities.

"In Biomechanical Research, probably the most important milestone is our advance in computer modeling of various areas of the body, and manipulating those models based on actual human images.

"Our newest department, Imaging Research, will allow us to do things that will impact the other three divisions. For example, we might be able to image patients (rather than animals) periodically and correlate those images with Basic Science findings. In Clinical Research, we're already collecting data that enable us to correlate imaging results with our longterm studies of clinical outcomes. In Biomechanics, our researchers will be able to incorporate images into their computer models of shoulders, hips, and knees."

#### Foundation News: How is all of this going to affect a patient or a person who might consider supporting the Foundation?

Dr. Rodkey: "It goes back to trying to coordinate the efforts of all four research divisions. It will allow us to do a better job in trying to reach the same endpoint, which is clinical relevance. It will improve our overall efficiency and give the donor more 'bang for the buck.' Our overhead is already quite low when compared to other institutions. The great majority of the money given to the Foundation goes directly to true scientific effort that makes us more efficient, effective, productive, and capable. For the patient, having a more coordinated effort means there will be more science behind what we're doing. This scientific research is the basis for what Dr. Steadman, Dr. Millett, Dr. Philippon, and the other physicians at Steadman-Hawkins are doing."

#### Foundation News: What do the added division (Imaging Research) and your new position mean for the future of the Foundation?

Dr. Rodkey: "Above all, it means that the future for the Foundation is bright. We can better focus on our emphasis, which is on biological healing — not the metal and plastic approach of replacement surgery. We have seen the pendulum swing so that people are more interested in this approach, and to a great degree, we have provided a springboard for that movement. From the professional athlete to the weekend skier, the coordinated research conducted at the four Steadman-Hawkins divisions will allow them to get back to their own level of activity as quickly and efficiently as possible."

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#### PATIENTS IN THE NEWS

# **Mike Jones:** More Than Just Your Average Joe

By Jim Brown, Executive Editor, Steadman+Hawkins Research Foundation News

Mike Jones says he's just a regular Joe, but he's not. He has a wife, Susan, two successful children, Matt and Becky, and grandchildren, but that's about where he stops being average. He gets up early every morning, drives his pickup into the mountains of northeast Nevada, and spends the day hunting for gold. "I do for a living what some people do on vacation," he explains.

Mike is a self-employed exploration geologist with three degrees who uses a hammer to collect rock samples from outcroppings. "If this part of Nevada were a country, it would be the third-largest producer of gold in the world," says Mike.



At the end of the day, he has loaded as much as 50 pounds of rocks into his backpack and has headed to his home in Elko. "If we find something that looks promising, the companies I work for drill anywhere from a few hundred to 2,000 feet. If successful, the drilling results in a gold mine."

#### **IN HIS SPARE TIME**

In his spare time, Mike climbs mountains (including Mt. Rainier), fishes, hunts, takes week-long canoe and kayak trips, snowshoes, and skis cross-country. During the past 20 years, Mike, now 63, has participated in racquetball, volleyball, soccer, hang-gliding, and long-distance running (nine miles in one race, 44 miles in another). For fun, he also teaches a course in canoeing at a local college.

When asked what Susan Jones thinks about her husband's unusual occupational and recreational pursuits, she jokingly (we think) replies, "Well, at least he died doing what he liked to do."

In addition to an unusual job description and his passion for risky, physically demanding recreational activities, there is another reason Mike is no average Joe. He does all of these things on a surgically repaired right knee.

#### 20 YEARS AGO

"I injured my knee 20 years ago and couldn't get from one room to another in my house without pain," he remembers. "I

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Mike Jones (right) with son-in-law John Gallagher at the summit of Colorado's 14,000-ft Mount of the Holy Cross



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was totally impaired for doing field work. I knew I was going to need surgery and asked people around town (Elko, Nevada) who I should see. Three different people told me I should contact a doctor up in South Lake Tahoe named Richard Steadman. I called his receptionist, told her what had happened, and asked about an appointment. She said Dr. Steadman was very busy and that it would be two or three months before he had an opening for surgery, but that she would check with him. A half-hour later, she called back and asked if I could be there on Thursday.

"Instead of proceeding with surgery, Dr. Steadman first asked me what kind of lifestyle I wanted. I remember thinking 'Who is this guy?' and 'Why is he asking me these kinds of questions?' I told him I wanted the lifestyle that got me here in the first place. He said, 'Okay, this is what we're going to do.' He replaced a torn anterior cruciate ligament (ACL) and repaired some damaged cartilage, and it's been pretty much clear sailing ever since.

"My life today is every bit as vigorous as I have time for," says Mike. "I do, or attempt to do, anything I want. My knee does not limit my choice of activities, and my job places significant stress on my knee."

#### **15-, 20-YEAR STUDIES**

Mike Jones is now part of a study being conducted by the Steadman+Hawkins Research Foundation to determine the long-term outcomes of patients who have had ACL surgery. After 15 years, only five out of 60 patients who had the procedure have required total knee replacement. Among those in the 20-year follow-up group, the average patient satisfaction so far is 9.5 on a scale of 1-10.

Perhaps Mike sums up these remarkable results best. "The Steadman-Hawkins Clinic makes people like me vertical again. When I found out that people like Dan Marino, Martina Navratilova, and Picabo Street share the same knee doctor, I couldn't believe it. I'm just an average Joe [there he goes again] and Dr. Steadman could stay perfectly busy treating high-profile patients only.

"When people ask me about Richard Steadman, I am totally enthused about him, the Steadman-Hawkins Clinic, and the research conducted at the Foundation," concludes Mike. "Dr. Steadman kept my lifestyle intact. Every day is a gift he has given me."

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#### RESEARCH UPDATE

## Femoroacetabular Impingement in the Hip.

Foundation among first to publish outcomes following arthroscopic treatment of FAI.

By: Karen Briggs, M.B.A., M.P.H., Director of Clinical Research

n 2005 Dr. Philippon arrived in Vail and Lthe hip database was started. The goal for 2008 was to provide evidence-based outcome studies to support the arthroscopic treatment of femoroacetabular impingement. Femoroacetabular impingement (FAI) has become an important new issue in orthopaedics. FAI is a result of excessive coverage of the femoral head by the acetabulum (figure 2) or a bony abnormality at the femoral head-neck junction (figure 1). This results in abutment of the femoral head-neck junction (cam) against the acetabulum during flexion. The current belief is that FAI leads to labral tears and early onset of degenerative arthritis. Symptoms of impingement may not develop until adulthood, but increasingly we are recognizing these symptoms in the younger population.

In 2008, Dr. Philippon published the article titled "Early outcomes after hip arthroscopy for femoroacetabular impingement in the athletic adolescent" in the Journal of Pediatric Orthopaedics. Along with co-authors Dr. Yi-Meng Yen, Karen Briggs, David Kuppersmith, and Brian Maxwell, Dr. Philippon reported on the outcome in 16 patients under the age of 16. All patients were treated arthroscopically for FAI by Dr. Philippon between March 2005 and May 2006. The patients in this study were involved in athletics, with dance being the most common sport, followed by volleyball, skating, baseball, skiing, and hockey. On average, the patients waited 10 months from the time their symptoms began to the time they sought treatment.

Follow-up was obtained on all of the patients at an average of 1.4 years following surgery. There was a drastic increase in the modified Harris Hip Score (range, 0-100)







With pincer impingement, the burr, a small cutting instrument, is used to remove excess bone from acetabulum.

from 55 before surgery to 90 at follow-up. The modified Harris Hip Score asks patients to describe their pain, how long they can walk, if they walk with a limp, if they need support to walk, their ability to go up and down stairs, their ability to put on shoes and socks, and their ability to sit. The HOS Activities of Daily Living Score (HOS ADL), which records the patients' ability to perform activities of daily living such as standing, getting into a car, stepping up and down curbs, and getting in and out of a bathtub, started at 58 and improved to 94 (range, 0-100). The HOS Sport, which

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documents the patients' ability to perform sporting activities such as running, jumping, swinging a golf club, cutting movements, and starting and stopping quickly, improved from 33 to 89 (range, 0-100). The average patient satisfaction was 9 out of 10 (range, 1-10).

Treatment of FAI is becoming an important hip procedure with the goal of restoring normal hip morphology. This is especially true in the young patient who has many years of activity ahead. However, the anatomy of the pediatric population differs from that in adults, and great care must be taken when applying surgical procedures. This study showed that outcome following hip arthroscopy for FAI results in improved function and high patient satisfaction in the pediatric patient. Hip arthroscopy has been reported as a new treatment for FAI, and this publication presents our experience with the pediatric population.

#### NEWLY ACCEPTED PAPER WILL SET BENCH-MARK FOR TWO-YEAR OUTCOMES OF HIP ARTHROSCOPY

In addition to the pediatric study, Dr. Philippon has recently received acceptance of a paper on patient outcomes two years following hip arthroscopy in patients over age 18. The paper, which will be published in the prestigious British edition of the *Journal of Bone and Joint Surgery*, follows a series of patients whom Dr. Philippon treated between March 2005 and October 2005. Patients who had prior surgery or had surgery on both hips were excluded. There were 50 men and 62 females in the study. The average age was 40 years.

Twenty-four percent of the patients described their hip problem as a sudden traumatic injury, 21 percent described it as sudden onset with no trauma, and 55 percent described it as gradual onset. Patients had decreased range of motion in their hip and diagnostic tests for FAI were positive. At arthroscopy for treatment of impingement, 23 patients underwent only osteoplasty for cam impingement, three patients underwent only rim reduction for pincer impingement, and 86 patients underwent osteoplasty and rim reduction for mixedtype impingement. Fifty-eight patients



Hip-joint space was measured at the three areas indicated. Patients with joint space of less than 2.0 mm were 39 times more likely to need hip replacement.

underwent labral repair and 54 patients had labral debridement. Following arthroscopy, ten patients required subsequent total hip replacement at an average of 16 months after the procedure. The average age of these patients was older (58 years) compared to those who did not (39 years) require a total hip replacement. Patients who underwent hip replacement also had significantly less space in their hip between the femur and the acetabulum (Figure 4). Those with a joint space of less than 2.0 mm were 39 times more likely to need hip replacement.

Of the patients who did not require total hip replacement, follow-up was obtained at an average of 2.3 years following arthroscopy. The modified Harris Hip Score improved from 58 to 84. The HOS ADL improved from 70 to 88, and the HOS Sport improved from 43 to 69. Patient satisfaction with outcome median was 9 (range, 1-10). Fifteen percent of the patients returned to work within one week, 53 percent returned in one to five weeks, 18 percent returned in six to eight weeks, and 13 percent returned in two to six months. In the analysis of the data, it was found that the longer patients waited from onset of symptoms to arthroscopy, the lower their function at follow-up. Patients who had labral repair demonstrated higher function at follow-up compared to patients who had debridement. Patients with smaller joint space had lower function at follow-up.

The study concluded that hip arthroscopy

for femoroacetabular impingement accompanied by the prescribed rehabilitation led to return to excellent function and high patient satisfaction. Following arthroscopic treatment, patients experienced significant improvement in pain and function and resulted in high patient satisfaction at a two-year follow-up. Predictors of improved function were lower function prior to surgery, joint space narrowing, and labral repairs instead of debridement.

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## **Chad Zehms and Bojan Zoric:** U.S. Navy and U.S. Women's Soccer Team Next Stops for Steadman-Hawkins Fellows

By Jim Brown, Executive Editor, Steadman+Hawkins Research Foundation News

The United States Navy and the U.S. Women's National Soccer Team will benefit from the surgical, clinical, and research skills of Steadman+Hawkins Research Foundation Fellows Dr. Chad Zehms and Dr. Bojan Zoric. Both men recently completed their Fellowship programs and are now continuing their careers in completely different medical environments.

Lieutenant Commander Zehms has been in the U.S. Navy since 2001, including the year he just spent with the Foundation, and has now resumed his service to the country as a sports medicine orthopaedic surgeon at Naval Health Clinic Great Lakes in Illinois. Dr. Zoric, a native of Sweden, has joined Stetson-Powell Orthopedics, a medical group in Burbank, California, with ties to the University of Southern California, and he has accepted a position to serve as a team physician for the United States Women's National Soccer Team.

#### FOURTH GENERATION NAVY MAN

The two orthopaedic surgeons made their way to Steadman+Hawkins Research Foundation by different, but equally interesting routes. Dr. Zehms graduated with honors from the University of Wisconsin – Milwaukee, where he was a record-setting distance runner and where he has been inducted into the university's Hall of Fame.



Chad T. Zehms, M.D.



Bojan B. Zoric, M.D.

At the Medical College of Wisconsin, he earned membership in the Alpha Omega Alpha Medical Honor Society. He completed his surgical internship and orthopaedic residency at the Naval Medical Center in Portsmouth, Virginia.

"I didn't want to take out loans to pay for my medical education," he explains, "so I went to a local Navy recruiter in Milwaukee and talked to him about the medical program in the military. I liked what I heard and signed up." His decision was not a surprise. Dr. Zehms is a fourthgeneration family member to serve in the Navy.

"When I started looking into fellowship programs," says Dr. Zehms, "Steadman-Hawkins was at the top my list, but I thought there was no way I could be accepted into a program as elite as this one. I made it to the interview phase and a half-hour after I left the room, they called and offered a fellowship. I asked them where to sign."

## TO VAIL BY WAY OF SWEDEN, ROCHESTER, LOS ANGELES, AND HARVARD

Dr. Zoric played professional soccer in Sweden, where his father is a physicist and his mother an immunologist — both with Ph.D.s. He came to the United States and graduated magna cum laude in biology/ molecular genetics at the University of Rochester, attended medical school at UCLA, and completed his residency at Harvard. His publications have appeared in the American Journal of Sports Medicine, the Journal of Orthopaedic Research, and Arthroscopy. (continued on page 10) "From my perspective," concludes Dr. Zoric, "the Steadman◆Hawkins Research Foundation is at the forefront of orthopaedic research. It is a place that combines that research with orthopaedic practice."

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"When I was at UCLA, I had an inclination that I was going into orthopaedic surgery and sports medicine," says Dr. Zoric. "The doctors there told me about Steadman-Hawkins. The combination of participating in a sports medicine fellowship while living in Vail was very attractive."

## WORKING WITH THE STEADMAN-HAWKINS TEAM

Like every Steadman-Hawkins Fellow, both doctors have been busy and productive during the past year. Dr. Zehms has worked on two research projects, four book chapters, and three teaching videos. Among other projects, Dr. Zoric has used some of his research time to investigate ablation devices (instruments used to remove tissue) used in surgery and the effects of these devices on cartilage tissue.

Dr. Zehms and Dr. Zoric share similar views regarding their experiences at Steadman-Hawkins.



Dr. Millett (right) mentors Dr. Zoric.

Dr. Zehms: "I don't think any other institution in the country has a clinic-foundation relationship like the one that exists at Steadman-Hawkins. I feel free to walk into an office and talk with some of the world's leading surgeons and researchers. In spite of the heavy workload, the Fellows get so much support from the Foundation that you are never in a position where you feel stressed out. Prior to the past year, I had seen two hip arthroscopy procedures. Working with Dr. Marc Philippon, I've observed or assisted in 95 such operations. In fact, he's the reason I want to focus on hip-related surgery in my own practice."

Dr. Zoric: "I have never seen patients following treatment who believe so strongly in the philosophy of Steadman-Hawkins and in the physicians who practice and conduct research there. Patients are willing to come from all over the world just to have the physicians treat them. Steadman-Hawkins is different from many other institutions because Dr. Steadman and his colleagues don't look at a person's age, but rather at how active a person is and what his or her goals are. The objective is always to get the patient back to doing what they want to do, using the least invasive procedure possible and requiring the least amount of recovery time. And all of this happens in a very informal, friendly environment."

#### BOTH ENCOURAGE YOUR SUPPORT

"I encourage people to support the Foundation so that ground-breaking research can continue," says Dr. Zehms. "Whether you are an elite athlete or the mother of three trying to get back to playing tennis on weekends, the Clinic and the Foundation are working together to improve the quality of surgical outcomes and the quality of life of those who benefit from the research that is being conducted."

"From my perspective," concludes Dr. Zoric, "the Steadman+Hawkins Research Foundation is at the forefront of orthopaedic research. It is a place that combines that research with orthopaedic practice. Personally, it has been an inspiration because of the teaching it offers and the new horizons it has created for me and other Fellows."

#### EDUCATION

## Welcome 2008-09 Fellows Six New Physicians Introduced

Six new members of the incoming "class" of Steadman-Hawkins Fellows have had a busy schedule refining their skills as they make final preparations for careers as orthopaedic surgeons. Regarded as one of the most rigorous academic fellowship programs in orthopaedic sports medicine, the new orthopaedic surgeons are selected from a pool of more than 140 applicants.

Steadman-Hawkins 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 Research, Basic Science, Biomechanics, and Imaging 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.

#### 2008-09 STEADMAN-HAWKINS FELLOWS

#### Christopher B. Dewing, M.D.

Dr. Dewing graduated magna cum laude with a degree in social studies from Harvard University, where he participated in competitive rowing. During medical school at Columbia University, Dr. Dewing excelled in marathons and endurance competitions. After his general surgery internship, Dr. Dewing, a naval officer, spent two years as a battalion surgeon with Marine infantry and was deployed to Iraq at the beginning of Operation Iragi Freedom. He completed his orthopaedic residency at the Naval Medical Center San Diego. Dr. Dewing's research efforts have been widely recognized. He was a finalist for the prestigious Caspari Prize at the International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine Annual Meeting in 2007 for his work on capsular volume in shoulder instability.

Dr. Dewing, his wife Jill and their three children, Everett, Winston, and Georgianna, look forward to moving to Vail, a welcome change in most ways from his current station in Guantanamo Bay, Cuba.

#### R. Timothy Greene, M.D.

Dr. Greene earned his Bachelor of Arts degree in molecular biology at Princeton University, where he also captained the football team. He was a member of the Alpha Omega Alpha Medical Honor Society at the Medical College of Georgia, and he completed his orthopaedic residency at Emory University, where he worked with the Georgia Tech football team and other (continued on page 12)



Back row, left to right: J. Richard Steadman, M.D. Peter J. Millett, M.D. William I. Sterett, M.D. Marc J. Philippon, M.D.

Front row, left to right: Charles J. Petit, M.D. Jason M. Hurst, M.D. Christopher B. Dewing, M.D. Jarrod T. King, M.D. Ryan G. Miyamoto, M.D. R. Timothy Greene, M.D.

#### Where Are They Now. .?

The graduating class of 2007/2008 Steadman-Hawkins Fellows are busy establishing new careers in orthopaedics.

#### Casey D. Tabor, M.D.

Dr. Taber joined a large private practice group in San Antonio, Texas, concentrating on a general orthopaedic practice with an interest in sports medicine. He also holds a Clinical Faculty position at the University of Texas - San Antonio Medical School and Orthopaedic Residency Program.

#### Douglass R. Weiss, M.D.

Dr. Weiss is currently practicing with Teton Orthopaedics in Jackson, Wyoming, located just off the town square and right next to St. John's Medical Center.

#### Brian J. White, M.D.

Dr. Brian White and Hallie Loizeaux were married on August 23, 2008. Dr. White is now working in Denver at Western Orthopaedics and things are getting busier.

#### Andrew B. Wolff, M.D.

Dr. Wolff has joined Nirschl Orthopaedic Center in Arlington, Virginia. Dr. Wolff does an equal mix of hip, shoulder, and knee arthroscopy cases, and he takes care of the athletes at Marymount University. He also teaches fellows at the Nirschl practice and Georgetown residents the finer points of the package procedure, as well as teaching the physical therapists the nuances of patellar mobs.

#### Chad T. Zehms, M.D.

Dr. Zehms is currently serving on active duty with the U.S. Navy in Great Lakes, Illinois. He is in a four-person group and is the sports specialist for this region. Dr. Zehms informs us that he has started to book hip scopes, ACL reconstructions, and shoulder stabilization and rotator cuff surgeries. He has been getting many difficult sports referrals from colleagues in the area due to the great training he received in Vail.

#### Bojan B. Zoric, M.D.

Dr. Zoric joined Stetson Powell Orthopedics and Sports Medicine in Burbank, California, where he is practicing orthopaedics with a focus on sports medicine. He is one of the team physicians for the U.S. Women's National Soccer Team and still has ties as a team physician with the U.S. Ski and Snowboard teams. Dr. Zoric has had the opportunity to teach several national courses and is planning a trip to Cuba in April 2009 with other partners in the group. They will participate in a humanitarian mission to develop current orthopaedics and arthroscopy in Cuba. He is enjoying the sun and beach in Los Angeles, but he misses the Rockies and the people from Vail.

#### (continued from page 11)

collegiate athletes. He has been involved in several research projects, including arthroscopic treatment of coracoid impingement, approaches to mini-open rotator cuff repair, and suture anchor placement for patella tendon repair.

Dr. Greene will be joined in Vail by his wife, Lora, and their young son, Jake, as he anticipates honing his reconstructive sports medicine skills.

#### Jason M. Hurst, M.D.

Dr. Hurst studied biology and played lacrosse as an undergraduate at Washington and Lee University, and he went on to pursue a master's degree in human physiology and biophysics at Georgetown University. He earned his medical degree also at Georgetown and was a member of the Alpha Omega Alpha Medical Honor Society. During his orthopaedic residency at Duke University, Dr. Hurst assisted with covering the Duke athletic teams. He received a Piedmont Orthopaedic Society research grant in 2005 for studying hamstring strains and has made presentations at two American Orthopaedic Society for Sports Medicine annual meetings and at the North Carolina Orthopaedic Association meeting.

Dr. Hurst will be joined by his wife, Emily, and their children, Ava and Ryan.

#### Jarrod T. King, M.D.

Dr. King studied kinesiology at the University of Texas at Austin and then pursued a degree in physical therapy at University of Texas - Southwestern. After four years as a physical therapist, which peaked his desire to delve deeper into patient evaluation and treatment, Dr. King decided to pursue a medical degree at the University of Texas - San Antonio, where he became a member of the Alpha Omega Alpha Honor Medical Society. Dr. King then com-pleted his orthopaedic residency at the University of Texas - Southwestern and worked on research projects investigating neurological complications with scoliosis instrumentation and also reverse total shoulder arthroplasty.

Dr. King looks forward to sharpening his diagnostic, nonoperative and surgical skills at Steadman-Hawkins, while utilizing his strong rehab background at a clinic closely connected to physical therapy.

#### Ryan G. Miyamoto, M.D.

Dr. Miyamoto earned a degree in molecular biology and played football at Princeton University. He earned his medical degree from the University of Maryland School of Medicine. During his orthopaedic residency at New York University - Hospital for Joint Diseases, Dr. Miyamoto's team coverage of competitive football, coupled with his athletic experience, solidified his desire to pursue sports medicine as subspecialty training. He has published articles in The Journal of Bone and Joint Surgery and Foot and Ankle International. His research interests include PCL reconstruction, medial collateral ligament injuries in the knee, and a biomechanical study on suture placement in SLAP lesion repair.

Dr. Miyamoto plans to build a solid foundation in Vail for a career in academic sports medicine.

#### Charles J. Petit, M.D.

Dr. Petit graduated cum laude with a degree in economics from Yale University, where he captained the basketball team during his senior year and received two prestigious scholar athlete awards. He then attended medical school at the University of California at San Diego and completed orthopaedic residency at the Harvard Combined Program. Dr. Petit's research projects include operative treatment of intra-articular fractures in children, variability in the management of proximal humerus



fractures, and arthroscopic removal of EndoButton after revision ACL reconstruction.

To complement his skills as an orthopaedic surgeon, Dr. Petit enjoys fly-fishing and snowboarding, and looks forward to spending a year in Vail.

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### 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 2008/2009 Steadman-Hawkins Fellowship Class are Mr. and Mrs. Harold Anderson, Mr. and Mrs. Lawrence Flinn, The Gustafson Foundation (Biomechanics Research Laboratory), Mr. and Mrs. Brian P. Simmons, Mr. and Mrs. Jay Jordan, Mr. and Mrs. Peter Kellogg, Mr. and Mrs. AI 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. J. Michael Egan, Mr. Ronald V. Davis, Mr. and Mrs. Milledge Hart, the Fred and Elli Iselin Foundation, Mr. and Mrs. John W. Jordan, Mr. and Mrs. S. Robert Levine, Mr. and Mrs. Kent Logan, Mr. Tim McAdam, Mr. and Mrs. Jay Precourt, and Mr. and Mrs. Stewart Turley.



Dave Kuppersmith

#### MEET OUR INTERNS

## **David Kuppersmith:** Enjoying Every Step of the Way

#### By David Kuppersmith

Editor's note: David Kuppersmith has been a research intern in the Clinical Research department between 2005 and 2008. He is currently enrolled at Sackler Medical School of Tel Aviv University.

• • Thank you" is a phrase from patients that repeatedly echoes through the walls of Steadman-Hawkins, where I have spent the last three years. It's probably the most valuable phrase I can take with me because it's indicative of happy patients, something I learned that is most important. I moved here in August of 2005 ready to undertake what I thought was going to be a year-long internship with Karen Briggs and the Clinical Research department. My hopes were to learn, work, and get some real-life exposure to medicine as I was applying to medical school. This one-year internship grew into three short years, and my experience was unlike anything I have ever experienced. Dr. Philippon once shared with me that "medical school and training is not a long road as long as you enjoy every step of the way." I know I could not have spent a better three years, been more productive, learned more from the world's best, or had a better time in my life anywhere else in the world.

Over the last three years, I have seen the Clinical Research department grow from four people, including myself, to 12, which is a true indication of the quality of work that makes Steadman-Hawkins a leader in evidence-based medicine in orthopaedic clinical research.

The Clinical Research internship is geared toward finding the right people who want to work hard. The experience teaches things that are not taught in medical school. What I've learned here I will take with me forever, and it will make me a much better physician. Rarely do people comment on the internship; however, it's an invaluable asset to the foundation that helps to contribute to the largest sports medicine outcomes database in the world. And more than that, it helps underdogs like me get started on their dreams of being a physician. Each year new interns start and old interns go. The turnaround period was three years for me, but those years taught me so much about medicine, life, and working with people. I am so much better prepared for medical school now than I was three years ago, and it's all because of the people at Steadman-Hawkins.

Working closely with Dr. Philippon and Karen Briggs over the last three years, I published, presented, and learned a tremendous amount about medicine, clinical research, outcomes, statistics, and life. I have learned that medicine is both a privilege and an obligation. It's an enormous responsibility, but an opportunity to care for patients. After all, one of the most valuable things I learned from working here is what it means to simply have happy patients. All too often, physicians get bogged down with insurance, reimbursement, liability, small things that are important; however, they forget that having happy patients who are treated well is the most important service they can provide. I feel fortunate for having learned this early in my career.

My three years here were certainly a challenge. These doctors could have the best research scientists in the world working for them, but they choose guys like me, and I am extremely thankful. They gave me a shot at a lofty goal and I worked hard to achieve it.

It took me a little longer to get to medical school than most. However, I am a better person because of what I learned and who I was able to work with along the way. I am appreciative for everyone and everything. Evidence-based medicine is truly a continuum of learning and a collaborative effort. Everyone here realizes that. Dr. Feagin always says, "The best is yet to come." I didn't always believe it, but I have learned that everything seems to work out, so I want to say, "Thank you." I'll be back one day.

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#### (continued from page 3)

#### **ABSTRACTS ACCEPTED BY AAOS**

#### **Podium Presentations**

ACL Reconstruction in Patients 40 Years of Age and Older: 20-Year Follow-up. Steadman JR, Briggs KK.

*Function and Activity Levels Correlate with Type of Meniscus Tear.* Briggs KK, Rodkey WG, Steadman JR.

Outcomes Following Hip Arthroscopy for FAI and Associated Chondrolabral Dysfunction: 2-Year Follow-up. Philippon MJ, Briggs KK, Yen YM, Kuppersmith D.

*Rim Reduction for the Treatment of Pincer-type FAI Correlates with Pre- and Postoperative CE Angle.* Wolfe AB, Philippon MJ, Kuppersmith DA.

#### **Poster Presentations**

Factors Associated with Date of Onset of Symptoms to Surgery in Patients Undergoing Hip Arthroscopy. Briggs K, Philippon M, Kuppersmith D.

Outcomes of Arthroscopic Acetabular Labral Reconstruction in the Hip in Professional Athletes. Philippon MJ, Kuppersmith D, Briggs KK, Wahoff M

Psychometric Properties of Lysholm and Tegner Scores for Knee Osteoarthritis in Older Athletes. Briggs KK, Matheny LM, Kuppersmith D, Rodkey WG, Steadman JR.

Hylan G-F 20 & Corticosteroid: Expectations of Treatment & Outcomes Six Months Following Treatment. Briggs KK, Matheny LM, Steadman JR.

Six-Year Results with Collagen Meniscus Implants (CMI) Based on Location and Meniscus Remaining. Rodkey WG, Briggs KK, Steadman JR.

Collagen Meniscus Implants (CMI) Versus Meniscectomy in Chronic Knees: 5-Year Survivorship Analysis. Rodkey WG, Briggs KK, Steadman JR.

#### AOSSM

Complications of Clavicle Fractures Treated with Intramedullary Fixation. Millett PJ, Horn NH, Hawkins RJ.

Lesions of the Biceps Reflection Pulley: Are There Other Common Associated Pathologies? Braun B, Tello TL, Horan MP, Millett PJ.



Our Founder, Dr. J. Richard Steadman.

#### ASES

Long-Term Survivorship after Surgical Repair of Full-Thickness Rotator Cuff Tears. Millett, PJ, Horan MP, Maland KE, Briggs KB, Hawkins RJ.

## Six Clinical Research papers recently accepted for publication

**Chen AL, Sterett WI et al.** "Angular Variation of Single vs. Double Leg Stance Radiographs." In Press. *Journal of Knee Surgery.* 

**Philippon MJ, Kuppersmith D.** "Hip Dislocation in the Athlete." In Press. *Arthroscopy.* 

Philippon MJ, Briggs, KK et al. "Outcomes Following Hip Arthroscopy for Femoroacetabular Impingement with Associated Chondrolabral Dysfunction Minimum 2-year Follow-up." In Press. *The Journal of Bone and Joint Surgery.* 

**Briggs K, Steadman JR, Hay CJ.** "Normal Values for the Lysholm and Tegner Scores." In Press. *American Journal of Sports Medicine.* 

**Briggs K, Lysholm J, Tegner Y et al.** 25 Years Later. "Validation of the Lysholm and Tegner Score in Patients with ACL Injuries." In Press. *American Journal of Sports Medicine.* 

Huffard B, Millett PJ, Horan MP, Hawkins RJ. "Shoulder Microfracture." *Arthroscopy.* 



While doing a lunge, it is important to keep all of your weight on your front heel and not allow the knee to pass further forward than the toes. This prevents putting unnecessary stress on the knee. Work up to three sets of ten lunges per leg.



This advanced tuck-hold squat can be performed in your skiing position on an unstable surface, such as a half-ball. A modified format of this would include holding the squat with feet flat on the floor. Hold the position for 10-30 seconds.



With one leg extended out to the side, resting on a half-ball, bend the other knee into a squat. Hold this position for 10-30 seconds. Start with 10 reps and work up to 30 for maximum endurance while skiing.

#### SPORTS AND WELLNESS

## Pre-Season Ski/Snowboard Preparation

By Brad Schoenthaler

Editor's note: Brad Schoenthaler is an outpatient orthopaedic and sports physical therapist at Howard Head Sports Medicine Center in Denver, Colorado.

With the first run on the slopes only weeks away, it's important to start getting your body ready for the season. Traumatic injuries, as well as minor sprains and strains, are common during the ski and snowboard season. But they can easily be limited, if not avoided altogether. With a few tips about getting your body prepared, you can enjoy an entire, injury-free season.

The most common occurrence noticed after a full day on the mountain is muscle soreness. Whether the soreness is in your thighs and calves from the workout of the day, or noticed in your tail and pride from falling all afternoon, something as basic as stretching can help manage the ache. For example, a brisk early morning walk to the lift followed by a few quad, hamstring, and calf stretches will have your muscles properly warmed up for the day. It's also a good idea to perform the same stretches at the end of the day and the following day, in order to limit the 24- to 48-hour delayed onset muscle soreness.

Traumatic injuries are particularly prevalent during snow sports and can vary from minor ligament sprains to something as severe as vertebral fractures, ACL tears, and shoulder dislocations. These injuries frequently occur near the end of the day, as the muscles have fatigued and can no longer provide adequate support to the joint. Preparing your joints with a pre-season muscle strengthening program can significantly reduce the likelihood of traumatic damage. Much of the program should focus on core and leg strengthening. This includes exercises for your trunk, abdominal region, hips, thighs, and lower legs.

For example, use exercises that mimic your skiing/snowboarding activity, such as wall sits, which imitate a tucked skiing position and isolate the quadriceps muscle. You can hold your squat position longer in order to increase the endurance of the



photo: John Kelly

quad, which is essential on the long runs of the day. You can also perform forward and side lunges in order to strengthen the entire lower extremity, with a primary focus on the hip and hamstring. The strength you develop in your pre-season regimen will not only provide extra support for your joints, but it will also help you develop better control of your skis and snowboards.

A plyometric routine works as a nice adjunct to your strength program. Shortburst, high-intensity exercises are designed to produce fast and powerful movements. This trains the neuromuscular system to respond quickly to a stimulus and can enhance balance and agility. This, in turn, improves functional movement and enhances the body's ability to react quickly and efficiently while going down the slopes.

Before you begin training for the season, consult with a physical therapist or a personal trainer to set up a comprehensive program tailored to your exact needs. This also ensures that you carry out your program safely and with correct form, keeping you injury-free before you head to the mountains. Always remember to wear a helmet and make sure you have your bindings properly set. Good luck during this upcoming season. For additional information, please contact Brad Schoenthaler at 303-295-1403.

## Gatorade Sports Science Roundtable: Preventing Problems Associated With Cold Weather

Exercising in cold weather is fun, healthy, and safe when you prepare properly for low temperatures and high winds. It can be dangerous when you don't. The Gatorade Sports Science Roundtable offers the following precautions for preventing four dangerous problems associated with winter sports.

Condition	Contributing Factors	Precautions
Frostbite	•Windchill	Awareness of windchill
	<ul> <li>Skin exposure</li> </ul>	Minimize skin exposure with hats, gloves, and creams
	• Dampness	
Hypothermia	<ul> <li>Prolonged exposure</li> </ul>	Minimize length of exposure
	<ul> <li>Inactivity</li> </ul>	• Dress in thin, numerous layers
	<ul> <li>Improper/Inadequate dress</li> </ul>	• Layer closest to skin should ventilate and keep skin surface dry
	<ul> <li>Isolation</li> </ul>	Wear polypropylene or wool fabrics
		Outer cover should breathe
		<ul> <li>Cover head and hands when possible</li> </ul>
		• Drink fluids to stay hydrated and for best cardiovascular
		function
		Exercise with a partner
Exercise-induced	• Dry air	Use facemask in extreme cold
broncospasm	<ul> <li>Increased mouth breathing</li> </ul>	Use prescribed medications
	<ul> <li>Deconditioning</li> </ul>	Use respirators when needed
	<ul> <li>History of asthma</li> </ul>	• In some cases, avoid exercise in extreme cold
Dehydration	<ul> <li>Overdressed</li> </ul>	• Dress in layers
	<ul> <li>Failure to hydrate</li> </ul>	Schedule fluid breaks
	<ul> <li>No fluids available</li> </ul>	Stop at fluid stations
	<ul> <li>Increased urine output</li> </ul>	Avoid caffeine, alcohol, diuretics





photo: John Kelly

#### FREQUENTLY ASKED QUESTIONS

## What are the most significant research accomplishments of the Foundation?

In Basic Science we've been able to define the underlying molecular and cellular biological events that occur within the healing response for anterior cruciate injuries.

Second, we have identified the importance of removing calcified cartilage in the subchondral bone plate to enhance the growth of repair tissue. This information was published in the prestigious *American Journal of Sports Medicine* in 2006 and has helped surgeons improve outcomes of microfractures worldwide.

Third, in Clinical Research we have developed a comprehensive patient database that is unique in the world. It is significant because we were doing evidence-based medicine before there was even such a term.



Fourth, in Biomechanical Research we have become a world leader in the development of dual-plane fluoroscopy and computer-based joint modeling. Dual-plane fluoroscopy will provide scientists with new information about loads placed on joints and ligaments during motion.

## How will Imaging Research impact the current work of the Foundation?

This newest research department will give us the ability to image patients and correlate, noninvasively, those images with Basic Science and Clinical Research findings. We're already collecting data that will enable us to correlate imaging results with our long-term studies of clinical outcomes.

We will analyze the data and determine whether we can match what we are seeing on images with actual surgical observations. For example, we will be able to evaluate physiology of cartilage tissue before and after treatment and determine the health and regeneration of that tissue in a totally noninvasive way. Until now, our only option was to look inside a joint and perhaps take a biopsy (invasively) just to evaluate the results of a procedure or to measure progress.

#### How can I find out whether there is a former Steadman-Hawkins Fellow practicing in my area of the country?

Greta Campanale is our Education coordinator and will be able to provide contact information for fellows practicing in your area. She can be reached at 970-479-5782; greta.campanale@shsmf.org.

#### WHAT IS THE FIRST STEP I SHOULD TAKE IF I WANT TO MAKE A GIFT TO THE FOUNDATION?

Please contact John McMurtry, 970-479-5781, e-mail john.mcmurtry@shsmf.org, for information on our various research projects and programs. We have an extensive menu of giving options and areas of need.

photo: John Kelly

#### SAVE THE DATES

# Steadman-Hawkins On the Links

THE STEADMAN-HAWKINS SANCTUARY GOLF TOURNAMENT, PRESENTED BY RE/MAX INTERNATIONAL, SET FOR AUGUST 20, 2009

Proceeds from the sixth 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 43 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 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 Hawkins Research 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. More information can be obtained by visiting our website (shsmf.org) under "Upcoming Events," or by calling the Development office at (970) 479-5809 or (970) 479-5781.

To request an invitation or for more information on other upcoming Foundation events, please contact John McMurtry at the Steadman+Hawkins Research Foundation (970) 479-5809.

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### Habervision Is Here!

The Steadman Hawkins Research 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 Eyewear 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, or click on the link below. There is no expiration date. Share the code! Shop and enjoy.



photo: John Kelly

The Steadman Hawkins Research Foundation 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.

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#### BASIC SCIENCE

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Coordinator Tage Plantell Coordinator

### **Mark Your Calendar:**

#### AUGUST 20, 2009

2009 Steadman-Hawkins 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 Steadman Hawkins Research Foundation in your will, trust, or other estate plan.

Executive Editor: Jim Brown, Ph.D.



Steadman Hawkins Research Foundation



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