



INSTITUTE INSIGHT

Science Finding Cures, Medicine Enhancing Life

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The Institute wishes to express deep appreciation to John P. Kelly, who donated the stock photos and contributed his time to photograph the many Institute and operating room subjects.

Regenerative medicine is the foundation for SPRI's focus that will dramatically change lives.

As the Steadman Philippon Research Institute's vision evolves, its scope continues to expand.

Using the principles of evidence-based regenerative medicine, SPRI is at the forefront of developing innovative treatments and procedures in a variety of fields.

The Center for Regenerative Sports Medicine (CRSM) is at the one-year mark, and its focus on orthopaedics and sports medicine has been expanded to areas such as delaying the effects of age-related disorders, cardiovascular health, bladder dysfunction, muscular dystrophy, and bone repair.

Dr. Johnny Huard, SPRI's Chief Scientific Officer and Director of CRSM, explains how the transition has developed. "While working on approaches to improve musculoskeletal tissue repair through muscle-derived stem cells, we found that the process could also be applied to other areas that affect the health of millions of people. It opened up new avenues of research for Steadman Philippon."

"In Vail and with our research collaborator at the University of Texas Health Science Center (UTHealth), we have more than 25 studies at various stages in the research process investigating these areas. While SPRI will continue to be a leader in orthopaedic sports medicine, our research will no longer be limited to orthopaedics."

"The inter-disciplinary cooperative nature of the laboratories provides an excellent forum to perform basic research and in the future translate this research into a clinical reality."

MUSCLE-DERIVED STEM CELLS

The laboratory studies at Steadman Philippon's CRSM are conducted by an internationally diverse group of investigators. The lab focuses on the identification, characterization, and clinical translation (application) of adult

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RESEARCH PARTNERSHIP

SPRI and the Vail Valley Medical Center Enter Long-Term Research Partnership



L-R, Mike Shannon, Chairman of the Board of Directors, VVMC; Marc Philippon, M.D., Managing Partner, The Steadman Clinic, and CO-chair, SPRI Board of Directors; Dan Drawbaugh, CEO The Steadman Clinic, SPRI; Johnny Huard, Ph.D., Chief Scientific Officer, SPRI.

On December 23, 2015, the Steadman Philippon Research Institute and the Vail Valley Medical Center (VVMC) announced a long-term research partnership that will continue to advance Vail's global prominence in sports medicine and orthopaedic surgery.

"The partnership will support SPRI's mission and advance the Center for Regenerative Sports Medicine that was established in May 2015 upon the arrival of Chief Scientific Officer Dr. Johnny Huard and his team," says Marc Philippon, M.D., Managing Partner of The Steadman Clinic and Co-Chair, SPRI Board of Directors.

In addition to the new Center for Regenerative Sports Medicine, six specialty Joint Preservation Research Centers are being established. These centers will develop new innovations and treatments built upon evidence-based rehabilitation for patients with knee, hip, shoulder, spine, foot/ankle, and hand/wrist injuries. SPRI's orthopaedic surgeons and Dr. Huard are leading this effort.

The Center for Regenerative Sports Medicine is now supporting 10 scientists and researchers, and that number is expected to increase to more than 20 by the end of the year.

"We sincerely appreciate your help as we continue to establish benchmarks for orthopaedic surgery and sports medicine," concludes Dr. Philippon. "Because of your commitment, we are positively impacting our patients' lives worldwide every day. Through your support, we have together created a bright and exciting future at SPRI."



Science Finding Cures, Medicine Enhancing Life

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stem cells isolated from skeletal muscle—muscle-derived stem cells.

The process of isolating and harvesting stem cells is called preplate technology, and the objective is to find ways to apply the cell-harvesting capability to a variety of medical conditions. Following are 10 examples of initiatives that have been or are being explored by Dr. Huard and his team of researchers.

TEN EXAMPLES

- Bone repair and regeneration.
- Repair of injured and osteoarthritic articular cartilage.
- Alleviation of the muscular degeneration associated with Duchenne muscular dystrophy (DMD) through stem cell transplantation.
- Cardiac and skeletal muscle injury repair, regeneration, and fibrosis (scarring) prevention via stem cell transplantation and the use of anti-fibrotic agents.

Dr. Huard: "Positive results to repair cardiac tissue have been reported in 12 patients."

- Peripheral nerve regeneration using stem cells and venous grafts.
- Genetic and tissue engineering techniques to enhance stem cell transplantation proficiency.
- Stem cell transplantation to delay the onset of aging.

Dr. Huard: "We are trying to delay the effects of age-related disorders such as osteoarthritis or osteoporosis. If we could do that, it would be a major contribution to the lives of our patients."

- Repair of compartment syndrome-injured limbs involving damage to muscles, nerves, circulatory, and lymphatic system blood vessels.
- Stem cell transplantation to ACL, MCL, and meniscus tissues.
- Alleviation of urinary stress incontinence (USI).

More than 400 women in Canada and the U.S. suffering with USI have volunteered for this type of stem cell therapy, which is in Phase III of clinical trials.

PLATELET-RICH PLASMA, ANTI-SCARRING AGENTS

The labs are also studying the effects of platelet-rich plasma (PRP) on muscle, bone, and ligament healing,

and investigating ways to inhibit factors within PRP that may have deleterious effects on tissue regeneration and repair.

In addition, SPRI is continuing to investigate the use of a variety of agents to prevent the formation of scarring and promote muscle fiber regeneration following injury and disease. The anti-fibrosis agents being studied include losartan, suramin, relaxin, and decorin.

BLOCKING THE CANCER PROCESS

“Stem cells can become bone cells, cartilage cells, and blood cells, for example, but they can also become cancer cells,” explains Dr. Huard. “We obviously don’t want this to happen, but perhaps we should study the process and look for a way to prevent it. This kind of research could lead to an effective treatment or drug to prevent cancer.”

DONORS ARE THE SPARK PLUGS

The Steadman Philippon Research Institute’s studies have expanded to involve stem cells, gene therapy, tissue engineering, PRP, anti-scarring agents, and other potentially life-changing processes. More studies are in the planning stages, but implementing them requires support from SPRI’s donors.

“The donors are the spark plugs of this organization,” says Dr. Huard. “Without their support, we can’t continue to implement new research initiatives.”

SPRI advances will change the lives of people in every stage of life, as well as improve the health of their children and grandchildren. SPRI will use your philanthropic support to develop processes that direct the body’s own healing ability toward creating longer, healthier, and more active lives.



RESEARCH UPDATE

2015 Was a Ground-Breaking, Award-Winning Year for SPRI

The year 2015 was a turning point for SPRI’s global impact. Already positioned as one of the world’s great orthopaedic and sports medicine research institutes, SPRI is now leading the way with ground-breaking research in regenerative medicine that affects almost every system of the body.

The advances are reflected in new initiatives by the Center for Regenerative Sports Medicine, the departments of BioMedical Engineering and Imaging Research, and the Center for Outcomes-based Orthopaedic Research. Following are some of the achievements accomplished during the past year.

CENTER FOR REGENERATIVE SPORTS MEDICINE (CRSM)

The CRSM was established in May 2015. Since then, Dr. Johnny Huard, Chief Scientific Officer, and his colleagues produced 22 publications, submitted and presented 21 abstracts at national and international meetings, administered five CRSM grants (four from the National Institutes of Health (NIH); one from the United States Department of Defense), and applied for seven pending additional grants (six from NIH; one from DePuy Synthes, a Johnson & Johnson medical device company). Dr. Huard also served as Chair of the Inaugural Vail Scientific Summit on Regenerative and Translational Medicine.

Research initiatives involved diverse areas such as heart repair, bone tissue, stem cell transplantation, gene and cell therapy, muscle regeneration and repair, ACL reconstruction, meniscus defects, and muscular dystrophy.

BIOMEDICAL ENGINEERING (BME)

The BME Department received the Achilles Orthopaedic Sports Medicine Research Award presented by International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine (ISAKOS). The Achilles Award recognizes outstanding clinical or laboratory research in the field of sports medicine.

BME was also given the 2016 Excellence in Research Award presented by the American Orthopaedic Society for Sports Medicine (page 5) for research published in 2015. The award recognizes the best paper submitted in any category with a primary author under the age of 40.

BME finished the year with 22 publications available on PubMed in 2015. Twelve of those were published in the *American Journal of Sports Medicine*, which is ranked first among orthopaedic journals based on five-year impact. Examples of initiatives included research on ACL injuries, meniscal root repair, rotator cuff tears, robotic testing of the hip, radiographic identification of ankle structures,

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Dr. Marc Philippon Educates Top Surgeons from Around the World

Annual Vail Hip Symposium focused on hip preservation

Once each year, the Vail Valley becomes the center of the universe for hip surgeons.

Now in its 11th year, the annual Vail Hip Arthroscopy Symposium arrived in January this year, attracting roughly 200 surgeons and medical professionals from around the globe to the Vail Valley.

Hosted by Dr. Marc Philippon, the Symposium's lectures took place January 14-16 in Beaver Creek.

Orthopaedic surgeons and faculty from six countries gathered to hear presentations from 21 of the world leaders in hip arthroscopy and to learn the latest techniques associated with arthroscopic hip surgery.

The purpose of the symposium was to provide a forum where top leaders in the field could exchange thoughts. Young doctors who wanted to learn could see and hear that exchange, and take it back home to provide a better experience for their patients.

Coursework included extensive lectures, hands-on cadaveric training, and case discussions about the hottest topics in hip arthroscopy, including controversies and difficult cases. Also included was a live broadcast of a surgical procedure by Dr. Philippon. All of these sessions were designed for the experienced surgeons



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femoroacetabular impingement, Achilles tendon repair, ankle ligament repair, knee instability, and hip labral reconstruction.

IMAGING RESEARCH

Imaging Research continued its collaboration with Siemens to improve diagnostic techniques, as well as with CSIRO/University of Queensland to develop, improve, automate, and validate MRI techniques. The department also initiated a multi-center quantitative MRI and outcomes study of knee and hip cartilage following ACL and hip labrum injury and treatment.

Imaging Research had six publications in peer-reviewed journals available in PubMed in 2015. In addition, the department upgraded its scanner to the Magnetom Skyra, which produces clinical and research scan capabilities.

CENTER FOR OUTCOMES-BASED ORTHOPAEDIC RESEARCH (COOR)

COOR produced 37 publications in journals referenced on PubMed and increased its database to more than 30,000 surgeries and more than 8.5 million data points. The Center also recorded more than 120,000 patient-related outcomes.

In addition, COOR developed collaborations with the United States Olympic Committee, the United States Ski and Snowboard Association, Washington University, and Howard Head Sports Medicine, and conducted research with universities and institutions in Sweden, Norway, Denmark, Germany, Australia, and Canada.

Dr. Peter Millett and his team at SPRI won the 2015 German Arthroscopy Association (Medi) Award for a COOR-based study on results following conservative management of acromioclavicular joint injuries. The Gewinner Medi Award is given biannually to the top paper on the treatment of joint injuries in sports and arthroscopic surgery.



looking to enhance their knowledge of reconstructive hip arthroscopy and preservation techniques.

The symposium is a result of a partnership between The Steadman Clinic and Smith & Nephew, a global medical technology company dedicated to helping improve people's lives through advanced products developed for orthopaedic surgery, wound management, and sports medicine.



AWARD

American Orthopaedic Society for Sports Medicine Presents SPRI with the 2016 Excellence in Research Award

The Steadman Philippon Research Institute will receive the 2016 Excellence in Research Award from The American Orthopaedic Society for Sports Medicine (AOSSM) during its annual meeting in Colorado Springs in July.

This is the second time that the Institute has won this award—the first was 2014—since the award was established in 1988. AOSSM is a world leader in sports medicine education, research, communication, and fellowship.

This award is given to the best paper submitted in any category to the Awards Committee with a primary author under the age of 40 at the time of the annual meeting. The award is a symbol of quality and research excellence. It is also a symbol of international collaboration.

With the receipt of the 2016 Excellence in Research Award, the Steadman Philippon Research Institute will have received at least one major research award per year during the four-year period spanning 2013-2016.

STUDY RESULTS AFFECT THOUSANDS OF PATIENTS

The study is titled “Anatomic Anterolateral Ligament Reconstruction of the Knee Leads to Overconstraint at Any Fixation Angle.” It represents another example of how SPRI research affects hundreds of thousands of patients and thousands of orthopaedic surgeons around the world. As many as 200,000 ACL ruptures are sustained in the U.S. every year, and more than 100,000 ACL reconstruction procedures are performed.

With the receipt of the 2016 Excellence in Research Award, the Steadman Philippon Research Institute will have received at least one major research award per year during the four-year period spanning 2013-2016.

In up to 25 percent of patients who undergo ACL surgery, persistent rotational instability is observed clinically, along with discomfort and loss of function for the patient. The solution to this problem for many surgeons involves reconstructing a ligament structure on the lateral (outside) aspect of the knee (the anterolateral ligament, or ALL).

Although several variations of ALL reconstruction have been proposed as surgical techniques in the literature, none of the proposed techniques have been validated biomechanically. In this study, researchers and doctors at the Steadman Philippon Research Institute and The Steadman Clinic performed a thorough investigation of the most anatomic reconstruction (the reconstruction that utilizes attachment locations most similar to those of the patient's natural anatomy), while varying the angle of the knee at which the reconstruction was performed.

After performing the reconstructions at each knee angle, cadaveric knees underwent a thorough robotic movement analysis to determine which reconstruction behaved most similar to the cadaveric knee in its native state. Importantly, this study observed that regardless of the angle of the knee during reconstruction, ALL reconstruction resulted in knee overconstraint (the reconstructed knee moved less freely than its native state).

Knee overconstraint can lead to several problems, including pain, failure of the reconstruction, and poor long-term functional outcomes. Therefore, this study suggested surgeons should carefully evaluate and select the appropriate patients in which to perform reconstructions of the anterolateral ligament in conjunction with an ACL reconstruction.

SPRI'S CO-AUTHORS

The SPRI study was conducted and co-authored by the following research team members: Jason M. Schon, B.S.; Gilbert Moatshe, M.D.; Alex W. Brady, M.Sc.; Raphael S. Cruz, M.D.; Jorge Chahla, M.D.; Grant J. Dornan, M.Sc.; Travis L. Turnbull, Ph.D.; and Lars Engebretsen, M.D., Ph.D.



Jorge Chahla, M.D.—On the Fast Track to the Future of Sports Medicine

By Jim Brown

Dr. Jorge Chahla—orthopaedic surgeon, award-winning scientist, researcher, author, musician, skier, and former rugby star who speaks three languages—has been on the fast track to a career in medicine since childhood.

At 28, he has accomplished more than most people accomplish in a lifetime. Already an M.D., he will soon complete a Ph.D. He has made presentations on three continents and co-authored more than 50 articles in peer-reviewed journals, as well as seven book chapters and a recently published eBook titled *Complex Knee Surgery Made Easy*. Now he is in the first year of a two-year fellowship at SPRI's Center for Regenerative Sports Medicine.

In Argentina, Dr. Chahla's father, also named Jorge, is an orthopaedic surgeon, and his mother, Graciela, is an obstetrician/gynecologist.

"I always loved orthopaedics. Growing up, I would go with my dad on weekends to the clinic or to the hospital to see patients," says Dr. Chahla. "When it came time to decide on a career, I really didn't have anything else in my mind."

When he began playing organized sports, the connection to orthopaedic medicine became even stronger. He played rugby at first with his friends at school and later as a member of Argentina's National Junior Rugby Team. He didn't have typical orthopaedic injuries, but did suffer one broken cheekbone and three broken noses.

MORE THAN A MEDICAL EDUCATION

The rapid pace of Dr. Chahla's education began in his hometown of San Miguel

de Tucumán, a city of more than 500,000 in northwest Argentina. After completing his bilingual bachelor's degree in experimental sciences, he entered the medical school at the National University of Tucumán.

He graduated in 2011, began a three-phase, five-year process of becoming licensed to practice in the United States, and served his residency at Buenos Aires British Hospital.

Dr. Chahla did more than study to become an orthopaedic surgeon. He also began work on a Ph.D. in biomedical education. He became fluent in English and French. He was team physician for a rugby club that competed in the 2013-14 Argentinian Juvenile Rugby Championship. He studied at Argentina's Conservatory of Music for three years, learned to play two instruments, and had a band called "Julietta Brandy."

VAIL ON HIS RADAR

The Buenos Aires British Hospital has a working agreement with Hospital for Special Surgery in New York City, which allowed for Dr. Chahla to begin further training in the U.S. Next on his radar was SPRI in Vail.

"When I started reading professional journals, I kept seeing the names of Dr. Philippon, Dr. LaPrade, and other Steadman Philippon physician/scientists. I wanted to know more about these people. I applied for and was awarded a visiting fellowship at SPRI, and later a second fellowship, also at SPRI."

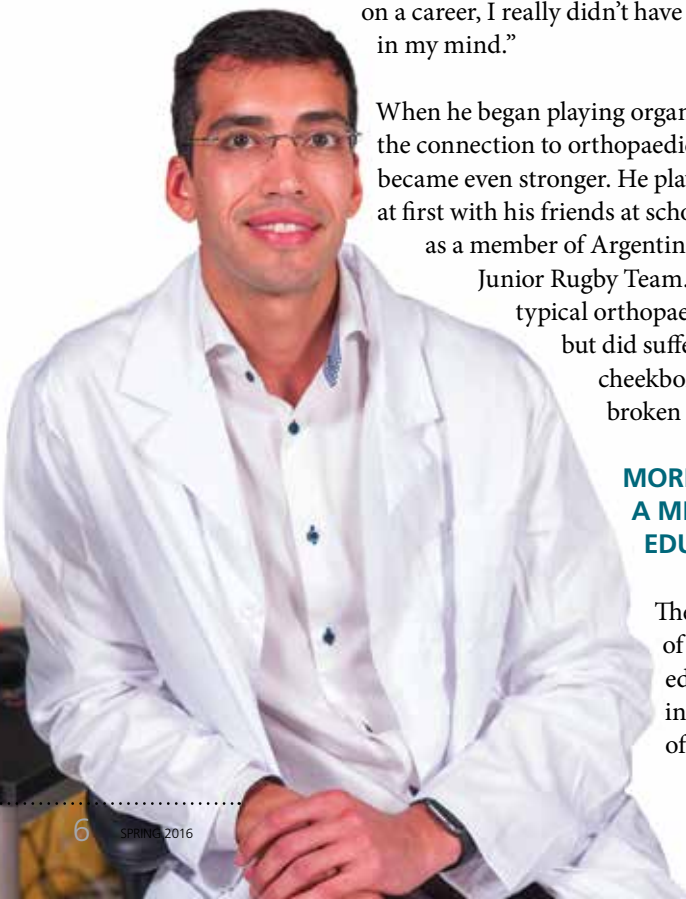
LOVE AT FIRST SIGHT

"I fell in love with this place immediately," remembers Dr. Chahla. "First, it was the people. They are so happy, so helpful. They say 'hi,' 'good morning,' and they create a working environment that I had never seen at other institutions."

"Then there are so many resources," he says. "You could do a complete fellowship just in the lab. We have all of the equipment needed for any type of research."

"When Dr. Huard came to Steadman Philippon, he began putting a regenerative sports medicine research team together. I was very fortunate to be able to join that team."

"Being able to work with Dr. Huard is an honor. He is one of the most accomplished scientists in the world. He and the physicians at SPRI are like a 'Dream Team' of sports medicine. They understand that the traditional approach



to medicine in general and sports medicine specifically is not going to last forever. Regenerative sports medicine and the use of biologics are the future, and they are going to change the way medicine is practiced.”

FOUR QUESTIONS

1) What is Dr. Chahla’s plan to be a part of that future?

“I am not a plan guy,” he says, in spite of overwhelming evidence to the contrary. “But I will take the advice of the doctors here and try to prepare myself to go where there are options and opportunities.”

2) In the U.S. or back in Argentina?

“We don’t know yet, but either country will be good.”

3) Private practice orthopaedic surgery, research, or teaching?

“All three,” says Dr. Chahla, not surprisingly.

4) Greatest accomplishment?

“Without a doubt, being married to my wife, Isolina. I got lucky.”

Dr. Isolina Boero is a dentist and a former finalist in the Miss Argentina contest.

REMEMBER THE NAME

Dr. Jorge Chahla. Whether it’s medical practice, cutting-edge research, or sharing his knowledge, your support makes it possible for him to continue on the fast track as SPRI’s latest rising star in orthopaedic and regenerative sports medicine.



RESEARCH UPDATE

Platelet-Rich Plasma: SPRI Leads Research into Promising Method of Treatment

By Jorge Chahla, M.D., Kaitie Whitney, Johnny Huard, Ph.D.

Unfortunately, most musculoskeletal tissues (ligaments, tendons, muscles, bones, and cartilage) that are diseased, injured, or genetically flawed are not capable of fully restoring themselves to normal form or function.

With the increasing prevalence of musculoskeletal disorders, the use of biologics has become an appealing treatment in sports medicine and orthopaedic surgery.



Platelet-rich plasma (PRP) is one of the most promising sources of natural biologic factors. It has the potential to treat non-surgical conditions in a conservative manner, enhance surgical procedures when they are called for, and help with the healing processes.

PRP has been used in several areas in addition to sports medicine and orthopaedic surgery. Among them are wound healing, cosmetics, dentistry, neurologic diseases, cardiothoracic (chest/heart/lung) procedures, and ear/nose/throat disorders. PRP application in sports medicine and arthroscopy ranges from repair of bone, cartilage, tendons, and ligaments to tissue regeneration and biologic augmentation (making a biological system work more efficiently).

HOW PRP IS OBTAINED

PRP is obtained by drawing blood from a patient and concentrating it into a smaller volume that yields a higher platelet concentration. The process takes less than 15 minutes and produces three to four times the amount of platelets and growth factors that are contained in the original blood. This component of the blood rich in platelets is extracted and delivered to the patient. The remainder is discarded.

Patient PRP composition depends on the blood analyzer device, rate of spin, amount of blood extracted, and the number of centrifugations (the use of centrifugal force). These variations directly influence platelet, growth factor, and white blood cell (WBC) concentrations. Even the time of day that the blood is extracted can affect the level of platelet concentration.

WBC concentration, in turn, can affect the effectiveness of PRP. Recent studies suggest that PRP with low WBC concentration is more beneficial for acute injuries and joint conditions, while PRP with high WBC concentration should be used for chronic or extra-

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articular (outside a joint) abnormalities. WBCs are advantageous in chronic conditions because they produce an inflammatory response that induces natural healing responders.

WHAT PLATELETS DO

Platelets play an important role in clotting blood and regulating proteins in plasma. The benefit of concentrating and increasing the number of platelets is to release important proteins that are capable of activating healing and regeneration mechanisms, while reducing inflammation.

For instance, platelets release a protein that is key in regenerating blood vessels in muscles, ligaments, and tendons. The protein is referred to as vascular endothelial growth factor (VEGF). VEGF induces the formation and growth of new blood vessels that deliver essential nutrients needed to aid in the reconstruction and regeneration of injured or degenerating tissue.

Newly formed vessels contain and produce stem cells that are capable of differentiating into various types of tissue cells that replace old or injured tissue cells.

NOT A SINGLE THERAPY FOR ALL CONDITIONS

The scientific community is beginning to understand that platelet-based compounds have many roles, and are not characterized as a single therapeutic approach for all musculoskeletal tissues.

Although VEGF is a preventative factor in progressive cartilage degeneration, it also inhibits the formation of new cartilage. Therefore, VEGF is not a beneficial factor in cartilage regeneration.

Conversely, transforming growth factor-Beta (TGF-beta) is a protein released from platelets that has the ability to repair cartilage and transform stem cells into cartilage cells. But TGF-beta creates harmful, scar-like tissues that impede skeletal muscle healing.

A delivery method that eliminates detrimental factors and amplifies factors that promote healing to the targeted tissue will maximize the potential of PRP therapy. More research is needed to identify composition characteristics and synergistic effects between the platelets and growth factors present in PRP.

Additionally, the potential application of a slow-release delivery method that provides platelet- and growth factor-sustainability is crucial. Future research should focus on maintaining and prolonging the effect of this compound.

PRACTICAL APPLICATIONS

PRP has been used in reconstructing and regenerating bone, ligament, tendon, muscle, and cartilage tissue. It has been applied to cartilage defects in a defined area and to arthritic joints such as the knee, shoulder, and hip.

PRP has been extensively observed in acute and chronic conditions of the knee. It has been effective in lessening pain, while improving range of motion and quality of life. However, these improvements are short lived—sometimes lasting only a few months.

A recent review assessed improvements after PRP treatment in cartilage defects and found that intra-articular PRP injection is a viable treatment method up to 12 months in early-stage osteoarthritis. Adverse skin reactions were the most reported complication.

Thus, PRP is a potential therapeutic tool for reducing pain and improving quality of life, but well-conducted clinical studies with a longer follow-up are needed to assess the real efficacy and safety.

FUTURE STUDIES

PRP processing (extracting PRP from a patient's blood) has been inconsistent. As a first step, a standardized method to produce consistent platelet count and growth factor concentrations should be developed. Establishing a standardized methodology of PRP (extraction volume, time, rate, hematology analyzer, and dosage) will minimize variations.

In addition, donor demographics may be a pertinent component to the puzzle. Observing statistical data may clarify the peak time for drawing blood and determine the influence of gender on platelet and growth factor concentrations.

Finally, tailoring PRP by amplifying healing factors—while inhibiting detrimental factors—would maximize both tissue healing and regeneration.



Gail Jensen: A Bike Ride in the Mountains, an Accident, and a Life-Changing Experience

By Jim Brown

In the summer of 2013, Gail Jensen and her husband, Richard, were in Breckenridge, Colorado, for a week of hiking and biking.

It was supposed to be fun and challenging, but not an unusual experience for the Jensens, who live in Wakeeney, Kansas. Gail had taken early retirement as an information systems and healthcare administrator. Richard had been a community banker for 30 years. It was not their first time to the mountains or engaging in rigorous activity.

“Both of us love the outdoors and spending time in Colorado,” says Gail. “We enjoy sailing, hiking, biking, and running. One of my goals is to complete my Advanced Yoga Instructor Certification. The other is to participate in another half-marathon.”

“We were biking on a trail near Breckenridge,” she continues. “I hit a rut in the trail near a wooden bridge, lost my balance, and my momentum carried me off the side of the bridge into a ravine. I fell about four feet onto my left shoulder and rolled another six feet before coming to a stop.”

Gail remembers hearing what she thought was a bone break, but she was not sure what was broken or the extent of her injuries. She was taken by ambulance to the emergency room of the St. Anthony Summit Medical Center in Frisco, Colorado.

Gail was right. Something was broken. It was the tibial plateau (upper surface of one of the two bones in the lower leg) of her left leg, and there was damage to the meniscus in her left knee, as well as lesser injuries (at the time) to her left arm and shoulder.

IN GOOD HANDS

The emergency room physician that day was Dr. Randall Viola, an orthopaedic surgeon at The Steadman Clinic, who is also a medical consultant to the U.S. Ski Team and the Denver Broncos.



“Discussing my injuries and options with Dr. Viola, he immediately gained my trust and set my mind at ease,” says Gail. “I made the decision to go ahead with surgery in Frisco that evening.”

“One of the emergency room staff members told me not to worry, that I was in good hands, and that Dr. Viola was one of the ‘Best of the Best’ surgeons. He assured me that I would have a 100 percent recovery, but at the time that did not seem possible.”

“When Dr. Viola set that expectation, I expected nothing less from myself. I was determined to follow my physical therapy protocol and do the work to make a full recovery happen.”

FIRST EXPERIENCE IN VAIL

Eleven months after her accident and surgery, Gail went to The Steadman Clinic and the Vail Valley Surgical Center, where Dr. Viola removed all of the hardware from her leg. She was discharged from physical therapy after six post-surgical visits, and had full range of motion in her leg with no discomfort.

“Once my leg healed from the hardware removal procedures, I experienced no limitations with the use of my leg,” says Gail.

CONFIDENT OF DIAGNOSIS, TREATMENT

“As I began increasing daily activities, practicing yoga, and working out on a regular basis, I realized that the injuries to my shoulder and arm were more extensive than I thought. It was becoming increasingly painful, and I was losing strength, function, and range of motion.”

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“We encourage others to join Richard and me in supporting SPRI as it looks to the future in providing the best and most innovative care possible.”

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“Because of my experience with Dr. Viola and The Steadman Clinic, I could not see myself going anywhere else for treatment. Richard and I had done enough research to know that Dr. Peter Millett is not only one of the best orthopaedic surgeons and shoulder specialists in the U.S., but in the world. I was confident that I would get the proper diagnosis and treatment, and would recover fully and quickly.”

She got her wish. Dr. Millett performed three procedures—rotator cuff healing response, subacromial decompression, and biceps tenodesis—all developed or refined at the Steadman Philippon Research Institute.

Gail’s surgery was on Thursday afternoon, March 12, 2015. Her first physical therapy session was the next morning. She says that beginning her physical therapy right away (which, by the way, was pioneered by SPRI’s Dr. Richard Steadman) was instrumental in the healing process.

“The last pain medication I needed was Friday night, March 13, at 10:00 pm.” (Remember, Gail is trained to manage information and keep records.)

RICHARD JENSEN’S PERSPECTIVE

The patient’s spouse often gets to observe how a medical facility works from a different perspective. In this case, the person was Richard Jensen.

“The culture at The Steadman Clinic is not a big city culture. They’ve created something that is spectacular. It is caring and patient-centered, and it extends from physicians to physicians’ assistants, physical therapists, staff members, and others.”

“One of the things that impressed me was the positive, caring attitude of Dr. Millett and the whole Steadman Philippon organization,” adds Gail. “Even though I was not an elite athlete, I felt that my recovery was as important to them as it was to me. They were with me

throughout the whole process with a compassionate, yet motivating presence.”

Gail and Richard were also impressed by the communication between Dr. Viola, Dr. Millett, and others in Vail with the Jensens’ doctors and physical therapists back in Kansas. “My physical therapy both in Vail and at home was excellent.”

INCREASED AWARENESS OF SPRI

“We did not know about the Steadman Philippon Research Institute until I became a patient at the Clinic,” says Gail. “Once we started getting the SPRI Newsletter, the Annual Report, and other publications, we became more aware of the research that makes many of the procedures at the Clinic and other medical institutions around the world possible.”

Gail says her injuries, treatment, and recovery have been a life-changing experience. Richard agrees. “This was a wake-up call for both of us. It has helped us realize the importance of staying healthy. The Steadman Clinic and the Steadman Philippon Research Institute is about keeping people active.”

“It’s important to get the message out about the good work they are doing. We are excited about being asked to share our experience,” says Richard. “We have lots of active friends who have followed Gail’s progress. Almost to a person, they have said if they need orthopaedic medical care, they hope to get it at The Steadman Clinic.”

“Returning people to their active lifestyles is made possible because of the collaboration between The Steadman Clinic physicians and SPRI,” says Gail. “Personally, I believe the injuries sustained from my accident could have resulted in a negative outcome had it not been for my skilled surgeons and their teams.”

“SPRI positively affects people worldwide through its research and medical education,” she adds. “We encourage others to join Richard and me in supporting SPRI as it looks to the future in providing the best and most innovative care possible.”

HOW’S GAIL DOING?

When *SPRI News* contacted Gail to ask a follow-up question, this was her response: “I’m on a yoga hike in Breckenridge right now. It’s a beautiful day.”

We think that means she’s doing okay.



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