



Greenwich Hospital Donates Fluoroscopy X-ray Machine to the ONS Foundation Research Lab



ONS Foundation President Paul Sethi, M.D., Greenwich Hospital President and CEO Frank Corvino and Executive Vice President and COO of Greenwich Hospital Brian J. Doran, M.D. with the new C-Arm Fluoroscopy machine.

In February, Greenwich Hospital donated a state-of-the-art fluoroscopy x-ray machine to the ONS Foundation Research Laboratory. This equipment will expand researchers' ability to receive intra-operative x-ray images.

When Frank Corvino, CEO and President of Greenwich Hospital and Dr. Brian Doran presented this gift, ONS Foundation President, Dr. Paul Sethi, said, "The addition of a fluoroscopy x-ray to the ONS Foundation Laboratory enhances our research and teaching capabilities in significant ways." He

explained that surgeons will be able to have live feed from inside a total knee replacement to better understand how the knee is working in extremes of motion. They will be able to visualize the movement, understand the potential limitations of certain implants, and develop new methods to improve devices. "We can also study joint motion mechanics and changes in mechanics that occur with soft tissue repairs."

In addition, spine fracture research will benefit from use of the C-arm by allowing doctors to see that the bones are aligned correctly and that screws and plates are accurately placed.

For teaching purposes, the fluoroscopy unit provides the Foundation Lab the ability to duplicate the hospital operating room environment. During specific procedures, orthopedic surgeons and neurosurgeons may now improve their minimally invasive surgical techniques using the C-arm to see inside the body with x-ray rather than opening the skin and exposing other anatomy. "This is a vital and very generous gift from Greenwich Hospital," said Dr. Sethi.

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Message from the President . . .

Dear Friends,

As a result of the Foundation's mentoring program, these past few months have been especially rewarding. Our teaching experience, actually a mentorship, has blossomed. The mentor – mentee model (derived from Mentor's son and Odysseus) is a vital component of medical education. Most physicians recall that it started before medical school when a local doctor stimulated them to pursue medicine. ONS surgeon Dr. Katie Vadasdi still speaks about the surgeon whom she shadowed and the pivotal influence he had on her career choice.

I would like to believe that the ONS Foundation plays a vital role in influencing young adults to pursue careers in medicine. We have been successful in reaching high school students with our mini medical school curriculum and career day events. Currently, Dr. Mark Vitale's one week program planned for this summer has been met with enthusiasm.

Last fall, four full time college graduates joined us. Two will start medical school in August and the other two will complete their pre requisite classwork to prepare medical school applications for next year. Our students from last summer are gearing up to interview for medical school this coming September.

As we attempt to provide guidance and stimulation to future doctors, all of us are inspired by the natural curiosity and youthful fervor these same students bring to us. I often learn from their thoughtful questions and, for this reason, encourage you to read about their experiences in this News Forum edition.

Spring is here and with it comes the Annual Golf Outing. I hope to see each of you at Stanwich on June 10th. Thank you for your continued support.



Paul M. Sethi, MD

ONS Foundation News Update . . .

Congratulations Dr. Vitale . . .

The American Academy of Orthopaedic Surgeons (AAOS) honored Dr. Mark Vitale by selecting his poster **A Comparison of Two Pyrolytic Carbon Hemiarthroplasty Implants in the Treatment of Trapezial-Metacarpal Arthritis**, as a highlight of the Hand and Wrist Guided Poster Tour held on March 22nd. The goal of the Poster Tours is to feature the most interesting and thought provoking work in the field. Selected by AAOS experts, the featured posters were exhibited and Dr. Vitale was present at the Tour affording attendees an opportunity to ask questions.

Dr. Simon Participates in *Wellness Day* at Port Chester High School . . .

On April 8th, neurosurgeon Dr. Scott Simon participated in the first Port Chester School District WELLNESS DAY held at Port Chester High School. The program presented a series of innovative workshops designed to raise awareness of health issues facing adolescents and to encourage them to lead healthy lives. Dr. Simon presented a **ThinkFirst** program designed for adolescents. **ThinkFirst** is an award-winning, evidence based program that aims to help people learn how to reduce the risk for life altering or life threatening injury. The ONS Foundation is proud to be a chapter of this important national organization.

Incredibly, brain and spinal cord injuries are the leading cause of death among teens and are most frequently the result of car crashes, violence, falls, sports and recreation. The good news is that *most injuries are preventable!* At the Wellness Day event, Dr. Simon described an eye-opening picture of brain and spinal cord injury and demonstrated how the small choices you make in life can make all the difference. The overriding message is **USE YOUR BRAIN TO PROTECT YOUR BODY!**

ONS Foundation Welcomed Students from the “Women in Medicine” Program at Greenwich Academy

On December 10th, fifteen students from Greenwich Academy visited the ONS Foundation Arthroscopy, Surgical Skills and Biomechanical Research Laboratory for a unique introduction to medicine led by orthopedic surgeon Dr. Katie Vadasdi. The program consisted of a series of talks, arthroscopic surgery and ultrasound demonstrations, an MRI review, and a physical therapy lecture and clinic tour. The visit was designed to provide the experience of diagnosing and treating patients with musculoskeletal injuries or conditions. Dr. Tamar Kessel, Dr. Mark Vitale and physical therapist, Alicia Hirscht, assisted Dr. Vadasdi.

“Inspiring and mentoring high school and college students toward a career in medicine is part of the education initiative of the ONS Foundation,” said Foundation President, Dr. Paul Sethi. “It is the aim of the Foundation to serve both the immediate Fairfield County community and the broader field of medicine.”

“I loved the hands-on aspect of the visit,” commented one of the Greenwich Academy students. “Being able to do the ultrasound myself and perform a mock knee surgery was the coolest thing ever. Even though it was a model, I really felt like I was actually looking inside a knee! One of the {best} parts was Dr. Vadasdi’s video in her PowerPoint of the real shoulder surgery {where we saw} the clamp grabbing hold of the tendon, using the anchor, and tying the strings.”



lot of wonderful people who encouraged me to follow my gut.”

Ann Decker, Greenwich Academy Director, Duff Center for STEM Initiatives, accompanied the students and shared her observations. “Working with the actual surgical tools, ultrasound machine and other equipment in the teaching lab made a huge impact. The significance of the interaction with Dr. Vadasdi and her colleagues as role models cannot be overstated. Students respond to people who are engaged with them.”



Dr. Vadasdi, who is fellowship-trained in shoulder surgery and sports medicine, was the first female orthopedic surgeon on staff at Greenwich Hospital. Her passion for her family and sports were also topics of conversation with the visiting students. Some were relieved to learn that it is possible to have a career in medicine and, at the same time, have a full life and outside interests. “When I was a senior in high school in Massachusetts, I had the opportunity to do an internship with an orthopedic surgeon,” recalled Dr. Vadasdi. “In college I interned at Boston Children’s Hospital. These experiences stimulated my interest in learning about the musculoskeletal system. Despite a lack of female mentors in the field, I studied under a



Our Research Interns

In September, we welcomed Jared Gelbs and Chirag Sheth to the ONS Foundation Arthroscopy, Surgical Skills and Biomechanical Research Laboratory as research interns. Under the direction of Dr.



Chirag Sheth

Jared Gelbs

Paul Sethi, the two future medical students had an opportunity to learn the fine points of orthopedics, to observe doctor patient interaction, to conduct research and report their findings, to attend medical conferences and create surgical instructional videos that are shared with other surgeons around the country on VuMedi, a surgeons' only website. Jared told us that this internship gave him, "...a unique opportunity to learn firsthand from expert physicians about many aspects

of medicine and orthopedics."

Through observation, both interns learned the importance of doctor/patient interaction. Chirag described it best when he wrote, "I learned

that compassion and an open mind are as important as knowledge in delivering quality health care...these observations (proved) to me that medicine is an art and a science." Having an opportunity to observe surgeons like Dr. Sethi and Dr. Tim Greene enhanced Jared's internship and as he said, "...helped me learn what is involved in the decision making process of surgeons."

Research highlighted Chirag and Jared's internship experience at the ONS Foundation. One of the major

studies involved the histology of rotator cuff tears. The team was involved in data collection and analyzing samples as well as assessing rotator cuff healing.

Chirag reported that he learned the importance of proper documentation. He wrote, "I ...learned the importance of communication within a research team through working with other members at a different location." Similarly, Jared "...learned a great deal about the process of transforming a research idea into a fully IRB (Institutional Review Board) approved research project." Jared told us that his, "...experience working at the ONS Foundation has been extremely inspiring and further solidified my strong desire to pursue a career in medicine." For Chirag, the internship program, "...helped me get ready for the next stage of my life, medical school."

Meet our Board



Nat Barnum

Nat, a licensed real estate broker in Connecticut and New York, is currently the Executive Vice President of New England Land Company, Ltd. based in Greenwich. He specializes in commercial office leasing and sales. A Brunswick School Alum, Nat received his undergraduate B.A. degree from Ithaca College.

Prior to joining the Board of the ONS Foundation for Clinical Research and Education Inc., Nat served other non-profit organizations and foundations. He is currently a board member of The Greenwich Chapter of the American Red Cross, a past board member of The Greenwich Field Club, the Christ Church Outreach Foundation, and a member of the Brunswick Alumni Council.

In addition, he has also been involved in fundraising for the local chapters of The United Way, Kids in Crisis, The Boy Scouts and The March of Dimes.

His interests include playing squash and softball, cycling and coaching little league, and he has a sense of humor regarding his golf game. He lives in Riverside with his wife Michaela and son Christopher.



Lauren Corrigan

Mrs. Corrigan graduated Tufts University and New York University School of Law. She practiced corporate law with Proskauer, Rose in New York.

Currently, Mrs. Corrigan owns Englewood Marketing Group, Inc., an appliance distributor and Nostalgia

Products Group, an appliance manufacturer, both located in Green Bay, Wisconsin. She is a partner in the Yellow Cab Company of Chicago.

Mrs. Corrigan is a co-chair of the Northwestern University New York Regional Council and a member of WIN, a network of Northwestern women leaders. She and her husband Patton support the NYU Center for Prevention and Treatment of Cardio Vascular Disease in New York and the Fordham University School of Law Scholarship Fund. Mrs. Corrigan lives in Naples, Florida with her husband and has two sons and a daughter.

Nutritional Benefits of Vitamin D

by Katie Vadasdi, MD

Vitamin D has many nutritional benefits that are particularly important for athletes of all levels. It has been shown to aid in bone density, enhance musculoskeletal health, reduce inflammation and reduce the risk of systemic illnesses. As our life styles continue to become more active, it is important that we understand what we can do to enhance our athletic performance and prevent both acute and chronic injuries. Although Vitamin D is obtained from skin exposure to ultraviolet B irradiation, diet and supplementation, for most, supplementation is needed to reach sufficient levels.

Vitamin D3, or calcitrol, is the most potent form of the vitamin, and after it is obtained from diet or the sun, it is activated by the liver and kidneys. Skin production of vitamin D can be limited by use of sunblock, increased melanin in darker skin coloring and decreased sun exposure. Sun exposure can vary based on season, geographic location, age and many other factors that can lead to seasonal variations. This activated form of vitamin D influences over 1000 genes which are responsible for many important functions including muscle strength and development, endurance and inflammation.

The current definition of sufficient levels of vitamin D3 is above 30ng/

ml. Vitamin deficiency is defined at levels below 30ng/ml and is present in all age groups and demographics. It is felt that peak neuromuscular performance is achieved at vitamin D levels of 50ng/ml, but it is not clear if this same level also correlates with peak athletic performance.

Vitamin D plays a crucial role in musculoskeletal health including bone, muscle and systemic health. It is necessary for calcium absorption and thus is critical for bone density. By enhancing bone density, Vitamin D can reduce the risk of overuse stress fractures and acute fractures. It also has a strong

influence on fast twitch muscle fibers. Fast twitch fibers are not only important for athletic performance but also for preventing falls.

Sufficient vitamin D levels can enhance strength, exercise capacity and performance and reduce the risk of fracture by

reducing the risk of falling. It has also been shown to reduce and even reverse fatty atrophy; however, it is unclear if adequate levels of vitamin D could reverse the effects of rotator cuff atrophy.

In addition, Vitamin D plays a crucial role in reducing inflammation and enhancing the immune system. The anti-inflammatory effects can limit the extent of muscle injury associated with intense training and potentially enhance recovery and reduce over training. Its' effects on the immune system help reduce the incidence of illnesses such as the



Katie Vadasdi, MD

cold or flu, cardiovascular disease and other infections.

The current recommendations for vitamin D levels and supplementation are assessed with a blood test with 30ng/ml as the cut off for deficiency. Daily intake in the individual with levels above 30ng/ml is 4000 IU per day. If an individual does suffer from vitamin D deficiency, a supplementation protocol of Vitamin D3 50,000 IU per week is initiated for 8 weeks and repeated if the patient remains deficient.

Vitamin D is an important nutrient for musculoskeletal health and should be assessed in the athlete demonstrating muscle fatigue, stress fractures or frequent systemic illnesses. Intake of Vitamin D through diet and supplementation is critical for maintaining sufficient levels and for optimizing athletic performance.

Ultrasound Guided Injections

by Tamar Kessel, MD

What Is Ultrasound?

Ultrasound is a common diagnostic medical procedure. It uses high-frequency sound waves to produce dynamic images (sonograms) of organs, muscles, tendons, ligaments, nerves, or blood flow inside the body.

What Are Some Of The Uses Of Ultrasound?

Ultrasound has many common uses including obstetrics and gynecology, abdominal imaging, cardiology, and detection of clots. It is also commonly used in musculoskeletal medicine to look at soft tissue trauma and for precision guided injections.

What Are Some Of The Benefits Of Ultrasound?

Ultrasound is a painless procedure. It often eliminates claustrophobia and anxiety that can be associated with other diagnostic imaging such as CAT Scans or MRI. There is no need to stay still for long periods of time. It is safe, has no radiation exposure and there is no need to administer dye for contrast. It is cost effective, dynamic, and allows flexibility so that visualization of multiple joints in one setting is possible. Most importantly, it allows precise, targeted injection into an area of concern.

What Can We Inject With Ultrasound Guidance?

Ultrasound guidance allows the precise injection of various joints, tendons, ligaments, nerve sheaths, and nodules within the body. It also allows precise aspiration of cysts and fluid collections.

Why Use Ultrasound With Injections?

Data shows that blind unguided anesthetic and steroid injections are far less accurate than guided injections. Studies have shown blind injections to be only 80%



Tamar Kessel, MD

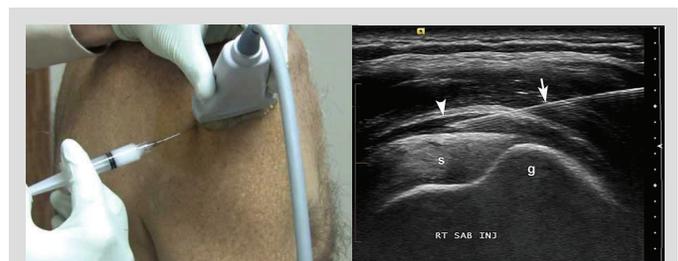
accurate in the knee, which is a very large joint, and only 30% accurate in the shoulder. Ultrasound gives us the ability to precisely place medications accurately and painlessly into joints and areas of damage without incurring higher fees associated with MRI or the potential harm of ionizing radiation caused by using CAT scans or fluoroscopy.

Indication For Ultrasound Guided Injection:

Ultrasound guided injections can be used for both diagnostic and therapeutic purposes. Therapeutic indications include arthritis, bursitis, tendinitis / tendinosis, effusions, aspiration of cysts, adhesive capsulitis, carpal tunnel syndrome, trigger finger, Morton's neuroma, and many other symptoms.

What Medications Are Injected With Ultrasound?

Medications injected under ultrasound guidance include local anesthetics such as lidocaine, steroidal medications, viscosupplementation, and platelet rich plasma (PRP).



Above is a picture of an ultrasound guided injection of the shoulder, with the corresponding ultrasound image. While administering medication to the area of concern, ultrasound allows direct visualization of the needle throughout the procedure.

Fund Development Update

ONS Foundation 5th Annual Golf Outing Monday, June 10th - The Stanwich Club



The ONS Foundation in conjunction with Greenwich Hospital will hold its 5th Annual Golf Outing at The Stanwich Club on Monday, June 10th. Event Co-Chairs, Michael Clain, MD, Rich Granoff and Vicki Leeds Tananbaum have announced that this partnership will provide an exceptional golf experience to benefit the ONS Foundation research, education, and surgical fellowship programs. Our educational commitment is to offer students and practicing physicians the most up-to-date information and techniques on the evaluation and management of musculoskeletal disorders.

Golfers will meet at Stanwich for registration and practice and will enjoy a buffet lunch before golf. They will be joined by non-golfers for cocktails, dinner, silent and live auctions. The 2013 Auction Co-Chairs, Rebecca Karson, Lauren Mazzullo and Amy Sethi, will turn the Live Auction over to Charity Auctioneer, Philae Knight of Phillips Auction House. Bidders will have an opportunity to raise their paddles in support of the ONS Foundation. An outstanding array of items include an Old Course Experience trip to St. Andrews, Scotland with guaranteed Old Course tee times; an elegant Cartier ladies watch from Betteridge

Jewelers; a five night, 6 day vacation at the superb Curtin Bluff resort in Antigua; four VIP/backstage passes to David Letterman; a Bentley Continental convertible for a weekend compliments of Miller Motorcars with dinner at La Cremaillere; a cocktail party at the Sam Owens art gallery in Greenwich catered by Watsons Caterers; rounds of golf at some of the most prestigious golf clubs in the area and much more....

For information or to register visit www.ons-foundation.org or call 203-869-3131.

5K PLAY STRONG SAFE 5K PLAY STRONG SAFE 5K PLAY STRONG SAFE 5K PLAY STRONG SAFE 5K

SAVE THE DATE – SEPTEMBER 22, 2013!



ONS FOUNDATION 1ST ANNUAL 5K WALK/RUN

Run or walk through beautiful Old Greenwich along a certified course designed to attract not only elite runners but also families who are interested in supporting this important organization. In addition to the actual race, the Foundation will conduct educational workshops on health and fitness for the athletes and other sports minded participants.

For more information or to become a sponsor visit www.ons-foundation.org

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