

# Discovery to Recovery

HOSPITAL  
FOR  
SPECIAL  
SURGERY



CLINICAL AND RESEARCH HIGHLIGHTS AT HSS | FALL 2007

## Special Surgery Launches *Building on Success*

### \$100 Million Campaign to Support Hospital Expansion and Clinical Research

To meet the needs of its growing patient population and spearhead groundbreaking clinical research, HSS has launched a landmark \$100 million campaign. The new fundraising effort, called *Building on Success: The Campaign for the Future of Hospital for Special Surgery*, was announced on June 7th at Special Surgery's 24th Annual Tribute Dinner by HSS Trustees and Campaign Co-Chairs Patsy Warner and Kendrick Wilson. The Campaign, which comes on the heels of Special Surgery's successful Campaign for Research, is raising capital support for the expansion and renovation of clinical facilities, as well as the creation of a robust clinical research program.

#### A Strong Start

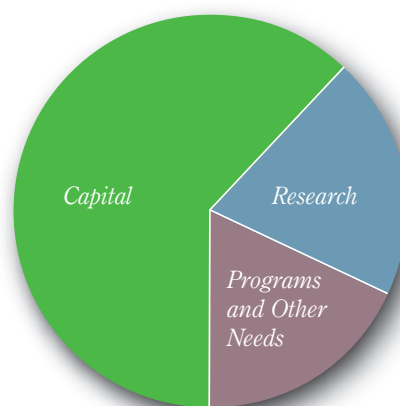
More than \$72 million has already been raised for the Campaign to date, thanks to a number of remarkable gifts from supporters of Special Surgery. "This campaign kicked off with a generous \$5 million gift from The Starr Foundation," said Richard L. Menschel, honorary chair of the Campaign. "The Starr Foundation was a lead and continuing supporter of our previous research campaign, as well," he noted.

An unprecedented lead gift of \$25 million from HSS Trustee David Koch and his wife, Julia, has dramatically advanced the Campaign toward its goal. The Kochs' gift will support the expansion of the Special Surgery campus to meet the growing needs of patients, visitors, and the medical staff. "Julia and David's gift is an outstanding example of our Board's commitment to Special Surgery," said Mrs. Warner. Mr. Wilson agreed: "Every single member of our Board of Trustees has already made a gift to the Campaign, and their enthusiasm is truly inspirational."

A new Children's Pavilion, which will consolidate all pediatric services on one floor of Special Surgery, has received enormous support as well (see page 3). A donor who wishes to remain anonymous made a \$15 million lead gift to support the renovation of nearly 35,000 square feet for existing and future services for children. At the gala, the Campaign Co-Chairs announced a \$1 million gift from Lehman Brothers for the new Children's Pavilion.



Campaign Support By Area



#### Expansion of Hospital Facilities

Since patient facilities were last expanded in 1996, surgical volume has increased by approximately 65 percent, and is expected to continue growing. "This unprecedented growth is being fueled by a growing group of people in their 60s and 70s and an increasingly active general population at risk for sports injury," said Thomas P. Sculco, MD, Surgeon-in-Chief. "There has also been a rising demand for specialty procedures that is expected to continue

into the next decade, making this expansion essential."

The *Building on Success* Campaign will support the addition of more than 200,000 square feet of new space and the renovation of another 100,000 square feet of existing space, making it the largest clinical expansion in the Hospital's near-150-year history. Throughout Special Surgery, the results of the overhaul are already visible. A new Ambulatory Surgery Center opened earlier this year, adding eight new surgical suites dedicated to outpatient surgery and creating a new area designated for surgical procedures of the hand and foot. Two new inpatient operating rooms have been added as well.

"This expansion will benefit thousands of patients who come to Special Surgery seeking a wide range of services," said Louis A. Shapiro, President and Chief Executive

*Continued on page 8*

Special Surgery  
Recognized  
As the Top  
Hospital in the  
Nation for  
Orthopedics

see page 2



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# Building on Success

Every year, thousands of patients come to Hospital for Special Surgery with enormous confidence that our expert physicians and our other health care professionals will restore their mobility and the quality of their lives. Special Surgery's number one



Louis A. Shapiro

position for orthopedics and number three position for rheumatology in *U.S. News & World Report's* 2007 "Best

Hospitals" issue underscores the talent and commitment of our staff, and also confirms the quality of the excellent patient experience here, which we all work hard to instill each day.

These are great achievements by our orthopedic surgery and rheumatology departments, and for all our services who work hand and glove with these departments, including

but certainly not limited to physical medicine and rehabilitation, anesthesiology, radiology, nursing, and all the members of the HSS family who support these departments.

### Sustaining Excellence

Since our patient facilities were expanded nearly 10 years ago, we have added more than 95 medical staff and numerous centers dedicated to research and clinical care in orthopedics, rheumatology, complementary medicine, and non-surgical treatments and diagnostics for the prevention and management of pain. The powerful combination of the world's leading surgeons, physicians and sub-specialists concentrated on one campus has led to the extraordinary level of care we provide to our patients today.

As we have grown, patients have sought our expertise in increasing numbers. In the past decade, surgical volume has increased by approximately 65 percent and is expected to increase by another 25 percent in the next five years. Two major demographic and sociological trends are fueling this rising demand for our care: An extraordinary increase in the over-60 population and their need for musculoskeletal medicine; and a more

active, younger population desiring to remain active as they grow older. Not to mention, more and more patients seeking us out for care because of our ever growing reputation.

In order to sustain the current level of excellence and meet the growing need for our specialized care, we have launched a landmark \$100 million campaign to raise support for the physical expansion of our institution and fund groundbreaking clinical and translational research aimed at translating scientific findings into innovative methods of treatment and prevention.

In the pages of this issue, you will read about the recent announcement of *Building on Success: The Campaign for the Future of Hospital for Special Surgery*, at the Hospital's 24th Annual Tribute Dinner this past June, our plans to create a Children's Pavilion dedicated to pediatric care at Special Surgery, and the pioneering work in translational research at HSS to develop new methods of treating autoimmune conditions.

### Join Us

We have already made significant achievements in the renovation and expansion of the existing Hospital.

While we have raised a significant amount since we began the Campaign, critical support is needed in order to achieve the next major step in the modernization of Special Surgery, the construction of entirely new space that will house the headquarters of our growing sports medicine and arthroplasty services. Additional philanthropy is essential to support our groundbreaking clinical research on arthritis, osteoporosis, and other conditions.

In the very near future, a new campus totally dedicated to mobility will be completed. An internationally renowned hospital built to the needs of the future. We have a long and distinguished history as specialists in mobility, dedicated to helping people of all ages heal faster, walk farther, and move without pain. We are building on our success to create a new vision for your care. We invite you to join us.

Sincerely,

Louis A. Shapiro  
President and CEO

## In the News

### Special Surgery Ranked #1 in Orthopedics by *U.S. News & World Report*

Recognizing Hospital for Special Surgery's excellence in its field, *U.S. News & World Report* has named HSS the top hospital in the nation in orthopedics in its 2007 "America's Best Hospitals" survey. Special Surgery also ranked third in the nation for rheumatology. This is the 17th consecutive year that HSS has been top ranked in the Northeast in these two specialty areas.

"This is a tremendous honor for the orthopedic staff and HSS and it is the result of the excellence in clinical care, research, and education that we provide," said Thomas P. Sculco, MD, Surgeon-in-Chief. "This recognition would not be possible without the incredible hospital staff and administration that provide the superb care and environment for orthopedics."

"It is particularly gratifying to have our institution receive recognition from physicians across the country," said Stephen A. Paget, MD, Physician-in-Chief. "This mark of distinction

confirms what many of us have known for years – that Hospital for Special Surgery is *the* place for orthopedic and rheumatologic care."

To further illustrate Hospital for Special Surgery's leadership in orthopedics, the magazine included an exclusive photo essay on knee replacement featuring HSS and Steven B. Haas, MD, Chief of the Knee Service. Special Surgery's innovation in the field of knee replacement is well chronicled – HSS physicians pioneered total knee replacement and have perfected minimally invasive knee procedures to speed recovery and reduce patients' hospital stays. In 2006, HSS performed more than 2,500 knee replacements, more than any other institution in the nation.

The "America's Best Hospitals" issue published by *U.S. News & World Report* ranks health care institutions nationwide in 16 medical specialties. With more than 5,000 hospitals evaluated, rankings are based on measures of quality, as well as reputation. Quality indicators that are factored into the ranking include patient volume and mortality rate, as well as features such as patient services, nursing care, and available technology. The rankings also take into consid-

eration special status conferred by a recognized external organization, such as designation as a Nurse Magnet hospital by the American Nurse Credentialing Center (ANCC). The reputation score is based on responses from surveys of board-certified physicians, in which those surveyed are asked to nominate up to five "best hospitals" in their specific field of care.

"Our number one position on *U.S. News & World Report's* 'Best Hospitals' list is a testament to the talent and commitment of the HSS staff," said Aldo Papone, Co-Chairman of the Board of Trustees. "Our staff members – not just in the orthopedics and rheumatology departments, but throughout Special Surgery – work every day to provide the best possible experience for each patient, and this recognition is a direct result of that dedication."

Dean O'Hare, Co-Chairman, agreed: "Special Surgery's mission has always been to provide the highest quality patient care, improve mobility, and enhance the quality of life for every patient," he said. "Both the excellent patient experience and the increasing number of people who choose to come here were recognized as factors for our first place ranking." ●



# Creating an Environment for Children

Recognizing that children flourish in surroundings uniquely designed for their needs, a new Children's Pavilion at Hospital for Special Surgery is being constructed to provide pediatric patients and their families with unparalleled health care in a setting comparable to the best children's hospitals in the country. The Children's Pavilion has already received overwhelming support – a \$15 million gift from a donor who wishes to remain anonymous, and a \$1 million gift from Lehman Brothers will help Special Surgery enhance patient services and create a special environment for pediatric patients, their families, and caregivers.

Lehman Brothers' generosity was recognized at Special Surgery's 24th Annual Tribute Dinner in June, where the firm's Chairman and Chief Executive Officer, Richard S. Fuld, Jr., was honored. The \$1 million gift will go toward creating the Lehman Brothers Pediatric Reception Center, located within the Children's Pavilion. "Thanks to Lehman Brothers, this modern facility will provide surroundings uniquely designed to meet the special needs of children and their families," said Aldo Papone, Co-Chairman of Hospital for Special Surgery's Board of Trustees. Mr. Papone also acknowl-

edged Mr. Fuld's continuous role in supporting Special Surgery, calling him "an extraordinary leader in the financial community and a wonderful friend of HSS."

### A Leader in the Field

Special Surgery is recognized as one of the few institutions in the world with the skill, years of experience, and resources to care for some of the most devastating disorders that affect children, including developmental hip dysplasia, limb deformity,



spina bifida, and clubfoot. Among the important services and clinical subspecialties available are the Pediatric Limb Lengthening and Limb Deformity Clinic, the CHArm Center for Complex Upper Extremity Problems in Children, and the Scoliosis and Spinal Deformity Clinic, which complement well-established pediatric clinics in cerebral

palsy and osteogenesis imperfecta. Nearly 20 medical specialists are dedicated to pediatrics and 13 pediatric rehabilitative therapists tend to children's developmental issues.



Plans for the Pavilion include vibrant, multi-colored décor that will welcome patients to an area double the current size of the pediatric wing. It will include an expanded rehabilitation center, renovations and amenities to increase patient comfort and convenience, and spacious inpatient rooms designed to allow caregivers to stay overnight with children. The



These renderings are illustrative of the goal of creating a clinical environment that is friendly to children and their families.

Children's Pavilion will also add to its team of health care professionals to guide every aspect of the family's experience at Special Surgery.

"The Children's Pavilion at Hospital for Special Surgery will be a one-of-a-kind environment designed to accommodate existing and expected growth in children's care and ensure a 'family-centered' pediatric team for all patients," said Roger F. Widmann, MD, Chief of Pediatric Orthopedics, who is spearheading the project. ●

### Designed for Families

"Lehman Brothers is proud to support Hospital for Special Surgery's efforts to provide world-class healthcare services in a child-friendly environment," said Mr. Fuld. "Helping create a warm, welcoming space for the patients and families served by the Hospital's pediatric wing is consistent with our philanthropic efforts in support of children around the world."

## \$1 Million Gift to Fund New ACL Registry

Special Surgery physician, who wishes to remain anonymous, recently made an extraordinary \$1 million gift to establish the Thomas L. Wickiewicz Fund for Orthopaedic Research in honor of Thomas L. Wickiewicz, MD, an attending orthopedic surgeon at HSS and emeritus chief of the Sports Medicine and



Thomas L. Wickiewicz, MD.

Shoulder Service. Dr. Wickiewicz first came to Hospital for Special Surgery in 1977 as a fellow in Sports Medicine Research studying under the late John Marshall, MD. Dr. Marshall had devoted his life to studying – and repairing – the anterior cruciate ligament (ACL) when few others in the world thought it was possible. Following in his footsteps, Dr. Wickiewicz has continued studying the ACL for more than 25 years.

### Creating a Registry

The funding from the gift will initially support the development and advancement of an ACL registry. "The registry will become a repository for various demographic data on every ACL reconstruction surgery performed at Hospital for Special Surgery," said Dr. Wickiewicz. "The initial step is to collect the data – not to study specific outcomes or procedures, just to capture everybody's information. The registry becomes a phenomenal research tool after large

volumes of data have been collected over the course of a few years; someone can then ask a question, and go back and look at the data and see if it can help answer the question." Dr. Wickiewicz has also directed a \$250,000 grant that he received from the Dr. I Foundation toward the registry and says he is extremely honored to have this groundbreaking project established in recognition of his contribution to ACL research.

The members of the Sports Medicine and Shoulder Service, led by Dr. Wickiewicz and co-chiefs David Altchek, MD, and Scott Rodeo, MD, have already begun work on the registry, which has received approval from the Institutional Review Board (IRB) and is expected to be up and running by the beginning of 2008.

### A Work in Progress

Collecting complete demographic information for each procedure is particularly important in creating a useful registry, as the definition of a successful ACL reconstruction can

vary. "Is the measure of success that the knee is stable? Or is the measure of success that the patient is happy? Or is the measure of success that the patient can function?" asks Dr. Wickiewicz. "With a registry, all of that information is gathered and as time and climate and cultures change, we will have access to information that will help us assess whether something has been successful."

After Dr. Marshall passed away in 1980, Dr. Wickiewicz and Dr. Russell Warren continued refining ACL surgery which, Dr. Wickiewicz says, is still evolving. "What used to be a two-hour open operation to sew the ligament together is now a minimally invasive, arthroscopic procedure," he said. "And we are hoping to continue refining ACL surgery, to make it predictable and user-friendly for the patient as well as for the surgeon, and to get people back to function. There is a lot that we have yet to learn, and this registry will be critical to furthering these efforts." ●



# THE

## HAPPENINGS AROUND THE HOSPITAL



### Case Closed ^

When Jennifer Pollitt sought medical care for the pain she had been experiencing in her elbow, numerous doctors told her that she was either suffering from tennis elbow, or that she was perfectly healthy and was just imagining the pain. Eventually, Ms. Pollitt was seen by rheumatologist Steven K. Magid, MD (above), who diagnosed her with undifferentiated seronegative spondyloarthropathy, an inflammatory joint disease that often goes unrecognized, even by physicians. Ms. Pollitt's case will be featured on an episode of the Discovery Health Channel's *Mystery Diagnosis*, following her story from her initial misdiagnoses through the successful treatment prescribed by Dr. Magid. The show is scheduled to air on December 3 (check local listings for details).



### Tennis Anyone? ^

When it comes to treating tennis injuries, Hospital for Special Surgery Assistant Attending Orthopedic Surgeon David M. Dines, MD, knows his game. An orthopedic consultant for the recent U.S. Open, Dr. Dines is also the medical director of the ATP Men's Tennis Tour and the United States Davis Cup Tennis Team physician. Pete Sampras, Andre Agassi, Andy Roddick (above) – their injured shoulders, knees, ankles, and backs have been treated by Dr. Dines, HSS Attending Orthopedic Surgeon David W. Altchek, MD, and other HSS colleagues over the last decade. "There's a long history of tennis at HSS," says Dr. Dines. "I play a lot of tennis myself, but I only wish I could play half as well as Andy Roddick."



### < HSS on the Silver Screen

This summer, Special Surgery provided the backdrop for scenes of the blockbuster movie, *The Bourne Ultimatum*. The film, directed by Paul Greengrass and starring Matt Damon (pictured above in a scene from the film and at left in a snapshot with HSS security officer Jack Roeser), is the third in the series about a fictional ex-CIA agent. As extras milled about and trailers lined the surrounding blocks, Mr. Damon was filmed running out of the Caspary Research Building, as well as in the Belaire Courtyard and on the roof of the main hospital building, recognizable by its unique location perched on the East River.



# PULSE

## Extending Our Expertise >

Nina Lightdale, MD (right), a recent graduate of the hand surgery fellowship program at HSS, has always had an interest in providing health care to underserved patient populations around the world. Awarded a Young Surgeon Traveling Fellowship to Peru by Health Volunteers Overseas and the American Foundation for Surgery of the Hand, Dr. Lightdale is currently performing between ten and fifteen surgeries per week at hospitals in Lima, Arequipa, and Cusco. Special Surgery's selective fellowship programs prepare the next generation of leaders in

orthopedic and rheumatologic medicine to deliver the highest level of care in any environment. "During my hand surgery training at HSS, I had state-of-the-art equipment and every educational resource available to me," she said. "In Peru, I am able to apply that training to the challenge of providing the same care without the same technology."

(More online [↗ www.hss.edu/d2r](http://www.hss.edu/d2r))



## < A Winning Team

Special Surgery has been named the official team hospital of the New York Red Bulls, with Riley J. Williams, III, MD, serving as the soccer team's physician and medical director. Dr. Williams, a specialist in shoulder, knee, and elbow surgery and Director of the Institute for Cartilage Repair at Special Surgery, is joined by associate team physicians David S. Levine, MD, and Bryan T. Kelly, MD. "Hospital for Special Surgery is without a doubt one of the finest, most respected facilities in the world and we are extremely proud to enter this partnership with them," said Marc de Grandpre, Managing Director of Red Bull New York.

## < Spine Patients Better Off After Surgery

Spine surgery is better than other treatments for a common and often debilitating back problem. That was the

conclusion reached by Frank P. Cammisa, Jr., MD, in a first-of-its-kind study published in May in the *New England Journal of Medicine*.

Dr. Cammisa, the Chief of the Spine Service at Hospital for Special Surgery, and his fellow researchers compared the

treatment outcomes of 600 patients suffering from degenerative spondylolisthesis with spinal stenosis, which causes painful pinched nerves in the spine. Patients who underwent surgery, the study found, did significantly better compared to patients treated by other means in the two years following treatment.

(More online [↗ www.hss.edu/d2r](http://www.hss.edu/d2r))





## Bringing Findings to Fruition

Two studies led by Hospital for Special Surgery physicians may lead to breakthrough treatments for both rare and common autoimmune and chronic inflammatory diseases. Robert F. Spiera, MD, Associate Attending Physician, hopes to examine the effectiveness and safety of the drug Gleevec in treating scleroderma, a rare disease that is both disfiguring and incurable. Concurrently, Director of Basic Science Lionel B. Ivashkiv, MD, is studying a way to simplify the treatment for a host of autoimmune and chronic inflammatory diseases. If his method proves successful, it will radically reduce the amount of time patients must spend in treatment by replacing a three-day treatment regimen with a single injection.

### Stopping Scleroderma's Progression

Scleroderma – which means a hardening of the skin – is an often progressive disease that affects between 75,000 and 100,000 people in the U.S., three quarters of whom are women. There is no known cause and no known cure.

The disease causes an excess of collagen and other proteins to accumulate, resulting in tightening and hardening of the skin. In some cases the disease affects only the hands, feet, forearms and face. In others,

though, such hardening can spread over any and all areas of skin.

“Patients can be encased in a thick, hard shell,” says Dr. Spiera, who has been working with scleroderma patients and studying the disease for more than a decade. “They look different, they feel different. These people are often desperate.”

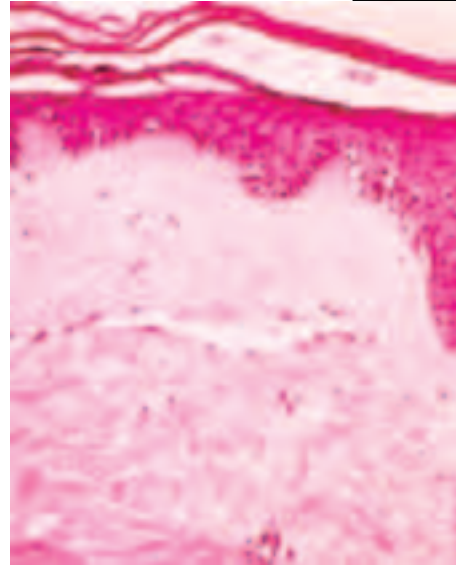
But the damage that scleroderma does to the skin is only part of the story. In a form of the disease called systemic scleroderma, the hardening also attacks the body’s organs and blood vessels. Such damage can lead to kidney, heart and lung dysfunction and, in some cases, failure.

“This is a real area of desperation in rheumatology,” says Dr. Spiera. “For diseases like lupus and rheumatoid arthritis, we have drugs that can modify the course of the disease. For scleroderma, we don’t have such a medication. We don’t have anything that changes the natural tempo of the disease.”

That may soon change. In early August, Dr. Spiera began recruiting scleroderma patients for a new study in which he will test whether the drug Gleevec can stop or perhaps even reverse the disease’s progression, and gauge the safety of the medication. Gleevec, which Dr. Spiera says was a breakthrough drug in the treatment of chronic myeloid leukemia, has looked promising in both test tube and animal studies.

It seems to work by blocking the pathways that lead to the creation of excess collagen, says Dr. Spiera.

Over the next two years, 30 patients will participate in the first human trial, which will be conducted at HSS with major fund-



One of the first symptoms of scleroderma may be the onset of Raynaud's phenomenon, which affects blood flow to the extremities when exposed to temperature changes or stress. Repeated bouts of Raynaud's and decreased blood flow may result in loss of bone in the fingertips, as seen in the x-ray above. A skin biopsy, left, exhibits excess collagen deposition, another sign of scleroderma.

ing from the Rudolph Rupert Scleroderma Research Program. Pharmaceutical company Novartis has donated the Gleevec, which would otherwise cost more than \$3,000 per month for each participant.

“It’s hard to get pharmaceutical companies interested in rare diseases in which other drugs have been tested unsuccessfully,” says Dr. Spiera. “Novartis’s participation really speaks to HSS as a center of excellence.”

### Understanding Infusion Therapy

Dr. Spiera is not the only one on the verge of a treatment breakthrough. Dr. Lionel B. Ivashkiv, who has been with HSS for 15 years, is continuing research that examines a potential new and much less burdensome treatment regimen for patients with



Associate Attending Physician Robert F. Spiera, MD (left), is exploring new methods of treating scleroderma.

lupus, dermatomyositis, thrombocytopenia, and other autoimmune and chronic inflammatory diseases.

Currently, such diseases are often treated by intravenous immune globulin (IVIG), an infusion therapy that requires patients to make several hours-long doctor visits on consecutive days. During those visits, their blood is infused with immune globulin, a substance derived by refining the blood plasma of thousands of healthy donors.

“IVIG is time intensive, it’s somewhat expensive, and there are sometimes shortages, because it’s a human product,” Dr. Ivashkiv explained. “A lot of the limitation of

the therapy is just the volume and the quantity of the material that is used. Some people get volume overload or severe allergic reactions.”

IVIG therapy has been used successfully for years, though how it works has never been fully understood. But in an article published in January in the journal *Immunity*, Dr. Ivashkiv and colleagues described a major breakthrough in understanding the mechanisms involved. By breaking down the IVIG solution into its component parts, they were able to determine which of those parts blocked inflammation. They discovered that only a tiny fraction of IVIG solution is required to block interferon gamma, a major inflammatory factor. That means that the cumbersome process of infusion could be replaced by a single injection of the solution’s active components, known as immune complexes.

“The study suggests that it’s not the whole preparation itself, but the immune complexes within the preparation that are causing the therapeutic effect,” Dr. Ivashkiv said. “This study also suggests that we can move away from using these IVIG preparations and generate very defined (synthetic) immune complexes, which have the potential to work better, be easier to deliver, and have fewer problems in terms of the infusion part of the therapy.”

Research now being led by Dr. Spiera and Dr. Ivashkiv and their colleagues at the Hospital for Special Surgery promises to make major contributions to the treatment of often life-threatening diseases.

“We are not simply fine tuning what we already know,” says Dr. Spiera. “We are making breakthroughs, and that is very exciting.” ●





## Nachman Prize for HSS Scientist

The Carol Nachman Prize for outstanding research in rheumatology – the most prestigious honor in the international rheumatology community – has been awarded to Hospital of Special Surgery Senior Scientist Jane Salmon, the Collette Kean Research Chair and co-director of the Mary Kirkland Center for Lupus Research at HSS. The award cited Dr. Salmon’s groundbreaking research on systemic lupus erythe-



Jane Salmon, MD

matusus (SLE) and associated autoimmune disorders, particularly the antiphospholipid syndrome (APS).

APS is an autoimmune disease associated with blood clots (called thrombosis) in arteries and veins. Pregnant women with APS are at increased risk for miscarriage and other complications of pregnancy. Until recently, experts believed that blood clots in the placenta were the cause of pregnancy loss in women with APS. Now, thanks to research conducted in Dr. Salmon’s laboratories, we know otherwise.

“We used animal models of APS to prove that inflammation, rather than thrombosis caused pregnancy failures,” says Dr. Salmon. “Now, we can identify new therapies that will target inflammation.”

Dr. Salmon initially encountered resistance because her hypothesis challenged conventional wisdom about APS-related miscarriage. “When I applied for my first grants, the reviewers said, ‘This is a disease of clotting. What’s the point of your study?’” she recalls. But her innovative idea and preliminary findings sparked the interest of Rheuminations, Inc. That support, and funding from the Alliance for Lupus Research and the Mary Kirkland Center for Lupus Research at HSS, allowed Dr. Salmon to generate the data that would persuade the NIH to fund a large study to test her theory in patients.

Dr. Salmon also studies the connection between lupus and cardiovascular disease. She and the team of scientists she leads discovered that patients with SLE, particularly young patients, had a significantly increased risk of premature atherosclerosis, a narrowing of the arteries that can lead to heart attack or stroke. Dr. Salmon’s studies into the causes of this, again, point to lupus-related inflammation.

“Women in their 40s with lupus are having heart attacks. To protect them, we must understand the mechanisms of the disease process,” says Dr. Salmon.

The Kirkland Center at HSS has played an essential role in her research, notes Dr. Salmon: “The infrastructure here is extraordinary. It supports our research, allows for collaboration, and encourages patients to get involved.” ●

## NIH Awards Clinician-Scientists \$2.5 Million in Grants

Two of Hospital for Special Surgery’s outstanding orthopedic surgeons – Jo A. Hannafin, MD, PhD, and Scott Rodeo, MD – have reached a milestone in their biomedical careers with the awarding of their first R01 research grants from the National Institutes of Health (NIH) in the area of anterior cruciate ligament (ACL) repair.

### Signaling the Healing Process

For more than 15 years, Dr. Hannafin’s work has been focused on improving treatment for injuries to the ACL, a major supporting structure in the center of the knee. As a surgeon, Dr. Hannafin has seen firsthand the serious impact of injuries to this important tendon. “Damage to



Jo Hannafin, MD, PhD

the ligament will cause knee instability and can lead to a number of secondary injuries to the articular cartilage and meniscus,” she explained.

The three-year, \$1.1 million NIH grant is supporting Dr. Hannafin’s investigation of signal transduction pathways in the ACL, which promises to increase our understanding of how to stimulate its repair or regen-

## International Orthopedic Leaders Gather at Special Surgery



Special Surgery hosted the inaugural meeting of the International Specialty Orthopaedic Collaboratorium in May 2007.

Hospital for Special Surgery brought together international orthopedic specialists from around the world when it hosted the inaugural meeting of the International Specialty Orthopaedic Collaboratorium (ISOC) in May. “The mission of the ISOC is to facilitate the exchange and best practices among the premier orthopedic institutions in the world,” said Thomas P. Sculco, MD, Surgeon-in-Chief. “It is fitting that Special Surgery served as the host of the first ever meeting of the important new group of global leaders.”

Eighteen specialists from eight major institutions participated in the two-day symposium. Institutions represented include Clinica Alemana de Santiago, Chile; Endo Klinik, Germany; Instituto Nacional de Rehabilitacion, Mexico; IRCCS Istituto Ortopedico Galeazzi, Italy; Istituto Ortopedico Rizzoli, Italy; Royal National Orthopaedic Hospital, United Kingdom; and Schulthess Klinik, Switzerland.

The ISOC’s specific objectives are to promote scientific, clinical, and educational collaboration; to improve the quality of patient care through sharing of clinical pathways and treatments; and to collaborate on academic programs through the exchange of residents, fellows, and faculty.

Scientific and academic sessions highlighted advanced clinical practice and innovative research from each participating institution with a specific focus on arthroplasty, bone tumor, and basic research.

“By bringing together thought leaders in the orthopedic community from all over the world, the ISOC provides an exceptional opportunity to impart knowledge on patient care, education and research-based programs to enhance orthopedic care on a global scale,” said Dr. Sculco.

The next ISOC meeting is planned for October 2008 at Schulthess Klinik in Switzerland. ●

eration. “Understanding this process may enable us to intervene to prevent the involution of the ACL, which often occurs when the ligament is torn,” she explained, “and ultimately improve our ability to optimize the function and healing of ACL grafts following surgery.”

### Connecting Tendon to Bone

In Dr. Rodeo’s laboratory, studies are underway to improve tendon-to-bone healing, a notoriously slow process which is crucial to the success of many common surgical procedures, including ACL reconstruction. The four-year, \$1.4 million NIH grant is enabling Dr. Rodeo to further explore the basic cellular and molecular mechanisms of tendon healing. “I am thrilled to be able to continue investigations in this area because the research questions parallel the sports medicine problems that we see in patients,” remarked Dr. Rodeo, a

sports medicine specialist.

This critically important work aims to refine current ACL reconstruction techniques in order to promote a faster recovery, and allow for a scientific basis for the design of post-operative rehabilitation. “The overall goal is to identify clinical problems in our orthopedic patients, use this information to design appropriate research studies, and ultimate-



Scott Rodeo, MD

ly take our research findings back to the clinic in order to improve patient care,” explained Dr. Rodeo. ●



## Recognition from Around the World

### Kudos

**Ronald S. Adler, MD, PhD**, and **Stephen Fealy, MD**, received a three-year, \$150,000 grant from the Major League Baseball Central Fund to study the ultrasonographic characterization of the vascularity of the asymptomatic rotator cuff.

The New York Chapter of the Arthritis Foundation has awarded **Sheila Angeles-Han, MD**, a one-year, \$40,000 grant to study functionality and quality of life in children with inflammatory disease.

**Carl Blobel, MD, PhD**, was appointed to the scientific roster of the National Institutes of Health (NIH) Intercellular Interactions Study Section. Dr. Blobel also co-chaired the Gordon Conference on Matrix Metalloproteinases in Italy.

**Adele Boskey, PhD**, spoke at the University of Connecticut in May. Her presentation was part of the Health Center's Endocrine Scholar Lecture Series. As part of a seed grant for collaborations between Cornell-Ithaca and Weill Cornell Medical College faculty, Dr. Boskey also received funds for a one-year research fellowship for **Jason Dorvee**.

**Nancy Pleshko Camacho, PhD**, has received \$50,000 from the Osteogenesis Imperfecta Foundation for a one-year research fellowship for **Renee Bargman, MD**, to study the effectiveness of a RANKL inhibitor, a new class of osteoporosis drugs, in treating osteogenesis imperfecta (OI).

**Peggy Crow, MD**, was named president of The Henry Kunkel Society, an association of distinguished investigative immunologists. The New York Chapter of the Arthritis Foundation awarded Dr. Crow \$2,000 for an eight-week study of gene expression in the synovium of osteoarthritis patients. She also presented a talk at the 8th International Congress on SLE in Shanghai, China.

**Rebecca Demorest, MD**, and **Jo Hannafin, MD**, served as team physicians for the US Rowing team at the 2007 World Championships in Munich, Germany.

The National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) has named **Stephen Dimartino, MD, PhD**, the recipient of a one-year, \$139,231 award through the University of Pittsburgh to participate in a multi-center study testing the effectiveness of the drug Rituximab in patients with polymyositis or dermatomyositis who are resistant to standard immunosuppressive treatment.

**Stephen Doty, PhD**, has been appointed Chairman of the External Advisory Council for the National Space Biomedical Research Institute in Houston, Texas.

The Alliance for Lupus Research awarded **Guillermina Girardi, PhD**, a two-year grant to study the key mediators that may lead to kidney thrombosis in order to improve diagnosis, prevention, and therapy for patients with antiphospholipid antibodies. The Alliance for Lupus Research also named Dr. Girardi the recipient of a two-year award through the University of Texas Southwestern Medical Center to study the role of nitric oxide in antiphospholipid syndrome.

**Mary Goldring, PhD**, was elected to the board of the Osteoarthritis Research Society International. Dr. Goldring's \$71,657 grant from the National Institute on Aging was transferred to Special Surgery from Beth Israel Deaconess Medical Center, affiliated with Harvard Medical School. Dr. Goldring is studying the role of the epithelium-specific transcription factor ESE-1 in the abnormal remodeling of cartilage in osteoarthritis.

**Steven Goldring, MD**, was invited to speak at the Endocrine Society Annual Meeting, the International Bone and Mineral Society Annual Meeting, the Advances in Mineral Metabolism meeting, and the XIII International Symposium on Inflammation and Rheumatic Diseases. Dr. Goldring also gave the Annual Lauren Ackerman Lecture at the Stony Brook University Medical Center Department of Orthopaedics and Biomedical Engineering. Additionally, Dr. Goldring participated in a grant review meeting of the Canadian Arthritis Network's Scientific and Medical Advisory Council,

of which he is a member. He also participated in an international site visit panel to review the Kennedy Institute of Rheumatology in London.

The Arthroscopy Association of North America has awarded **Larry Gulotta, MD**, a one-year, \$13,000 grant to investigate whether the rheumatoid arthritis drug Enbrel can improve the way tendons heal to bone following rotator cuff repair surgeries.

**Jo Hannafin, MD**, was appointed to the NIH Skeletal Biology Structure and Regeneration Study Section, which reviews grant applications for basic and applied aspects of the musculoskeletal system.

**Michael Lockshin, MD**, presented the keynote address at the 5th International Conference on Sex Hormones, Pregnancy and Rheumatic Disease in Florence, Italy.

**Daniel MacDonald, DDS**, received a five-year, \$2,172,296 award from the National Institute of Dental and Craniofacial Research to study the modulation of fibronectin to improve the integration of dental implant materials.

**Robert G. Marx, MD**, is site principal investigator for a four-year, \$1,165,060 NIAMS award through Vanderbilt University for a multi-center study investigating the long-term outcome of anterior cruciate ligament reconstruction surgery. Dr. Marx was also named deputy-chair of the Scientific Committee of the International Society of Arthroscopy, Knee Surgery and Orthopaedic Sports Medicine.

The Pediatric Orthopaedic Society of North America has awarded **Cathleen Raggio, MD**, a one-year, \$27,860 grant to study the identification of skin abnormalities in patients with OI through MR imaging.

**Laura Robbins, DSW**, was appointed to an expert panel by the Centers for Disease Control and Prevention to review the last decade of public health funding for arthritis.

The NIAMS has awarded **Scott Rodeo, MD**, a four-year, \$1,353,049 grant to study the effect of varying levels of mechanical strain on the healing tendon-bone interface and the role of inflammation in the healing process.

In May, **Jane Salmon, MD**, was the keynote speaker at the New York University School of Medicine Research Day and delivered the first Arthur DeGraff Lecture.

**Carla Scanzello, MD**, received a one-year, \$50,000 fellowship award from the New York Chapter of the Arthritis Foundation to study synovial membrane inflammation in osteoarthritis.

The New York City Louis Stokes Alliance for Minority Participation (NYC-LSAMP) presented **Peter Torzilli, PhD**, with a Certificate of Appreciation for the support and caring he has shown to the students of New York City. NYC-LSAMP works to increase the number of minority students who graduate with degrees in science, technology, engineering and mathematics.

**Vijay Vad, MD**, received an Excellence in Teaching Award from Weill Cornell Medical College, where he is an Assistant Professor of Rehabilitation Medicine.

**Scott Wolfe, MD**, received a two-year, \$100,000 award from the Orthopaedic Research and Education Foundation (OREF) to study the wrist kinematics of the dart-thrower's motion. Co-investigators include **Howard J. Hillstrom, PhD; Sherry Backus, PT, DPT, MA; Aviva Wolff, CHT, OTRL; Richard Cheng; Brian Pansy; and Mark Lenhoff**. Dr. Wolfe also delivered the Frank E. Stinchfield Lecture at the biennial Alumni Association meeting of New York Orthopaedic Hospital at Columbia University Medical Center.

**Timothy Wright, PhD**, received \$2,900 from OREF for a summer orthopedic research fellowship for **Jonathan Danoff** to examine the effect of cross-linking of polyethylene for acetabular components in total hip replacements under conditions mimicking extreme activities by patients. In April, Dr. Wright participated for the third year in the NIH Loan Repayment Program Study Section for the NIAMS. ●

*Continued from page 1*

Officer. "In addition to the new, state-of-the-art surgical and inpatient services, we will also have new rehabilitative programs, an expanded pain management center, an integrated Sports Rehabilitation and Performance Center for injury prevention and recovery, enhanced imaging and outpatient services, and a new Children's Pavilion, all to provide enhanced service to our patients."

#### Making Strides in Research

To build upon the success of Special Surgery's internationally-recognized basic research program, the Campaign will devote resources to expanding clinical research, giving every patient the opportunity to participate in research studies that will provide a powerful resource for

advancing orthopedic and rheumatologic health care.

"With HSS's extraordinary volume of patients, we have an unparalleled opportunity to follow patients' progress from the moment of diagnosis through their later years," said Steven R. Goldring, MD, Chief Scientific Officer. The Campaign will enable Special Surgery to appoint clinical research coordinators for specialty services, equip clinical facilities with technology for data collection and processing, and create endowed chairs and fellowships to attract senior scientists and clinicians to lead the clinical research effort. According to Dr. Goldring, "With the strong foundation of basic research and the enormous growth of our patient base, by following patients' progress from year to year, we are in a unique position to move

closer to finding cures for arthritis, osteoporosis, and other disorders."

#### A Spectrum of Support

Funds totaling nearly three-quarters of the campaign goal have already been raised, thanks to significant gifts from many individuals and foundations, including several multi-million dollar gifts. These gifts will provide capital support for the expansion and renovation of hospital facilities and the development of advanced clinical research programs. Support from the physicians has been exceptional as well, according to the Campaign's physician co-chairs, Dr. Thomas Sculco and Dr. Leon Root. "The Campaign has seen support from over 90 percent of Special Surgery's physicians, including one recent gift of \$1 million from an anonymous donor," said Dr. Sculco

(see page 3). "This level of support shows that the members of our medical staff don't just work at Special Surgery – they believe in its mission and are eager to contribute to its ongoing success." ●

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*Associate Editor:* Rachel Jager

*Contributing Editors:* Edward C. Jones, MD, MA, Reesa Kaufman, Matt McMillen, Rachel Olszewski

*Design:* Arnold Saks Associates

*Photography:* Jim Barber, Robert Essel

*Printing:* Monroe Litho

*Discovery to Recovery* is published twice a year by the Development Department, Hospital for Special Surgery, 535 East 70th Street, New York, NY 10021. 212.606.1196

*Hospital for Special Surgery is an affiliate of New York-Presbyterian Healthcare System and Weill Cornell Medical College.*

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## Our Physicians

# FOCUSED ON WOMEN'S HEALTH

### **Michael D. Lockshin, MD** Rheumatologist Michael D.

Lockshin, MD, has spent over 25 years studying clinical aspects of rheumatic disease and pregnancy, while helping patients like Lisa Doromal (see other side). Dr. Lockshin is the director of the Barbara Volcker Center for Women and Rheumatic Disease and co-director of the Mary Kirkland Center for Lupus Research, as well as a professor of medicine and obstetrics-gynecology at Weill Cornell Medical College. He is

currently working with Jane E. Salmon, MD, on PROMISSE – a multimillion dollar, multicenter study funded by the National Institutes of Health that seeks to define biomarkers that predict a compromised pregnancy outcome in patients with lupus. “The PROMISSE study is the type of research that will lead to a new textbook that will rewrite the rules about lupus pregnancy,” said Dr. Lockshin, seen here with Brendon Feldgoise, one of the first babies delivered by a mother with lupus in this study.

*(More online* [↗ www.hss.edu/d2r](http://www.hss.edu/d2r))



## Our Patients

# A BUNDLE OF JOY

### Lisa Doromal

Like many women with rheumatic diseases, Lisa Doromal faced what she calls a “rough road” when she and her husband, Noel, were ready to start a family. Before and during her pregnancy, Ms. Doromal, who suffers from rheumatoid arthritis, relied on her rheumatologist at Hospital for Special Surgery, Michael D. Lockshin, MD (see other side), for information and guidance. Dr. Lockshin helped Ms. Doromal understand potential complications that could arise, and

monitored her condition closely throughout her pregnancy. “When I had a question, I knew I could count on him for a straight answer,” she said. “He is an excellent clinician who is also personable and approachable; it was a huge comfort knowing I had access to such a wealth of information.” In February, Ms. Doromal gave birth to a son, Thomas. “We are so grateful to Dr. Lockshin,” she said. “He has single-handedly improved my life by 150 percent.”

