



Connections 2012



A Newsletter from the Children's Orthopedic
and Scoliosis Training Program
Rady Children's Hospital and University of California – San Diego



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Message from the Director

Dennis R. Wenger, M.D.

Introduction

Having recently completed the 2012 David Sutherland Visiting Professorship, we can now summarize our year of clinical and academic activities. The goal of this newsletter is to keep our colleagues here in San Diego as well as our former fellows, residents, and friends throughout the world updated on our activities.

Mission/National Prominence

Our mission continues to be that of providing world-class patient care, education, and research in children's orthopedics and spine deformity. We have a balanced program, including all areas of elective children's orthopedics, a high volume of children's orthopedic trauma, and world-class specialized clinics in areas such as scoliosis, hip disorders in childhood and adolescence, sports disorders, foot and lower limb disorders as well as cerebral palsy. This powerful combination has led to our now being ranked as the #2



Message from the Director -continued

program in the nation for pediatric orthopedics by the U.S. News and World Report's Hospital Rankings for 2012-2013.

Clinical and Research Activities

Our large patient volume presents both benefits and burdens, with the major benefit being the clinical volume to educate fellows, residents, international fellows, medical students, and visiting scholars on every area of children's orthopedics. The surgical volume for our residents is excellent and for fellows, the highest in North America. The burden is keeping a high quality staff to deal with the volume. We now have 10 full-time children's orthopedic surgeons as well as 12 physician extenders in our physician assistant/nurse practitioner program.

Dr. Scott Mubarak keeps very busy organizing the clinical care component of our program along with the able assistance of David Pyatt, Director of Orthopedic Operations for the Rady Children's Medical Foundation, and Joan Morgan, Manager of Outpatient Orthopedic and Rehab Medicine Clinics.

This report includes sections from most of our divisions, thus I will describe only a few highlights. Dr. Peter Newton continues to direct our outstanding research division, which is comprehensive, covering all areas of children's orthopedics. His work on scoliosis has received worldwide recognition, including a recent Wall Street Journal article describing the progressive, futuristic treatment of scoliosis available here at Rady Children's Hospital San Diego.

Our hip research program is growing rapidly, spearheaded by Dr. Harish Hosalkar, whose close association with Dr. Bob Sah (Ph.D.) at UCSD is leading to many state-of-the-art advances (see later section).

The sports medicine program is growing by leaps and bounds, with three of our staff giving almost full-time attention to childhood and adolescent sports medicine problems. Two additional staff dedicate half of their time to the program. We remain a nationally recognized center for foot and lower extremity disorders in childhood, as well as for the treatment of cerebral palsy. Our orthopedic trauma care program, directed

by Dr. Wallace, is unsurpassed in the children's orthopedic world.

National and International Activities

Our academic staff continue to be active throughout North American and the world with many visiting professorships, involvement in educational courses and other presentations. Each year many of our department members serve as faculty for the prestigious International Pediatric Orthopedic Symposium (IPOS) held in Orlando. In addition, the Scoliosis Research Society meeting benefits by multiple submissions and presentations from our scoliosis department. We recently returned from the Pediatric Orthopedic Society of North America meeting in Denver, where our institution was well represented, with three of the eight papers selected for consideration as the best clinical paper award having their roots at Rady Children's Hospital San Diego.

Of further interest, Dr. Peter Newton, the chief of our research program and scoliosis service, was elevated to the presidency of the Pediatric Orthopedic Society of North America beginning in May, 2012, with his installation taking place at the recent meeting in Denver. This recognition confirms Dr. Newton as an international leader in our field. We salute him (see later section).

Education

Our educational program remains among the best in the world. We continue to select top ranked fel-

Rady Children's Hospital – San Diego



University of California – San Diego

Message from the Director -continued

lows from throughout North America for our clinical fellowship program, and attract outstanding international fellows who work with us in performing orthopedic research. In addition we have orthopedic residents from UC San Diego, the Naval Regional Medical Center, and the combined Wilford Hall Air Force – Brooke Army Medical Center military training program in San Antonio.

Administrative Support

Our hospital leadership, directed by CEO Kathleen Sellick and including David Pyatt, M.S.H.A., director of Orthopedic Operations, and Joan Morgan, B.S.P.T., Manager of Outpatient Orthopedic Clinics, continues to provide guidance as we grow. The entire third floor of our medical office building will become an orthopedic center by early 2013 and the planning for such a transition is immense.



Kathleen Sellick, CEO

We hope this issue will keep you informed about the activities of our department and we are happy to invite our prior fellows and residents back for our visiting professor program. Thank you for your interest.

Dennis R. Wenger, M.D.

Director,
Pediatric Orthopedic Training Program
Rady Children's Hospital – San Diego

Clinical Professor of Orthopedic Surgery
UCSD

The surest way to corrupt a young man is to teach him to esteem more highly those who think alike than those who think differently.
– NIETZSCHE

Learning Children's Orthopedics



Dr. Harish Hosalkar and Dr. Scott Mubarak congratulating Dr. Krishnamoorthy Venkatadass from Coimbatore, India, after completion of his international fellowship in children's hip and trauma surgery.



Dr. Dennis Wenger (left) and Dr. Harish Hosalkar (right) congratulating Domi Behrends upon his graduation from his international fellowship in children's orthopedics here at Rady Children's Hospital.



Dr. Dennis Wenger (left) and Dr. Scott Mubarak (right) congratulating Dr. Razak Muhamad from Kuala Lumpur, Malaysia, upon completion of his year-long fellowship in children's orthopedics at Rady Children's Hospital.

Resident Education at Rady Children's Hospital - San Diego

Every major Children's orthopedic teaching center provides education and experience for learners at every level, including orthopedic technicians, nurses, medical students, physician assistants, nurse practitioners, residents, and fellows, as well as education between staff members. This allows new ideas to be propagated, state-of-the-art care, and dynamic discussions.

Orthopedic teaching at Rady Children's Hospital San Diego began in the 1950's but became more formalized when Dr. David Sutherland was appointed as the first full-time academic professor here at Children's Hospital in the early 1970's. This started a tradition for quality residency education which led to the establishment of a fellowship program when Drs. Mubarak and Wenger were added to the orthopedic staff.



David Sutherland, MD

Even though we have a very successful fellowship program, our residency program continues to be a central part of our educational mission. Each year we meet with residents and try to make adjustments and accommodations in our resident education program to be certain that the resident experience is symbiotic with the fellow's experience. We try to make sure the residents get adequate outpatient clinical teaching as well as operative experience. Their experience of high volume, yet supervised experience in acute orthopedics is likely unmatched in the world. We work hard to be sure that their elective orthopedic experience is similarly valuable.

Our teaching conference system continues to emphasize resident level issues. For example, at Monday morning conference, when all operative cases to be performed that week are presented, the residents present many of the important cases as well as preparing the brief research background slides to illuminate the case. Also, we make sure that our visiting professor program provides a resident education focus.

In summary, resident education is a key component of our mission.



Orthopedic residents get a front row seat at the Monday morning pre-operative conference. Better for learning.



Senior resident getting personal instruction from our staff.



Pediatric Orthopedics at Rady Children's Hospital San Diego - A Resident's Perspective

Salil Upasani, M.D. - UCSD Resident - June, 2012 Graduate

As a graduating Orthopedic Surgery resident, committed to a career in pediatric orthopedics, Rady Children's Hospital San Diego (RCHSD) has played a very influential role in my training. I leave San Diego, headed for my fellowship in Boston, with a strong foundation of knowledge and the confidence to take care of a broad spectrum of pediatric musculoskeletal conditions. I owe this, in large part, to the rigorous curriculum developed by the pediatric orthopedic faculty as well as the large volume and variety of patients that I was exposed to as a resident at RCHSD. As a comparison, the average UCSD resident completes residency with nearly three times the minimum number of pediatrics cases required by the ACGME, and nearly double the national average.

Resident education at RCHSD focuses on four primary principles. First, a comprehensive didactic curriculum based on the Lovell and Winter's Pediatric Orthopaedics textbook, ensures that each resident is well read on the principles of pediatric care. Secondly, weekly journal clubs expose residents to the most important recent and classic articles published in the field. We are educated on how to critically evaluate these articles and apply them practically to everyday patient care. Next, twice-weekly indications and radiographic review conferences allow residents to prepare for the surgical cases for the week and review all inpatient and emergency department consultations. Hands-on care of patients in the outpatient clinics, operating rooms, and on the inpatient wards enable residents to apply their teachings, and learn the technical skills necessary to treat this patient population. Residents also have the opportunity to attend a variety of other sub-specialty conferences.

Each resident at UCSD completes two 3-month rotations at RCHSD. As a **junior resident** on peds ortho, the experience can be very demanding. The analogy of drinking water from a fire hydrant comes to mind. For most orthopedic residents this is their first exposure to working with children. Radiographs with secondary ossification centers and growth plates just don't make sense! And getting into the swing of things when you first step into the well-oiled machinery at RCHSD can take several weeks, but by the end of the first month most residents have things figured out.

Efficiency is the name of the game. First of all, staying on top of the mountain of reading requires discipline and a well-structured study program. The same focused discipline must be applied to

clinical responsibilities. Being able to prioritize is key, but also being a "people person" who can soothe anxious parents and frustrated consultants is invaluable. The three months go by in a flash. You have learned a TON. And before you realize it you're back dealing with multiply operated worker's comp patients with chronic low back pain and non-compliant diabetics with wet fore-foot gangrene.

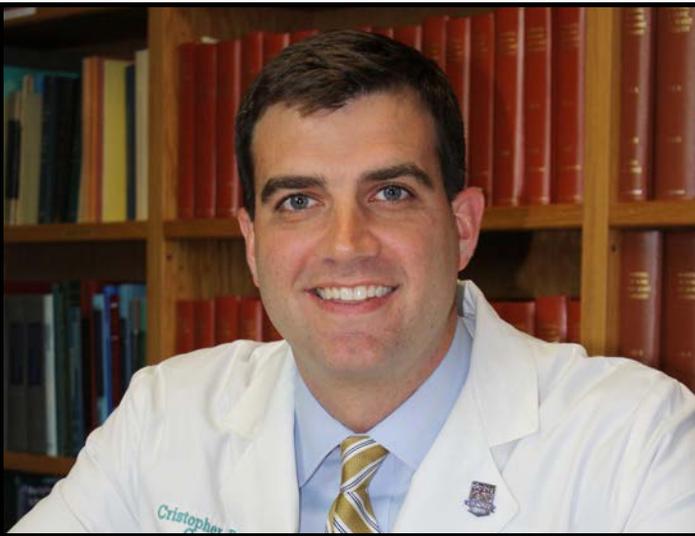
The **senior resident** rotation at RCHSD can be a blessing or a curse, depending on one's attitude. Residents who take full advantage of the greater autonomy / responsibility required, and take pride in helping the junior residents from UCSD, the Navy and the Air Force get the most out of their senior experience. Others find reasons to complain; like taking in-house call as a senior, competing with fellows for "cool" cases, or being pulled in different directions. While these are sometimes valid criticisms, in the end it is clear that the training and experiences that residents get at RCHSD over two rotations is unmatched in North America. As the old adage goes, "the more you put into it, the more you get out of it." The senior rotation is really different from the junior rotation, providing the resident projects a learner's attitude and a clear demonstration of wishing to function at a higher level. The staff and fellows respond to your interest, attitude, and energy. In my last few months at Children's I was doing everything from clubfoot casting to pelvic osteotomies, and I even got to insert my fair share of pedicle screws.

In the end, I would not have had it any other way. I am grateful for the training that I received and the relationships that I developed with the faculty at RCHSD. I feel like I've taken full advantage of the opportunities I was given here in San Diego and I look forward to what awaits me in Boston.



2011-2012 Fellows - Rady Children's Hospital

The RCHSD/UCSD fellowship program in children's orthopedics and scoliosis surgery remains among the most sought after in North America. The balance of training that our fellows receive covers all areas of children's orthopedics as well as providing excellent research possibilities. In addition, we arrange for our fellows to be responsible for primary call several nights each month, under the supervision of a senior staff, which allows them to develop independent decision making skills. The recent ACGME analysis of surgical training in North America suggested that more graded responsibility needs to be given to senior trainees. Fortunately we have been able to incorporate this into our program. We are proud of our fellows who are graduating and each is going on to work in an academic center, where they will be involved in patient care, teaching, and research. We congratulate them on their accomplishments.



Christopher Bray, M.D.

Dr. Bray received his bachelor of science degree from The Citadel Military College of South Carolina, where he served as class president for four years. He earned his M.D. at the Medical University of South Carolina and then took his orthopedic residency at the Carolinas Medical Center in Charlotte. Dr. Bray's primary fellowship research project focused on the many problems that we encounter in managing unicameral bone cysts in childhood.

Following his fellowship, Chris and his wife and three children will depart for New Zealand, where Chris will undertake an additional fellowship in sports medicine. In 2013 he will join the Greenville Hospital System University Medical Center and the Steadman Hawkins Clinic of the Carolinas in Greenville, South Carolina.

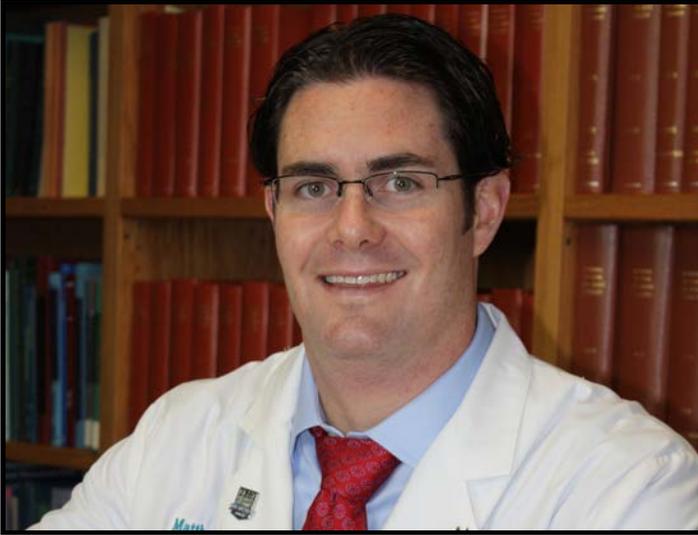


Eric Fornari, M.D.

Dr. Fornari received his bachelor's degree from Colgate University and his medical degree from SUNY Downstate College of Medicine (Brooklyn). He completed his orthopedic residency at Tufts Medical Center in Boston. During his fellowship year Eric completed a research project on childhood obesity as a factor in orthopedic disorders, as well as a comparative analysis between plain radiographs and 3D MRI reconstructions of trochlear dysplasia of the knee.

Eric has accepted an academic position at Montefiore Medical Center in New York, which is the teaching hospital of the Albert Einstein School of Medicine in New York City. He will be joined there by his fellow colleague, Dr. Jacob Schulz, who has also accepted a position at that institution. This is a first for us and perhaps the nation -- two fellows graduating together and taking academic positions together!

2011-2012 Fellows - Rady Children's Hospital



Matthew Schmitz, M.D.

Dr. Schmitz earned his undergraduate degree at the United States Air Force Academy, followed by medical school at Loyola University of Chicago Stritch School of Medicine. He completed his orthopedic residency at the San Antonio Uniformed Services Wilford Hall Medical Center in San Antonio in 2009. While a resident in San Antonio he rotated here at Rady Children's Hospital. Following his residency Matt was assigned to Andrews Air Force Base for two years as a general orthopedist before joining us for his fellowship.

Dr. Schmitz has completed a study on morphologic variations of the femoroacetabular joint in adolescents using the new EOS imaging technology.

We were recently informed that Dr. Schmitz has been awarded the POSNA/AAOS Clinician Scholar Development award. This is a special program where one member from each of the subspecialties is provided with training and mentoring to prepare them for scholarly and academic development.

Following his fellowship, Matt will assume the position of Chief of Pediatric Orthopaedics at the San Antonio Military Medical Center.



Jacob Schulz, M.D.

Dr. Schulz graduated from Amherst College and received his medical degree from the University of Pittsburgh School of Medicine. He then completed his orthopedic surgery residency at the Albert Einstein Medical Center in Philadelphia.

Jake has been a proficient researcher, having completed a comprehensive study on selective thoracic fusion in AIS curves in patients who also have a significant lumbar curve. He also completed and presented an interesting, important and in some sense controversial study on the functional and radiographic outcomes of displaced clavicle fractures in adolescents.

As noted above, he will be joining his "fellow-fellow" Dr. Eric Fornari in an academic position at Montefiore Medical Center in New York (Albert Einstein School of Medicine).

All knowledge is of itself of some value. There is nothing so minute or inconsiderable that I would not rather know it than not.

– Samuel Johnson

2011-2012 International Fellows



Bernd Bittersohl, M.D.

Pediatric Hip and Trauma Fellowship (Intl)
Residency: University Hospital Dusseldorf
Staff Orthopedic Surgeon: U. of Dusseldorf,
Germany

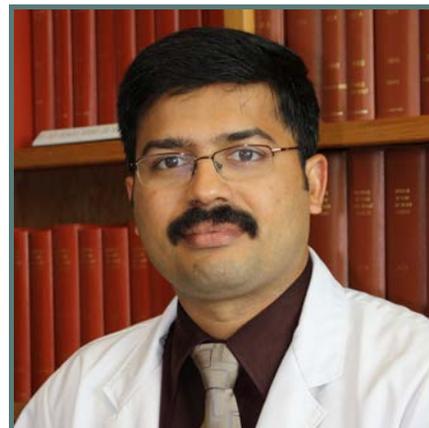
Daniela Zaps, M.D.

Pediatric Hip and Trauma Fellowship (Intl)
Residency: University Hospital Dusseldorf, Germany



Matthias Pallamar, M.D.

Pediatric Orthopedic Fellowship (Intl)
Residency: Orthopedic Hospital Speising
Attending Surgeon: Orthopedic Hospital
Speising, Vienna, Austria



Venkatadass Krishnamoorthy, M.D.

Pediatric Hip and Trauma Fellowship (Intl)
Residency: Ganga Hospital Coimbatore
Senior Registrar in Trauma and Pediatric
Orthopedics: Ganga Hospital, Coimbatore, India

Arriving International Fellows (2012-2013)

Mandar Agashe, M.S., M.B.

Pediatric Hip and Trauma
Mumbai, India

Dzulkarnain Amir, M.D.

Scoliosis (7/1/12-3/31/13)
Kuala Lumpur, Malaysia

Takahito Fujimori, M.D.

Scoliosis (1/1/13-6/30/13)
Osaka, Japan

Arriving Fellows - 2012-2013



Avrum Joffe, M.D.

Avrum earned a B.S. in Chemistry with Honors from Union College in Schenectady, NY, followed by his medical degree at the UMDNJ-New Jersey Medical School. He will complete his orthopedic residency at St. Luke's Roosevelt Hospital Center in June of 2012. During his residency he received the Arnold P. Gold

Foundation Humanism and Excellence in Teaching Award and was a member of the Academic Committee in the Department of Orthopedic Surgery.



John Kemppainen, M.D.

John attended the University of Michigan College of Engineering for his undergraduate education, earning a BSE in Materials Science and Engineering, Summa Cum Laude. Before entering medical school John worked for DePuy Orthopedics as a product development engineer

where he developed surgical instrumentation and a bone graft delivery device among other things. He then received his M.D., with distinction, from Wayne State University School of Medicine and is currently in the final year of his orthopedic residency at Summa Health System in Akron, Ohio.



Brian Scannell, M.D.

Brian attended the University of Georgia where he earned his B.S. with Honors in Biology, Magna Cum Laude. He then received his medical degree from the University of North Carolina School of Medicine, and is currently an orthopedic resident at the Carolinas Medical Center. Brian has been a very active researcher

and has produced multiple publications; he will complete his residency in June, 2012.



Christopher Souder, M.D.

Chris attended Texas Tech University as an undergraduate, where he earned his B.B.A. in accounting, Summa Cum Laude. He received his medical degree from the Texas Tech University School of Medicine. He is currently a resident at Scott and White Hospital in Temple, Texas, and

will graduate in June of this year. Chris has received numerous awards and honors during his educational career, including Presidential Endowed Scholar, President's List, and Highest Ranking Graduate of the College of Business Administration at Texas Tech University.

Future Fellows (2013-2014 Academic Year)

We are proud to announce that we have matched with the outstanding residents listed below.

Matt Hollenbeck, M.D.
Greenville, South Carolina

Jonathan Peterson, M.D.
University of Iowa

Lee Phillips, M.D.
University of Utah

Lisette Salgueiro-Canetti, M.D.
University of Puerto Rico



*Peter Newton, MD
Elected to President of the Pediatric
Orthopedic Society of North America
(POSNA)*

Introduction

The United States clearly leads the world in medical education and research, and the professional societies that represent our surgical specialties serve as markers to confirm American expertise and the respect of the world community. The Pediatric Orthopedic Society of North America (POSNA) typifies such an organization and includes more than 1,000 members.

Children's orthopedics did not exist as a specialty in the 1960's, however, with the expansion of surgical knowledge, in the early 1970's, an organization called the Pediatric Orthopedic Society was formed. The society included about 25 very senior orthopedic surgeons from a few children's hospitals throughout North America, as well as surgeons from the Shrine system.

By the late 1970's a rapid growth occurred in our specialty, with many orthopedic residents beginning to take fellowship training. The very traditional Pediatric Orthopedic Society proved to be too small and exclusive and could not adequately serve the needs of our growing specialty. Accordingly, in about 1980, the more inclusive Pediatric Orthopedic Society of North America was formed and incorporated the traditional Pediatric Orthopedic Society members in an "amalgamation". Since that time there has been geometric growth in the POSNA membership, with world-wide attendance at its meetings.

In the early years, being president of such an organization was a somewhat ceremonial post with few activities. As medicine has become more complex, so have our organizations. In the 21st century POSNA has complex relations with multiple organizations including the National Institutes of Health, lobbyist repre-

sentatives in Washington, D.C., tight associations with sister organizations such as the American Academy of Pediatrics, as well as other research and corporate organizations. Finally, POSNA now has affiliate relationships with perhaps 25 national pediatric orthopedic organizations throughout the world. Being POSNA president in the 21st century is a big deal!

Clearly, being asked to serve as president of such an organization is a great honor for the individual as it reflects the respect of members who know the type of leader that they need. It is with pleasure that we were able to participate in Peter Newton's elevation to this position. The process evolves from second vice president and then to first vice president, culminating in his beginning his presidential term, with the formal transfer of the gavel on Saturday, 19 May, at the POSNA meeting in Denver. The entire Rady Children's Hospital community joins us in congratulating Dr. Newton who will represent the highest ideals and aspirations of the organization.

Dr. Newton's Background

Peter was born in Sacramento and attended public high school there followed by his undergraduate education at UCSD and medical school at the University of Texas Southwestern in Dallas. He then returned to San Diego for his orthopedic surgery residency, followed by a return to Dallas for his fellowship at the widely recognized Texas Scottish Rite Hospital for Children.

We were fortunate to then recruit him back to San Diego since we realized from his residency that he had great academic potential. Dr. Newton has always had a strong interest in research, inspired by Professor

Wayne Akesson, the founding chairman of the orthopedic surgery department at UCSD, who emphasized that both clinical skills and research are required to create a strong orthopedic department. Peter quickly excelled in each of these areas in San Diego. He developed a strong interest in scoliosis and took advanced training to learn thoracoscopic assisted scoliosis surgery and other advanced methods. This was followed by research to develop a new spine instrumentation system as well as an advanced “spinal tether” for a somewhat “orthodontic” correction of the growing spine. This new method was featured in a recent Wall Street Journal article on contemporary scoliosis treatment. He was soon getting research grants from professional organizations as well as private industry sources to develop a powerful research program with a national prominence. He has become a recognized international expert in scoliosis surgery, with patients seeking his care from throughout the world.

Peter’s research has always led to important presentations at national meetings, including POSNA, SRS, and many others. He was soon recognized as a true

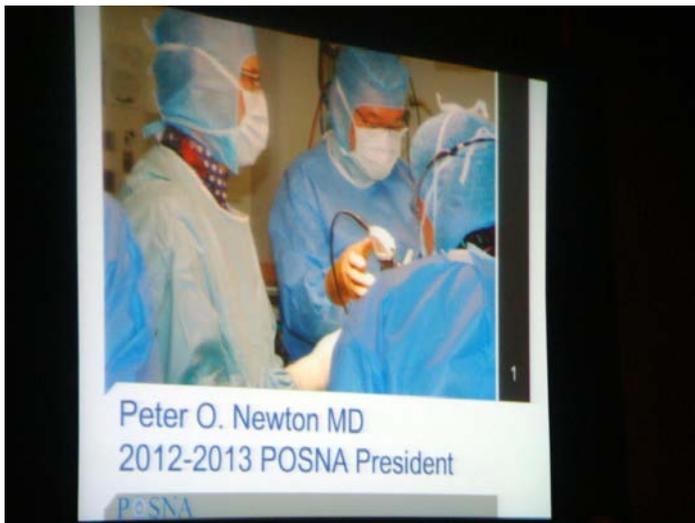
international leader in the field of children’s orthopedics. More importantly, his high energy approach and extremely pleasant demeanor served him well in the political arena. He was asked to serve on many organizational committees for the children’s orthopedic and scoliosis groups, and it was soon recognized that he had the potential to be a national and international leader. He began such activities on multiple committees of POSNA, and then served as treasurer for several years prior to his elevation to the presidential line.

Summary

Peter’s presidency of POSNA is an extraordinary accomplishment and we join Rady Children’s Hospital, the University of California San Diego Medical Center, the San Diego community, and North America’s children’s orthopedic surgeons in congratulating him on achieving this high honor.

The real leader has no need to lead – he is content to point the way

– Henry Miller



Video of Dr. Newton in the operating room. Used to introduce him at his elevation to the presidency at the Denver POSNA meeting (May 2012).



Dr. Newton receives the POSNA presidential medalion from prior president, Dr. Peter Waters (Boston Children’s Hospital).



Sports Medicine for the Young Athlete

As serious traditional children's orthopedic diseases become less common and as the American economy grows in sophistication, society's focus on childhood sport has increased. Almost every North American community now has an incredible emphasis on the importance of sport in the development of children and adolescents, and along with this organized effort come injuries and the need for sophisticated physicians and surgeons to care for these problems. Problems encountered range from traditional severe injuries such as fractures, ligament injuries of the knees, etc., to areas as complex as the psychological nature of childhood sport, particularly when children may be encouraged to perform at a level beyond which their evolving musculoskeletal frame can tolerate (overuse syndromes).

Our sports medicine program began with Dr. Hank Chambers' strong interest in combining our motion analysis lab with an understanding of children's sporting activities, ranging from baseball to soccer, golf, and other sports. Soon his practice was very busy, and he was joined by Eric Edmonds and now Andrew Pennock. In addition, Drs. Doug Wallace and Maya Pring continue as active participants in the sports medicine program.

Amazingly, we now have five orthopedic surgeons with either an almost complete practice in the sports medicine field or who devote a good percentage of their time to such activities.

Being competitive in this area requires a comprehensive mission and Drs. Chambers, Edmonds, and Pennock have led our focus for the development of a specific program dedicated to sports medicine for children and adolescents, which includes patient care, research, and community education. Dr. Edmonds

now authors a regular column in the San Diego Union Tribune newspaper focusing on athletic issues in children, adolescents, and young adults. Also, Dr. Andy Pennock serves as a U.S. Ski Team orthopedic consultant and is often in Europe or other venues tending to the needs of this athletic group. The San Diego community is one of the most athletic in North America and its children are ready participants. Thus, the incredible growth in the program.

Along with clinical care, Rady Children's Hospital is becoming a national leader for research in children's orthopedic sports conditions. Disorders such as overuse syndromes for childhood pitchers, stress fractures in childhood, and particularly shoulder injuries in childhood have come into major focus. Also, the addition of Dr. Andrew Pennock, who was trained in the famed Steadman-Hawkins orthopedic clinic in Vail, Colorado, has brought us a special view of children's orthopedics, including his membership as an official U.S. Ski Team orthopedic surgeon. This is resulting in young athletes of the highest level being referred to our center. We look forward to the continued growth of this division.



Notes from the Research Team

Tracey Bastrom, MA – Orthopedic Research Program Manager



We were happy to see many of our fellow alumni at the POSNA meeting in Denver. The Thursday evening reunion was very well attended and I hope you enjoyed catching up with your colleagues and our activities.

As the department grows, so does our productivity – 2011 was a great year, with 37 publications and at least 64 research presentations at national/international meetings. Our scoliosis research continues at a highly productive level and we continue to serve as the lead central data center for the Harms Study Group research consortium. Our intense focus on sports, trauma, and hip research are detailed in other sections of this issue.

The current fellows have had a successful research year thus far and have been a pleasure for our team to work with. The highlights for each are as follows:

Chris Bray, MD worked with Dr. Mubarak in looking at our series of unicameral bone cysts of the proximal humerus treated with steroid injection. This was presented at our annual Visiting Professor and a manuscript is being prepared.

Eric Fornari, MD joined with Dr. Edmonds and the Biomechanics team in looking at 3D reconstructions of knee MRIs to evaluate morphology in normal patients and those with patellar instability. He also helped to complete a multi-center project with Dr. Edmonds and another past fellow (John Schlechter) on body mass index and pediatric elbow fractures, which has been submitted to CORR for publication.

Matt Schmitz, MD completed two projects with Drs. Hosalkar, Wenger, and the hip team; one project evaluated the reliability and reproducibility of cadaver pelvis images obtained via EOS compared to plain films. This project has been accepted for publication by JBJS. The second project examined morphologic variations of the pelvis in normal and scoliotic adolescents on EOS obtained x-ray images. A manuscript is currently being drafted.

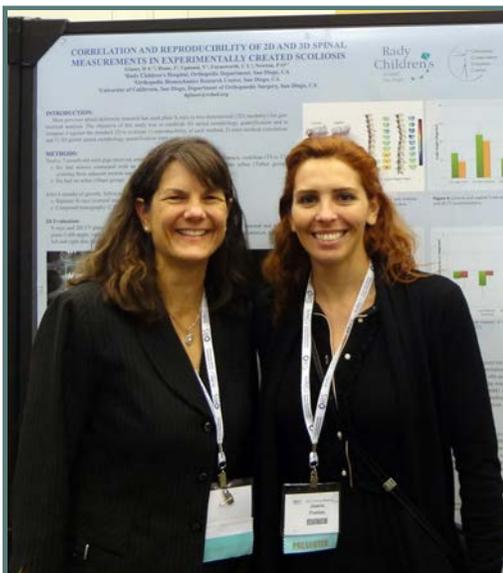
Jake Schulz, MD assisted Drs. Yaszay, Newton and the spine team in evaluating which published guidelines for selective thoracic fusion produce the most successful outcomes. This project will be presented at SRS this fall. Jake is also working with Dr. Pennock in evaluating outcomes in our displaced clavicle fractures treated non-operatively.

Team Changes

We have a great research team to support the division. Unfortunately, Molly Moor will be saying goodbye to the team to undertake a move across country to Florida. Molly started with us in 2008 from a position in a basic science lab. While working with us, Molly obtained an MPH from San Diego State University and is finishing up her PhD in epidemiology. She has assisted with many fellows projects and most recently has helped organize the trauma research center. We wish her the best of luck in her new endeavors in Florida.



Molly Moor, MPH





Orthopedic Biomechanics Research Center

Diana Glaser, PhD – Director



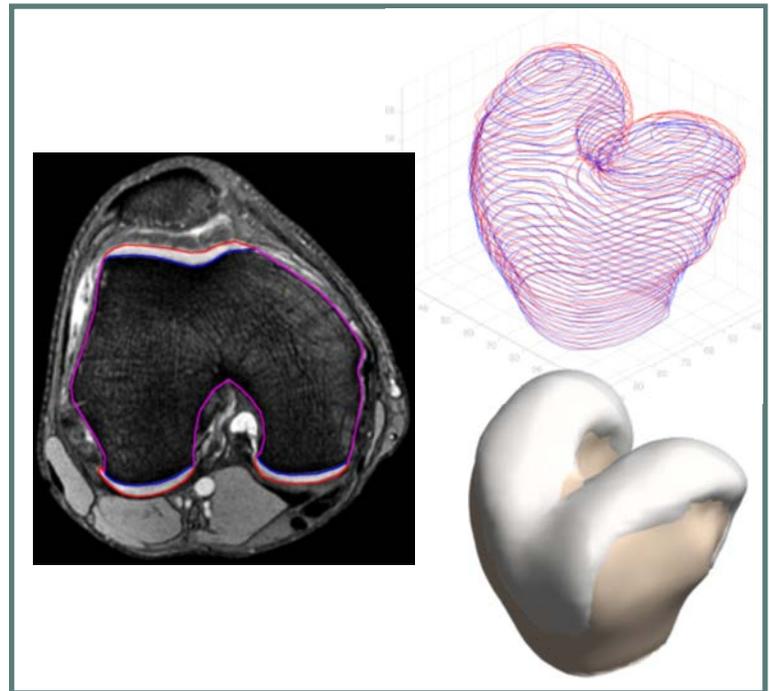
The Orthopedic Biomechanics Research Center (OBRC) continues to thrive. Our goal is to develop high quality research that helps physicians to better understand orthopedic conditions and their treatment and ultimately improve the lives of people with skeletal muscle diseases. One of the fundamental missions of the OBRC as part of the Children's Specialists of San Diego and Rady Children's Hospital is the advancement of musculoskeletal basic and translational research that directly influences medicine and healthcare practice. Therefore, our team of engineers closely works with and supports our staff physicians and fellows. This interdisciplinary approach is critical for OBRC because of its proximity to surgeons and because orthopedic research is a complex field of study that crosses the boundaries of several specialties.

The newly developed techniques for exploring the 3D with advanced imaging and evaluation are starting to become fruitful, leading to numerous new studies. What started with scoliosis and extensive spine analysis is now expanding to the lower extremities. New 3D studies are in the works involving growth plate analysis, patella positioning and hip abnormalities. We believe that better visualization leads to improved understanding of the deformity or the bone/joint condition of interest, leading eventually to enhanced treatment possibilities and outcomes.

The superior studies coming from the OBRC are leading to international recognition. Last year the OBRC team won the international MIMICS Innovative Award. The paper looked to advance the understanding of scoliosis treatment in three dimensions by a unique combination of 3D techniques and approaches. Currently, another paper entitled 'Three Dimensional Visualization of the Intervertebral Disc: the Effects of Growth Modulation' is nominated for the prestigious Whitecloud award and the winner will be announced at the 2012 IMAST meeting in Istanbul, Turkey. (A personal happy announcement is the birth of my second

child, Daniel. He is a happy and healthy little boy and I spent five months away from work caring for him. I am happy to be back at work and to continue our mission of great research and innovation into the new academic year.)

We are looking forward to a successful new year of exciting studies and great collaboration.



Continued Excellence



The recently announced 2012-2013 U.S. News and World Report children's hospital ranking has placed Rady Children's Hospital San Diego #2 among all children's hospitals in the U.S. in children's orthopedic surgery. The ranking is determined by clinical data collected from 180 children's hospitals and medical centers and accounts for 75% of the score. The remaining 25% comes from a survey of approximately 1,500 physicians who represent 10 pediatric specialties.

Rady Children's Hospital San Diego continues to do well in this survey because of our very high clinical and surgical volume, our excellent research program, our outstanding residency and fellowship educational programs and very importantly, the overall quality of our hospital.

We congratulate everyone in our department and the entire hospital staff for their continued hard work to make this ranking possible.

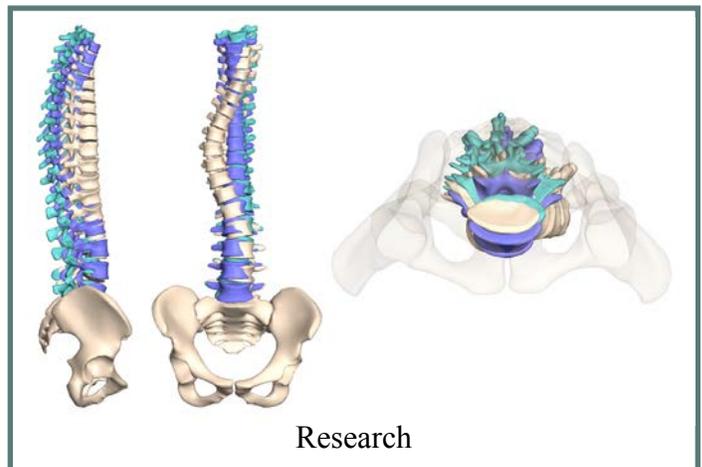
#2 Rady Children's Hospital San Diego, CA Hospital type: Children's general Number of beds: 441	Reputation with specialists Very strong
▶ Ranked #2 in Pediatrics: Orthopedics	Nurse-patient ratio <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> Good
▶ Ranked #9 in Pediatrics: Urology	
▶ Ranked #17 in Pediatrics: Nephrology	



Teaching



Patient care



Research



*39th Annual
David H. Sutherland Visiting
Professorship
April 12-13, 2012*

Benjamin Alman, M.D.
Professor of Orthopedic Surgery,
University of Toronto

Each spring our academic year culminates with the annual David Sutherland Visiting Professorship, which extends over one and a half days in April and allows us to consolidate, summarize and present our clinical and research activities that have been compiled over the year. In addition we invite one of the world's leading children's orthopedic surgeons to be our visiting professor.

This year we were honored to have Benjamin Alman, M.D., A.J. Latner Professor of Orthopedic Surgery and Chairman of the Orthopedic Department of the University of Toronto, Canada, as our honored guest. Dr. Alman was a great choice and we were honored to have him here. Amazingly, almost twenty years ago he had come to our hospital to interview for our fellowship, so he clearly represents the new generation of children's orthopedic leaders in the world. Dr. Alman eventually made a decision to do his fellowship at the Hospital for Sick Children in Toronto where he became recognized as a future leader in children's orthopedic research.

Following his Toronto fellowship he returned to the faculty of Tufts University in Boston (where he had been an orthopedic resident) for several years and then was recruited to Toronto to be on the faculty of the Hospital for Sick Children orthopedic department. His rise was meteoric because of his combined interest as an excellent clinician and also as a basic science researcher in children's orthopedics. Furthermore, his outstanding organizational skills and calm personality put him on a leadership track, which led to his being

Director of Orthopedic Surgery at the Hospital for Sick Children, followed by elevation to Chairman of Orthopedic Surgery at the University of Toronto, perhaps the largest orthopedic training program in North America.

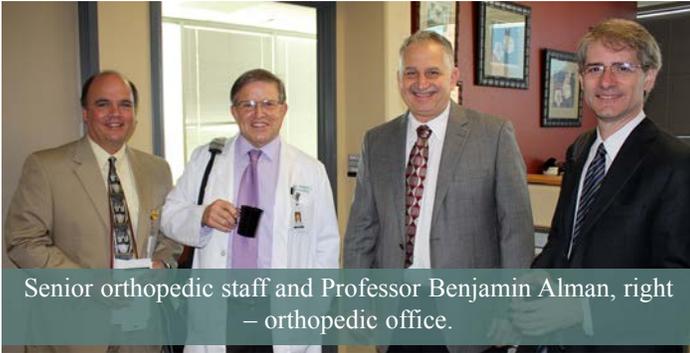
Dr. Alman's practice interests include care of children with syndromes, spinal deformity, and neuromuscular disorders as well as tumors involving the bone and joints. His active basic science research program includes studying the role of developmental signaling pathways in musculoskeletal disease.

Dr. Alman's visit here demonstrated the range of his interests. He gave multiple interesting papers to our orthopedic department as well as an impressive presentation to the combined pediatric/orthopedic grand rounds, entitled "From Fibromatosis to Fractures: Modulating Beta-Catenin as a New Therapeutic Approach".

Known as a leader in developing new methods for organizing orthopedic residency training programs, Dr. Alman shared his knowledge with us at the Western Orthopedic Association evening dinner with his talk entitled "Teaching Orthopedics Upside Down", illustrating the value of modular learning segments in orthopedic residency.

We all thank Dr. Alman for an outstanding David Sutherland Visiting Professorship.

39th Annual David H. Sutherland Visiting Professorship - 2012



Senior orthopedic staff and Professor Benjamin Alman, right – orthopedic office.



Current orthopedic fellows Drs. Jacob Schulz, Matthew Schmitz, Christopher Bray, and Eric Fornari - with Professor Benjamin Alman (second from right).



Karen Noble, Administrative Coordinator, and Dr. Dennis Wenger, with thank you flowers for organization of Visiting Professor program (at Western Orthopedic Association dinner).



Current fellows Dr. Eric Fornari and Dr. Matthew Schmitz at the WOA evening dinner at the UCSD faculty club.



Dr. Burt Yaszay, Dr. Scott Van Valin (prior fellow – Milwaukee Children's Hospital) and Dr. Peter Newton.



Orthopedic staff, research staff, and Professor Benjamin Alman (center)



Notes From a Former Fellow

David Scher, MD – Hospital for Special Surgery (New York City)
(Fellow – 1999-2000)

I still recall Dr. Mubarak's words in July of 2000 as my fellowship was coming to an end. "Your fellowship will continue for 5 years after you leave here," he said. I repeat that advice now to my fellows every year and it is mostly accurate, with the exception that in fact my fellowship has continued to this day. That element of intellectual challenge, which is really intrinsic to pediatric orthopaedics, is one of the most gratifying aspects of this discipline and I am grateful to the staff and the tradition of San Diego Children's for stimulating my academic curiosity and giving me the foundation to continue my education for decades to come.

After I graduated in 2000, I returned to NYU-Hospital for Joint Diseases where I had completed my residency, and began a diverse pediatric orthopaedic practice. Following what is certainly a common pattern, much of my operative practice in the first few years was comprised of pediatric orthopaedic trauma, and I was very well prepared for this after the busy call nights at San Diego Children's. In fact I remember one of my colleagues commenting on my facility in reducing supracondylar fractures at the beginning of my practice, a skill that was developed only with lots of practice on many call nights.

From the start of my practice I was assigned to run the cerebral palsy clinic and work along side Wally Lehman in the clubfoot clinic. These experiences allowed me to build on the background I had gained in cerebral palsy, gait and pediatric foot disorders in San Diego. Then, in 2004, I got a call from Roger Widmann at Hospital for Special Surgery (HSS), about 2 and ½ miles to the north, asking if I'd be interested in joining him, Dan Green, Steve Burke and Leon Root in their pediatric orthopaedic group. With the opportunity to become the co-medical director of a



Ponseti clubfoot program

world-class gait lab and hone my interest in pediatric foot deformity, I moved to HSS in October 2004.

Since then I have been part of developing the largest pediatric orthopaedic service in the New York region. We now number eight pediatric orthopaedic surgeons with focused interests among us including spinal deformity, limb lengthening and reconstruction, pediatric sports, and now with the arrival of my good friend and "fellow" fellow Ernie Sink, a renowned pediatric and young adult hip center.

In my clinical practice I have focused on CP surgery, including overseeing and interpreting all of the gait studies at HSS. In addition, as the only clinical gait lab between Philadelphia and Hartford, CT, we provide all of the gait studies for our colleagues in the entire New York metropolitan area. Much of my surgical practice is comprised of single-event multilevel surgery, applying the gait and lever-arm concepts to improving mobility, a fitting role for our hospital where we are called the "specialists in mobility".

I have also aligned myself with colleagues on our adult foot and ankle service to broaden my knowledge and enhance my skills in the surgical management of pediatric foot deformity. Our collaboration has fostered innovation in the treatment of both adult and pediatric foot conditions and stimulated research in both divisions.

Away from the hospital, my life is equally fulfilling. My wife, Nancy, and I spent a memorable year in San Diego, then as fiancées, where she too developed deep connections to our friends at Children's. Since then, we've had two boys, Ethan who is now 8, and Jack who is soon to turn 6. We live on the upper east side of Manhattan where the boys attend our local public school, p.s. 290 Manhattan New School, which is nationally recognized for its reading and literature programs. Nancy has temporarily put her career as an elementary school teacher on hold to devote herself full time to raising (i.e. chasing after and schlepping around) our two boys. On the weekends we are fortunate to be able to escape to Long Island where the boys get to be outside, enjoy the beach and the water in the summer and hike, bike and ice skate in the cooler months. It's not quite the same as San Diego living, but I think it's a close second.



With all of this, there's not much additional time left, but I do manage to stay fit as best as I can and have developed a somewhat fanatical devotion to road cycling. We have a group at the hospital of about 15 to 20 cyclists, including doctors and other members of the staff, who meet for a ride most mornings at 6:00 am and do several loops of the road around central park. On the weekends we'll often meet for long rides out of the city or I'll do a long, solitary ride which is

great for clearing my head and collecting my thoughts. I'm always hoping for an orthopaedic epiphany to strike me on one of those rides, though it's yet to happen.



David, Nancy and sons, Ethan (8yrs) and Jack (6yrs) enjoying a beach holiday.

As I step back and reflect on my training, my career and my family life, as this piece has obliged me to do, I think I have reached a balance. Pediatric orthopaedics is a wonderful field that allows us to grow intellectually, challenge ourselves, make a difference in the lives of children and live a fulfilling life. The professional and life lessons learned during my time in San Diego have helped to create the foundation for me to build this life on.



Graduation day 2000! Ernie Sink, Peter Newton, Dennis Wenger, Hank Chambers, David Scher, Doug Wallace, Afshin Aminian, and Scott Mubarak (L to R)

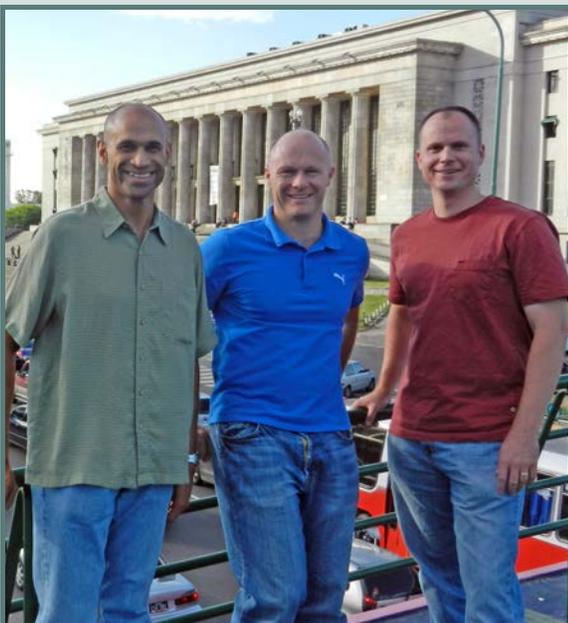


Rady Children's Hospital Orthopedic Surgeon Selected as International Traveling Fellow

Dr. Eric Edmonds had the recent honor of being chosen as an international traveling fellow to South America, where he visited the major teaching centers of South America, as well as made many presentations regarding his experience here at Rady Children's Hospital San Diego.

This is a great honor for our department, since only three young members from the thousand member POSNA organization are selected for this experience.

Eric's participation nicely reciprocated with our division having hosted the SLAOTI fellows from South America two years ago when their group of young academic pediatric orthopedic surgeons visited Rady Children's Hospital San Diego and the University of California San Diego. Dr. Edmonds comments on his experience follow (DRW).



North American Fellows to SIAIOTI. (L to R) Dr. Vish Talwalkar (Lexington), Dr. Patrick Bosch (Pittsburgh, Dr. Edmonds (San Diego).

My adventure started on the weekend of November 6th, 2011 when we arrived into the largest city in the Southern hemisphere, São Paulo, Brazil. We were hosted there by Dr. Rui Macielo, Dr. Miguel Akkari and Dr. Alex Laurencio. Our visit to Brazil was filled with many academic opportunities. We lectured on topics ranging from the evolving treatment of SCFE and Legg-Calve-Perthes disease to the latest in pediatric shoulder injuries. Most importantly we were able to observe and discuss the innovative surgical treatments in these large referral centers for a multitude of pathologies. This included hip arthroscopy for SCFE as well as perhaps a 25 year experience with open surgical dislocation and the Dunn procedure. They even had a very advanced arthroscopy lab, likely the best in all of South America, where we saw their day one teaching experience with the use of a papaya. We also enjoyed a wonderful variety of food and drink, highlighted by a traditional Churrascaria.

After spending time the next day with the staff at the University of São Paulo, the Santa Casa Medical School and the Federal University of São Paulo we headed to Buenos Aires, Argentina. Buenos Aires is a massive South American capitol city with a diverse international population, amazing architecture and top notch hospitality. We again visited multiple pediatric hospitals and were treated to many interesting academic sessions, but a particular treat was the 2011 Gold Cup of Polo provided to us by Dr. Juan Carlos Couto. Truly a once in a lifetime experience.

After experiencing exceptional hospitality and meals, we then traveled over the Andes to Santiago, Chile. We were met there by Dra. Dalia Sepulveda, Dr. Juan Carlos Hernandez (one of the traveling fellows to visit San Diego) and Dra. Veronica Vilches. As we arrived on the weekend, we were taken on a local tour that

started at the Veramonte winery, ventured on to Isla Negra, the home of Chile's second Nobel Prize winner, poet and political activist, Pablo Neruda, and concluded in Pomaire, a town famous for its ceramic pottery.

The following day we were able to participate in an academic session at the Hospital Del Niños Roberto Del Río. After seeing yet another large and busy public hospital of South America, we were then treated to a private facility as well as a unique facility known as Teloton. This is a rehabilitation hospital for children with neuromuscular disorders that is funded by donations from the people of Chile. Both of these latter two facilities were world class in terms of their design, equipment, and opportunities for patient care.

Upon completion of our visit to Santiago we went to the airport with the expectation of traveling to Puerto Varas where we would join the Chilean Orthopedic Society at their congress and participate in the POSNA-SLAOTI conference. However, a southern Chilean volcano that had been intermittently erupting for the last four to five months had different plans. The volcanic ash cloud brought southbound air traffic to a halt. Therefore, in sadness we returned home on Wednesday, November 16, 2011 having experienced some of the greatest hospitality that we have seen anywhere.

Eric W. Edmonds, M.D.



Prof. Juan Cuoto (Buenos Aires) provides Argentinian hospitality

James C. MacLaggan Award – San Diego Rotary Club



Dennis R. Wenger, M.D., Director of the Children's Orthopedic Training Program at Rady Children's Hospital San Diego was recently awarded the San Diego Rotary Club's annual James C. MacLaggan Award at the December, 2011, central San Diego Rotary Club meeting. Dr. Wenger was honored for his long-term commitment to children's orthopedic education as well as to promoting the care of children throughout the world with orthopedic conditions. He was recognized for providing care in many parts of the world and in particular for spreading children's orthopedic knowledge, not only by his multiple international presentations but also by his published textbooks which have benefited many children's orthopedic surgeons and children.

Lena Sefton Clark Endowed Fellowship in Pediatric Orthopedics



Dr. Schmitz



Dr. Schmitz and fellows at Friday morning conference with Dr. MacEwen

Each year our department makes the nearly impossible decision as to which of our four fellows should be named the Lena Sefton Clark fellow in children's orthopedics. This award is given to a pediatric orthopedic fellow who exemplifies the outstanding qualities of patient care, teaching, and research, which are central to our orthopedic mission. The selection process is difficult because each year produces multiple outstanding candidates who have been selected from a competitive fellow applicant pool. This year was no exception. The endowment states that one must be selected, so we dutifully "follow the rules".

We are happy to announce that Dr. Matthew Schmitz has been selected as the 2012 Lena Sefton Clark Fellow in Children's Orthopedics and will be honored at a special ceremony Friday morning, 13 July, 2012. At that event Dr. Schmitz will be awarded the traditional Clark pin and white coat by Kathleen Sellick, President and CEO of Rady Children's Hospital. Members of the Clark family as well as the hospital foundation and our training program staff and trainees will also be present.

The Lena Sefton Clark Award comes from a business/philanthropist family with a long San Diego history. The late Mary and Dallas Clark were great friends of Rady Children's Hospital, with the orthopedic award named after Dallas's mother, Lena Sefton Clark, who was one of the founding philanthropists in San Diego and who served as the first chair-person of

the annual Children's Hospital Charity Ball, which supports many Children's Hospital activities.

Mr. Dallas Clark helped to select the land where our current hospital is located in the early 1950's. He felt that the ideal site for a children's hospital would be on a gladiola farm, which at the time was far out "in the country" in Kearny Mesa. Many board members thought the site was too far from central San Diego and objected, but Mr. Clark prevailed. The rest is history and we now have multiple buildings and a beautiful new hospital on the previous gladiola farmland. We also appreciate our location, a bit away from the more frantic central business area of San Diego.

The Clark's generous legacy to an endowment fund supports our children's orthopedic and scoliosis fellowship program. We congratulate Dr. Matthew Schmitz on this award, but also want to state that any of his fellow colleagues clearly would have qualified for the same award.

*We retain from our studies only
that which we practically apply.*

– Goethe

*North American Traveling Fellowship Program
Sponsored by American Orthopedic Association - hosted by UCSD
and the Naval Regional Medical Center - visit to Rady Children's
Hospital San Diego orthopedic department - October 24-27, 2011*

The American Orthopedic Association, the most senior leadership organization guiding North American orthopedics, sponsors the highly competitive North American Traveling Fellowship program each year. Leading centers from throughout North America are selected for these fellows to visit. The San Diego orthopedic community was honored to have the fellows here in San Diego in October, 2011, and we were happy to host them at Rady Children's Hospital for one day of their visit.

The North American Traveling Fellows were as follows:

- Kelly Lefaivre, M.D. – trauma and metabolic bone disease expert – Vancouver General Hospital, University of British Columbia.
- Jaimo Ahn, M.D., Ph.D. – trauma expert – University of Pennsylvania.

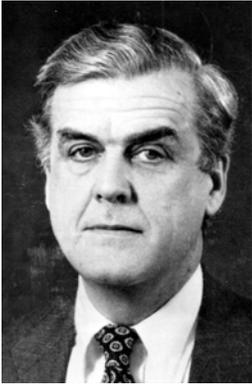
- John Elfar, M.D. – hand and upper extremity expert – University of Rochester, Rochester, NY
- Shane Nho, M.D. – sports orthopedics expert – Rush University Medical Center, Chicago.
- Peter Rose, M.D. – spine and tumor expert – Mayo Clinic, Rochester, Minnesota.

The traveling fellows started their San Diego visit at Rady Children's Hospital, where we had a program organized for them. They attended our morning x-ray rounds conference and the orthopedic-radiology indications conference to learn how teaching is organized in our center. Several presentations were made by the visiting fellows and our faculty responded by giving presentations covering our major areas of clinical and research interest.

We were honored to help host the North American Traveling Fellows program for 2011.



North American Traveling Fellows during their visit to Rady Children's Hospital – October, 2011. Left to right: Peter Rose, M.D. (Mayo Clinic); Kelly Lefaivre, M.D. (University of British Columbia), Jaimo Ahn, M.D. (University of Pennsylvania), John Elfar, M.D. (University of Rochester), and Shane Nho, M.D. (Rush University Medical Center).



*Distinguished Visitor to Rady Children's Hospital
Orthopedic Department -*

*Dr. Dean MacEwen - Chief of Orthopedics Emeritus at the
A.I. DuPont Institute Children's Orthopedic Center -
Wilmington, Delaware*

Our teaching group was surprised a few months ago when one of the world's best known children's orthopedists showed up at our Friday morning teaching conference (after being invited by Dr. Scott Mubarak. Dr. Mubarak was aware that Dr. MacEwen's daughter lives here in Coronado, California, and that he frequently visits her. Thus the invitation was extended). His presence was a bit like having Mick Jagger show up for your daughter's piano recital.

Dr. Dean MacEwen is one of three orthopedic surgeons that were instrumental in establishing academic children's orthopedic training in North America. A native of Canada, he took his orthopedic residency at the Campbell Clinic (Memphis). He then decided that he would work with Dr. Al Schanz at the DuPont Institute for additional training in children's orthopedic surgery, and was soon on their full-time staff and quickly became the director. A natural organizer and teacher, Dr. MacEwen soon expanded his institution to be a leading center for international training in children's orthopedics. His institution, along with the

Hospital for Sick Children in Toronto, were central to the early children's orthopedic fellowship movement in North America. Hundreds of orthopedic surgeons from throughout the world owe their academic credentials to his leadership and willingness to train international fellows. He was extraordinarily effective in breaking down barriers that kept international trainees from coming to North America. In addition, he single-handedly brought the Pavlik harness concept for DDH treatment to North America from central Europe.

It was a great honor for us to have Dr. MacEwen attend our conference, where he cogently commented on many of the cases that were presented. In addition, it was a nice opportunity for our current fellows to meet him (see attached photo) since one rarely comes across such legendary figures after they have achieved emeritus status. We thank Dr. MacEwen for his visit and for his extraordinary contributions to the field of children's orthopedics.



**Dr. Mubarak, Dr. MacEwen, Dr.
Wenger**



Dr. MacEwen amuses the fellows with his orthopedic tales.



Special Team Members

JD Bomar, MPH, BBA

*Communications Coordinator for the Orthopedic Department
and Research Coordinator for the Hip Team*

Rady Children's Hospital San Diego/UCSD

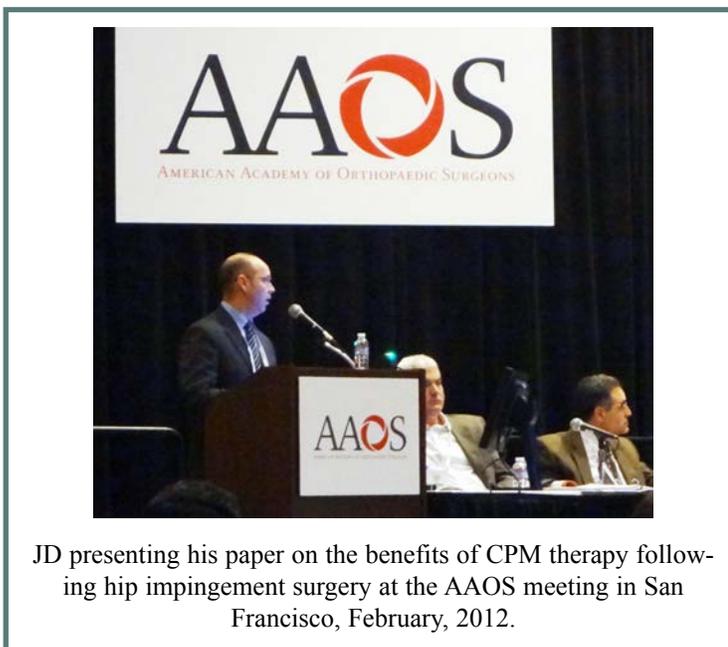
Each year we focus on key employees who allow our program to be what it is. As noted earlier, our program has now been rated #2 in the nation, and a big reason for this is our excellent administrative organization and particularly employees like JD Bomar, who are intelligent, well-trained, and completely understand our mission.

JD, a native of Southern California, grew up in the Ontario area. He is a graduate of the highly regarded orthopedic technician school at Grossmont College. JD was hired by RCHSD as an ortho tech in 1998. He turned out to be an extremely skilled orthopedic technician, but also became our photographer (because while working here he was also studying graphic design at the Art Institute of California). He was soon taking all our orthopedic photographs and as the digital era came upon us, he became our "go to" person for our computer issues, including preparing our advanced presentations which we give all over the world. This

includes photographs, video work, digital reconstruction, and everything that is needed to give an outstanding orthopedic presentation. He soon became indispensable to the organization and we pulled him away from his ortho tech duties into a new position, first as communication coordinator for the orthopedic department, and later as research coordinator for the hip team.

JD continued his education by getting an undergraduate degree in business administration from the University of San Diego, followed by a Master's Degree in Public Health from San Diego State University, using a children's orthopedic project for his thesis. JD has become an excellent research coordinator, and in February of this year he personally presented two podium papers at the AAOS meeting in San Francisco.

JD is an exceptionally talented individual who works well in our demanding academic environment. Our entire program is grateful to JD Bomar for his contribution to our team.



JD and the hip team taking a deep breath after his first paper. Left to right: Joana Freitas, M.D. (Portugal – international fellow), Christy Farnsworth, M.S. (research coordinator, RCHSD), and Dr. Harish Hosalkar, co-director of the hip research team.

Orthopedic NP/PA Activities

We continue to have what we believe to be the best Nurse Practitioner/Physician Assistant team in the world that is dedicated to children's orthopedic care. It would be impossible for us to see our large volume (50,000 annual clinic visits) without this highly skilled team. Our team has now expanded to 12 members, many of whom have begun to subspecialize in various areas of children's orthopedics, including spine, sports, hips, upper extremities and clubfoot, according

to the interest of the staff surgeon that they are primarily assigned to. Three of our recent additions are featured below.

In addition to the clinics where they work together with their staff, much of their work is also independent in running our acute trauma care clinics as well as working with the residents for evening E.D. duty.

(continued next page)

New Faces



Sun Min Park, CPNP

“Sunny” was born in Malaysia where her father worked as a Korean construction contracting engineer. The family then moved to Montreal, and eventually came to the United States in 1990 when Sunny was 11 years of age. Her high school education was in the Los Angeles area. She earned her B.A. degree at the University of California Berkeley, followed by a Master of Science degree as a pediatric nurse practitioner at Johns Hopkins University in Baltimore. After working for several years with Drs. Paul Sponseller and Michael Ain, both well-known children's orthopedist at Johns Hopkins, she decided to return to California, and fortunately we were able to recruit her. Sunny has a long list of accomplishments and an immense experience in children's orthopedics. She works primarily with Dr. Wenger but in addition covers many clinics where she works independently, as do all of our team members.

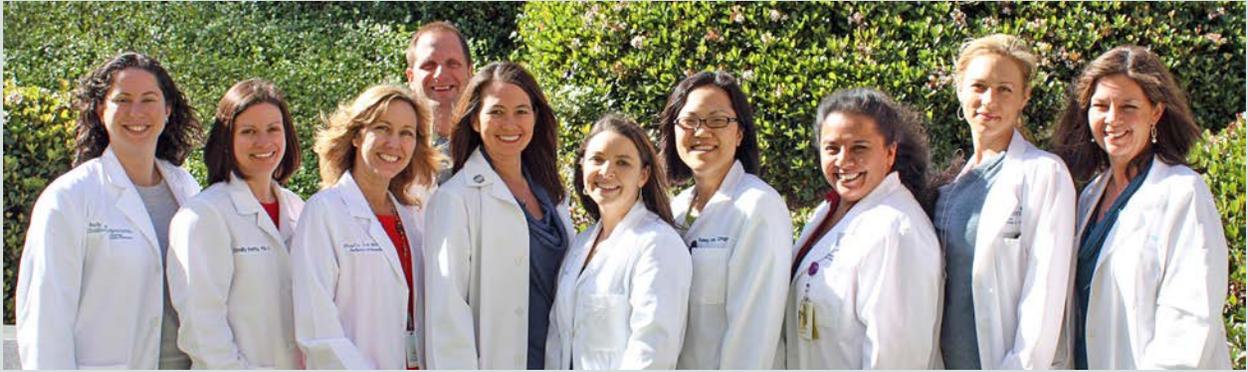


Kathryn Fowle, CPNP

Katie, a native of California, attended undergraduate school at Villanova University, followed by a Master of Science in Nursing as well as a Nurse Practitioner degree at the University of Pennsylvania. She then worked for five years at the Morgan Stanley Children's Hospital of New York (part of the Columbia University/New York Presbyterian Hospital). Her primary work there was in pediatric intensive care, thus she is very well trained. She then came to San Diego as a traveling nurse and first worked in our Children's Hospital ICU followed by our then recruiting her to the orthopedic team.

Katie has been an outstanding addition and has quickly learned all about the acute care of children's orthopedic patients as well as working in our outpatient clinics helping us manage elective patients. We welcome Katie to our team as Dr. Mubarak's primary clinical support person.

Our NP/PA Team



New Faces



Christina Amundson, PA-C

Christina, who joined us seven months ago, has a strong medical background (her father is a physician) and is a native of San Diego. She went to undergraduate school at USC, with a Bachelor of Science degree in kinesiology, and followed that with a Master's Degree in the USC Physician Assistant program. Because of her strong association with San Diego (since she had grown up here) she wanted to return to this community and her kinesiology degree directed her toward orthopedic surgery.

Chrissy is an eager learner and has begun to master all that there is to know about children's orthopedics and we welcome her to our team. Also, she serves as the main support person on Dr. Hosalkar's clinical team.

In summary, we have been able to recruit many high quality team members. Because we have an intensive training program for fellows, residents, and medical students, we have been able to apply that educational system to our NP/PA team. This allows them to quickly become expert in every area of children's orthopedics and provide a critical addition to our national status.



Katie Fowle, Dr. Wallace, and Amanda Asaro evaluate a fracture in CT4.



MaryLou Scott performing an H&P for a child who is scheduled for corrective surgery.

Pediatric Orthopedic Society of North America (POSNA) Meeting, Denver – May 16-19, 2012

The annual meeting of the Pediatric Orthopedic Society of North America (POSNA) is our most important meeting and is routinely attended by almost all of our staff and fellows. This year's meeting was no exception, with the meeting being held in Denver, Colorado, where with perfect weather and the excellent convention facilities of the Hyatt Regency Hotel (downtown), we had a great meeting. As noted elsewhere in this issue, the meeting was particularly important for San Diego because our colleague, Dr. Peter Newton, was elevated to the Presidency of POSNA at the meeting.

The excellent academic program included many presentations from the faculty of Rady Children's Hospital San Diego/University of California San Diego. Also, remarkably, three of the seven papers proposed for Best Clinical Paper of the entire program had their roots in San Diego (authorship by Drs. Pennock, Yaszay, and Newton).

Our annual POSNA based alumni reunion event was organized with the site being selected by Tracey Bastrom in conjunction with our fellow, Dr. Matt Schmitz, who grew up in Denver. We all convened in



Dr. Edmonds (prior fellow), Joanna Roocroft (research associate), and Dr. Matt Schmitz (current fellow) discussing research activities.



Dr. Wallace (RCHSD staff and prior fellow) and Dr. Laura Meyers (prior fellow – now St. Louis, MO).

“The Corner Office” restaurant on 17 May, to catch up on the activities of our many prior fellows. We had an outstanding attendance including prior fellows, current fellows, our staff, spouses, and even new babies (welcome Max Imrie Masters!) Total attendance was more than fifty. We appreciate this interest and support.

The attached photographs confirm the success of this meeting. We are always happy to meet with our prior trainees, and to exchange stories regarding their evolution into the practice of children's orthopedics as well as into academic life. Also, the strong international attendance by prior fellows confirms the on-going success of our orthopedic training program in providing outstanding care for children's orthopedic disorders throughout the world.



Dr. Wenger and prior fellows Drs. Afshin Aminian (Children's Hospital Orange Co.), David Scher (Hospital for Special Surgery, NYC), and John Tis (Johns Hopkins University).



Prior fellow Dr. Pat Henderson (Tucson, AZ) and Dr. Hank Chambers.

RCHSD/UCSD Peds. Ortho Fellowship Alumni Reunion - May 2012 - Denver

(continued on page 33)



San Diego staff Drs. Maya Pring and Andrew Pennock.



Dr. Peter Newton, second from left, with prior fellows Drs. Christine Caltoun (Riley Children's Hospital, Indianapolis), Prerana Patel (Children's Hospital of New Orleans) and Scott Van Valin (Children's Hospital of Milwaukee).



Dr. Dennis Wenger, center, and current fellow Dr. Jacob Schulz, left, and prior fellow Dr. Greg White (Phoenix Children's Hospital).



Dr. Peter Newton (RCHSD staff), center, with prior fellows Dr. John Schlechter (Children's Hospital Orange Co), Dr. Eric Edmonds (RCHSD) and Dr. Todd Ritzman (Akron Children's Hospital).



Dr. Dennis Wenger and prior fellows Drs. Walid Yassir (Detroit Children's Hospital) and Adam Barmada (Children's Orthopedics of Portland, OR).



Drs. Hank Chambers (RCHSD staff and prior fellow), Walid Yassir (prior fellow - Detroit Children's Hospital/Wayne State University), and Scott Mubarak.



A distinctly bi-coastal crowd: Dr. Doug Wallace, right; prior fellow Dr. Robert Cho (Shriners Hospital LA and UCLA) left; Molly Moor (research associate) Dr. Abby Lynn Allen (Mt. Sinai Medical Center, NYC) and Tracey Bastrom (orthopedic research manager).



Dr. Doug Wallace (second from left), and 1. to r. Dr. Rob de Swart (Children's Orthopedics - Cleveland), Drs. Christine Caltoun and Shyam Kishan (children's orthopedists at James Whitcomb Riley Hospital, Indianapolis).



Dr. Jacob Schulz (current fellow) second from left, and his fantastic orthopedic team at RCHSD, including Joanna Roccoft (research associate), Tracey Bastrom (research manager), Sun Min Park (nurse practitioner) and Lynn Manheim (nurse practitioner).

Documentation (Our Publications)

The most savage controversies are those about matters as to which there is no good evidence either way .

– Bertrand Russell



Orthopedic residents, fellows, and staff concentrating on the subject at hand during the dynamic Rady Children's Hospital Friday morning orthopedic x-ray review conference.

The Rady Children's Hospital-University of California San Diego orthopedic program continues to be one of the worlds leading centers for children's orthopedic clinical and biomechanical research. Our work is published in the most important orthopedic journals and is widely quoted. Below are listed the publications produced by our department from July, 2010, through December, 2011.

1. Tannast M, Krüger A, Mack PW, Powell JN, Hosalkar HS, Siebenrock KA Surgical dislocation of the hip for the fixation of acetabular fractures. *J Bone Joint Surg Br.* 2010 Jun;92(6):842-52.
2. Newton PO, Yaszay B, Upasani VV, Pawelek JB, Bastrom TP, Lenke LG, Lowe T, Crawford A, Betz R, Lonner B; Preservation of thoracic kyphosis is critical to maintain lumbar lordosis in the surgical treatment of adolescent idiopathic scoliosis. *Harms Study Group.Spine (Phila Pa 1976).* 2010 Jun 15;35(14):1365-70.
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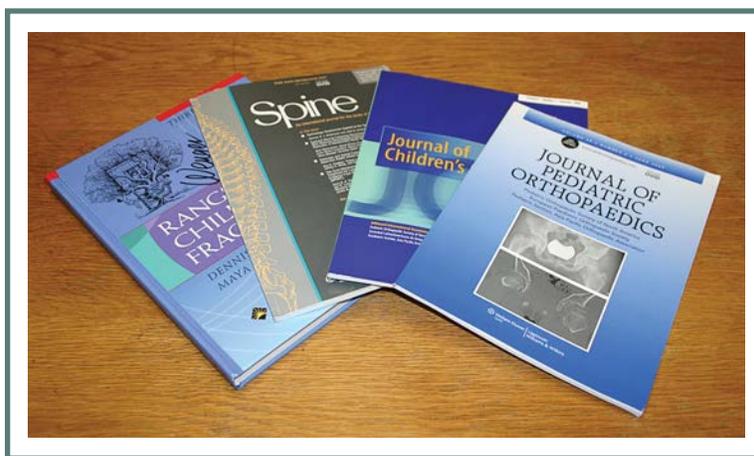
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Dr. Harish Hosalkar and fellow faculty members at an AO instructional course held in Miami. March 2012

*RGHS/UCSD Peds. Ortho Fellowship
Alumni Reunion - May 2012 - Denver
(continued from page 29)*



Joanna Roorcroft, Tracey Bastrom, and
Dr. Christine Caltoum
(Indianapolis – prior fellow).



Drs. Newton and Wenger and prior fellows (L to R) Dr. Michael Elliott, (Fresno), Dr.
Walid Yassir (Detroit) and Dr. Adam Barmada (Portland).



Dr. Greg Masters (Menlo Park), Dr. Shyam Kishan
(Indianapolis) and Dr. Pat Henderson (Tucson).



Tracey Bastrom (San Diego), Dr. Scher (HSS–NYC), Dr. Tis
(Johns Hopkins).



NP/PA's and researchers relax.

Spreading the Word – Special Situations

Each year our faculty have the opportunity to lecture throughout North America and the world as part of their academic responsibilities. 2011 brought a very special circumstance documenting the international reach and resulting relationship of our training program.

Approximately a year and a half ago leaders of the Iranian Pediatric Orthopedic Association, along with Dr. Behrooz Akbarnia of San Diego, approached Drs. Newton and Wenger to invite them to participate in the Iranian Orthopedic Association meeting to be held in Tehran (November, 2011). Two other North American pediatric orthopedists were also invited to participate. Because of the nature of current U.S.-Iranian international relations, arranging such a visit involved substantial planning, including using the Swiss embassy in Washington, D.C., for obtaining visas.

A special circumstance of this visit includes that one of our prior San Diego fellows, Dr. Afshin Aminian (now practicing children's orthopedic and scoliosis surgery at Children's Hospital – Orange County) is a native of Isfahan, Iran, and that his father Dr. Reza Aminian still actively practices orthopedic surgery in that city. When Afshin found that his prior fellowship staff members would be lecturing in Iran, he made special arrangements to be sure that Drs. Newton and Wenger would be able to visit his father. This allowed a very special reunion since Afshin then decided that he too should return to Iran for the meeting and also to visit his father.

Overall the Iran adventure was a great success, beginning with a visit to Shiraz in the south, which included a trip to nearby Persepolis, the ancient capital of the Achaemenid Empire (550-330 BCE) – (Cyrus the Great, Darius the Great, etc.)

Our host children's orthopedist, Dr. Hossain Shahcheraghi, who served as our guide for both the academic and cultural components of our trip, prac-

tices children's orthopedics in Shiraz. Following this very insightful visit we then went to Isfahan, the classic capital of Iran at its political and social peak during the Safavid era (1000-1700 CE). Here we met Dr. Reza Aminian, along with his son Afshin, who provided a great tour as well as an understanding of the cultural significance of this classic city.

The photos enclosed herein illustrate parts of this reunion, including the special dinner which the very proud Dr. Reza Aminian provided for the entire North American visiting orthopedic surgery contingent.

We then returned to Tehran for the Iranian Orthopedic Association meeting, which included the children's orthopedic conference which was widely attended. Orthopedics is practiced at a high level in Iran, leaving the visiting North American surgeons with a positive view of Iranian orthopedic surgery.



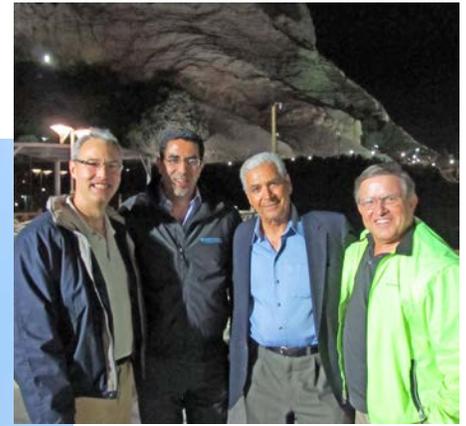
Dr. Reza Aminian, a practicing orthopedic surgeon in Isfahan, Iran and his son Dr. Afshin Aminian, our prior fellow and now a children's orthopedic surgeon at Children's Hospital of Orange County. (Isfahan, Iran)



Our wonderful hosts – Professor Hossain Shahcheraghi (l) and Dr. Mahzad Javid (r) – both practice children’s orthopedics in Iran, with Dr. Shahcheraghi being centered in Shiraz, and Dr. Javid working in both Tehran and Qom.



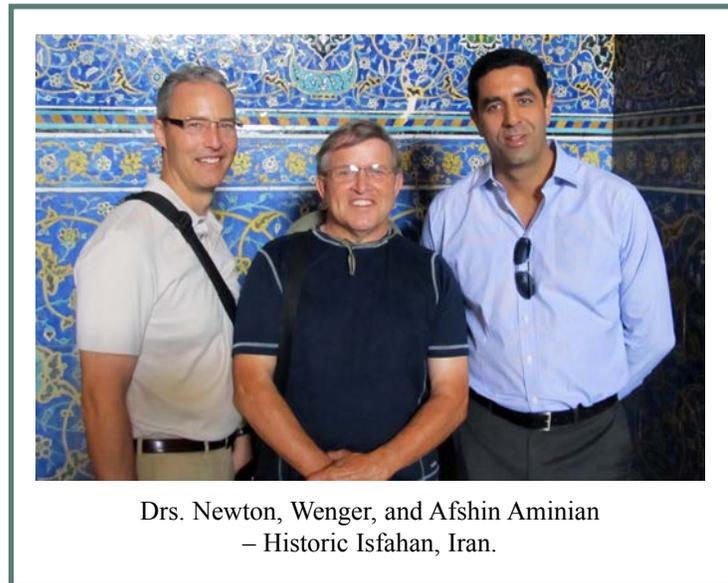
Typical monumental edifice in the ancient Persian capital of Persepolis.



Drs. Newton, Afshin Aminian, Reza Aminian, and Dennis Wenger, following an evening dinner hosted outside of Isfahan, Iran by Dr. Reza Aminian.



Dr. Peter Newton being greeted by our prior fellow Dr. Afshin Aminian in Isfahan, Iran.



Drs. Newton, Wenger, and Afshin Aminian – Historic Isfahan, Iran.



Dr. Wenger at the conclusion of the 19th Annual Meeting of the Iranian Orthopedic Association – Tehran, November 2011.



The North American contingent along with our host Dr. Hossain Shahcheraghi, having lunch in Isfahan.



Limbs for Haiti - Further Contributions of Former San Diego Fellows

Humberto Guzman, MD – San Juan, Puerto Rico
(Fellow – 2008-2009)

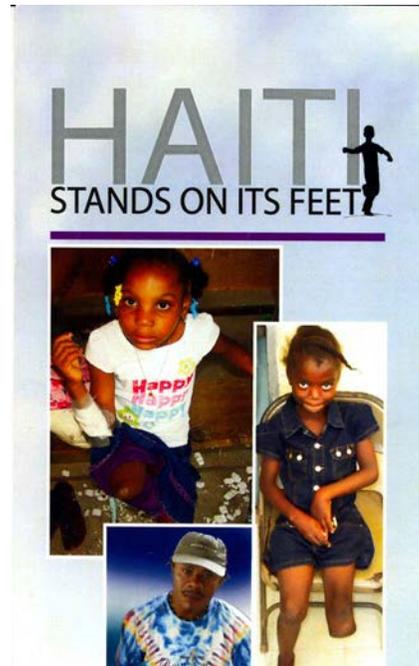
Humberto Guzman, our first fellow from Puerto Rico, is now in practice in San Juan, and in addition has joined the Limbs for Haiti program to help unfortunate children who lost their limbs due to crush injuries in the massive Haitian earthquake. Dr. Guzman's dedication to this program demonstrates the service component that we try to emphasize in all of our orthopedic trainees.

Humberto's outstanding work and frequent travel to Haiti provides a nice follow-up to the extraordinary effort that one of our prior fellows, Dr. Scott Nelson, provided to the Haitian community when he was the first outside orthopedic surgeon in the world to arrive in Haiti immediately following the disastrous earthquake in 2010. Because Dr. Nelson was already posted at the CURE Hospital in Santa Domingo, Dominican Republic, he was able to be on an early private aircraft -- one of the few allowed to land on the first day following the earthquake in Haiti. His activities were described in last year's newsletter.

Dr. Guzman's program is providing further long-term care for the unfortunate children of that disaster. In addition, several of our staff, including Dr. Chambers, Dr. Pring and Raquel Sanchez, have gone to Haiti and the Dominican Republic to help in providing orthopedic care.

*Do something wonderful,
people may imitate it*

– Albert Schweitzer



La Fundación

Cómo Surge

A días del terremoto un grupo de puertorriqueños sale rumbo a Haití a proveer servicio médico a las víctimas. Allí se encuentran con un panorama devastador. Para salvar vidas no tienen más alternativa que hacer amputaciones en muchos de los pacientes que atienden. De esa ayuda inicial surge un compromiso a largo plazo. Se logró darles vida, ahora se les quiere ayudar a que tengan una oportunidad de lograr un mejor futuro.

Qué Labor Hacemos

Médicos y protesistas viajan a Haití mensualmente a poner a caminar a los necesitados. Las prótesis se llevan de Puerto Rico y éstas se consiguen al costo gracias a la generosidad de compañías que se han unido a la Fundación. La totalidad de los fondos que se recaudan va íntegramente a la compra, reconstrucción y adaptación de las prótesis.

Cuánto Cuesta Una Prótesis

Una prótesis puede costar normalmente entre \$3,000 y \$5,000. Los suplidores aliados a la Fundación nos proveen las mismas a un costo de \$500 a \$700. Estas se adaptan a la extremidad del paciente en las clínicas donde recibimos a los afectados.

Miembros de la Junta Directiva:

Carlos Mellado López, MD

Presidente

Magdiel Mayol Urdaz, MD

Vicepresidente

Humberto Guzmán Pérez, MD

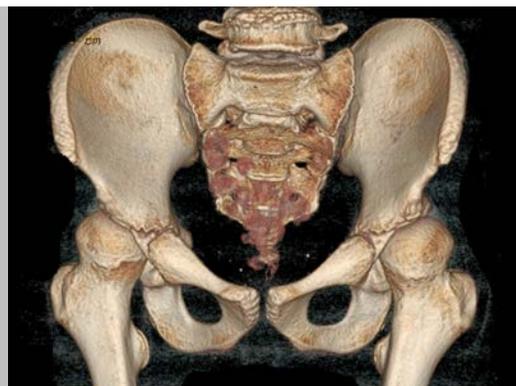
Tesorero

Carlos Rivera Vicente, ESQ.

Secretario



The Hip Program



The hip treatment team, directed by Drs. Dennis Wenger and Harish Hosalkar, remains very active, both on a clinical and a research level. The center continues to get referrals from throughout California, the western U.S.A. and the world.

Clinical work focuses on the treatment of traditional hip conditions, such as DDH and Perthes disease, including methods of advanced containment to assure proper healing in these disorders. A great deal of attention is now given to hip problems in the adolescent and young adult, with this effort being headed by Dr. Hosalkar. Hip impingement problems are of a particular interest, both in clinical and research areas.

The center continues to have multiple publications regarding hip conditions, and opportunities to work with other centers in producing information about hip diseases. Dr. Hosalkar has been asked to be a guest editor for a Clinical Orthopedics and Related Research symposium on Perthes disease. In addition he presented papers at the American Academy of Orthopedic Surgeons meeting as well as participating as a faculty member in the Bernese Hip Symposium, held in Bern, Switzerland. Dr. Scott Mubarak continues his interest in the infantile hip and leads our participation in the International Hip Dysplasia Institute based at the Arnold Palmer Children's Hospital in Orlando (Chad Price – team leader).

Further activities include our being involved in Visiting Professorships throughout North America and the world, including Dr. Wenger lecturing at the AAOS-TOTBID meeting in Antalya, Turkey. He also participated in the hip dysplasia pre-meeting at the recent POSNA meeting in Denver. Dr. Hosalkar participated in a Visiting Professor Symposium at Vancouver Children's Hospital, during which time he performed a surgical procedure to demonstrate the methods for treating femoral acetabular impingement. This is one of the few visiting professorships that actually arranges for hospital privileges, malpractice coverage, etc. to allow visiting professors to perform operations at their institution.

Laboratory work included extensive basic science work performed in conjunction with Professor Robert Sah of the orthopedic and bioengineering department at UCSD. Much of this work is related to development and maturation of the hip joint in childhood, as well as shape analysis of the proximal femur in SCFE and Perthes disease, using advanced 3D shape analysis software.

The center remains deeply involved in work using the EOS imaging system for the study of hips, which allows analysis with less radiation. Studies include comparing radiographic vs. EOS methods to determine accuracy for assessing many hip conditions, including slipped epiphysis and impingement type disorders.

We also are actively working on cartilage imaging methods, collaborating with the German center at the University of Dusseldorf, as well as with Dr. Jerry Dwek on advancing methods here at Rady Children's Hospital San Diego.

Hip treatment and research remain central to the RCHSD orthopedic team mission.



Dr. Harish Hosalkar and colleagues from throughout the world met at the Texas Scottish Rite Hospital in Dallas, where he will participate in the core organizational team that is setting up the next stage of a large prospective Legg-Perthes study trial, which will include advanced methods of drug delivery to allow more rapid healing of avascular necrosis in childhood.



3DCT study

MRI to calculate torsional profile

Spreading the Word – Global Outreach

The Rady Children's Hospital – UCSD orthopedic faculty continue to be involved in education and research efforts throughout North America and the world.

Introduction:

As the children's orthopedic program at Rady Children's Hospital/UCSD expands, our faculty are sought out for their expertise, both locally as well as throughout North America and the world. The following pages illustrate some of these activities. Not everyone has photographs of these activities, thus a brief verbal description of staff activities follows.

Dr. Mubarak has lectured at numerous orthopedic conferences throughout the year, including in India and Brazil, and these are illustrated. Similarly, Dr. Wenger has lectured at multiple venues on hip disorders in childhood, including meetings in Iran and Turkey.

Dr. Chambers has performed many visiting professorships throughout North America, including Philadelphia, Wake Forest University, the Alleghany Hospital Orthopedic Training Program (Pittsburgh), the Cleveland Clinic, the DuPont Institute (Wilmington, Delaware) and the Society of Military Orthopedic Surgeons meeting (San Diego, December, 2011).

Dr. Newton's lectureships are too numerous to enumerate (India, Iran, China, others) and are covered in the following photographs and in the section regarding his presidency of POSNA.

Drs. Wallace and Pring have spoken at regional meetings and complete our powerful in-hospital team as leaders of our trauma system (D. Wallace) and resident/ortho floor/E.R. manager (M. Pring).

Dr. Yaszay has become very active in the early onset scoliosis movement and his academic year included visiting professorships and presentations in multiple venues including Australia, Copenhagen, Puerto Rico, and Milan.

Dr. Edmonds has had many national presentations on sports medicine topics, including a tour of multiple South American centers (see section on SLAOTI traveling fellowship).

Dr. Hosalkar has represented us in multiple international conferences related to children's orthopedic trauma and hip surgery (Vancouver, Miami, and Bern, Switzerland).

Dr. Pennock continues to be active in the international sports medicine circle in his role as a certified orthopedic surgeon member of the USA Ski Team. This included working with the team in Cortina, Italy.

Please enjoy the photographs that follow.



Dr. Colin Mosely (LA) and Dr. Newton finally get to relax after an intensive conference (Tehran, Iran Nov. 2011).



Dr. Scott Mubarak on board a boat in the Amazon, where he was taking part in a pediatric orthopedic conference presented in Manaus, Brazil, in March, 2012.

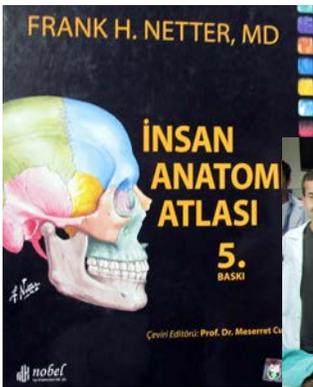


American Academy of Orthopedic Surgeons meeting – San Francisco. Left to right: Dr. Dennis Wenger, Kathy Wenger, Dr. Vernon Tolo (prior president of AAOS – current editor of the JBJS) and Charlene Tolo.



Dr. Robert Winquist, the well known Seattle expert on hip disorders and orthopedic trauma, at the audio visual center preparing for his lectures. Each visitor needs to spend hours preparing for these international lectures. Dr. Wenger, Dr. Winquist and others presented the North American viewpoint on orthopedic care. (Antalya, Turkey – April 2012)

Dr. Wenger and international faculty at the evening dinner at the AAOS-TOTBİD orthopedic meeting in Antalya, Turkey. In the foreground are Ms. Kim Stafford, AAOS administrative organizer of the course, and Dr. David Templeman of Minneapolis, Minnesota, course chairman. Back row – Dr. Wenger, Dr. Önder Aydıngöz (President – TOTBİD) and Dr. Haroon Khizir Taqi Raza – President of Asian Pacific Orthopedic Association.



Dr. Akyildiz demonstrating a patient at the Akdeniz University Teaching Hospital. Antalya, Turkey. April 2012.

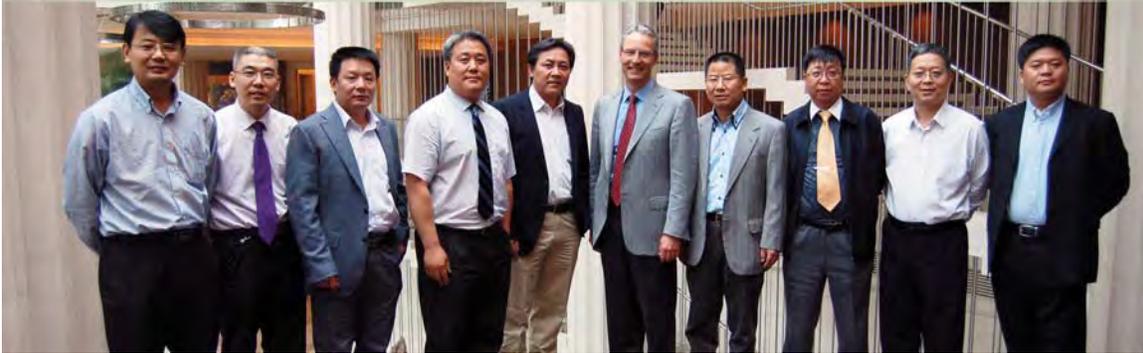
I soon realized that no journey carries one far unless, as it extends into the world around us, it goes an equal distance into the world within.

– Lillian Smith

A tour of the hospital demonstrated the medical students in their anatomic studies of human cadavers. Interestingly, they also use the Netter textbook of anatomy, which has been translated into the Turkish language.

Peer to Peer Deformity 早发性脊柱侧凸治疗策略

April 22nd, Beijing 2012年4月22日 北京



Dr. Peter Newton (center) on his recent trip to China, which included moderating a “peer-to-peer” case-based meeting for spinal deformity surgeons in Beijing. He also lectured in Guangzhou on the same trip.



Dr. Pennock on a morning news show with his surgical patient, Kevin Grendell, who was recently drafted by the Orioles.



Dr. Benjamin Joseph (left) and Dr. Scott Mubarak (right) at the Pediatric Orthopedic Society of India, held in Pune, India, in January, 2012. Dr. Joseph is President of the Pediatric Orthopedic Society of India and was a recent Visiting Professor here at Rady Children's Hospital San Diego.



Dr. Harish Hosalkar performing a hip operation as part of the Visiting Professorship at Vancouver Children's Hospital.



Dr. Scott Mubarak and Sandy Mubarak (center). Dr. Mubarak served as Visiting Professor in Orthopedics in Mumbai, India – January, 2012.