



# Connections



A Newsletter from the Pediatric Orthopedic Training Program

Children's Hospital – San Diego and University of California – San Diego

Issue 2 – 2006



Mubarak

Wenger

Chambers

Newton

Wallace

Pring

## Message from the Director

Dennis R. Wenger

### Introduction

We are happy to continue our tradition of providing an informational newsletter from the Children's Hospital-San Diego/University of California-San Diego pediatric orthopedic training program. Our goal is to keep former fellows, residents, friends and colleagues updated regarding ongoing activities as well as future plans for the program. Our mission is to provide world class patient care, outstanding resident and fellow education as well as focused research related to children's orthopedic conditions.

### Fellows

We have a special interest in communicating with our prior fellows, who form a growing fraternity of outstanding pediatric orthopedic surgeons practicing in North America and throughout the world.

In each newsletter we will feature the career of a prior fellow.

### Current Activities / Training Program Update

Many of our traditions continue with little change, however in some areas there has been evolution and transition. We continue to attract outstanding fellows from throughout North America and the world, who are listed in a later segment of this publication. In addition to training orthopedic fellows, we have residents from UCSD, the San Diego Naval Training Center and the Wilford Hall Air Force Training Center in San Antonio, Texas.

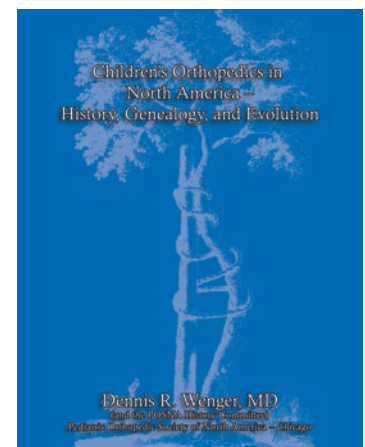
We also have a growing group of nurse practitioners and physician assistants (8) who are dedicated to the care of children's orthopedic problems. This has allowed us to meet our 80 hour work week commitment to the orthopedic residents, as well as provide outstanding clinical care to a growing population.

### Recent Events

Several important events have occurred since our last newsletter. The May 2005 POSNA meeting in Ottawa was a huge success, and the "Connections" section of this newsletter includes many photographs from a great alumni meeting.

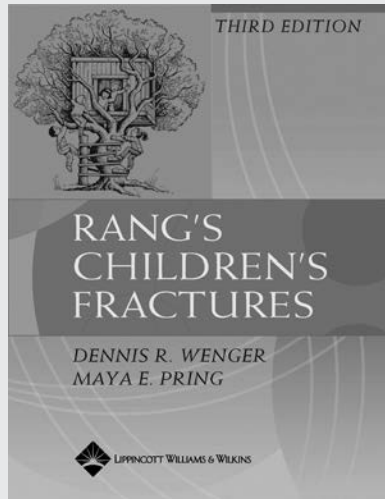
Many thanks to Lisa Crabb for organizing the event. It was wonderful to see our old friends and also to note the many papers presented by our orthopedic group. Dr. Scott Mubarak served as President of POSNA at that meeting and I was privileged to give the Presidential Guest Lecture, entitled "Children's Orthopedics in North America – History, Genealogy, and Evolution". This summarized the work of the POSNA History Committee which I chaired.

Following that meeting a decision was made by the POSNA Board of Directors to publish our genealogy project as a monograph. This well-illustrated book will be available at the forthcoming POSNA meeting, to be held here in San Diego. The text includes not only reference to our history and the past, but also



discusses current manpower issues and proposals for the future of children's orthopedics as a specialty.

2005 served as the publication date for the 3rd edition of Rang's Children's Fractures, authored by Maya Pring and myself. As most of you know, Mercer Rang of Toronto was the preeminent children's orthopedic fracture expert of his day, publishing the first truly practical children's orthopedic text in the western world in the mid-1970's. In 2002 Dr. Rang, Dr. Pring and I began a revision of this textbook. Sadly enough, Mercer Rang passed away in 2003, but we were able to complete the project. This well-illustrated and highly practical text follows Mercer Rang's style, but in addition brings out many new concepts in treating children's orthopedic fractures, including a description of our high volume system that utilizes conscious sedation anesthesia and the mini-image intensifier for emergency department fracture treatment. One of the important chapters in the text is co-authored by Philip Stearns, the founding partner in our group of nurse practitioners and physician assistants.



Over the last year our senior staff have had the opportunity to lecture throughout the world, including trips to Europe, Asia, Israel, Turkey, Korea, Egypt, Argentina, Brazil and other centers. These lecture trips are further detailed in the section "Spreading the Word – Global Outreach".

#### Staff Notes

Our staff continue to be active in every area of children's orthopedics. Scott Mubarak directs our clinical program, and has a research interest in complex lower extremity and foot disorders in childhood, orthopedic trauma, and muscle diseases. I (DRW) continue my clinical and research interest in simple and complex hip disorders, as well as a continuing scoliosis and spine deformity practice.

Hank Chambers' specialties include the Motion Analysis Laboratory, which supports his practice and research interests in sports medicine and cerebral palsy. In addition, he has a strong interest in medical leadership, recently completing a term as Chief of Staff at Children's Hospital-San Diego. Peter Newton directs our scoliosis clinical and research program as well as the orthopedic research program. This includes the Children's Hospital Biomechanics Laboratory, which is known for its research on all types of musculoskeletal conditions that affect children. Basic research related to spinal growth and how this might be modulated is one of the strong interests of the program.

Doug Wallace has an interest in all areas of children's orthopedics, with a special interest in hand and upper extremity deformi-

ties. He also directs the orthopedic musculoskeletal trauma program. Maya Pring, who completed a fellowship here, and in addition studied with Reinhold Ganz in Bern, Switzerland, has a special interest in orthopedic trauma, sports medicine, and complex hip disorders in adolescence.

#### Research Program

Tracey Bastrom has taken over from Michelle Marks as the coordinator of our research program. She works closely with Dr. Peter Newton and the rest of us to assure a continued output of outstanding research work. Our hospital's selection as the data gathering center for the well-known international Harms Spine Study Group Research Program includes Tracey as the San Diego coordinator. In addition, Jeff Pawelek has become a critical cog in the Harms Study Group team. Michelle Marks, who now lives in Tucson, continues her important role in the program by telecommunication. Andrew Mahar directs an expanding biomechanics program and both he and Tracey will provide updates later in this letter.

Finally, a note regarding Dr. Sutherland, who continues to battle his medical condition but still enjoys receiving e-mails and notes from prior trainees. David and Mildred reside together in the White Sands retirement home in La Jolla and their address is: 7450 Olivetas Avenue, La Jolla, CA 92037; gaitdr@hotmail.com.

We are proud of our training program, whose reputation continues to expand throughout North America and the world. We appreciate the support of our growing alumni group. Keep in touch.

Dennis R. Wenger, M.D.  
Director, Pediatric Orthopedic  
Training Program  
Children's Hospital-San Diego



Clinical Professor of Orthopedic  
Surgery  
University of California  
-San Diego



*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*

# Connections Photos

(also see page 24)



“I’m telling you, this spine surgery is great!”



“Ohio? That’s my kind of state”



“So where’s the party?”



“What’s it like to be the boss?”



“So, what’s the news?”



“Young love”



## *Notes from the Research Team*

Our orthopedic research department experienced a successful year in 2005. Many presentations on trauma, hip disease, foot deformities, spinal deformities, and sports injuries were given at national and international conferences, and many of our articles were accepted for publication in peer-reviewed journals.

In addition to our existing four centers of research (Center for Spinal Deformities, Center for Orthopedic Outcomes, Orthopedic Biomechanics Lab, and the Motion Analysis Lab/Center for Human Performance), we have worked to further develop two new centers of research.

### **Center for Advanced Childhood Hip Conditions**

In 2005 we initiated a prospective study to collect pre-operative and pertinent follow-up data on patients undergoing osteotomy for Perthes, DDH, and residual SCFE deformity. The Hip Research Center has also conducted various studies in 2005 which utilize the Orthopedic Biomechanics lab. Different methods and implant types for fixation of SCFE have been examined and the roles of ligaments within the hip joint are among the studies conducted in this center. Future studies may include in vivo research, as currently utilized by the Center for Spinal Deformities. The Center for Advanced Childhood Hip Conditions has been designed after the model of the very productive Center for Spinal Deformities. We feel we are off to a great start in catching up to the success of that center of research excellence.

### **Center for Fracture Care and Prevention**

Our extensive trauma volume has always lent itself to an abundance of research in this area. In an attempt to

organize and develop the research on orthopedic trauma, the Center for Fracture Care and Prevention was formed. Currently, paper and pencil data is collected from families on the mechanism of the child's injury. Funding is currently being sought to develop an interactive software program to allow families to complete the survey electronically. The data will provide information for statistical analysis to identify trends in pediatric injury and help in developing community awareness programs. Identifying treatment methods for optimal outcomes is also a critical focus of this center.

### **Research Team**

In 2005, we said good-bye to Michelle Marks, PT, MA, in her role as Research Coordinator for the department. She continues to work with Dr. Newton and the Harms Study Group. Jeff Pawelek and Maty Petcharaporn have taken on Michelle's duties as related to spine research at CHSD. Tracey Bastrom, MA, serves as coordinator for the fellows and education department and continues to conduct the statistical analyses for the department. Andrew Mahar, MS directs the research and staff of the Orthopedic Biomechanics Lab. Christy Farnsworth, MS coordinates the efforts of in vivo research at Elliot Field/UCSD. Kit Holm is our Business Unit Coordinator and coordinates all of the grants and contracts awarded to the department. We have a great team and look forward to its continued growth.

Tracey Bastrom, MA  
Research Coordinator

## Current Fellows - Children's Hospital-San Diego



### 2005-2006 Pediatric Orthopedic Fellows

(Left to right: Avi Baitner, M.D.; Firoz Miyanji, M.D.; Prerana Patel, M.D.)

**Avi Baitner, M.D.** was born in Brooklyn, New York, and attended undergraduate school at Brooklyn College. He then completed his medical training at SUNY Downstate Medical Center, followed by an orthopedic surgery residency at the State University of New York at Stony Brook.

**Firoz Miyanji, M.D.** is a native of Mbandaka, Zaire, where he lived for several years before emigrating to Canada with his parents. He received his Bachelor of Science degree in Human Biology from the University of Toronto, and had his medical training at the University of Ottawa. Dr. Miyanji completed an orthopedic surgery residency in 2004 at the University of British Columbia in Vancouver, BC, followed by a spine fellowship at the University of Toronto.

**Prerana Patel, M.D.** is a native of North Carolina. She received her undergraduate degree from Rice University and her medical degree

from Duke University School of Medicine, followed by an orthopedic surgery residency at the University of Michigan, Ann Arbor.

**Xuhui Zhou, M.D.**, is an international fellow from Shanghai, China, who worked with Dr. Newton on the spine team. Dr. Zhou received his Bachelor's Degree of Medicine from the Second Military Medical University, and his M.D. and Ph.D. from Changzheng Hospital,

Second Military Medical University. He completed his orthopedic residency in 2000. Dr. Zhou's main interest is pediatric spinal deformity and while he was in San Diego he was able to observe a wide variety of cases including idiopathic scoliosis, spondylolisthesis, kyphosis and infection of the spine. He has since returned to Shanghai to be on the staff of the Department of Orthopedics at Changzheng Hospital.



*"Knowledge of what is possible is the beginning of happiness"*

## 2004/2005 Fellows

Our recent fellow graduates are off to a variety of careers in several locations throughout the world.



**Left to right: Mark Adamczyk, Jung Ryul Kim, Shyam Kishan, Rod Capelo, Scott VanValin.**

**Mark Adamczyk**, a native of Michigan, attended undergraduate school at John Carroll University in Cleveland, where he also played basketball. This was followed by medical school at Creighton University, and then orthopedic residency at the Akron General Medical Center. He completed his fellowship year with us in July, 2005.

Dr. Adamczyk decided on a full-time academic position in the Akron Children's Hospital program, working with Dr. Dennis Weiner and colleagues. He has settled into a very busy academic practice, and most recently had the opportunity to correct a limb deformity in an adolescent who is one of Dr. Wenger's relatives in northeastern Ohio.

**Roderick Capelo**, a native Texan, attended undergraduate school at the University of Texas at Austin. He then attended medical school at the University of Texas, Southwestern, followed by a resi-

dency at the John Peter Smith orthopedic program in Fort Worth. He completed his fellowship year with us in July, 2005.

Dr. Capelo returned to the orthopedic training program at the Cook Children's Health Care System in Fort Worth, Texas, where he is on their full-time academic staff. He has a busy children's orthopedic practice in a group that includes one of our previous fellows, Dr. David Brown.

**Shyam Kishan** initially had both his medical education and orthopedic residency in India. He then emigrated to the U.S. and completed a full orthopedic residency in the New Jersey-Newark program under the direction of Dr. Fred Behrens. After his "double training" he made a decision to pursue pediatric orthopedics and completed our program in July, 2005.

Dr. Kishan has taken an academic position at the Shriners Hospital in Erie, Pennsylvania, where he has a

busy pediatric orthopedic and scoliosis practice.

**Scott Van Valin**, a native of Wisconsin, completed his undergraduate education at the University of Wisconsin-Milwaukee and his medical education at the Medical College of Wisconsin. He then entered the Naval Hospital orthopedic training program here in San Diego, where as a resident he rotated through our hospital and we learned to know him well. Following residency training he served for two years at the Naval Hospital in Pensacola, Florida. He completed his fellowship here in July, 2005.

Dr. Van Valin has taken a position in a full-time pediatric orthopedic practice group in Milwaukee, Wisconsin. He is currently very active in developing a successful children's orthopedic practice.

**Jung Ryul Kim** comes to us from Jeonbuk, South Korea, where he graduated from the Chonbuk National University Medical School. He has a special interest in orthopedic trauma in children as well as spine and hip disorders in children. He completed his international fellowship with us in July, 2005.

Dr. Kim has remained here in San Diego for an additional fellowship in basic science research in biomechanics at UCSD. Following this he plans to return to Korea for an academic practice. Dr. Kim continues our tradition of training fellows from Korea.

# Arriving Fellows

(2006/2007)

Each summer we look forward to a new group of fellows who have made a decision for a career in children's orthopedic surgery. This is a special group of young surgeons who have completed their training in orthopedic surgery and have chosen to have specialty training in children's orthopedics and scoliosis surgery. We are honored that they have selected our program, and are certain that they will become part of an illustrious, productive group of children's orthopedists who have trained in San Diego and now work in both academic centers and private groups throughout the world.



**Tamir Bloom, M.D.**, will join us in August 2006, following his residency at the Henry Ford healthcare system in Detroit. He was born in New York City and had his undergraduate education at the University of Pennsylvania. He then returned to New York, where he received his medical degree from the Mount Sinai Medical School. Tamir's outside activities include fencing, and in addition to being ranked #1 in the U.S. for several years, he competed for the

United States Olympic Team in 1996 and 2000.



**Christine Caltoun, M.D.**, is a native of Michigan who received her undergraduate degree in philosophy from the College of William and Mary in Virginia. She attended medical school at Wayne State University in Detroit and earned her M.D. in 2001. She was then accepted into the Mayo School of Medicine orthopedic residency program, from which she will graduate in June. While at the Mayo clinic Christine became acquainted with one of our prior fellows and current attending staff member, Dr. Maya Pring.



**Todd Ritzman, M.D.**, is a Midwest native. He attended

Wheaton College as an undergraduate, where he earned a B.S. in biology. He attended medical school at Ohio State University and received his medical degree in 2000. He will complete his orthopedic surgery residency at The Cleveland Clinic in June, where he has been fortunate enough to work with one of our past fellows, Dr. Ryan Goodwin.



Finally, we are happy to welcome **Dr. Shunji Tsutsui** (and his family!) from Japan, who will spend the 2006/2007 academic year training with Dr. Newton. Dr. Tsutsui's main focus will be spinal deformity research, but he will also be involved in some areas of clinical care with Dr. Newton.

# *Future Fellows*

(2007/2008)

---

**Dr. Vineeta Swaroop** received her undergraduate education at Duke University, where she earned her B.S. degree in biology, and continued on to Georgetown University to earn her medical degree. She will complete her orthopedic residency at Northwestern University in June, 2007.



**Dr. John Schlechter** is a native of New York who attended Arizona State University, where he earned his B.S. degree in microbiology. His medical education was at the New York College of Osteopathic Medicine, and he is currently an orthopedic surgery resident at the Riverside County Regional Medical Center.

**Dr. Patrick Henderson** is a “local” who was born in Laguna Beach. Following his undergraduate education at Stanford University he came to San Diego where he earned his medical degree from UCSD. He is currently doing his orthopedic residency at the University of Arizona, and we look forward to seeing him back in San Diego in 2007.



**Eric Edmonds** is also a California native whose family currently lives in the San Diego area. He received his medical degree from the University of California at Davis, following his undergraduate education at Johns Hopkins University. He is now an orthopedic surgery resident in the Carolinas Medical Center system, where he works with one of our prior fellows, Dr. Steve Frick.





## *Clinical Program Director's Notes*

Scott J. Mubarak

The Department of Orthopedics at Children's Hospital-San Diego continues to have busy clinical and surgical services, with a high volume of both elective and acute orthopedic cases. Outpatient clinic visits for the last year topped 48,000.

This past year was an exciting one for me as President of the Pediatric Orthopedic Society of North America for 2004-2005. Alum Steve Frick (1997-98) put together an outstanding Specialty Day program at the 2005 AAOS annual meeting in Washington, DC. This included a special tribute to Mercer Rang on the growth plate. Steve's speakers included Jon Davids (1990-91) and Karl Rathjen (1995-96).

At the annual POSNA meeting in Ottawa, Canada in May of 2005, Jon Davids (1990-91) served as program chairman for the one-day course on DDH. He gathered an international faculty, including Reinhold Graf from

Austria and Ted Harcke from the DuPont Institute, innovators of hip ultrasound. Peter Newton was the program chairman for the POSNA meeting and the Presidential Guest Speaker was Dr. Dennis Wenger, who presented "The Genealogy of Pediatric Orthopedics in North America".

The 2006 POSNA meeting will be held in San Diego from May 3-6, 2006, with Hank Chambers (1989-90) serving as local host. Dennis Wenger's book entitled "Children's Orthopedics in North America: History, Genealogy and Evolution" will be released to all POSNA members at this meeting. Many exciting events are planned, and of course many of our alumni will return.

Finally, my presidential year included trips to Brazil (twice), Argentina, Chile, Spain (twice) and many Visiting Professorships in North America.



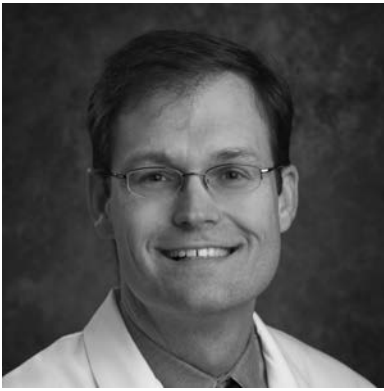
SJM (POSNA President) congratulates DRW (Presidential Guest Lecturer)



SJM (POSNA President) and Norris Carrol (his mentor at HSC Toronto)



POSNA Board of Directors - Ottawa - 2005



## *Notes from a Former Fellow*

Steven L. Frick

I am a native of Greenville, SC, where I spent my formative years prior to venturing to Washington, D.C to attend college and play basketball at The George Washington University. I had a lifelong interest in medicine that was fueled by my experiences there, and GWU was an eye-opening academic and cultural experience for me. There I also met my wife Lisa, and a few years later we began our journey into a life in medicine during medical school at the Medical University of South Carolina. I completed my residency and a basic science research fellowship at Carolinas Medical Center, and was a fellow in San Diego in 1997-98.

I became interested in pediatric orthopaedics during medical school, working and getting to know Dick Gross, and later Paul Griffin. Both struck me as interested and interesting- enviable qualities that I sought to emulate. They were very interested in what they were doing- still fascinated by pediatric orthopaedics and always thinking about ways to do a better job. They were also interesting people, with many interests outside orthopaedics. I would find this to be true of many of the pediatric orthopaedic surgeons I was fortunate to learn from during residency and fellowship, and it solidified my interest in the subspecialty.

During my fourth year of residency I rotated to the Shriners Hospital in Greenville, SC and met Jon Davids. He was an outstanding clinician, surgeon and researcher, and really just a clear thinker. He got me interested in the San Diego fellowship, and I was fortunate to be selected. I found the fellowship environment to be intellectually stimulating, and the clinical experience was high in volume and complexity. I left feeling confident in my pediatric skills and abilities, full of what Osler called the arrogance and chauvinism of the young physician. It did not take too long in prac-

tice for my patients (and our residents) to remind me that I wasn't so smart, but the principles of caring for children with orthopaedic problems that I learned in San Diego have served me well, helping me deal with many difficult and complicated cases.

During my year there I witnessed the end of the changing of the guard, as Dr Sutherland was slowing down (he struck me as a great combination of intellectual curiosity, humility and graceful generosity), and it was clear that Drs Mubarak and Wenger were leading the program to prominence. Their combined drive to contribute academically through education and research was and is a powerful influence on me. The other faculty at the time- Hank Chambers, Peter Newton and Doug Wallace- were role models in every way and became valued friends. My fellow fellows, Neal McNerney and Kevin Shea, were committed to their patients and to maximizing the educational experience of the year, and we spent many an afternoon/evening discussing controversial topics. Combining this with a great staff and facility, and living in San Diego, led to a near perfect fellowship experience for me.



Steve Frick "Live and Unplugged"

After finishing, I was fortunate to return to Charlotte to join the faculty where I had done my residency. Our chairman, Edward Hanley, provided me with the opportunity to administer our residency program and develop a pediatric practice. He has been an incredible mentor to me over the past 8 years, encouraging my academic and administrative development. I was most interested in the process of residency education, and excited about the possibility of being involved in helping residents reach their career and life goals. Being a residency director has fostered my interest in topics such as leadership, professionalism, conflicts of interest, communication skills, curriculum development, healthcare economics and policy, and surgical education. In addition, it has provided a springboard for involvement in professional societies and organized medicine. After helping patients, working with residents ranks as the most gratifying part of my career thus far.

My pediatric practice has grown with the booming Charlotte region, and we look forward to the opening of the 234 bed Levine Children’s Hospital now under construction. I have a broad general pediatric practice, with research interests in congenital clubfoot, hip dysplasia, muscle diseases, and pediatric trauma. I also take care of adult patients at our level I trauma center, as well as adults with pediatric orthopaedic problems (neuromuscular diseases, hip dysplasia). I help mentor our basic science research fellow each year, and have

maintained involvement in basic science studies of fracture healing and physeal gene expression. I hope that we can establish a pediatric fellowship program in Charlotte in the future, and I would model much of it on the educational experiences I had in San Diego.

I was fortunate to have exposure to great teachers throughout medical school and residency, but the people who still have the greatest effect on my day-to-day practice of pediatric orthopaedics are the faculty from San Diego. It is a rare day in the office or operating room where I don’t think or say something that is a direct quote from one of them. The framework of pediatric knowledge they provided for me to build on during my subsequent career was substantial and sturdy, and has led to a fulfilling and stimulating practice for me. I hope that my own contributions as a program director and faculty member pay tribute to the commitments of the faculty who taught me, and that I am able to pass on some of the wisdom they shared with each successive class of surgeons.

Education is what survives after what has been learned is forgotten. – B. Skinner

Steven L. Frick, M.D.  
 Carolinas Medical Center  
 Charlotte, NC  
 CHSD Fellow 1997-1998

## Connections Photos

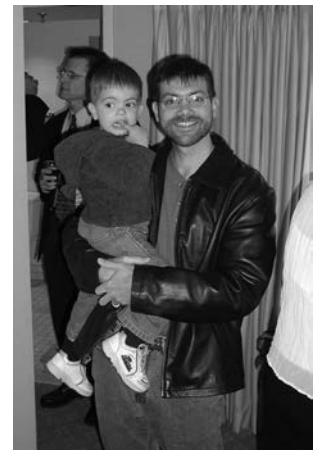
(also see page 24)



Happy times at the Visiting Professorship



Portland vs Santa Barbara



“A future Children’s Orthopod?”

# Spine Service

Peter Newton



The consistent volume of patients, involvement with the Orthopedic Biomechanics Research Center, and in vivo work through UCSD allows for innovative research on pediatric spinal deformities. This past year has been as productive as ever. Our site continues to be the lead site for the multi-center spinal research team known as the Harms Study Group (DePuy, Inc). There are currently 13 participating sites internationally.

We continue to enroll patients in our prospective adolescent idiopathic studies as part of the Harms Study Group Protocols. We currently have patient data up to 5+ years post surgery. The spine center has expanded its focus and studies on congenital scoliosis, neuromuscular scoliosis, and Scheuermann's kyphosis correction have begun. Research on fusionless scoliosis correction is ongoing, with active involvement of in vivo research and the biomechanics laboratory.

In 2005 fifteen studies were accepted for presentation at POSNA, SRS, IMAST, and AAOS annual meetings. The spine service also produced 7 original articles published in 2005.

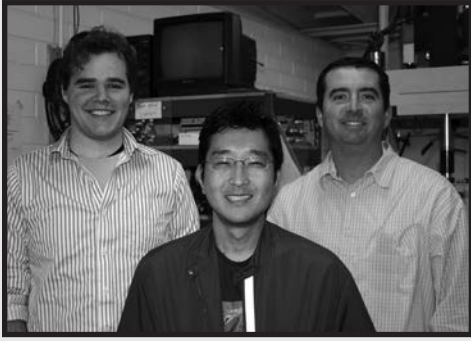
One study, conducted by our 2005-2006 fellow, Shyam Kishan, MD was nominated for the Hibbs Award at the 2005 SRS meeting in Miami, Florida. This study showed that in 107 patients change in pulmonary function from pre-op to 2 year post-operative was minimal in patients that underwent thoracoscopic instrumentation compared to decreases seen in open thoracotomy approaches. The addition of a thoracoplasty in the open thoracotomy group led to an even greater decline in the pulmonary functions.

In the absence of long term clinical data, an attempt to understand what degree of residual scoliosis in the unfused lumbar spine is "equivalent" to a straighter long fusion was made utilizing expert opinion. Surgeons were asked to rate various post-operative x-rays in terms of the spine they would prefer to live with. A lumbar deformity per motion segments spared quotient (DFQ) was created for each radiograph. By tallying the votes, we found that the DFQ predicting winning radiograph in 70% of the pairings and that less than 4 degrees per motion segment preserved was preferred by our experts.

In another study, a long-term comprehensive surgical database was used to evaluate 10-year trends in the treatment for primary right thoracic adolescent idiopathic scoliosis. In 2003, posterior instrumentation became the most frequent approach to correcting Lenke 1 curves, replacing anterior approaches, which had been preferred.

Last year, an in vivo study was presented in which the effects of an anterolateral thoracic spinal tether in an immature bovine model were evaluated. The radiographic, biomechanical and histological data showed that a multilevel flexible tether on the convex side of a scoliotic curve may provide a mechanism for correction with growth while maintaining long-term spinal flexibility and disc health.

Peter O. Newton, M.D.  
Director, Spine Service  
Director of Orthopedic Research



## *Orthopedic Biomechanics Research Center*

The Orthopedic Biomechanics Research Center (OBRC) at the Children's Hospital-San Diego was founded in November of 1998 with an initial research focus towards adolescent idiopathic scoliosis. Adolescent spinal deformity remains the major focus of the facility for evaluating varying types of materials and dimensions for spinal fusion, while also analyzing potential fusionless scoliosis correction constructs. However, significant efforts have also been made toward understanding the biomechanical effects of various surgical techniques for stabilizing adolescent fractures of the humerus, femur and tibia, as well as exploring the biomechanical effects of pediatric hip deformity.

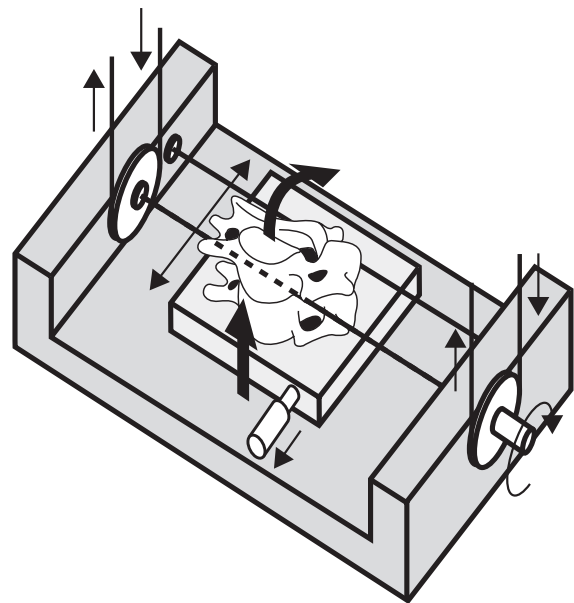
The OBRC retains a close collaborative research effort with the Department of Orthopedic Surgery at the University of California-San Diego. Spinal research in the areas of adult deformity, spinal trauma and vertebroplasty/kyphoplasty comprise the largest facet to this collaboration. However, biomechanical research is also being conducted to evaluate novel devices and materials for sports medicine applications. Another area of collaborative research involves adult trauma stabilization of the clavicle, proximal femur and distal humerus. The OBRC has recently begun studies in computational biomechanics to evaluate bone remodeling and stability of the bone-implant interface with San Diego State University.

These cumulative research efforts have been accomplished by teaming orthopedic surgeons and biomedical engineers with orthopedic residents and fellows. In addition, engineering interns and medical students are recruited to assist with specific tasks associated with each project. This multi-layered approach has yielded significant publication success with manuscripts appearing in *Spine*, *Journal of Pediatric*

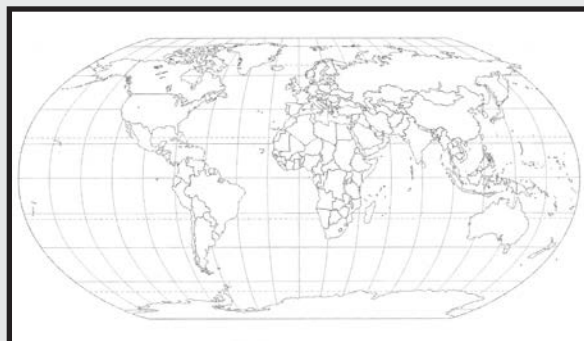
*Orthopaedics*, *Clinical Orthopaedics and Related Research*, *American Journal of Sports Medicine*, *Journal of Shoulder and Elbow Surgery*, *Medicine and Science in Sports and Exercise*, *Journal of Foot and Ankle Surgery*, *Arthroscopy* and the *Journal of Applied Biomechanics*.

The future is bright for the OBRC as it establishes itself as an internationally recognized academic center that develops innovative ideas for the treatment of orthopedic problems.

Andrew Mahar, M.S.  
Director  
Orthopedic Biomechanics Research Center



## *Patients from Abroad*



Children's Hospital-San Diego continues to attract complex cases from throughout the country and the world as a result of our expertise in many areas, particularly spine surgery, hip surgery, and motion analysis. A recent example is a 3-year-old girl from the Middle East (radiographs pictured below) who had had two prior major hip operations in an attempt to reduce a dislocated hip. Despite these procedures, including bony osteotomies, the child still had a severe gait abnormality and imaging studies that showed recurrent dislocation.

At Children's Hospital-San Diego, we were able to perform a complete diagnostic workup, including plain films, 3D-CT studies, and other methods. A plan was then developed for repeat open reduction, even though she had had two prior attempts. We utilized a complex reconstruction that included use of the ligamentum teres (intact despite prior surgery) to stabilize the hip. Osteotomies of both the femur and acetabulum were also performed.

This resulted in complete stability of the hip. The patient is now happily recovering with her family in the Middle East, where Dr. Wenger will be lecturing in the Fall (2006), which will allow a convenient "follow-up visit" in her home country.

DRW

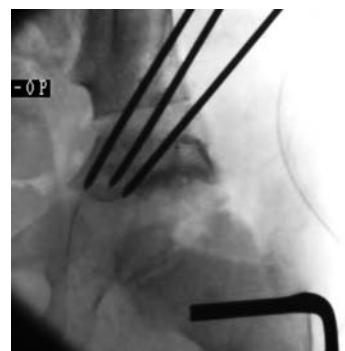


Failed prior surgeries



3DCT

Intra-op



Well reduced





## *Sports, Cerebral Palsy and Motion Analysis*

Henry Chambers

The sports program at Children’s Hospital-San Diego seems to be getting busier and busier, as the young children of San Diego continue to play year round sports. An association with major league baseball, through grants in the Motion Analysis Laboratory, results in our seeing more upper extremity injuries, particularly elbow OCD lesions and medial epicondyle avulsion fractures. Both Dr. Wallace and Dr. Pring are also actively involved in our increased sports medicine surgical volume. Our practice in the North County will expand next year with the opening of a new CSSD office, where we plan to have “in house” sports physical therapy to improve our overall product.

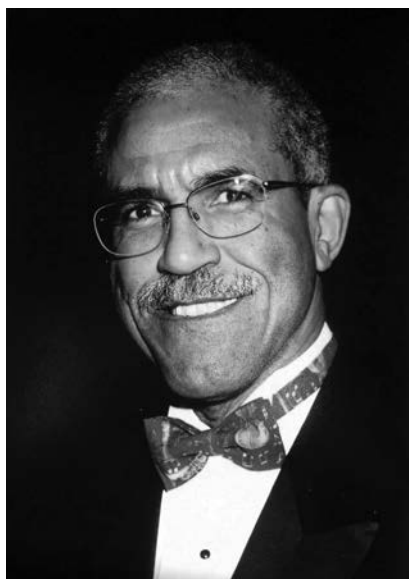
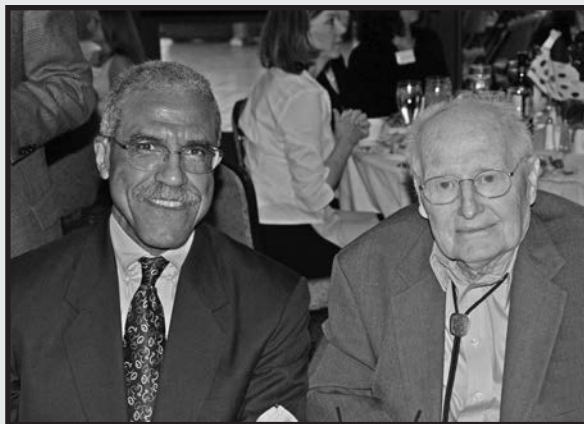
We continue to have a very busy cerebral palsy referral practice from throughout California and the rest of the southwest. The patients benefit from being able to get a motion analysis study, a consultation with one of us, and a consult from Dr. Gadi Revivo, our pediatric physiatrist, all on the same day. We have been asked by the NIH to be one of the research sites for the use of oral baclofen in children with spasticity, and Diane Damiano, Ph.D. (St Louis) and I are organizing an international outcome study based on Clinical Practice Improvement guidelines that describe “best practices” in the treatment of cerebral palsy. Several former fellows are also key investigators in this initiative.

Dr. David Sutherland and his wife Mildred continue their residence at the White Sands retirement center in La Jolla. I talked to him the other day and he sends his regards to all of our former fellows, and he still talks about getting NIH grants for gait lab studies.

Hank Chambers, M.D., Chief of Staff  
Children’s Hospital and Health Center



# David H. Sutherland Visiting Professorship - 2005



Alvin Crawford

The 2005 David H. Sutherland Visiting Professorship was an outstanding event, both for our institution and for our distinguished guest, Dr. Alvin Crawford of Cincinnati. Dr. Crawford had previously been on the staff at Balboa Naval Hospital, thus the visiting professorship provided an exceptional opportunity for him to meet with old friends and reestablish his ties here in San Diego.

Papers were presented that covered multiple research topics developed at Children's Hospital-San Diego, which were then discussed by Dr. Crawford. Many interesting clinical cases were also presented. In addition, Dr. Crawford presented outstanding lectures covering a diverse range of children's orthopedics, including his grand rounds talk for the pediatricians on neurofibromatosis. His classic lecture "It Is What It Is" was presented for the Western Orthopedic Association dinner meeting. We all benefited from Dr. Crawford's incredibly broad life and orthopedic experiences.



A. Crawford DRW  
Visiting Professor 2005



Fellows and Visiting Professor '05



"Do these fellows bite?"  
2005 Visiting Professor Program



"That's hilarious"



## *Stars in our Firmament*



*Lisa Crabb*

All organizations include key players who hold everything together. In this issue we honor Lisa Crabb, who serves as our fellowship coordinator and as the administrator for Dr. Wenger's outpatient orthopedic clinic at Children's Hospital.

Lisa Crabb is a native of Coronado, California, who had her nursing training at San Diego State University. After working in Dallas and several other cities, she returned to the San Diego area where she now resides in Coronado, along with her three lovely children (grandparents very nearby).

Lisa had been working as an outpatient orthopedic clinic nurse when, upon the retirement in 1995 of Judy Leech (our founding resident and fellowship coordinator), we asked her to assume the role of coordinator. Since that time she has blossomed into a true leader in our program.

Lisa combines several traits that make her invaluable to our training program. First, she is highly intelligent and can quickly get the lay of the land on any issue, ranging from converting to digital radiography to determining whether or not a resident needs help in understanding his first rotation at Children's Hospital. Similarly, she guides the new fellows.

She is responsible for all outpatient clinic schedules and the coordination between the outpatient clinic and our private office. Her responsibilities include the scheduling of the nurse practitioners and physician assistants, as well as understanding how the emergency room is running and what changes need to be made to keep the system functioning smoothly. Lisa was central to the development of our well-known evening fracture clinics, which are manned by our NP/PA's. She also helps to make out the fellow and resident schedules, and is intimate with every detail regarding how the residents rotate, which staff they will be working with, and how they will coordinate their clinics.

In summary, Lisa functions like a mainframe computer that understands and organizes everything about our orthopedic training program, including every detail related to how residents and fellows fit into it.

Lisa has also managed to become a good friend to the fellows that we have trained over many years, and keeps in touch with them regarding their practice, their life and their families. In fact, when any prior fellow needs to know what is going on back in San Diego, or has a special problem, you can be certain that Lisa will be the first to know.

Lisa Crabb is an amazing individual and a powerful and important cog in our training program. When you see her the next time, congratulate her on her excellent work (guess who will be organizing the fellow alumni reunion at the San Diego POSNA meeting).

DRW

## Documentation (Our Publications)



**Our progress as a center directed to the future mandates both research and publications that document our work. We continue as one of the top children's hospitals in the world for publications in the orthopedic literature. This list of a single year's publications documents this trend.**

Yuan, PS, Pring, ME, Gaynor, TP, Mubarak, SJ, Newton, PO: Compartment Syndrome Following Intramedullary Fixation of Pediatric Forearm Fractures, JPO, 370-375, 2004.

Weinstein, SL, Mubarak, SJ, Wenger, DR: Developmental Hip Dysplasia and Dislocation: Part 1. Chapter 47 IN: Instructional Course Lectures, (Editors David Helfet and Walter Greene). American Academy of Orthopedic Surgeons, pps. 523-530, 2004.

Weinstein, SL, Mubarak, SJ, Wenger, DR: Developmental Hip Dysplasia and Dislocation: Part 2. Chapter 48 IN: Instructional Course Lectures, (Editors David Helfet and Walter Greene). American Academy of Orthopedic Surgeons, pps. 531-542, 2004.

Inan M, Mahar A, Swimmer T, Tomlinson T, Wenger DR: Changes In The Lengths Of The Gluteus Medius And Gluteus Minimus Muscles With Trochanteric Transfer Following Pelvic Support Osteotomy: A Biomechanical Study. Acta Orthop Traumatol Turc.38(1):67-70, 2004.

Aminian A, Mahar A, Yassir W, Newton P, and Wenger DR: Freedom of Acetabular Fragment Rotation Following Three Surgical Techniques for Correction of Congenital Deformities of the Hip. J Pediatr Orthop 25 (1):10-13, 2005.

Yassir W, Mahar A, Aminian A, Newton P and Wenger DR: A Comparison of the Fixation Stability of Multiple Screw Constructs for Two Types of Pelvic Osteotomies. J Pediatr Orthop 25 (1): 14-17, 2005.

Parent S, Newton PO, Wenger DR: Adolescent Idiopathic Scoliosis: Etiology, Anatomy, Natural History, and Bracing. AAOS Instructional Course Lectures; 54:529-536, 2005.

Wenger, DR, Adamczyk MJ: Evaluation, Imaging, Histology And Operative Treatment For Dysplasia Epiphysealis Hemimelica (Trevor Disease) Of The Acetabulum: A Case Report And Review.; Iowa Orthop J. 2005;25:60-5.

Lieber RL, Steinman S, Barash IA, and Chambers HG: Structural and Functional Changes in Spastic Skeletal Muscle. Muscle and Nerve 29: 615-627, 2004

Tis J, Ball S, and Chambers HG: Extraarticular Drilling of Osteochondral Lesions of the Talus. Techniques in Foot and Ankle Surgery. 3 (1): 62-67, March 2004

Skaggs DL, Friend L, Alman B, Chambers HG, Schmitz M, Leake B, Kay RM, and Flynn JM: The Effect of Surgical Delay On Infection In 554 Open Fractures In Children. Journal of Bone and Joint Surgery 87: 8-12, 2005

Varni JW, Burwinkle TM, Sherman SA, Hanna K, Berrin SJ, Malcarne VL, and Chambers HG: Health-related quality of life of children and adolescents with cerebral palsy: Hearing the voices of the children. Developmental Medicine and Child Neurology, 47, 592-597, August 2005

Foran J, Steinman S, Barash I, Chambers HG, Lieber, RI: Structural and Mechanical Alterations in Spastic Skeletal Muscle. Developmental Medicine and Child Neurology, 47, 713-717, October 2005

Macias B, Murthy G, Hargens A and Chambers HG: High contact pressure beneath backpack straps of children contributes to pain," Archives of Pediatrics and Adolescent Medicine. 159: 1185-1186, December 2005

Radius and Ulna, Rang M, Stearns P and Chambers, HG in Rang's Children's Fractures. Wenger D and Pring M (eds) Lippincott, Philadelphia, 2005, pp 135-150.

Dynamic Electromyography Chambers, HG and Rose, J in The Treatment of Gait Problems in Cerebral Palsy Clinics in

- Developmental Medicine No 164-165. Gage J (ed). MacKeith Press, Cambridge University Press, 2004 pp134-145
- “Common Orthopedic Problems” Chambers HG: Leach JL and Riley-Hagen M: in Synoptic Textbook of Pediatrics. Nyhan W, (ed.) Lea and Febinger, Malvern,PA (in press)
- Radius and Ulna, Rang M, Stearns P and Chambers, HG in Rang’s Children’s Fractures. Wenger D and Pring M (eds) Lippincott, Philadelphia, 2005, pp 135-150.
- Dynamic Electromyography Chambers, HG and Rose, J in The Treatment of Gait Problems in Cerebral Palsy Clinics in Developmental Medicine No 164-165. Gage J (ed). MacKeith Press, Cambridge University Press, 2004 pp134-145
- Fricka, KB, Mahar, AT, Lee, SS, Newton, PO: Biomechanical Analysis of Antegrade and Retrograde Flexible Intramedullary Nail Fixation of Pediatric Femoral Fractures using a Synthetic Bone Model. *J Pediatr Orthop.* 2004 Mar-Apr;24(2):167-71.
- Perez, Mahar, Newton, Impelluso.: Analytical comparison of stainless steel and titanium flexible intramedullary nails for stabilization of femoral shaft fractures. Accepted to *Journal of Clinical Biomechanics*.
- Newton PO: Results of thoracoscopic instrumented fusion versus conventional posterior instrumented fusion in type-3 adolescent idiopathic scoliosis. *Point of View. Spine* 2004;29:2039
- Newton PO: Early experiences with video-assisted thoracoscopic surgery: Our first 70 cases. *Point of View. Spine* 2004;29:1952.
- Lenke, LG, Newton PO, Marks MC, Blanke KM, Sides B, Kim YJ, Bridwell KH: Prospective pulmonary function comparison of open versus endoscopic anterior fusion combined with posterior fusion in adolescent idiopathic scoliosis. *Spine* 2004;29:2055-60.
- Faro FD, Marks MC, Pawelek J, Newton, PO: Evaluation of a Functional Position for Lateral Radiograph Acquisition in Adolescent Idiopathic Scoliosis. *Spine* 2004;29:2284-89.
- Mahar AT, Lee SS, Lalonde FD, Impelluso T, Newton PO: Biomechanical comparison of stainless steel and titanium nails for fixation of simulated femoral fractures. *J Pediatr Orthop.* 2004 Nov-Dec;24(6):638-41
- Newton PO, Faro FD, Gollogly S, Betz RR, Lenke LG, Lowe TG: Results of preoperative pulmonary function testing of adolescents with idiopathic scoliosis. A study of six hundred and thirty-one patients. *J Bone Joint Surg Am,* 87:1937-1946, 2005.
- White KK, Bawa M, Ahn JS, Farnsworth C, Faro FD, Mahar AT, Wedemeyer M, Garfin SR, Newton PO: Strut Allograft Union and Remodeling using rhBMP-2 in a Corpectomy Model. *Spine* 2005;30:1386-95.
- Newton PO, White, KK, Faro FD, Gaynor T: The success of thoracoscopic anterior fusion in a consecutive series of 112 pediatric spinal deformity cases. *Spine* 2005;30:392-98.
- Newton PO, Parent S, Marks M, Pawelek J: Prospective evaluation of 50 consecutive scoliosis patients surgically treated with thoracoscopic anterior instrumentation. *Spine* 2005;30:S100-S109.
- Faro FD, Marks MC, Newton PO, Blanke K, Lenke L: Perioperative changes in pulmonary function following anterior scoliosis instrumentation: Thoracoscopic versus open approaches. *Spine* 2005;30:1058-1063.
- Early S, Mahar A, Oka R, Newton PO: Biomechanical comparison of lumbosacral fixation utilizing Luque-Galveston and Colorado II sacropelvic fixation: Advantage of using locked proximal fixation. *Spine* 2005;30:1396-01.
- Kocher MS, Newton PO: Specialty Update—What’s new in pediatric orthopaedics. *JBJS* 2005, 87A:1171-79.
- Rang’s Children’s Fractures 3rd edition: MR Rang, DR Wenger and ME Pring: Philadelphia, Lippincott, Williams and Wilkins, 2005.
- Pring, ME, and DR Wenger: “Adolescent Deformity” in *Orthopaedic Surgery Essentials: Spine Surgery*, eds. CM Bono and SR Garfin. Philadelphia, Lippincott, Williams and Wilkins, 2004.

## *Spreading the Word - Global Outreach*

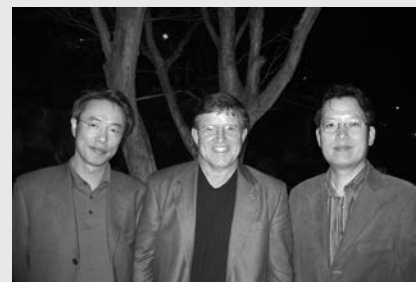


J. Hall      SJM      R. Salter  
Salter Society Dinner Ottawa – 2005

Our faculty continue to be invited lecturers and visiting professors throughout North America and the world. This allows them to present the clinical and research ideas that have evolved at Children’s Hospital-San Diego and to remain in contact with our prior trainees throughout the world.

Global outreach was particularly active in 2005 for several reasons. Dr. Scott Mubarak served as President of the Pediatric Orthopedic Society of North America, with part of his responsibilities being international travel to represent POSNA, including trips to Brazil, Spain, Argentina, Chile, and Canada. Details are listed below.

Dr. Wenger also had a busy year, including participating in an important pediatric orthopedic program in Cairo, Egypt, organized by both the Egyptian Orthopedic Association and the American Academy of Orthopedic Surgeons. He was also in Korea for the KOA meeting, and later gave the POSNA Presidential Address in Ottawa. Dr. Wenger also participated in the SICOT meeting in Istanbul in September 2005, along with Dr. David Aronsson (President – POSNA) and Dr. Stuart Weinstein (President – AAOS). He also participated in the Swedish Pediatric Orthopedic Society meeting in Stockholm later in the Fall.



C.S. Lee      DRW      J.S. Shim  
Seoul, Korea

During the year, both Dr. Wenger and Dr. Chambers visited Dr. Scott Nelson, orthopedic director of the CURE Orthopedic Hospital in Santo Domingo, Dominican Republic. Dr. Nelson, who was featured in our last newsletter, is a prior San Diego fellow who now serves as an international children’s orthopedist and positive “ambassador” for the U.S. He runs an outstanding, high-volume program (DRW and SN performed six open reductions including femoral shortenings for DDH in one day). We look forward to a continuing relationship between our training program and the CURE-Santo Domingo program.

The attached photographs illustrate a few of the many outreach events that our faculty took part in during the last year.

### **Orthopedic Outreach – 2005**

#### **Scott J. Mubarak, M.D.**

Course Instructor, AAOS annual meeting, Washington, DC, February 23, 2005

Cincinnati Children’s Hospital Medical Center 21st Annual Hip Day Visiting Professor, Cincinnati, OH, April 27, 2005

POSNA annual meeting, Ottawa, Canada, May 11, 2005

2005 Rainbow Visiting Professorship, Rainbow Babies and Children’s Hospital, Visiting Professor, Cleveland, OH, May 23-24, 2005

Association of Bone and Joint Surgeons annual meeting, Carmel, CA, June 12, 2005



PON – China



SJM & IV Ponseti  
Majorca – 2005 EPOS Meeting

Akron Children's Hospital, Dept. of Orthopedics Visiting Professorship, Akron, OH, July 15-16, 2005

Philadelphia Orthopedic Society Howard Steel Lecturer, Philadelphia, PA, September 12, 2005

IPOTT Annual Meeting, Seville, Spain, Sept. 17, 2005

Shriners Hospital for Children, Montreal Children's Hospital, 20th Annual Eugene Rogala Visiting Professorship, October 20-21, 2005

Sociedad Chilena de Ortopedia Y



DRW J. Albright  
PARS Meeting – Tampa

Traumatologia XLI Chilean Meeting of Orthopaedic and Traumatology Guest Speaker, Vina del Mar, Chile, November 16-19, 2005

International Pediatric Orthopedic Symposium presented by POSNA and AAOS, Orlando, FL, November 30-December 4, 2005

### Dennis R. Wenger, M.D.

Course instructor, AAOS meeting, Washington, DC, February 18-25, 2005

AAOS-Egyptian Orthopaedic Association Pediatric Orthopedic Course, Cairo, Egypt, March 26-31, 2005

Korean Orthopaedic Association - Invited Guest Lecturer, Pusan, Korea, April 11-17, 2005



DRW In Ho Choi  
Pusan – KOA Meeting

Presidential Guest Lecturer, Pediatric Orthopaedic Society of North America, Ottawa, Ontario, Canada, May 11-16, 2005

XXIII SICOT/SIROT Triennial World Congress, Istanbul, Turkey, September 2-9, 2005

Invited Speaker, Swedish Pediatric Orthopaedic Society, Stockholm, Sweden, October 20-22, 2005

International Pediatric Orthopedic Symposium presented by POSNA and AAOS, Orlando, FL, November 30-December 4, 2005

Howard Steel Visiting Professor – Shriners Hospital for Crippled Children, Philadelphia, PA, December 9-10, 2005

### Henry G. Chambers, M.D.

American Academy of Orthopedic Surgeons, Washington, DC February 2005

John C. Wilson, Sr Visiting Professor of Pediatric Orthopedic Surgery Children's Hospital, Los Angeles, California, March 2005

Pediatric Orthopedic Society of North America, Ottawa, Ontario, Canada, May



H.T. Kim DRW S.S. Kim  
Pusan – KOA Meeting

2005

American Academy for Cerebral Palsy and Developmental Medicine, Orlando, Florida, September 2005

Visiting Professor, Hospital for Special Surgery, New York City, September 2005



Yehia Tarraf DRW  
EOA – AAOS Meeting– Cairo



DRW J. Dormans  
Egypt

## Spreading the Word – Special Circumstances

For our staff, traveling and lecturing can almost become routine, but occasionally special circumstances arise. Dr. Wenger had such an experience in October, 2005, when he served as the Visiting Professor for the Swedish Pediatric Orthopedic Society meeting. He had been invited for 2004 when the meeting was to be held in Gothenberg, but had a scheduling conflict and thus was unable to participate. In 2005 the meeting was to be held in Stockholm.



Amazingly, this one year delay in the invitation led to a special confluence. Dr. Wenger's son Matthew had been studying bioethics and theology at a Swedish university, and then on rather short notice decided that he would apply to medical school. Fortunately, he was accepted at the Karolinski Institute in Stockholm, the exact place where Dr. Wenger's Visiting Professorship was to be held. This photograph shows Dr. Wenger with Matthew and his fellow medical school colleagues in a gross anatomy demonstration session. Such special events can't really be arranged!

Western Orthopaedic Association Annual Meeting, Waikoloa, Hawaii, July 20 – 23, 2005

12th International Meeting on Advanced Spine Techniques, Banff, Alberta, Canada, July 7 – 9, 2005

American Association of Laboratory Animal Science Annual Meeting, St. Louis, MO, November 2005



DRW S. Weinstein  
SICOT Meeting – Istanbul

Scoliosis Research Society 2005 Annual meeting, Miami, Florida October 28-30, 2005. HIBBS AWARD NOMINEE

International Pediatric Orthopedic Symposium presented by POSNA and AAOS, Orlando, FL, November 30-December 4, 2005

**C. Douglas Wallace, M.D.**

Course Instructor, Pediatric Orthopedic Society of North America Annual Meeting, Ottawa, Ontario, Canada, May 13-15, 2005



Istanbul



S. Beck DRW G. Hahn  
Prior fellows – Tampa

California Association of Family Practitioners, Los Angeles, California, April 2005

**Peter O. Newton, M.D.**

Annual Meeting of the American Academy of Orthopaedic Surgeons, Washington, D.C., February 23-27, 2005

Pediatric Orthopedic Society of North America Annual Meeting, Ottawa, Ontario, Canada, May 13-15, 2005



M. Inan DRW  
SICOT Meeting – Istanbul

Taskforce on Childhood Motor Disorders, Scottish Rite Hospital, Dallas, Texas, March 2004

Clinical Gait Analysis: A Focus on Interpretation, St. Paul, Minnesota May 2004

Taskforce on Childhood Motor Disorders, Washington, DC, March 2005

David H. Sutherland Visiting Professorship, April 21-22, 2005, San Diego, CA

**Maya E. Pring, M.D.**

Invited Lecture: Southern California Spina Bifida Grand Rounds, November, 2005, San Diego, CA

Invited Lecture: AAOS Review and Update for Practicing Orthopaedic Surgeons, November 2005, San Diego, CA



“No limits”

Pediatric Grand Rounds Lecture – Children’s Hospital-San Diego, October, 2005, San Diego, CA

Invited Lecture: Advances in the Practice of Pediatrics, February 2005, San Diego, CA



“If you didn’t know, I’m actually a ‘Children’s Orthopedist!’”



DRW S. Nelson  
C.U.R.E. Hospital – Santo Domingo



“So tell me the truth about these little spine rods”



“I’ve had enough of orthopedics, lets get a drink”

## Connections

How time flies! The pace of our busy training program has not slowed a bit, making the days pass quickly.

We are so excited to be the host city for POSNA this year. Hopefully you are planning to attend and we will see you at our annual reunion on Thursday, May 4th. We look forward to catching up with each of you there. As our program continues to grow we have added additional nurse practitioners and physician assistants -- we now have 8! Lucky us, we welcomed Phil Stearns back to San Diego, just in time for the arrival of his 3rd child (first girl). Jennifer Forbes also gave

birth to a beautiful baby girl. Unfortunately for us, her husband is being transferred and they will be moving to Mobile, Alabama, shortly after POSNA. In other social news Dr. Maya Pring will be getting married in May -- congratulations Maya and Dan!

We would like to dedicate this page of the newsletter to "keeping in touch" with all of you. If you have news you would like to share: personal, professional, photos, etc. we would love to add them to our newsletter so your fellow alumni can be updated. You can always reach us (Lisa and Karen) at [orthoedu@chsd.org](mailto:orthoedu@chsd.org).



J. Hall DRW R. Salter  
Salter Society Dinner  
– Ottawa – May 2005



“So how’s life in Singapore?”



“After dinner tales”  
2005 Visiting Professor Program



Relaxation – Visiting Professor ‘05

### Be sure to join us!

San Diego Fellow Reunion  
Thursday May 4, 2006  
5:00-7:00 pm

Our reunion will be held in the Embarcadero North Park, which is just behind the Hyatt Hotel-- turn left outside the north Hyatt building and walk straight ahead through Seaport Village toward the water, where you will see our large tent with blue balloons.

Note: this is the evening of the Midway carrier dinner and our party will overlap somewhat – however, it is an easy walk from our event to the Midway.

Local contact # 858-966-5822