# **Connections 2017**

UC San Diego SCHOOL OF MEDICINE

A Newsletter from the Children's Orthopedic and Scoliosis Training Program •

Rady

Issue 13 - 2017

#### Message from the Director

Each Spring, as our visiting professor program is completed, we concentrate on producing the Connections Newsletter to summarize our training program and the orthopedic activities at Rady Children's Hospital San Diego.

Perhaps the greatest change in our program this year was the movement of our academic orthopedic office from our old quarters atop the 3030 Children's Way building to a new educational office building (EOB), which was also built on the Children's campus (see later section and photographs) near the "gait lab building".

Our teaching program remains strong with excellent residents from UCSD, the Naval Medical Center San Diego, and the Combined Military Services Residency Program in San Antonio, TX. We also continue to have outstanding fellows who are noted in this issue.

The fellowship match was just completed and we have recruited an excellent group of incoming fellows who will begin on August 1, 2018. We believe our fellowship program is one of the best available and we continue to maintain very high standards.

Our research effort is growing exponentially. This is related to the leadership of Dr. Peter Newton, our Division Director, and Dr. Eric Edmonds, Director of Research. Tracey Bastrom has put together an outstanding team with JD Bomar remaining essential in both organizing our hip research program and leading our efficient digital media output effort.

Each year we present dozens of important papers at international conferences including the Pediatric Orthopedic Society of North American, European Pediatric Orthopedic Society, Scoliosis Research Society, the AAOS, ORS, and other programs. Our list of submissions is remarkable and we routinely have multiple acceptances on the program. A good example is the recent EPOSNA meeting in Barcelona (combined meeting of European Pediatric Orthopedic Society and POSNA) where our faculty was represented in multiple sessions with papers on spine disorders, hip disorders, fractures in childhood, sports disorders, etc. EPOSNA included many papers by our prior fellows.

The combination of an excellent teaching program as well as widely recognized research benefits our patients. We continue to provide state of the art treatment in all areas

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### Message from the Director – cont'd

of children's orthopedics (as will be described in the reports within this issue).

We have had multiple changes in our program over the last ten years which have required many adjustments. These major steps include: 1) moving into an entirely new hospital, 2) adapting to the EPIC electronic medical record (a difficult and continuing problematic endeavor) 3) consolidation of all orthopedic clinics in a single location in the MOB 4) moving to our new office building where although we are more physically separated from our clinic area, we have the benefits of a very modern office building. Change is certain and we continue to adapt.

"The moment in between what you once were, and who you are now becoming, is where the dance of life really takes place." – Barbara De Angelis This newsletter issue is of special interest to me since Dr. Hank Chambers will be assuming the leadership role for the fellowship training program as of July 1, 2017 with subsequent editions edited by him. I remain as an active clinical and operating orthopedic surgeon with my continued strong interest in teaching but have passed on the fellowship leadership role to Dr. Chambers. Dr. Maya Pring will continue in her role as director of the orthopedic residents and medical students who rotate at RCHSD while Dr. Newton oversees us all in his role as Division Director.

Being editor of this newsletter has been enjoyable for me and I would like to thank the section contributors whose writing and photographs are not always directly credited. I appreciate your help.

We appreciate the continued support of our fellowship alumni and colleagues.

Dennis R. Wenger, MD Director – Orthopedic Training Program June 30, 2017



### **Continued Excellence**

We continue to be widely recognized for our internationally recognized excellence in all areas of children's orthopedics. The recently released U.S. News and World Report placed the orthopedic division of Rady Children's Hospital as #3 in the United States, which is an important accomplishment for us. In addition to standardized quality measurements the ranking also incorporates input from other academic leaders in the children's orthopedic world. One appreciates being respected by their peers.

This recognition confirms the results of our concerted effort to create a balanced program that is focused on patient care and surgery quality as well as teaching and research. This has required prolonged and persistent energy and effort from all orthopedic team members, which we appreciate.

We also recognize and credit many others for their aid in allowing us to function at the "#3 level". This includes our RCHSD administrative leaders, the leaders of our medical practice foundation, our nursing service, and our incredibly efficient anesthesia department. Thanks to all.



Dr. Newton being interviewed on the news about the RCHSD Ortho program's #3 ranking by the US News & World Report.



San Diego, CA 92123-4223

#3 in Children's Orthopedics Hospitals

Rady Children's Hospital in San Diego, CA is nationally ranked in 10 pediatric specialties.

93.6/100 Overall Score 50.1% Reputation Score 77/21 Volume Score

**BFST** 

ORTHOPEDICS

<u>2017-18</u>



Our new Education and Office Building (EOB).



Dr. Donald Kearns (RCHSD President and CEO) presenting Dr. Newton celebrating our USN&WR ranking.



"Group celebration" of our USN&WR ranking.

# 2016-2017 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 mentor, which allows them to develop independent decision-making skills. National analysis of surgical training in North America suggests that more graded responsibility needs to be given to senior trainees which is what you can expect from this program. We are proud of our fellows who are graduating this year and we congratulate them on their accomplishments.



#### Daniel Bland, MD

Dr. Bland graduated from medical school at Duke University in Durham, North Carolina and completed his residency at the University of Texas Southwestern. While in San Diego his research included three dimensional evaluation of epiphyseal movement in SCFE as well as the non-operative outcomes of lateral condyle fractures. Following his fellowship Dr. Bland will move to St. Petersburg, Florida where he has accepted a position at Johns Hopkins All Children's Hospital.



#### Jaysson Brooks, MD

Dr. Brooks graduated from medical school at Loma Linda University School of Medicine in California and completed his residency at Johns Hopkins in Baltimore. While in San Diego his research included torsional profile techniques in patients with torsional abnormalities. He has also studied the predictors of ICU length of stay in patients with cerebral palsy, as well as the effects of T2 fusion on shoulder balance. Following his fellowship Dr. Brooks will move to Jackson, Mississippi where he has accepted a position at Children's Hospital of Mississippi and the University of Mississippi Medical Center.



All Children's Hospital - St. Petersburg, FL



Children's Hospital of Mississippi - Jackson, MS

# 2016-2017 Fellows – Rady Children's Hospital



#### Ryan Fitzgerald, MD

Dr. Fitzgerald graduated from medical school at the University of Illinois College of Medicine and completed his residency at Summa Health System in Akron, Ohio. While in San Diego his research included a study with the International Hip Dysplasia Institute in which he evaluated the relationship between time in brace and acetabular index in children with a dislocated hip in infancy. This paper was accepted as a podium presentation at EPOSNA in Barcelona this year, where Dr. Fitzgerald presented the project. He has also worked on a 3D study of Lenke 1A curves in scoliosis. Following his fellowship Dr. Fitzgerald will move to Indianapolis, Indiana where he will be on the University of Indiana faculty at Riley Hospital for Children.



Kathleen Rickert, MD

Dr. Rickert graduated from medical school at the University of Arizona and completed her residency at Duke University in Durham, North Carolina. While in San Diego she studied the biomechanics of medial epicondyle fractures as well as the modified Brostrom procedure for ankle instability. Dr. Rickert is known for her ideal balance regarding patient care, teaching, and research as it applies to children's orthopedics. Dr. Rickert will not have to travel far after graduation as she has accepted a staff position with us here in San Diego at Rady Children's Hospital.



Rady Children's Hospital, San Diego, CA

Riley Hospital for Children - Indianapolis, IN

### Arriving Fellows – 2017-2018

The process of applying, interviewing, and being accepted for one of the top-ranked fellowship programs in children's orthopedics is a demanding process. Each year we receive 40-50 applications and narrow these down to a smaller group that we can interview and then select the very best of these candidates. The surgeons listed below will arrive August 1, 2017 to begin their academic year. They are outstanding young orthopedic surgeons from throughout North America and we look forward to working with them.



Carter Clement, MD University of North Carolina



Joshua Holt, MD University of Iowa Hospitals and Clinics



Craig Louer, MD Washington University in St. Louis



Julia Sanders, MD University of Colorado

#### Rutledge "Carter" Clement, MD

Undergrad: Bachelor of Science in Civil Engineering & Architecture, Princeton Medical School: University of Pennsylvania, 2012 Residency: University of North Carolina

#### Joshua Holt, MD

Undergrad: Bachelor of Science in Exercise Physiology, University of Utah Medical School: University of North Carolina at Chapel Hill, 2012 Residency: University of Iowa Hospitals and Clinics

#### Craig Louer, MD

Undergrad: Bachelor of Science in Molecular and Cellular Biology, University of Illinois at Urbana-Champaign Medical School: Duke University School of Medicine 2012 Residency: Washington University in St. Louis

#### Julia Sanders, MD

Undergrad: Bachelor of Science in Neuroscience & Behavioral Biology, Emory University Medical School: Miami Miller School of Medicine, 2012 Residency: University of Colorado

Future Fellows – 2017 Match (for 2018-2019 Academic Year) We are happy to announce that we have matched with the outstanding residents listed below

Peter Hahn, MD University of California, Irvine Ronald Roiz, MD **Cedars Sinai Medical Center, Los Angles** 

Jonathan Koenig, MD Lenox Hill Hospital, New York City Mayo Clinic, Rochester, MN

Ernest Young, MD

### **Special Honors**

Peter Newton – Vice President of the Scoliosis Research Society Salil Upasani – St. Giles Young Investigator Award winner



SRS 2016-2017 Presidential Line, (L to R) David W. Polly, Jr., MD, Past President I; Kenneth MC Cheung, MD, President; Todd J. Albert, MD, President Elect; Peter O. Newton, MD, Vice President

Congratulations to Peter Newton, the chief of our Pediatric Orthopedic Division who was elected as Vice President of the Scoliosis Research Society and will become president in 2018. This is a great honor to be chosen to head the premier scoliosis research and education organization in the world.

"The pessimist complains about the wind. The optimist expects it to change. The leader adjusts the sails." – John Maxwell



Dr. Upasani working on the intra-capsular hip pressure study with former fellow Imraan Ahmed and UCSD research resident Raghav Badrinath.

We want to congratulate Salil Upasani for being named the POSNA St. Giles Young Investigator Award winner for his work on "The Effects of Intra-Capsular Pressure on Femoral Head Perfusion: A Porcine Model". Dr. Upasani collaborated with Dr. Timothy Schrader at Children's Hospital of Atlanta and two of our previous fellows, including Dr. Imraan Ahmed and Dr. Tony Huang, as well as UCSD research resident, Raghav Badrinath to complete this study.

This project was completed this year and presented as a podium presentation during the EPOSNA meeting in Barcelona. Salil joins former RCHSD fellow graduates, Eric Edmonds and Firoz Miyanji who have also won this award.

### **Research Team Year in Review**

#### Tracey Bastrom, MA

We've had a great academic year with a wonderful group of fellows, a fantastic research team, and many exciting new studies. Our annual Visiting Professor program was held earlier than usual this year, to coincide with the AAOS meeting that took place here in San Diego. It was a successful event, held for the first time in the conference room in the new Education & Office Building (EOB), early in March. Our fellows and research team put in extra effort to ensure that we had study results to present to our distinguished and engaging visiting professor, Dr. Jack Flynn (Children's Hospital of Philadelphia).

Our department has had continued success in disseminating our research findings at the national and international level. At the AAOS annual meeting this year, 10 of our studies were presented by our attending staff, past fellows, and residents (8 podiums, 2 posters). Since the meeting was held in San Diego, this was an exciting opportunity for many members of the orthopedic team at RCHSD to witness firsthand the impact that our research has outside of the hospital campus and to learn about the groundbreaking studies being done in pediatric orthopedics all around the country.

Many of our orthopedic staff also presented at the first ever combined POSNA and EPOS meeting in Barcelona this past May, which is featured elsewhere in this newsletter. Seeing our studies through to completion, with publication in a peer reviewed journals, remains a priority in the department and this is evidenced with 40 publications that were authored or co-authored by our staff in calendar year 2016.

Improving the quality of research and enhancing the level of evidence of studies is essential for answering the important questions in pediatric orthopedics and ultimately improving the quality of care of our patients. We are committed to this mission and have been expanding our breadth of prospective research and registries. Our investigators continue to design unique and innovative studies. Dr. Pennock continues his research with local Little League baseball players, with a study of pre- and post-season shoulder MRI's underway.

Dr. Edmonds is collaborating with a local sports performance facility on a randomized study to evaluate the effects of a certain type of electromyostimulation therapy program for adolescent anterior knee pain, as compared to the traditional physical therapy treatment.

The spine team (Drs. Newton, Yaszay, Upasani) are participating in a multi-center study evaluating the timing of return to normal muscle strength and function following surgical correction of adolescent idiopathic scoliosis.

This year we said goodbye to our Sports/Trauma research coordinator, Joanna Roocroft after nearly 7 years with the department. She, her husband, and 6 month old daughter are currently residing in Paris, France. We are grateful to Joanna for her commitment and efforts in completing many important studies in her time here. Morgan Dennis has enthusiastically and efficiently assumed coordination of the sports & trauma studies, with the help of our new research assistant, Amanda Davis-Juarez. We are also excited that long time practice employee, Sara Acevedo, has joined the research team as our administrative assistant.



This year we said goodbye to our Sports/Trauma research coordinator, Joanna Roocroft after nearly 7 years with the department.

#### **OBRC** and Translational Research – Year in Review

Christine Farnsworth, MS; Megan Jeffords, MS; Josh Doan, MEng

Three-dimensional imaging and modelling research highlights for the year include a look into the 3D spinal contour and growth during growing rod treatment for early onset scoliosis. Also, Raghav Badrinath, MD spent a portion of his residency research year with Dr. Upasani investigating the 3D morphology of the acetabulum related to Legg-Calve-Perthes and comparing the results of different corrective surgical techniques performed on the "same patient" using 3D printed models. Dylan Kluck, MD delved into investigating rod contouring shape effects on post-operative spine morphology in surgical treatment of patients with adolescent idiopathic scoliosis during his residency research year with Dr. Newton.

Two UCSD bioengineering undergraduate students have been involved with Dr. Edmonds' model of torsional growth modulation in the rabbit by working toward developing 3D tools to model growth plates from microCT imaging and to analyze the physeal cellular structure using plain and confocal histology. Megan Jeffords refined a semi-automated methodology for determining femoral anteversion measurement which has been used in both an animal model and in normal and mal-alignment human populations.

We continue to advance in the use of patient-specific 3D printed models. While the models are very helpful to our surgeons to visualize and to put "hands-on" bony pathology in 3D that cannot be appreciated with regular clinical imaging, their usefulness is moving far beyond visualization alone. Models are now used on a regular basis to allow pre-op trials for implant type and size as well as osteotomy location in complex hip, spine deformity, and lower extremity deformity, as well as foot pathology cases. Several different approaches can be attempted before the patient enters the operating room, then the most efficacious can be selected for use in the patient.

The Orthopedic Biomechanics Research Center (OBRC) provided the venue for testing of various medial epicondyle fracture fixation techniques, pedicle screw pull-out strength compared between intact vertebrae and those with dorsal bone removed, and material properties of spinal rod implants compared between rods of different diameters and metal composition.



Imraan Ahmed (previous fellow), Raghav Badrinath (research resident), Jericho Hallare (bioengineering undergraduate, premed) and Salil Upasani working at the UCSD Surgical lab.

We continue research collaborations with UCSD labs of excellence, including the Department of Orthopaedic Surgery: Muscle Physiology lab (PIs Samuel Ward, PT, PhD and Richard Lieber, PhD, MBA), Systems Biology & Systems Medicine Lab (PI Shankar Subramaniam) and the Department of Bioengineering: Cartilage Tissue Engineering Lab (PI Robert Sah, MD, ScD). The learning curve is steep as we venture into analyses of RNA sequencing data and synovial fluid HA content and lubrication factors and we are extremely fortunate to have experts in these fields to work with.

In all, six manuscripts were published over the past year. Seventeen research abstracts were presented at meetings including SRS, EPOSNA, ORS and the UCSD Pediatric Research Symposium. We are grateful for the opportunity to work with brilliant upcoming orthopedic surgeons for a year of their residency to provide the tools needed for them to investigate hip and spine clinical conditions under the mentorship of our amazing surgical staff clinician/scientists. Working with our current, and previous, fellows has provided insightful additions to current orthopedic literature and also long-lasting relationships and collaborative opportunities as we move closer to our goal of using all tools possible to provide the best care for young and growing Orthopedic patients at Rady Children's Hospital.



Amanda Davis-Juarez, Megan Jeffords, and Kathleen Rickert, MD working on a project evaluating medial epicondyle fixation.



### **Hip Center**

### **Hip Team Activities**

The International Center for Pediatric Hip Disorders at Rady Children's Hospital San Diego continues to be a world leader for the treatment of pediatric and adolescent hip conditions and continues to grow as a referral source for complex patients. Our team of surgeons is supported by nurses, physician extenders, orthopedic technicians, and research associates who allow us to provide the absolute best, cutting-edge care for our patients. In this issue we present some of the interesting cases treated this year, as well as notes on research projects that were presented at the POSNA Annual Meeting in Barcelona.

Our hip team works closely with our pediatric sports colleagues to perform combined open and arthroscopic procedures. Here we present a case of an adolescent with residual deformity from healed Perthes with a large central osteochondral lesion who underwent a surgical hip dislocation for labral repair and osteochondroplasty with femoral head allograft. Now more than one year after surgery, he has returned to playing basketball with no restrictions in hip motion or pain.

Our team is also developing strong collaborations with our arthroplasty colleagues at UCSD. We recently performed a total hip arthroplasty for a patient who underwent a periacetabular osteotomy at an outside facility with severe retroversion of the acetabular fragment, resulting in rapid degenerative joint disease. An extensive anterior wall osteotomy was required after seating the acetabular component to ensure impingement free range of motion and to minimize the risk of dislocation. We have also collaborated on a research project to compare outcomes of primary and conversion total hip arthroplasty in patients under 30 years of age. This project was presented as a podium presentation in Barcelona. Three dimensional (3D) print technology is now frequently used in our clinical practice to guide surgical treatments and for pre-operative planning. We recently used a 3D print in a patient with severe proximal femoral deformity after multiple previous procedures at an outside hospital. The print allowed us to plan the proximal femoral osteotomy and contour a proximal femoral locking plate that could be used during the surgical procedure.

Our hip research program continues to be an active member of various multi-center prospective study groups including the International Hip Dysplasia Institute (IHDI) and the International Perthes Study Group (IPSG). We were fortunate to have a UCSD research resident (Raghav Badrinath) working with us this year. Dr. Badrinath had an extremely productive year completing 5 peer-reviewed manuscripts. His primary research project focused on patient-specific 3D print models for adolescents with Perthes disease to evaluate the effectiveness of femoral head reduction osteotomy to improve sphericity and joint congruence. He also compared clinical outcomes for the modified San Diego acetabuloplasty in the treatment of DDH as well as the effectiveness of ligamentum teres transfer performed during medial open reduction procedures which was presented by Dr. Wenger at the May 2017 EPOSNA meeting in Barcelona.

We continue to invest heavily in our research department to prospectively collect subjective and objective outcomes data to improve our patient care. In addition to our Perthes and hip dysplasia patients, all patients being treated for femoroacetabular impingement and SCFE are also being followed prospectively and we hope to develop collaborations with other national and international hip centers to advance our management of these conditions.





### Spine Center

### Scoliosis and Spine Deformity Center

The Scoliosis program at Rady Children's Hospital remains a leader in the treatment of pediatric spinal deformity. Drs. Peter Newton, Burt Yaszay, and Salil Upasani are active in all aspects of the spine program: education, research and clinical care. While idiopathic and neuromuscular scoliosis represent the majority of patients, all pathologies from skull to sacrum are being treated. Patients continue to make the journey from around the country and world to receive their treatment at Rady Children's Hospital.

The big news since the last connection's letter is that Dr. Newton has been selected into the presidential line of the Scoliosis Research Society. This is a great honor that highlights his achievements as a leader, educator, researcher, and clinician. In addition to ensuring that he will maintain his elite airline status, this will also ensure that our spine program will continue to help direct the future of pediatric spinal treatment.

On the education side, we continue to educate fellows (local and international), residents, and young attending physicians. While most of this education occurs locally, some education programs take our spine surgeons to other states or countries. The next big trip will be to South Africa for the IMAST meeting.

The Spine research program remains in full effect. To the distress of Tracey Bastrom and Carrie Bartley, the spine team is always thinking of new ideas or directions. The Harms Study group and 3D imaging continue to be a focus resulting in multiple abstracts and papers each year. Dr. Newton also continues to better understand the indications and effects of spinal tethering. As a founding member and treasurer of the Pediatric Cervical Spine Study Group (PCSSG), Dr. Yaszay has devoted more attention to the study and treatment of the pediatric cervical spine.

Clinically, our program continues to evolve to improve on the treatment and experience of our patients. Improvements in post-operative pain and mobility management have decreased hospitalization to an average of 3 days for routine adolescent idiopathic scoliosis. A dedicated spine anesthesia team has created more standardization in the pre-operative assessment and intra-operative management. Ultimately, these advancements in education, research, and clinical care will ensure that the Rady Children's Hospital spine program remains at the forefront of pediatric spinal deformity treatment



One of Dr. Newton's spinal tether patients celebrates 5 years after a thoracoscopic spinal growth tethering procedure saved her from a spinal fusion.

### Sports Medicine for the Young Athlete

#### 360 Sports Medicine



Once again, it has been a productive year for the 360 Sports Medicine program. We are celebrating the conclusion of our fifth year as a Center within the Division of Orthopedic Surgery. Our leadership and physician team remain unchanged with both Hank Chambers and Eric Edmonds serving as directors of the program, guided by the talents of Andrew Pennock, Maya Pring and Doug Wallace, as well as assistance from our medical specialists: Yu-Tsun Cheng, Kenneth Taylor, and Suraj Achar. With the help of Dr. Cheng, we have even been able to expand to have a presence in the North County, utilizing the Rady Children's facility in Oceanside. Our Nurse Practitioners Lynn Manheim and Phil Stearns, also remain deeply entrenched on the front-lines of caring for of our patients.

Last year our 360 team worked with our physical therapy department to undertake research on return to sport evaluations after anterior cruciate ligament reconstruction. With that completed, our next task was a quality initiative evaluating patients who underwent care of this specific knee pathology. Our Athletic Trainer, Kristina Parvanta, grabbed the bull by the horns and wrestled it to the ground – utilizing every spare minute in her work day to hunt down all the children at their missed post-operative checks. Moreover, she helped establish a system by which we now receive results of our Return to Sport test from outside physical therapy offices to help us guide the care of our patients. With Kristina providing significant improvement in the quality of our clinical care, it was decided that the Athletic Trainer program should be expanded. Therefore, we have now doubled in size with the introduction of Katie Veit, ATC. Both energetic and a quick-study, Katie has proven the old adage that a team together can accomplish more than one person alone. We have now initiated a system to keep track of all instability patients (not just the ACL surgeries) and will hope-fully be providing a better service to our patients with our outreach. Moreover, the addition of Katie has allowed the remainder of the team to blossom into their roles; especially of clinical coordinator Val Young-Calandra, RN. She has been able to keep the 360 team cohesive and successful.

This has been a year of clinical restructuring and growth that will set the foundation for a great 2017-2018 academic year. In conjunction with UCSD, we now have a dedicated Pediatric Sports resident that is dedicated to the 360 team. The first four residents did an outstanding job, and they helped mold what the rotation will look like in the future. One of the most promising features is that each resident will work on a Sports research project during their 10 week rotation – both improving their goals of becoming clinician-scientist and advancing the productivity of the 360 Sports Medicine program. We look forward to reporting our achievements with this group in the coming years.



#### 360 Sports Medicine

One of the reasons for the success of 360 Sports is the team of primary care physicians who help diagnose musculoskeletal injuries, but more importantly, the nonoperative problems of children and adolescents who play sports. Concussions, soft tissue injuries, weight management, and psychological impacts are managed by these three great physicians. We are also joined by the neurosurgery department and the physical medicine and rehabilitation department in the care of young athletes. One of the many skills that the primary care physicians provide to our division is the use of musculoskeletal ultrasound for diagnosis and treatment of soft tissue injuries.



**Suraj Achar, MD** is in the Family Practice division of UCSD and works as a team physician for the Sockers and the Padres. In addition to caring for UCSD undergraduate teams he also works with athletes at the US Olympic Training Center in Chula Vista and is the medical director of the California State Games, an amateur youth competition involving 5000 athletes in 20 sports. Dr. Achar lectures extensively on the use and abuse of supplements in sports. His current interest is incorporating children with autism in league and individual sports.



**Yu-Tsun Chen, MD** is a board certified pediatrician as well as an emergency room physician who completed a primary sports medicine fellowship at Kaiser Permanente in Los Angeles. He has taken on our Oceanside office to serve the children and adolescents in the North County. In addition, he lectures to emergency physicians on topics of sports medicine and is active in research in this area.



**Ken Taylor, MD** is a family medicine practitioner at UCSD where he is the director of the Primary Care Sports Medicine Fellowship. Ken recently became one the team doctors of the San Diego Padres which occupies a great part of his time. He is also one of the team physicians for the Sockers and UCSD undergrad teams.

### 44th Annual David H. Sutherland Visiting Professorship



#### John "Jack" Flynn, MD

Chief, Orthopedic Surgery - Children's Hospital of Philadelphia Professor of Orthopedic Surgery – University of Pennsylvania

March 10, 2017

This year's activities include another outstanding David Sutherland Visiting Professorship in which we were honored to have Dr. Jack Flynn, Professor of Orthopedic Surgery at the University of Pennsylvania and Director of the Orthopedic Training Program at the Children's Hospital of Pennsylvania (CHOP) as our speaker. Dr. Flynn has served as president of POSNA as well as director of the annual IPOS meeting (Orlando) and has been involved in academic administrative activities throughout his career. He has built a strong training program at CHOP and brought his excellent teaching style to our visiting professorship.

This year's program was held earlier than usual so that it could be combined with Dr. Flynn's attendance of the AAOS meeting which was held in San Diego from March 14-19, 2017; thus the March 9-10, 2017 visiting professor program dates. The program started with a late Thursday afternoon informal meeting between Dr. Flynn and our senior residents and fellows focusing on how one establishes a career in orthopedic surgery that allows a balance between personal life and professional productivity. This was held in a teaching conference room within our new Education and Office Building (EOB) orthopedic suite. Following this, Dr. Flynn went out to dinner with our fellows (a Thursday evening tradition for our visiting professor program).

Friday included a full day of academic activities, beginning with Dr. Flynn presenting at Grand Rounds to both pediatricians and our orthopedic team plus UCSD residents in the "Grand Room" of the new EOB. This fantastic new space has replaced the rather outdated confines of "Room 113" on the first floor of the medical office building (MOB).

Dr. Flynn then gave multiple insightful lectures to our orthopedic audience and was particularly valuable in providing discussion and advice when we presented both simple and complex problems in children's orthopedics.

We are grateful to Dr. Flynn for serving as our 2017 David Sutherland Visiting Professor and the program confirmed the immense value of medical/cultural interchange between major teaching institutions. Everyone benefits (especially our patients).



Dr. Newton moderating the discussion after one of Dr. Flynn's talks.

# 44th Annual David H. Sutherland Visiting Professorship



Current fellows with V.P. Dr. Flynn. (L to R) Jaysson Brooks, Katie Rickert, Dr. Flynn, Ryan Fitzgerald, and Dan Bland.



Dr. Newton introducing Dr. Flynn to start off the 44th annual David H. Sutherland Visiting Professorship.



Drs. Rickert and Mubarak relaxing at the VP post-conference event.



Photo op for Dr. Flynn and Dr. Wenger. They traded places two months later as Dr. Wenger traveled to CHOP to be their Visiting Professor.



Post-V.P. dinner. (L to R) Scott VanValin and Shyam Kishan (former RCHSD fellows, class of 2005), Salil and Priya Upasani, Emily Osborn and Amir Misaghi (former RCHSD residents who will start Peds Ortho fellowships Aug 1, 2017 – Boston and CHOP), and Jaysson Brooks (current RCHSD fellow).

### Notes From A Former Fellow



#### Philip L. Wilson, MD

Pediatric Sports Medicine Texas Scottish Rite Hospital for Children, Dallas – Assistant Chief of Staff University of Texas Southwestern Medical School – Associate Professor

(Fellow – 2000-2001)

Like many others, I can say that having the opportunity to do my fellowship in San Diego has been one of the best experiences of my life; shaping me as a surgeon, clinician, educator, and person. It has given me not only fond memories, but also ongoing skills that I continue to draw from on a weekly basis.

I grew up in North Texas and was blessed with the work ethic and value of education imparted by a hard working father and my mother who was a Methodist choir director. While I may have had a vague

understanding of the benefit of that upbringing – it would certainly be pointed out to me directly in my fellowship interview by Dr. Wenger – one of the many wonderful moments throughout the last 15+ years that his sharp insight has brought a smile to my face and left me to ponder things a bit more deeply!

Following undergraduate education at Baylor, I attended medical school at UT Southwestern Medical Center in Dallas and remained there as an orthopedic resident. While I gravitated toward arthroscopy, experience with my mentors at Scottish Rite Hospital sparked my desire to be a part of that special dedicated Community that I saw existed in pediatric orthopedics.

Former San Diego fellow and Scottish Rite Hospital staff Dr. Karl Rathjen, as well as my UTSW

orthopedic chairman Dr. Bob Bucholz, assured me that experience in the San Diego fellowship would be a perfect fit - high volume pediatric orthopedics, dedicated and brilliant educators, a fantastic academic environment and curriculum, and experience in office efficiency. They were of course more than right – as over time I have been involved in creating such an environment here in Dallas.

Our time in San Diego was wonderful and more than I could have hoped for. I remember and still draw from Dr. Mubarak's incredible attention to detail in practice oversight and office efficiency; teaching me that the logistics of practice and business are important adjuncts that afford the enjoyment of patient care, research, and education. As I mentioned, the wit and wisdom of Dr. Wenger is one of the joys that I treasure. Whether it was in the operating room, speeding down the highway to a clinic, or at a social engagement – I, like many of us, relish the hundreds of occasionally irreverent but always insightful remarks: Yes – "surgery, like life, is a symphony – there are times to move quickly, and times to have a very measured pace...." The humble excellence of Dr. Chambers' surgical career continues to be an inspiration. Dr. Newton's surgical skill and intellectual drive –Almost - made me want to do spine. Dr. Wallace's ever present technical pearls remain in my tool bag and are retold – with appropriate credit – to my trainees today. And of course my wife and I fell in love with San

Diego. What a bonus – as Karl Rathjen said – it is always great to train where there are palm trees!

Leaving San Diego, we went on to Auckland, New Zealand and an arthroscopy fellowship – building on my desire to add sports medicine skills. During the year in Auckland, I would train at the Adidas Sports Medicine Centre with Drs. Stewart Walsh, Barry Teitjens, and Bruce Twaddle. Stu's split practice within the Adidas Clinic and Starship Children's Hospital allowed me to build on the concept of pediatric sports medicine that Hank's practice had instilled. The arthroscopy and trauma knowledge gained from this colorful group was fantastic and led to wonderful friendships.

I was fortunate to be able to return to Scottish Rite Hospital in Dallas and join my mentors in practice in 2003. My early career was heavily based

in trauma with the majority of my time dedicated to the Children's Medical Center Level 1 trauma center -an extremely busy center that our group continues to staff and remains an important clinical and research base for trainee education at Scottish Rite Hospital.

After a few years, I was able to focus my practice on pediatric sports medicine. Utilizing many clinical and practice skills from my experience in San Diego, I was able to lead the development and growth of a combined institutional sports medicine center within the Children's Medical Center system. In 2014, I again enjoyed the opportunity of launching the Sports Medicine Center for Excellence as an independent section within the Scottish Rite Hospital system. This program became the foundation for the first satellite campus for the nearly 100 year old hospital. Located in Plano, the practice has grown rapidly



### Notes From A Former Fellow

and now includes 4 physicians, 4 advanced practice providers, and many other providers including, athletic trainers, sports physical therapists, a psychologist, a dietitian, and fracture program personnel. We have also been able to develop robust research and outreach efforts. An additional rewarding portion of my recent career has been leading medical staff direction in the development of the future home of the "North Campus" where we will add to the outpatient services currently available. With a scheduled opening in Frisco in 2018, we will incorporate an ambulatory surgery center, purpose-built physical therapy gym, and movement science lab with research space for pediatric sports medicine. This will allow us to continue our mission of education and research for both resident and fellow trainees within this sports-centric region of the country.

In addition to clinical and surgical skill sets, connections made in San Diego have served me well in my academic career. Hank's leadership and development of the PRISM (Pediatric Research in Sports Medicine) Society has been fantastic for our growing subspecialty and I am happy to have served in



Teaching casting with family 'volunteers' (nephews Caleb and Asher) at the annual spring outreach symposium

programmatic and leadership roles. As many of us do, I strive to meet the challenge of balancing local research interests in knee and elbow OCD, meniscal pathology, and patellofemoral instability with powerful multi-center opportunities for research. Many of the multi-center research groups in which I participate have strong connections with our San Diego fellowship alumni and the current Rady Children's Hospital Sports Medicine staff.

My wife Lew and I have strong ties in Texas with generations of family here. We enjoy being involved in the family horse and livestock operations in our free time, while having the opportunity to be involved in the growth of our extended families. While we are Texans, we developed a quick love for San Diego and consider it our second home and get there as often as we can. We are very appreciative of this endearing part of our personal and professional lives.

– Philip Wilson, MD – Dallas, TX



Office exam on college bound gymnast.



Phil Wilson enjoying the family pastime of raising and training cutting horses



Program Director (PW) for the 2017 PRISM Meeting (left). Pictured with former San Diego fellow Kevin Shea (2nd) along with renown sports orthopedic surgeon Jim Andrews (3rd) and Min Kocher (right).



2001 RCHSD Peds. Ortho. Fellowship Graduation. (L to R) Sean Early, Phil Wilson, David Sutherland, Wally Yassir, Dennis Wenger.

### Candy McGinley

### Retiring after 20 years in the RCHSD Ortho Division

Candy McGinley has retired after 20 years of service in the Orthopedic Division. Candy has been coordinating the Scoliosis Service and managing Dr. Newton's service for as many years. Candy had worked for Dr. George Lefevre, an orthopedist is town for several years before joining our team. Dr. Newton recalls George giving Candy a recommendation before she was hired. He said she was simply the best employee he ever had. All of us that have come to know her since, are keenly aware of what he meant. How right he was.

Candy had a great impact on the lives of many scoliosis patients and they often commented on her service. She always had very high expectations of herself and our organization, and she always worked to achieve what was best for the patient and family. From a generation and work ethic that would accept nothing less, she set an example for all those she touched.

She and her husband Jim retired together, both finishing their careers on the same day! Side by side they are enjoying time traveling – recent cruise in South America. And of course they will be gardening – not sure how tall the tomato plants will be this summer with both of them home to give the plants their full attention.

Candy, Thank you for all the time together and spectacular service to our patients.



Dr. Newton saying goodbye at Candy's farewell celebration.



Candy with her team on her last day as an Administrative Associate.

### Joan Morgan, BSPT

#### Retiring after 24 years in the RCHSD Ortho Division

Congratulations to Joan Morgan, BSPT (Physical Therapy) for her 43 years of service, caring for the children of San Diego! Joan has been working with children in multiple avenues including providing quality direct patient care as a pediatric physical therapist to managing our orthopedic clinic for the last 24 years.

Originally from Trumbull, Connecticut, and the middle daughter of Lithuanian immigrants, Joan moved to San Diego after traveling cross-country with a friend. She met her husband (now of 40 years) here in San Diego. She has 2 sons, one of whom is an Emergency Department physician's assistant in Vermont and the other, an accountant living in San Diego.

Joan has been involved with children and their physical therapy needs since the mid 1970s and has treated Rady Children's Hospital San Diego (RCHSD) patients since Dr. Scott Mubarak and Dr. Dennis Wenger began their practice group. She, along with Judy Leach RPT, Anne Edwards, RPT, Rhonda Sparr Perkins, RN, and Lisa Crabb, RN provided an amazing "institutional foundation" for the development of the now world renown orthopedic team at RCHSD. Joan has witnessed many changes in her career and has been a strong building block in the evolution of our orthopedic department.

The fellows and residents have also benefited from her vast experience while serving as Clinical Coordinator of the Orthopedic Fellowship and Residency Training Program for the last 8 years. Her most recent role as Manager of the Outpatient Orthopedic and Rehab Medicine clinic includes a myriad of responsibilities: managing our outpatient clinic staff at our San Diego campus and satellite clinics, brainstorming ways to optimize EPIC (medical record program) efficiency, and serving on several hospital committees.

We will miss Joan's dedication and commitment to our practice and her genuine care and love for all of the individuals that make Rady Children's Hospital Orthopedics so successful. We are proud to celebrate her fulfilling career that encompasses so much knowledge and experience.

Happy retirement, Joan, and thank you!



Rhonda Sparr Perkins, Lisa Crabb, and Joan Morgan - 2008



There was a large turn out to wish Joan luck in this new chapter of her life.

# Orthopedic Fellow Alumni Event – 2017

Because this year's POSNA meeting was a combined meeting in Barcelona (along with European Pediatric Orthopedic Society) we elected to hold the fellow reunion here in San Diego in association with the AAOS meeting in mid-March 2017. We felt this would allow better attendance which indeed it did.

The reunion was held Thursday evening, March 16th, in a festive restaurant/bar near Petco Park and the convention center. Many fellows returned including our incoming fellows who will begin August

1, 2017. This gave them a nice introduction to the camaraderie and friendship that evolves among fellows who have trained in our program.

We are proud of our fellow trainees who are now spread throughout the world and the alumni event brought everyone together in a positive way. The attached photographs demonstrate the good spirit that was generated. We give special thanks to Tracey Bastrom and Sara Blue (academic coordinator) for their efforts in organizing the event.



Cheers! Current and former fellows along with research and clinical team members. (L to R) Amanda Asaro (clinical), Amanda Davis-Juarez (research), Katie Rickert (current fellow), Tracey Bastrom (research), David Lazarus (former fellow), Casey Abare (clinical), Ali Rozansky (former fellow), Stu Smay-Wallace (clinical), Doug Wallace (staff physician), Dan Bland (current fellow).



Morgan Dennis and Amanda Davis-Juarez (sports research team).



Stu Smay-Wallace (OR RN), Amanda Asaro (PA), and Sara Blue (Academic Coordinator).

# Orthopedic Fellow Alumni Event – 2017



Megan Jeffords (translational research) and JD Bomar (hip research).



Former fellows Stephan Parent – Montreal (left), Bob Cho – Los Angeles (middle) with Peter Newton.



Casey Abare (Nurse Practitioner), David Lazarus (former fellow – Greenville), and Amanda Asaro (Physician Assistant).





Michelle Marks (Setting Scoliosis Straight Foundation) with Burt Yaszay.

Former fellows Steve Frick and Meghan Imrie, both at Stanford. Dr. Frick now directs the Stanford pediatric orthopedic division and is Vice-Chair of the Orthopedic Surgery Department at Stanford.



Dennis Wenger and former fellows Matt Schmitz (San Antonio) and Ray Liu (Cleveland).

# Orthopedic Fellow Alumni Event – 2017 (cont'd)



Former fellows Doug Wallace (RCHSD) and Afshin Aminian (Children's Hospital – Orange Co.), both practicing in Southern California.



Scott Mubarak with former fellow Michael Rohmiller (Cincinnati).



Tracey Bastrom (RCHSD Ortho Research Program Manager) and Michelle Marks (Research and Executive Director of Setting Scoliosis Straight Foundation).



Former fellows Bob Cho and Ali Rozansky, both currently practice in Los Angeles.

### **Rang's Children's Fractures Text**

#### 4th Edition



Dr. Dennis Wenger, and the late Dr. Mercer Rang, the distinguished pediatric orthopedic surgeon from the Hospital for Sick Children – Toronto, remained lifelong friends long after Dr. Wenger had completed his fellowship there. In 1974, Dr. Rang published the first edition of Rang's Children's Fractures to wide acclaim. The book, presented in a simple straightforward style, designed for orthopedic residents and practitioners working on the "front line", became an international success. Rang's use of medical cartoons (which he drew himself) and pithy style, provided easy reading and a brilliant introduction to childhood fracture care.

In 1983, a second edition was produced by Dr. Rang. In the early 2000s, Dr. Rang was considering a third edition but felt that he did not have the energy to produce it alone. Dr. Wenger, a lifelong friend, agreed to serve in this role and in 2005 the third edition of Rang's Children's Fractures was produced, edited by Dr. Dennis Wenger and Dr. Maya Pring. Now, 12 years later, it became clear that the text should be revised and the publisher, Lippincott, Williams & Wilkins (now Wolters Kluwer) contacted Dr. Wenger about leading the editorial team to create the fourth edition.

It became clear to both the publishing company and Dr. Wenger, that this would best be done "in house" at Rady Children's Hospital since we cover all areas of children's musculoskeletal trauma in our training and research program. To distribute the load, Dr. Wenger and Dr. Pring decided to recruit additional co-editors, which now include Dr. Pennock and Dr. Upasani. After an extraordinary nine months of effort, the fourth edition was completed and forwarded to the publishers (May 2017) and will be available in early 2018.

In revising the text, a further effort was made to make the text interesting for the more general reader by including subjects such as orthopedic literacy, accident prevention, and evolving epidemiology. More importantly, the text instructs a resident "on the front line" in the ER how to diagnose straightforward fractures, apply a cast correctly, and provide state-of-the-art children's fracture care.

This new fourth edition, along with our many research projects and publications on musculoskeletal care, will keep RCHSD on the "international map" as a leader in childhood fracture care concepts.



### Educating at Home

#### Local Orthopedic Teaching Activities

Our "Spreading the Word" section, at the end of this edition, will give attention to our faculty's efforts in lecturing throughout North America and the world. We enjoy our national/international teaching, however, our greatest educational endeavor remains "teaching at home". More than anything, these "home activities" have led to our reputation as a recognized orthopedic educational and research center.

The attached images illustrate a few of the many activities that are held on our campus each week and month. These include scoliosis instrumentation tutorials, led by Drs. Newton, Yaszay, and Upasani. Also this year we hosted the Wilson-Bost California Travel Club which includes orthopedic leaders from throughout the state. This meeting included events at the Scripps Clinic, UCSD, and Rady Children's Hospital. Presentations at UCSD included one by Pradeep Khosla, Chancellor of UCSD, which has explained the dynamic growth at our "mother ship". UCSD is experiencing amazing growth with a plan of matching Berkeley in size and academic output by 2030.



Pradeep Khosla, Chancellor of UCSD, speaking at UCSD for the Wilson-Bost Interurban Club meeting (April 2017).



Raghav Badrinath, Aileen Chang, and Jericho Hallare presenting their work at the Pediatric Research Symposium.

We routinely host visiting speakers on a variety of topics. We recently learned that Arnel Aguinaldo, one of our former motion analysis technicians, who has his Master's degree in Kinesiology, is now an Assistant Professor at Point Loma Nazarene University. Arnel a presentation on motion analysis of athletes in the current era, noting how San Diego has become a national center for the biomechanical assessment of baseball pitching.

We also commonly host visiting fellows who return to spend a few days or a week, as is demonstrated in the photo below depicting Dr. Eduardo Segal a prior international fellow who returned from Buenos Aires, Argentina.

Every day still begins with a 6:30 AM start (sometimes to the chagrin of international visitors). The mainstay of our educational efforts remain our Monday AM operative indications conference followed by the very dynamic combined orthopedic/radiology/pathology conference. We close the educational week on Friday AM with the post op cases plus fracture review conference (1hour) followed by journal club or "chalk talk" lectures. Almost every other mid-week day starts with a 6:30 AM "specialty conference" (hip, spine, sports, neuro-muscular, etc).



Arnel Aguinaldo presenting his motion analysis work on the biomechanics of pitching (RCHSD – May 2017).

## Educating at Home



Annual ultrasound course put on each year by Dr. Mubarak and Natalie McNeil (lead Radiology Tech in Ortho) to teach new fellows how to perform an infant hip clinical exam and to interpret the infant hip ultrasound study.



Andrew Pennock giving a Sports Medicine talk at the Wilson-Bost Interurban Club meeting at RCHSD – April 2017.



2017 annual Spine Tutorial – Dr. Newton presents the latest techniques to our fellows and visitors.





Dr. Wenger with Dr. Eduardo Segal, a prior fellow visiting RCHSD from Buenos Aires.

Chad Richard (Ortho Tech Supervisor) instructing a UCSD resident on cast application during the Orthopedic Boot Camp.



Our dynamic Monday AM Complex Indications Conference is attended by Ortho staff physicians, residents and fellows, Ortho NP/PAs, as well as Radiology and Pathology staff.

### Cerebral Palsy in Jamaica - The CP and Spasticity Project

#### Hank Chambers, MD

Jamaica is a Caribbean island with a population of around 4 million people. Originally a British colony, it still follows the English medical system. There is only one pediatric orthopedic surgeon on the island to care for this large population. Most of his work is caring for trauma and infection, but there is a large unmet need for the care of children with deformities and disability.

About seven years ago, Dr. Mark Gormley, a pediatric physiatrist from Gillette Children's Hospital in Minnesota, was approached by a non-profit organization supporting disabled children in Jamaica to see if there was anything he could do to help. After many trips meeting with the local adult physiatrist (there are no pediatric physiatrists on the island) and the Ministry of Health, he began organizing outreach clinics in Kingston. His team of PT's, OT's, and orthotists provided expertise and brought equipment such as wheelchairs, walkers and AFO's for the children there. Dr Gormley provided spasticity treatment with phenol injections (Botox is too expensive) and a neurosurgeon from the Twin Cities performed dorsal rhizotomies. Their program was so successful that they soon had dozens of children who required surgery to enable them to walk and also to perform osteotomies and hip surgeries.

Hank Chambers got involved with the program, *The CP and Spasticity Project*, about 4 years ago and has gone 2-3 weeks per year to provide these surgeries. Working closely with the local pediatric orthopedic surgeon as well as the residents at the University of the West Indies and the physiatrist, he evaluates the patients for surgery and performs them with the residents at UHWI as well as the public hospital at Bustamente. During his time there, he provides lectures to the residents, therapists and staff and participates in grand rounds, patient rounds and journal clubs. Last year he was invited as one of the keynote speakers at the Jamaican Orthopedic Society annual meeting.



Visiting Professor at the Queen's Hospital and Hawaiian Orthopedic Society



Post-op embrace in Jamaica



Dr. Chambers demonstrating casting techniques in Jamaica

#### **Team Member Recognition**

Dutin Kerkstra, RN Philip Stearns, CPNP



Dustin Kerkstra, RN

Dustin is our outpatient orthopedic team Nurse Supervisor, overseeing registered nurses, medical assistants, and patient access representatives. Originally from Michigan, he came to San Diego as a travel nurse working on the inpatient floor. Having taken care of many orthopedic patients as an in-patient orthopedic nurse coordinator, he made a seamless transition to our orthopedic department. He has become a great asset to our practice both from the management and technology standpoint.

As Dr. Dennis Wenger's clinic nurse coordinator, Dustin has displayed compassionate and efficient care to patients. He has been integral to encouraging and maintaining a teamwork approach in caring for all of our patients. His technical savvy, temperament and initiative will be key factors in becoming our next Orthopedic Clinic Manager following Joan Morgan's retirement (see pg. 19). We wish him the best in this new role as of this fall.



Philip Stearns, CPNP

Philip, the second orthopedic nurse practitioner in our program and now a 17 year veteran, works primarily with Dr. Andrew Pennock. He currently works alongside Dr. Pennock in a "side" clinic, primarily seeing pediatric patients with sports-related injuries.

As one of our most experienced physician extenders, Phil has worked with several doctors including Dr. Scott Mubarak and Dr. Dennis Wenger. His vast experience working with these doctors makes him one of the most well-rounded advanced care practitioners in our practice. This is reflected in his help with book chapters as well as ongoing research related to overuse syndromes in throwing athletes.

Phil's breadth of knowledge and background in pediatric orthopedics has contributed to the evolution of advanced care practitioners as becoming more autonomous within a high volume practice. We are proud to recognize Phil as one of our most valuable team members who makes an immense contribution to our busy practice.

### New EOB

#### Education and Office Building

November 2016 became an important transition time for our orthopedic division. Over the last two years, our hospital has been working on building an education and medical office building (EOB) on our campus. This new building is located about 300 yards south and west of the medical office building (MOB) and directly south of what prior fellows would know as the "gait lab building" in the location that was once occupied by our biomechanics lab. The goal of the EOB is to free up the previous medical office building for outpatient clinics only and to allow all educational and administrative activities to occur in the EOB. New spacious conference rooms and a spacious first floor auditorium (Grand Room) are key features.

We had been in our prior office space for 25 years and had a highly functional office/library/meeting room unit located immediately above our clinics. Thus we knew that efficiency would suffer with our move to the new building. Also, "the move" forced us to radically "debride" our orthopedic library. The attached photos show the sad day when we debrided our orthopedic library and prepared to move to our new space.



The new office building is lovely, well designed, and well lit with the latest of digital accoutrements. It has taken some time but we have adjusted nicely. We have new conference rooms for our educational meetings and overall the new building represents progress for the orthopedic division.

On the other hand, major transitions are difficult for everyone and moving out of an orthopedic office that was custom designed for clinical and academic efficiency by a medical building architect from Atlanta (the firm that designed Ray Morrissy's Atlanta office) was a bit of a shock for us. The design was perfect for our "academic mission" and being close to our clinics meant few wasted minutes. We miss that. On the other hand we are happy in our new space and welcome you to look it over when you come back for our next visiting professor program.



Peter Newton, David Pyatt, and Heather Johnston taking an early tour.



The progression of the EOB from foundation, to framing (bottom), to the finished product (right).



# New EOB (Education and Office Building)



David Pyatt, Heather Johnston, and Candy McGinley signing in for a "sneak peak" at the building prior to opening day.



The Grand Ballroom on the first floor of the EOB. This is our new, large conference room that can be used for special events, such as our Visiting Professor program (pictured here).



"Fort Fellows Office" – the fellows arranged the moving boxes to give themselves a fourth wall. The "Le Misérables" type rampart was brought to mind (but lasted only a few days).



Pictured here are some of the books that had to be disposed of prior to the move. If you contributed a chapter to any of these books, we probably had a duplicate and retained it.

![](_page_28_Picture_9.jpeg)

The new patio area in front of the building. Very nice for conference breaks, lunch etc. (especially with our San Diego climate).

![](_page_28_Picture_11.jpeg)

Dr. Wenger collating the books/journals that were kept.

### **EPOS/POSNA** Combined Annual Meeting

#### May 3-6, 2017 Barcelona, Spain

This year, POSNA (Pediatric Orthopedic Society of North America) and EPOS (European Pediatric Orthopedic Society) elected to combine their traditional annual meetings into a single meeting hosted in Barcelona, Spain. While both societies have been in existence for over 30 years, this was the first occasion for such a combined annual meeting. It was a wonderful opportunity for attendees to gain a global perspective on research and treatment of pediatric orthopedic conditions. The large number of attendees from around the world (nearly 2,000 registrants) fostered the opportunity for establishing or re-establishing connections with new or familiar colleagues.

Research from our department was represented at the EPOSNA meeting in 7 podium presentations, 11 ePosters, and 1 paper poster. In addition, many of our attending staff were honored to serve as session moderators and faculty during various symposia.

![](_page_29_Picture_6.jpeg)

Shyam Kishan (former fellow), Raghav Badrinath (UCSD Research Resident), Ryan Fitzgerald and Dan Bland (current fellows), Salil Upasani (RCHSD Staff), and Sunny Park (RCHSD Nurse Practitioner) in Barcelona.

![](_page_29_Picture_8.jpeg)

Dr. Pennock presenting his new "sports medicine applicable" bone age assessment paper – EPOSNA – Barcelona.

![](_page_29_Picture_10.jpeg)

Hip session – EPOSNA – Barcelona. Dr. Wenger, Dr. Matheney (Boston Children's) and Dr. Fitzgerald (RCHSD fellow).

## **EPOS/POSNA Combined Annual Meeting**

![](_page_30_Picture_1.jpeg)

Dr. Yaszay and prior fellow Dr. Firoz Miyangi (Vancouver) field questions in the spine session (Dr. Newton is the moderator at the podium) – EPOSNA – Barcelona.

![](_page_30_Picture_3.jpeg)

Dr. Wenger presenting DDH-Lig. Teres paper – EPOSNA – Barcelona.

![](_page_30_Picture_5.jpeg)

Current fellow, Ryan Fitzgerald, delivering his EPOSNA talk on the relationship between brace wear and acetabular index in children with DDH.

![](_page_31_Picture_1.jpeg)

Orthopedic residents absorbing the discussion 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 as one of the world's leading centers for children's orthopedic clinical and biomechanical research. Our work is published in the most important orthopedic journals and is widely quoted. The publications listed below were produced by our department between July, 2015 – December 2016.

Stepanovich M, Upasani V V, Bomar JD, Wenger DR (2015) Advanced Containment With Triple Innominate Osteotomy in Legg-Calve-Perthes Disease: A Viable Option Even in Severe Cases. J. Pediatr. Orthop.

Hollenbeck SM, Bomar JD, Wenger DR, Yaszay B (2015) Electronic Medical Record Adoption: The Effect on Efficiency, Completeness, and Accuracy in an Academic Orthopaedic Practice. J. Pediatr. Orthop.

Schuett DJ, Bomar JD, Pennock AT (2015) Pelvic Apophyseal Avulsion Fractures: A Retrospective Review of 228 Cases. J Pediatr Orthop 35:617–23.

Souder CD, Farnsworth CL, McNeil NP, Bomar JS, Edmonds EW (2015) The Distal Humerus Axial View: Assessment of Displacement in Medial Epicondyle Fractures. J Pediatr Orthop 35:449–454.

Peterson JB, Doan J, Bomar JD, Wenger DR, Pennock AT, Upasani VV (2015) Sex Differences in Cartilage Topography and Orientation of the Developing Acetabulum: Implications for Hip Preservation Surgery. Clin Orthop Relat Res 473:2721.

Misaghi A, Doan J, Bastrom T, Pennock AT (2015) Biomechanical Evaluation of Plate Versus Lag Screw Only Fixation of Distal Fibula Fractures. J Foot Ankle Surg 54:896–9.

Edmonds EW, Bathen M, Bastrom TP (2015) Normal Parameters of the Skeletally Immature Knee: Developmental Changes on Magnetic Resonance Imaging. J Pediatr Orthop 35:712–20.

Jung ST, Wang S Il, Moon YJ, Mubarak SJ, Kim JR (2015) Posttraumatic Tibiofibular Synostosis After Treatment of Distal Tibiofibular Fractures in Children. J. Pediatr. Orthop. Newton PO, Fujimori T, Doan J, et al (2015) Defining the "Three-Dimensional Sagittal Plane" in Thoracic Adolescent Idiopathic Scoliosis. J Bone Joint Surg Am 97:1694–701.

Cheung JPY, Cahill P, Yaszay B, et al (2015) Special article: Update on the magnetically controlled growing rod: tips and pitfalls. J Orthop Surg (Hong Kong) 23:383–90.

Samdani AF, Asghar J, Miyanji F, Bennett JT, Hoashi JS, Lonner BS, Marks MC, Newton PO, Betz RR (2015) Recurrence of rib prominence following surgery for adolescent idiopathic scoliosis with pedicle screws and direct vertebral body derotation. Eur Spine J 24:1547–54.

Edmonds EW, Fornari ED, Dashe J, et al (2015) Results of Displaced Pediatric Tibial Spine Fractures: A Comparison Between Open, Arthroscopic, and Closed Management. J Pediatr Orthop 35:651–6.

Edmonds EW, Santago AC, Saul KR (2015) Functional Loss With Displacement of Medial Epicondyle Humerus Fractures: A Computer Simulation Study. J Pediatr Orthop 35:666–71.

Samdani AF, Bennett JT, Singla AR, Marks MC, Pahys JM, Lonner BS, Miyanji F, Shah SA, Shufflebarger HL, Newton PO, et al (2015) Do Ponte Osteotomies Enhance Correction in Adolescent Idiopathic Scoliosis? An Analysis of 191 Lenke 1A and 1B Curves. Spine Deform 3:483–488.

Lonner BS, Toombs CS, Husain QM, Sponseller P, Shufflebarger H, Shah SA, Samdani AF, Betz RR, Cahill PJ, Yaszay B, Newton PO (2015) Body Mass Index in Adolescent Spinal Deformity: Comparison of Scheuermann's Kyphosis, Adolescent Idiopathic Scoliosis, and Normal Controls. Spine Deform 3:318–326.

Schmitz MR, Farnsworth CL, Doan JD, Glaser DA, Scannell BP, Edmonds EW (2015) Biomechanical Testing of Unstable Slipped Capital Femoral Epiphysis Screw Fixation: Worth the Risk of a Second Screw? J Pediatr Orthop 35:496–500.

Arunakul R, Peterson A, Bartley CE, Cidambi KR, Varley ES, Newton PO. (2015) The 15-Year Evolution of the Thoracoscopic Anterior Release: Does It Still Have a Role? Asian Spine J 9:553–8.

Murphy JS, Mubarak SJ (2015) Talocalcaneal Coalitions. Foot Ankle Clin 20:681–91.

Dayanidhi S, Dykstra PB, Lyubasyuk V, McKay BR, Chambers HG, Lieber RL (2015) Reduced satellite cell number in situ in muscular contractures from children with cerebral palsy. J Orthop Res 33:1039–45.

Marks MC, Bastrom TP, Petcharaporn M, Shah SA, Betz RR, Samdani A, Lonner B, Miyanji F, Newton PO (2015) The Effect of Time and Fusion Length on Motion of the Unfused Lumbar Segments in Adolescent Idiopathic Scoliosis. Spine Deform 3:549–553.

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crimination With Both SRS-22 and -24 Outcomes Instruments in Patients With Adolescent Idiopathic Scoliosis. Spine (Phila Pa 1976) 40:E1323–E1329.

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Parvaresh KC, Upasani V V, Bomar JD, Pennock AT (2016) Secondary Ossification Center Appearance and Closure in the Pelvis and Proximal Femur. J. Pediatr. Orthop.

Pytiak A, Bomar JD, Peterson JB, Schmitz MR, Pennock AT, Wenger DR, Upasani VV. (2016) Analysis of spinal alignment and pelvic parameters on upright radiographs: implications for acetabular development. J Hip Preserv Surg 3:208–14.

Upasani V V, Bomar JD, Matheney TH, et al (2016) Evaluation of Brace Treatment for Infant Hip Dislocation in a Prospective Cohort: Defining the Success Rate and Variables Associated with Failure. J Bone Joint Surg Am 98:1215–21.

Edmonds EW, Lin C, Farnsworth CL, et al (2016) A Medial Portal for Hip Arthroscopy in Children With Septic Arthritis: A Safety Study. J. Pediatr. Orthop. Mittal A, Bomar JD, Jeffords ME, Huang MT, Wenger DR, Upasani VV. (2016) Defining the lateral edge of the femoroacetabular articulation: correlation analysis between radiographs and computed tomography. J. Child. Orthop.

Stepanovich M, Bomar JD, Pennock AT (2016) Are the Current Classifications and Radiographic Measurements for Trochlear Dysplasia Appropriate in the Skeletally Immature Patient? Orthop. J. Sport. Med. 4:

Sankar WN, Gornitzky AL, Clarke NMP, Herrera-Soto JA, Kelley SP, Matheney T, Mulpuri K, Schaeffer EK, Upasani VV, et al (2016) Closed Reduction for Developmental Dysplasia of the Hip: Early-term Results From a Prospective, Multicenter Cohort. J. Pediatr. Orthop.

![](_page_32_Picture_16.jpeg)

Amoli MA, Flynn JM, Edmonds EW, et al (2016) Gender Differences in Pediatric Orthopaedics: What Are the Implications for the Future Workforce? Clin Orthop Relat Res 474:1973–8.

Upasani V V, Parvaresh KC, Pawelek JB, et al (2016) Age at Initiation and Deformity Magnitude Influence Complication Rates of Surgical Treatment With Traditional Growing Rods in Early-Onset Scoliosis. Spine Deform 4:344–350.

Hosseini P, Pawelek J, Mundis GM, Yaszay B, et al (2016) Magnetically controlled Growing Rods for Early-onset Scoliosis: A Multicenter Study of 23 Cases With Minimum 2 years Follow-up. Spine (Phila Pa 1976) 41:1456–62.

Henderson P, Desai IP, Pettit K, Benke S, Brouha SS, Romine LE, Beeker K, Chuang NA, Yaszay B, et al (2016) Evaluation of Fetal First and Second Cervical Vertebrae: Normal or Abnormal? J Ultrasound Med 35:527–36.

Kemppainen JW, Hood KA, Roocroft JH, Schlechter JA, Edmonds EW. (2016) Incomplete Follow-up After Growth Modulation Surgery: Incidence and Associated Complications. J Pediatr Orthop 36:516–20.

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![](_page_34_Picture_10.jpeg)

(L to R) Candy McGinley, Barb Brand, Dr. Mubarak, Becki Scelso, and Penny Bostian spending an afternoon at Old Coach Vineyards.

![](_page_34_Picture_12.jpeg)

Scott Mubarak and 2016/2017 RCHSD peds ortho fellows at Old Coach Vineyards.

![](_page_34_Picture_14.jpeg)

Ms. Claus and her helpers at the Ortho holiday party.

Each year, our orthopedic staff are asked to lecture as visiting professors and to present papers at conferences throughout North America and the world. The images below demonstrate these experiences during the most recent academic year. Visiting other centers, and attending national and international conferences, greatly improves our ability to provide state-of-the-art teaching, patient care, and research.

![](_page_35_Picture_2.jpeg)

Dr. Wenger visits Royal Children's Hospital, Melbourne, Australia (Nov. 2016). Dr. Kerr Graham (Orthopedic Chief – RCH) left, Dr. Wenger right.

![](_page_35_Picture_4.jpeg)

The Orthopedic Research Institute at RCH (Melbourne) was funded by Dame Iris Murdoch, mother of Rupert Murdoch, publishing mogul.

![](_page_35_Picture_6.jpeg)

![](_page_35_Picture_7.jpeg)

Dr. Newton had the chance to catch up with Dr. Jürgen Harms (Heidelberg, Germany) at the SRS meeting in Prague. Dr. Harms is a renowned Professor of Orthopedic Surgery for whom the Harms Study Group is named.

Barrett Sullivan, our former UCSD research resident, presenting his work at the SRS meeting in Prague.

![](_page_35_Picture_10.jpeg)

Dr. Newton (right) with Dr. Harry Shufflebarger, Dr. Al Crawford, and Jeff Pawalek (former RCHSD Research Coordinator) at SRS in Prague.

![](_page_36_Picture_1.jpeg)

Dr. Wenger enjoying barbecue with former fellow Matt Ellington IPOTT meeting – Austin, Sept 2016.

![](_page_36_Picture_3.jpeg)

Dr. Newton with John Emans (Boston) at the Boston Children's Hospital Emans Spine Symposium and Grice Visiting Professorship, Nov. 2016.

![](_page_36_Picture_5.jpeg)

Dennis Wenger and prior RCHSD peds ortho fellows in their office library (Austin TX – Central Texas Pediatric Orthopedics). (L to R) Matt Ellington, Hilton Gottschalk, DRW, Tony Kahn)

![](_page_36_Picture_7.jpeg)

Dr. Edmonds, instructor at the POST (Pediatric Orthopedic Surgical Techniques) course in Memphis, TN (Sept. 2016).

![](_page_36_Picture_9.jpeg)

Dr. Newton moderating the adolescent idiopathic scoliosis section of the SRS meeting in Prague (Sept. 2016).

![](_page_37_Picture_1.jpeg)

San Diego faculty, staff, and prior fellows at the Sept. 2016 Prague SRS meeting.

![](_page_37_Picture_3.jpeg)

Prior fellow, Vineeta Swaroop and TSRH staff Christine Ho at EPOSNA – Barcelona.

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Dr. Wenger serves as Visiting Professor in the Orthopedic department of the Children's Hospital of Philadelphia (CHOP) – June 2017).

![](_page_38_Picture_1.jpeg)

Dr. Newton and the renowned Professor Jean Dubousset (Paris) at the Sept. 2016 SRS meeting in Prague.

![](_page_38_Picture_3.jpeg)

Tour of Sagrada Familia with Dr. Upasani, current fellows and our friends from Seattle (EPOSNA – May 2017).

![](_page_38_Picture_5.jpeg)

Dr. Newton presenting his work at the 127th meeting of the Central Japan Association of Orthopedic Surgery and Traumatology (Sept. 2016).

![](_page_38_Picture_7.jpeg)

Fellow alumni at Quail Hollow Golf Club – Charlotte, NC. Drs. Steve Frick, Eric Edmonds, Brian Scannell, and Chris Bray (all prior RCHSD peds ortho fellows, and Charlotte program residents) at retirement celebration for Dr. Ed Hanley – 28 year Chair of Orthopedics at Carolinas Medical Center.

"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

![](_page_39_Picture_2.jpeg)

"If a little knowledge is dangerous, where is the man who has so much as to be out of danger?" – Thomas Henry Huxley