

Connections 2020

A Newsletter from the Children's Orthopedic and Scoliosis Program • Issue 16 – 2020

Message from the Chief

2020 will certainly be a year that marks time in all of our lives. I hope all of you have been able to keep yourselves and your loved ones safe. COVID-19 has impacted some of our lives more seriously than others and our prayers and thoughts go out to those less fortunate. Despite the challenges and the required adjustments to all of us this March, I am proud of the response and resiliency our team has shown. Even as I write this, we are still making daily adjustments as the number of US lives lost due to COVID-19 passed 100,000, yet there are children that need our orthopedic care. We will soldier on and continue to provide the very best care for our patients while making the discoveries that will allow us to do even better next year.

I am pleased to announce the graduation of four tremendous pediatric orthopedic surgery fellows from the Rady Children's Hospital UCSD program. Jessica Burns, MD, MPH is returning to Phoenix Children's Hospital where she will join former fellow and hard rocking Greg White, MD.

Clarabelle Devries, MD is joining the team of former fellow Chris Sullivan, MD at the University of Chicago. Hakan Pehlivan, MD is off to join former fellow Avrum Joffe, MD in Ridgewood, New Jersey, and Megan Severson, MD is headed to the Carilion Clinic in Roanoke, Virginia. We congratulate all four of these fabulous individuals and look forward to their future success and sustained friendship in the decades ahead.

We are of course disappointed the San Diego POSNA meeting could not be hosted as a live event this year and missed seeing all of you for this annual get together back on our home turf. We are equally sad not to have been blessed with the cheer and wit of Deborah Eastwood, MD (London) who was to be our David Sutherland Visiting Professor this year. Our Visiting Professor program was schedule to coincide with POSNA this year, but was also canceled. We will regroup on the other side of the pandemic and enjoy the scientific debate and personal friendships once again at some point...

Our 35th fellowship class is set to join our ranks and we look forward to the new crew: Anthony Catanzano, MD (Duke Univ.), Jessica Hughes, MD (Baylor Scott & White), Brock Kitchen, DO (UT San Antonio), and Patrick Curran, MD (UCSF). Congratulation and welcome, class of 2021.

Finally, I would like to salute Dr. Dennis Wenger, MD who has completed his clinical career this year. Dennis joined the practice (just Dr. Scott Mubarak at the time) in 1984 after completing his orthopedic residency at the University of Iowa and his fellowship at the Hospital for Sick Children in Toronto. With early practice experience in Denver and Dallas (TSRH) he has been a stalwart of our San Diego (Rady Children's/UCSD) pediatric orthopedic program for more than 35 years. His passion for teaching has powered our training program for decades and fortunately he will continue in a role as Senior Education and Research Consultant. Thank you, Dennis, for your dedication to the children of San Diego (and from far and wide), the advancement of our spe-



Scott Mubarak



Dennis Wenger



Hank Chambers



Peter Newton



Doug Wallace



Maya Pring



Burt Yaszay



Eric Edmonds



Andy Pennock



V. Salil Upasani



Katie Rickert



Emily Cidambi

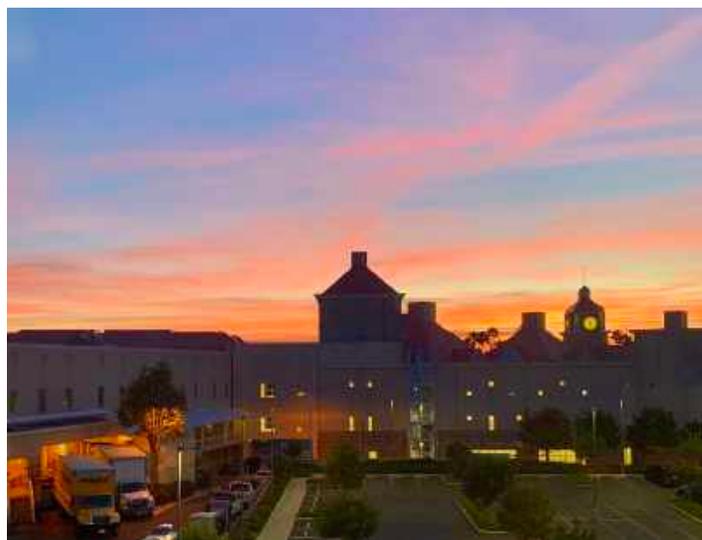
Message from the Chief

cialty and the pediatric orthopedic knowledge you've so eloquently instilled into our trainees through the years. Being one of your early mentees, I can tell you how much we appreciate the opportunity and mentorship!

I hope all of you enjoy the stories that follow in this edition of "Connections" as we share our accomplishments of the 2019-2020 academic year. You are all friends and family who directly or indirectly have participated in the Rady Children's Orthopedic program success. Thank you all and here's to getting together again in person sometime soon. Stay safe!

Most Sincerely,

Peter O. Newton, MD
Chief of Orthopedics
May 28, 2020



Sunrise at Rady Children's Hospital, San Diego

Dear friends and Rady orthopedic family,

2020 has been a year that none of us will forget. As we continue to recover from the covid-19 pandemic's disruption of our clinical and surgical practice, we are thankful that we had such a talented group of clinical fellows to help make our navigation through this crisis a little smoother. We stepped up our virtual educational offerings by adding in "Chalk Talks" and highlighting some of the excellent presentations given by our Attendings at national and international meetings around the world.

As mentioned throughout this newsletter we are happy to report that all of our fellows have found positions at excellent institutions across the country. Three of our four fellows will be joining prior fellows in practice upon graduation. All four fellows were productive in their academic endeavors producing a dozen manuscripts for studies, case reports, and book chapters this year.

Although our annual Visiting Professor program was canceled this year, the fellows had the opportunity to present their research at the Surgical Grand Rounds conference. All four presentations were well received and produced lively discussion.

In lieu of our traditional Visiting Professor and Fellowship Reunion photos, this year we will be presenting select archival photos of the Rady Children's Hospital orthopedic program. We hope you enjoy the memories.

Sincerely,

V. Salil Upasani, MD
Program Director
Pediatric Orthopedics and Scoliosis Clinical Fellowship



New Education Coordinator

Education Coordinator

Holly Loeffler, BS

It is our great pleasure to introduce Holly Loeffler as our new Education Coordinator for the Orthopedic Division at Rady Children's Hospital San Diego. She will provide administrative support and coordinate our educational programs for the Pediatric Orthopedic and Scoliosis clinical fellowship training program, resident program, medical student and international visitors and academic functions / events. Holly has worked with the Orthopedic Department in several roles including administrative assistant as well as a transcriptionist for the past 19 years. Before that she was a sixth-grade science teacher and has always enjoyed working with and educating the next generation. She holds a bachelor's degree of science in Education from Miami University Oxford, Ohio. Holly has been an incredible resource and over the past 6 months has already had a tremendous impact on our program. She has been a San Diego native for more than 40 years and is blessed to live near her son and daughter and two grand-daughters (Quinn and Vivien) who keep her busy on the weekends with their active schedules.



\$11 Million for the Cerebral Palsy Program

Southern Family Cerebral Palsy Center

Hank Chambers, MD



Two years ago, we received an amazing gift to our Cerebral Palsy Program here at Rady Children's. Nancy Southern and her family, from Calgary, generously provided a lead gift of \$5 million. Our hospital Board of Directors and Foundation matched that gift with another \$5 million. Over the past few years we have had other donations totaling \$720k. We spent the last year with our hospital leadership and key players in the orthopedic department (David Pyatt and Dustin Kerkstra) meeting with planners and architects to develop a new Cerebral Palsy Clinic and the David H. Sutherland, MD Motion Analysis Laboratory. Kyle's Clinic for Neuromuscular Disorders (Nancy's son) will be staffed by the ever-expanding physical medicine and rehabilitation department under the leadership of Dr. Andrew Skalsky. Drs. Chambers, Pring, Upasani, Rickert, and Cidambi, will see their patients with neuromuscular disorders there. With this incredible gift we will be able to endow a Research PhD and research staff as well as the medical director for this project. I had hoped to have some pictures of the construction to share in our annual report as we had planned on opening in the Fall of this year. However, like many projects around the world, our clinic was put on the back burner for the Coronavirus pause. Our projected date of opening is in February 2021, but many things have to fall in alignment for that to happen. In the meantime, the educational aspects of the Southern Family Center for Cerebral Palsy will continue with professional and patient educational materials.

2019-2020 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. Analysis of surgical training in North America indicates that titrating responsibility in a graduated fashion is imperative to the successful education of senior trainees, and this concept has become synonymous with our program. We are proud of our fellows who are graduating this year and we congratulate them on their accomplishments.



Jessica Burns, MD, MPH

Dr. Burns graduated from medical school and completed her residency at the University of Arizona College of Medicine, Phoenix. Her research activities included a prospective study collaboration with the ortho department and the genetics institute here at RCHSD evaluating the ability of next generation DNA sequencing to identify the correct pathogen in osteoarticular infections. She also worked on a study evaluating surgical vs non-surgical intervention for non-abscess forming osteomyelitis. After graduation, Dr. Burns will be moving back to Arizona where she has accepted a job with former fellow Gregory White (class of 1997) at Phoenix Children’s Hospital.



Clarabelle DeVries, MD

Dr. DeVries graduated from medical school at Northwestern University Feinberg School of Medicine and completed her residency at Washington University at St. Louis –Barnes Jewish Hospital. Dr. DeVries had a busy academic year. She spearheaded a prospective ultrasound study of trochlear anatomy to define the prevalence of trochlear dysplasia in the adolescent and adult population. She also worked on a study evaluating the relationship between trochlear dysplasia and hip dysplasia in infancy, and she evaluated the medium term results of in situ fixation of SCFE. Dr. DeVries has accepted a position at the University of Chicago where she will work along side former fellow Christopher Sullivan (class of 1989).



Phoenix Children’s Hospital



University of Chicago Hospitals

2019-2020 Fellows – Rady Children’s Hospital



Hakan Pehlivan, MD

Dr. Pehlivan graduated from medical school at the University of Virginia where he also completed his residency. While in San Diego his research included evaluation of three-dimensional changes of the spine that braces enact on juvenile and adolescent idiopathic scoliosis. Upon graduation, Dr. Pehlivan will enter private practice and be joining former fellow Avrum Joffe (class of 2013) in New Jersey at Preferred Pediatric Orthopedic Surgery.



Megan Severson, MD

Dr. Severson graduated from medical school at Baylor College of Medicine and completed her residency at the University of Alabama, Birmingham. While in San Diego, Dr. Severson studied the acetabular morphology of patients with neuromuscular disorders. Following graduation she will be joining the Carilion Clinic Department of Orthopedic Surgery in Roanoke, Virginia



*“The life so short,
the craft so long to learn”*

– Hippocrates



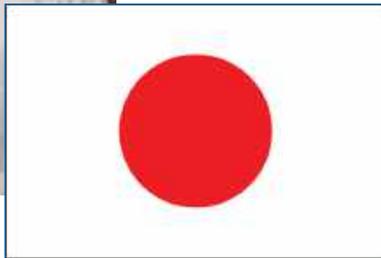
Carilion Clinic Department of Orthopedic Surgery

International Fellows

Our orthopedic education program continues to educate international fellows who come from throughout the world to study modern treatment methods for scoliosis, hip disorders, cerebral palsy, and other children's orthopedic conditions. This year's trainees include:



Dr. Takahashi worked with the spine team performing research on 3D changes in vertebral shape after anterior spinal growth tethering.



Yohei Takahashi, MD

Aichi, Japan
Fujita Health University
August 1, 2019 through August 31, 2020



Dr. Stallone worked with the hip team performing research on hip reconstruction in patients with spastic hips.



Stefano Stallone, MD

Bologna, Italy
Istituto Ortopedico Rizzoli
January 1, 2020 through April 17, 2020



Dr. Upasani and Dr. Stallone perform Salter osteotomies on dual material 3D printed pelvis model (blue is stiff to simulate bone and peach colored material is somewhat flexible to simulate cartilage).

Arriving Fellows – 2020-2021

The process of applying, interviewing, and being accepted to one of the top-ranked fellowship programs in children's orthopedics is a demanding one. 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, 2019 to begin their academic year. They are outstanding young orthopedic surgeons from throughout North America and we look forward to working with them.



Anthony Catanzano, MD
Duke University, Durham



Patrick Curran, MD
University of California,
San Francisco



Jessica Hughes, MD
Baylor Scott & White,
Temple



Brock Kitchen, DO
University of Texas,
San Antonio

Anthony Catanzano, MD

Undergraduate: Johns Hopkins University, BA Natural Sciences and Classics
Medical school: New York University School of Medicine
Residency: Duke University, Durham

Patrick Curran, MD

Undergraduate: Brown University, BS Biomedical Engineering
Medical School: University of California, Davis
Residency: University of California, San Francisco
Fellowship: Boston Children's Hospital

Jessica Hughes, MD

Undergraduate: Davidson College, BS Biology
Medical School: University of Texas, San Antonio
Residency: Baylor Scott and White – Temple, TX

Brock Kitchen, DO

Undergraduate: Brigham Young University, BS Exercise Sciences
Medical school: University of North Texas Health Science Center – Texas College of Osteopathic Medicine
Residency: University of Texas Health Science Center at San Antonio

Future Fellows – 2020 Match (for 2021-2022 Academic Year)

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

Katharine Hollnagel, MD
University of Toledo Medical Center

Joshua Speirs, MD
Loma Linda University

Caitlin Orner, MD
University of Rochester

Mikhail "Mike" Tretiakov, MD
SUNY Downstate Medical Center

Notes From A Former Fellow



Matthew R. Schmitz, MD, FAAOS, FAOA, FAAP

San Antonio Medical Center

- *Chair, Department of Orthopaedics*
- *Chief, Young Adult Hip Preservation Service*
- *Chief, Pediatric Orthopaedics and Adolescent Sports Medicine*

(Fellow – 2011-2012)

The year I spent at Rady Children's was truly formative and has led to many incredible memories and everlasting friendships. Writing this year's reflection has been a fun exercise to put those memories down on paper.

I grew up in Denver with a short stint in Dallas before returning back to Colorado where I attended high school at an all boys Jesuit school (and just like everyone else that interviewed at Rady, that information alone told Dr. Wenger all he needed to know about me). I was recruited to play football at the United States Air Force Academy and thus entered a military commitment at age 17 that I happen to still be paying off at age 42. After a year of playing football I transitioned to rugby which would have a lasting impact on my life and has taken me around the globe.

I attended medical school at Loyola University Chicago before starting my residency at Wilford Hall, the Air Force program in San Antonio. It was during my residency, as a PGY3, that I was first introduced to Rady Children's as I did a 4 month rotation there and immediately knew I wanted to return down the road. That was my first true exposure to pediatric orthopaedics and it helped foster



PGY3 Schmitz

my love for treatment of hip pathology and sports medicine in an adolescent patient population. After graduation I served 2 years as a general orthopaedic surgeon in Washington D.C. before the Air Force would let me complete a fellowship.

My fellowship year was unique in a sense that I had already spent 2 years learning how to perform certain surgical cases (or in many times, how to make them look extremely difficult) so the year in San Diego helped me hone some surgical skills and techniques that I had already attempted independently. In addition the opportunity to learn both the basics and intricacies of children's orthopaedics from true leaders in the field was a true honor. My 3 co-fellows and I became instant friends, a relationship that has persisted through the years. Chris Bray, Jake Schulz, and Eric Fornari have truly become lifelong compatriots, staying in constant touch. We have continued



The four fellows with a resident on one of their mission trips to Ecuador

that closeness with yearly pilgrimages to Ecuador where we perform children's orthopaedics on the local community for a week each fall. We view it as a yearly work reunion and solidifies that bond we made during our special year in San Diego.

After my year in San Diego, I returned to San Antonio, TX to work at the large teaching hospital. It had become a joint Army and Air Force hospital known as San Antonio Military Medical Center (a combination of the old Brooke Army Medical Center and Wilford Hall). I quickly became involved with the residency program by assuming the role of Associate Program Director my 2nd year back on faculty. I served in that role for 5 years before I decided that although I love mentorship and teaching, I could do without the paperwork of the ACGME. With that in mind, I traded the paperwork of the ACGME for different administrative duties associated with the role of Vice-Chair. After a 4-month tour to Bagram Air Base, the major medical center for US forces in Afghanistan, I served as the Vice-Chair for 2 years. In October of 2019, the opportunity arose and I was selected as the first Air Force Chair in the Department of Defense's largest Orthopaedics Department at SAMMC. I truly have found my calling in leadership and it is an absolute pleasure to serve as the head of a Department of 27 surgeons, 31 residents, 10 PAs and over 150 personnel. And yes, as long as I am in charge, my residents will continue to rotate in San Diego.

My practice in Texas has evolved over the years. I still focus on adolescent sports but treat less and less general pediatric conditions. That space has been occupied by a hip preservation practice that seemingly takes up a larger percentage each year. I was able to

Notes From A Former Fellow

establish the first hip preservation service in the DoD and now have a referral base across the globe for hip pathology, utilizing both arthroscopic and open techniques for treatment of hip disease. I have been lucky enough to be the sole person within the DoD performing periacetabular osteotomies on a regular basis and each year that number grows. That brought an opportunity to be accepted into ANCHOR (Academic Network of Conservative Hip Outcomes Research) and participate in multisite prospective research. It truly has been a blessing to participate in a newer field of orthopaedics and the foundation on hip pathology that I learned in my year in San Diego plays a significant role in that.



Dr. Schmitz celebrating his 100th PAO at SAMMC

Besides work, I am passionate about my continued participation in rugby. After playing in the US National Team set up during medical school, I was lucky enough to get involved with USA rugby from a volunteer perspective after my fellowship. I have served as the team physician for the US Men's National Team since 2013 and participated in multiple tours around the world including the 2015 Rugby World Cup in England. I also serve as the orthopaedic advisor for a new professional competition in the US, known as Major League Rugby. I hope to continue my involvement from a medical side as long as my wife lets me travel around the world with the team in my futile attempts to feel young and athletic again.

Anyone that knows me clearly knows I play second fiddle in my home to my beautiful and talented wife, Gillian. As an ER physician, she has climbed the ladder of leadership within the American College of Emergency Physicians (their AAOS) and is a favorite to be named president-elect of ACEP this fall. I have been lucky enough to serve as "arm candy" for most of the ride and it has piqued an interest of mine in leadership and advocacy. Keeping up with our hectic schedule has become quite the endeavor as we invest



Dr. Schmitz serving as "arm candy" for Dr. Schmitz at one of her ACEP functions

any free time we have in the two young ladies we are raising. As Hank Chambers frequently points out, it seems like we are rarely in town working. That isn't exactly true, but sometimes it can feel like it. We will continue to seek that balance with work and family while teaching our two daughters (Kaylie and Austyn Grace) how important it is to have goals and strive for the best.

I've enjoyed some reasonable successes early in my career, and I owe a great deal of that to the mentorship and friendship I gained in San Diego. Having a strong cohort of mentors and sponsors that are willing to advocate on your behalf is invaluable. I am thankful for those connections in San Diego and know they will come in handy to advocate for me when I transition out of the military in the spring of 2024 and enter the next phase of my career.

– Matt Schmitz –San Antonio, Texas



2011-2012 Rady Fellows at Graduation

Traveling Fellowship

2019 POSNA-SLAOTI traveling fellowship



V. Salil Upasani, MD

Dr. Upasani was selected to participate in the 2019 POSNA-SLAOTI traveling fellowship. He got the opportunity to visit orthopedic centers of excellence in Curitiba, Brazil, as well as Buenos Aires and Cordoba, Argentina. He was accompanied by Coleen Sabatini, MD, MPH from the University of California – San Francisco, and Apurva Shah, MD, MBA from The Children’s Hospital of Philadelphia.

They started their trip in Curitiba, Brazil by visiting the amazing faculty at the Hospital Pequeno Principe (The Little Prince Hospital) and Hospital do Trabalhador (Worker’s Hospital). In Buenos Aires they spent time at FLENI (a specialty hospital devoted to the comprehensive care of pediatric neurosurgical and neuro-orthopedic disorders) as well as the Hospital Pedro De Elizalde (the oldest children’s hospital in Latin America). In Cordoba they were hosted by the kind faculty from Sanatorio Allende. They also had the opportunity to travel with Dr. Baxter and Susan Willis who had made the trip down to South America for the combined SLAOTI-EPOS-POSNA meeting, which unfortunately ended up being canceled due to political unrest in Santiago, Chile.



Lovely dinner evening of entertainment and fine dining hosted at Dr. Juan Carlos Couto’s (top right) home with former RCHSD international fellow Eduardo Segal (center front)



First churrascaria meal with the excellent faculty in Curitiba, Brazil.

Traveling Fellowship



Faculty of Sanatorio Allende.

The three traveling fellows delivered a number of presentations while in South America. Dr. Shah discussed both brachial plexus birth palsy and improving surgeon performance and efficiency in the operating room. Dr. Upasani covered selective thoracic fusions for adolescent idiopathic scoliosis as well as three-dimensional assessment of acetabular morphology in the treatment of hip disorders. Dr. Sabatini discussed management of chronic osteomyelitis in children as well as opportunities and challenges of working in resource limited environments.

Their gracious hosts in all three cities treated them to amazing meals, exciting soccer (futbol) matches, and numerous sight-seeing opportunities to immerse themselves in the rich cultures of South America.

More details from the trip can be found at the POSNA Traveling Fellowship Blog at:

<https://posna.org/Blogs/POSNA-Traveling-Fellowship>



(L to R) Apurva Shah, Coleen Sabatini and, Salil Upasani at the Hospital Pequeno Principe on the first day of their traveling fellowship.



Travelling fellows observing a medial epicondyle surgery at Sanatorio Allende.

Raquel “Rocky” Sanchez

Over the 40+ years of our existence as a practice, we have grown into a large and diverse group, one that most of us consider to be an extended family of like-minded individuals who love taking care of kids (and doing a little karaoke on the side). Like any family, we have our ups and downs — we have celebrated births, weddings, and personal achievements; we have mourned the loss of one of our own and struggled along with those touched by illness and family hardship.

Only five years ago, Maya Pring was diagnosed with and underwent successful treatment for breast cancer. She recently celebrated that cancer-free milestone with us, only to find out shortly thereafter that her PA-C for 17 years, Raquel “Rocky” Sanchez, had been diagnosed as well.

Rocky has started down the long road of treatment herself now, with all of us (near and far) right there behind her. It says something about her strength of will that she took the first step on the road to recovery by G.I. Jane-ing her hair in preparation for chemo. Some of us joined her (although with scissors instead of a razor) to show our love and support.

Rocky has a truly awe-inspiring network of support behind her, and she would count the Rady Children’s Orthopedic family as a large part of that network. Keep her in your thoughts and prayers over this next year. I know I speak for everyone when I say: we’re right behind you, Rocky... all the way to CURE!



“Not only that, but we rejoice in our sufferings, knowing that suffering produces endurance, and endurance produces character, and character produces hope.”

– Romans 5:3-4

Research Year



Research Resident

Brendon C. Mitchell, MD

When Professor Wayne Akeson founded the UCSD Orthopedic Residency Training program in the late '60s, he created a residency program that included a full year dedicated to research which serves to produce a more scientific, analytic, and broadly educated orthopedic surgeon. Dr. Mitchell is the personification of this idea and has taken full advantage of his research year with us. He has worked on a dozen research projects ranging in topic from spine, to knee, to shoulder, to pelvis, as well as an animal model of DDH. Dr. Mitchell is from Briarcliff Manor, New York and earned a BA in Biochemistry from Colgate University. He received his medical degree from the University of Florida where he was awarded honors in academic excellence, as well as research. He is the latest in a long tradition of research residents that includes standouts such as Salil Upasani and Emily Cidambi. We appreciate his hard work and dedication.



Medical Student Research Fellow

Conner J. Paez, BA

This year we were fortunate enough to have another medical student spend a year with us working on research. Conner Paez grew up in Cleveland, Ohio and earned his undergraduate degree from the University of Pennsylvania. After completing his third year of studies at UCSD medical school, he decided to dedicate a full year of research focusing on pediatric orthopedics. During his time with us Conner worked on a number of wide ranging research projects. He studied unstable ankle fractures, SCFE, unicameral bone cysts, syndesmotic injuries, surgical management of hip dislocations in infants, bracing for scoliosis, and ultrasound methods for infantile hip dysplasia. This year of work should result in a number of peer-reviewed publications and give him the opportunity to present at local and national orthopedic meetings. He is currently finishing his final year of medical school and will be applying for an Orthopedic Surgery residency next year.



UCSD School of Medicine Academic Mall

Reflections on an Academic Career

Dennis R. Wenger, MD

As I step back from clinical practice, I was asked by the “Connections” editors to provide commentary about my career in children’s orthopedics and am happy to do so. I will describe my career steps – with a special focus on the value of mentors – and finish with a few advisory notes for those beginning their careers.

ROOTS

I was born into a Swiss Mennonite farm family in Ohio, one of 11 children, and the first in my family tree to attend university. I marvel at the rate of scientific change that has occurred during my life and career. The attached photographs show my mother and three of her sisters in their mid-1930’s transportation (horse and buggy) and my father farming with an equine power source for plowing prior to June 1944. In that year he purchased his first tractor – which was finally available after World War II ended (and manufacturers were no longer required to produce only tanks). What an amazing time for one’s career to evolve as we cross into the 21st century, sailing on the warp-speed knowledge advancements resulting from development of the silicon chip.



Ohio – Mid 1930s



Scientific advances in Ohio farming

Although farm life provided a stable foundation for development, my curiosity and interest in “the wider world” led me away from the farm and into medicine. I have been a product of the public education system throughout, including elementary and high school (Dalton, OH), undergraduate school (Ohio University), medical school (University of Cincinnati), residency (University of Iowa), and finally fellowship (Hospital for Sick Children – Toronto).

My evolution from farming (I was president of our high school FFA – Future Farmers of America) to medical school included a few minor “detours”.



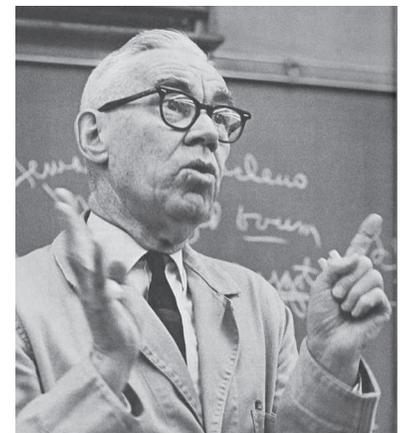
FFA Officers. Dalton, OH High School

I started undergraduate school in engineering but soon learned that the logic of the biological sciences fit my brain better than engineering mathematics. So, I switched to a pre-med curriculum. Thus, the first of my provisos – “follow your instincts and choose the course/career that best fits your temperament and CPU type (your brain)”.

MENTORS

Finding, or stumbling on to, wise mentors is key to achieving life’s goals, no matter what your field of study. Luckily for me, the most important of all mentors, my parents, were a powerful influence for my career in that they encouraged the values of both hard work (including that it can be enjoyable) and educational pursuits.

Rush Elliott PhD, Professor of Anatomy at Ohio University, was the first key mentor in my life (outside of my family). A classic anatomist and brilliant lecturer, he inspired me to think “I want to be like this guy”. I became his chief lab assistant and as a result, medical school admission was straight-forward (note that Professor Elliott was also Dean of the College of Arts and Sciences).



“Love of Teaching”
– Rush Elliott, PhD

Dr. Wenger Looks Back

I received what I consider to be a classic medical school education that balanced academics with broad clinical exposure. Although not quite like Parkland (Dallas), Charity (New Orleans), or Cook County (Chicago), the University of Cincinnati provided a high volume of “gritty, real world experience” which, I believe, is important in producing a well-rounded physician/surgeon. My many excellent rotations, including key electives in my 4th year, confirmed that I should be a surgeon – and the rotations at Cincinnati Children’s Hospital directed me toward becoming a surgeon for children. Of course, I knew none of this upon arrival for medical school – but having excellent mentors – and role models – allowed me to find my way.

I married my great wife, Kathy, during my last year of medical school – a union that has lasted 50 years. Likely later marriage (later for the era) is best for those preparing for demanding careers. Our four children have been a delight and recall both our great times together as well as the importance of my spending perhaps 75 hours a week caring for, performing studies about, and writing books about “other people’s children”. They understood – and often joined me on my international lecture trips.

After medical school graduation I went on to the Denver General Hospital (DGH) for a very intense surgical internship – which included every other night, every other weekend, in-house call. This schedule seemed hard for many but “not so much” for an Ohio farm boy who always found both medical education and practice easier than the dairy farm work schedule.

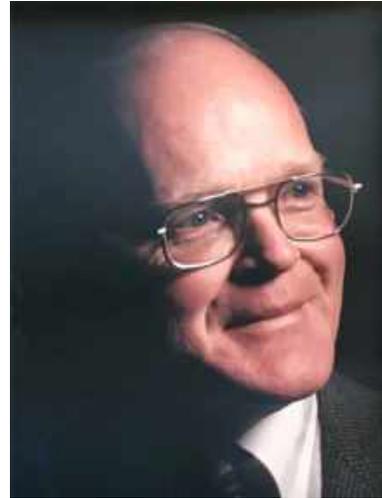
Two DGH mentors changed my life. Professor Ben Eiseman, Chief of Surgery, was a brilliant, driven individual who ran the best teaching conferences I have ever experienced. He incorporated a sense of “dynamic tension” in the room – by his laser-focused queries to trainees that made one never arrive “unprepared”. I have followed his model throughout my career.



“Running a Conference”
– Ben Eiseman, MD

My second key mentor at DGH was Dr. Leland Hawkins, Chief of Orthopedic Surgery, whose service I was on for my second internship month. After observing my style/thinking Dr. Hawkins stated “You should definitely go into Orthopedics but you must take your residency in Iowa (where he had trained) because ‘you have an interest and skills in teaching’ – and Iowa has the best academic program in the country”. I followed his advice which channeled my life for the subsequent 45 years.

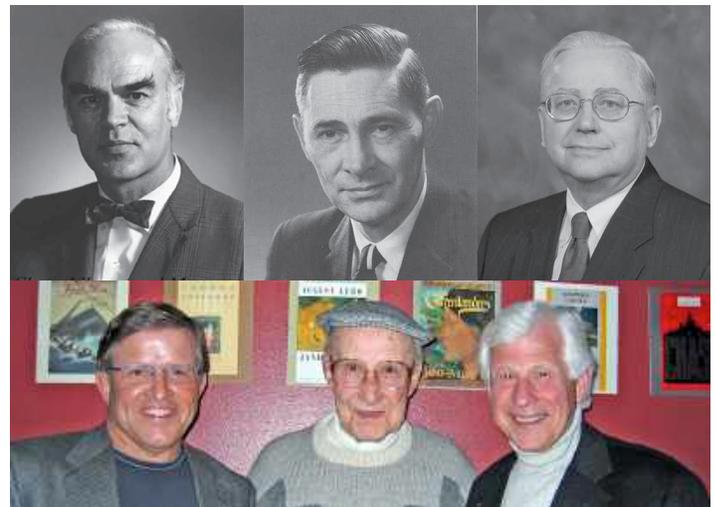
The University of Iowa Orthopedic Surgery Department, established in 1913, with its intellectual roots in Vienna, provided a brilliant balance between clinical education and research exposure. I had many great mentors including Professors Carroll Larson, Adrian Flatt, Reginald Cooper, Michael Bonfiglio, and most importantly, I.V.



“Find the best available teachers”
– Leland Hawkins, MD

Ponseti. Dr. Ponseti’s graceful, intellectual approach to children’s orthopedics made it very clear that I should choose it for my career.

The Iowa exposure was a clear demonstration of how entering a milieu that offers a “broad palette” gives you the best platform from which to make career choices. Ideally one should have their medical school, residency, and fellowship, each in different places – to better appreciate the breadth of orthopedic thought.

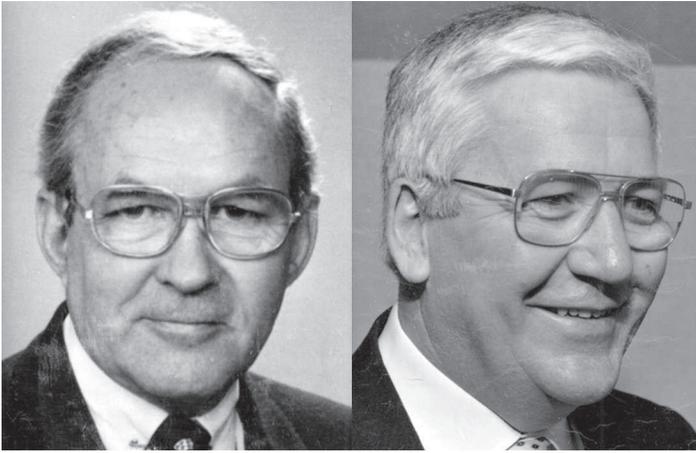


Top) L to R: Adrian Flatt, MD, Carroll Larson, MD, Reginald Cooper, MD. Bottom) L to R: Dr. Wenger, I.V. Ponseti, MD, Stuart Weinstein, MD

My fellowship at the Hospital for Sick Children – Toronto was a revelation, and an amazing contrast to Iowa. The focus was not only on research/academics, but also on surgical technique with many extremely skilled and efficient surgeons. I have often stated that one should go to Iowa to learn whether an operation should be done, and to Toronto to learn exactly how to do it.

Mentors included Professors Robert Salter, Walter Bobeckho, Robert Gillespie and especially Mercer Rang. Rang was a UK native and a brilliant teacher and thinker. We became good friends – even though I did not rotate on his service – yet we collaborated throughout our careers – including authoring two textbooks together. My fellowship year was the most amazing educational year of my life and confirmed my desire for an academic career.

Dr. Wenger Looks Back



Robert Salter, MD and Mercer Rang, MD – HSC Toronto

SURVIVING THE STORMS

Having completed my formal education, I set sail on the sea of life, which included generally pleasant sailing, but also occasional turbulence.

My Toronto fellowship opened the door to many job offers, but in the end, my love for Denver led us back to the University of Colorado/ Denver Children’s Hospital for my first academic position. But this position proved to be “short-lived”. My practice growth was slow, due to community competition, and after about a year in practice, the chief of pediatric surgery was chatting with me in the surgical locker room and asked if I was “surgically busy” and my answer was “sort of, but not busy enough”. He replied “a young surgeon should be a busy surgeon” and then turned and walked out the door. Amazingly, a few days later I received a call from Dr. Tony Herring from the TSRH in Dallas who said they had a position available, that included an endless backlog of complex surgical cases (scoliosis, DDH, etc.) as well as space and funding for research. And so the gods had spoken and we were off to Dallas. Thus a further proviso: “In choosing a place to practice, be careful about going to a beautiful setting where there may be too much competition (mountains, ocean, etc.) If you want to become an excellent surgeon, choose a place that will allow you to be surgically busy doing cases that really need to be done”.



Texas Scottish Rite Hospital – Dallas, TX

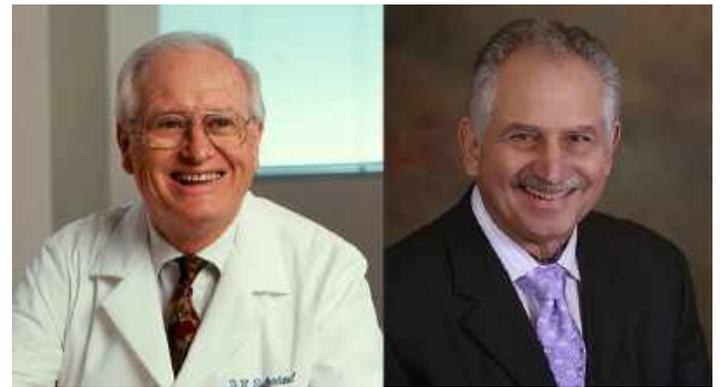
Dallas

Dallas offered amazing opportunity for a young academic surgeon. The surgical volume was large and the research opportunities great. We were able to start a biomechanics laboratory to study scoliosis instrumentation and also to begin a fellowship in children’s orthopedics. The hospital was well funded and the breadth of opportunity immense. Dr. Brandon Carrell was a wonderful mentor and Dr. Tony Herring a supportive colleague. I spent seven intense, productive years there, a time that included the birth of our 3rd and 4th children. But then opportunity came knocking and we were off to San Diego (where my wife Kathy’s brother lived) and where the children’s hospital orthopedic department was seeking “academic energy”.

Moving from Denver to Dallas to San Diego within a period of eight years may seem a bit frantic but is sometimes needed, particularly in an academic career. One must be cautious about moving too often to avoid being labeled as an “unpredictable opportunist”.

San Diego

I left a very comfortable, stable academic appointment in Dallas to pursue a less certain but “interesting possibilities” position in San Diego where I joined Prof. David Sutherland, a full time UCSD faculty member, and Dr. Scott Mubarak, who worked both at UCSD and Children’s Hospital. The organization’s exact future was not clearly



David Sutherland, MD and Scott Mubarak, MD

defined but I saw opportunity on the horizon for a surgeon with strong teaching interests. Having already helped found a fellowship in Dallas, I became instrumental in helping to establish a fellowship in San Diego. After several years in San Diego (1990) I was asked to become director of the pediatric orthopedic residency and fellowship program, a position that I continued in until 2018. Our team effort has resulted in one of the world’s best-known fellowship programs and I am happy to have been involved in its conception and growth. Dozens of our fellows remain life-long friends and seem like “family members”. Also, my academic position has provided wonderful national/international teaching and travel opportunities which I greatly value.

As one becomes more senior, it becomes difficult to separate mentors from influential colleagues. Dr. Scott Mubarak knew me because he had also trained in Toronto. He was key in recruiting me to San Diego and has been a wonderful, supportive colleague. Pro-

Dr. Wenger Looks Back



Visiting Professor and Board Examiner – Riyadh, Saudi Arabia



Prof. Wayne Akeson, MD
Chair of Orthopedic Surgery,
UCSD

Professor David Sutherland was a kind mentor (and an almost “father figure” – much like Brandon Carrell in Dallas). But perhaps the most influential mentor in my academic career was Professor Wayne Akeson, the founding chair of orthopedics at UCSD, who greeted me with great positivism when I arrived in San Diego (despite my being based at Children’s Hospital). We saw “eye to eye” on almost every issue and his

full support for our ideas on how to improve the residency and fellowship confirmed why I came to California – where new ideas are encouraged. Professor Akeson’s willingness to “have a meeting” on short notice, even if it had to be at a “breakfast joint” on Sunday AM was remarkable, especially as he was Chair of Orthopedics and acting Dean – and I was “the new guy on the block.” In addition, one could discuss any topic with him, ranging from science to economics, politics, music, and world affairs – a true polymath. Other key colleagues included Dr. Steve Garfin, who succeeded Prof. Akeson as chair of orthopedic surgery at UCSD, and our current orthopedic director at RCHSD, Dr. Peter Newton, who I am happy to say, has the leadership characteristics of Prof. Akeson (humble, friendly, always available for a meeting). Not a surprise as Dr. Newton was a UCSD orthopedic resident under Dr. Akeson.

Long-term viability and continuity are not always certain in orthopedic training programs. I am very happy about the future of our program which includes an excellent research team and a strong energetic group that includes multiple skilled “teaching surgeons”.

NOTES FOR THE NEXT GENERATION

And now a few thoughts for the next generation.

- Enjoy your profession – attitude is everything and with the right approach, you will not think of your profession as work.
- Your surgical life can be boring or very interesting – and you will determine your course. Focusing on others, rather than yourself, provides a good start.

- Read everything – knowledge is power and to be a leader, you must master your subject, particularly in your specialty.
- Learn from every mentor – both the “good” (I want to be like them) and the “bad” (I will always avoid that style)
- Develop research projects in areas that truly interest you – your “students” will know whether you are truly committed to the subject.
- Take the time to enjoy guiding your trainees – extra time and interest given to a student, resident, or fellow can last a lifetime – for example, Prof. David Ring, (Harvard, U. of Texas – Austin) rotated on my service about 25 years ago as a senior UCSD medical student and now he is a candidate for the chair of orthopedic surgery position at UCSD. You can make a difference.
- Keep a proper distance from those you are educating – “friendly but not familiar” means correct “distancing”. When the time comes for you to correct or provide constructive criticism to a trainee, “distancing” becomes important. The trainees should address you as, “Dr. Newton” (not “Peter”).
- Join an orthopedic “team” – it is very hard to be an “individualist” in the modern era. You can learn from every member of your group. A most critical part of your team are your support staff – you should know them very well – and support them, particularly when patient families, or other parties, mistreat them.
- Enjoy each patient – adopt the “read their tee shirt” model – read, then query (the messages range from skateboarding to Minneccraft). Each child knows whether you are really interested in them as a person.
- Work on family/career balance – being a leader in your field can/must on occasion put your family in second place – but only for the few hours required to treat that septic hip. The distraught parents deserve your complete attention.
- Avoid excessive “career competition”. There will always be those who are “greater than you” but be willing to “joust” with your partners/colleagues/fellow academics in conferences/meetings without creating a negative spirit. Watch how lawyers do it – they fight bitterly during the deposition – and then play golf together that afternoon.

CLOSING

I was also asked to mention what I might be doing in my post “clinical work” years. Dr. Newton has helped to establish a “Senior Education and Research Consultant” position, which I will assume in our orthopedic division. In this role, I plan to attend and contribute to our Monday and Friday AM teaching conferences as well as the clinical and research conferences related to hip disorders. And I will also remain a consultant to Dr. Upasani as he guides our annual fellow class on to “stardom”.

My hobbies include reading, thinking, writing, gardening, golf, and travel – all of which I will pursue in varying degrees. But no activity will be quite as scintillating as a well run orthopedic teaching conference with the “dynamic tension” model in play. It can be more fun than Jeopardy – with the “host” always respecting the “contestants”.

Research Team Year in Review

Written by Tracey Bastrom, MA

I certainly missed seeing all of you during our typical spring POSNA reunion. It will be strange reading the final version of this newsletter without getting to relive those events thru the usual photographs at the end. Perhaps JD will surprise us with a #throwback Connections photo section. Many of us on the research team stayed quite busy (from home) during the pandemic, as a few of our investigators found themselves with a little extra time to give their research projects more attention. I always feel very fortunate to work with you all and be part of the Rady peds ortho family, but this sense of gratitude was certainly heightened this spring. With the world in a bit of chaos, it is great to have such supportive leadership, colleagues, and friends from work – keeping each other sane with conversations or just some really interesting data to analyze.

Despite the interruption to the regularly scheduled program, our four fellows have had a successful research year. Dr. Jessica Burns worked closely with Dr. Pennock and our infectious disease division on a prospective study evaluating “next generation sequencing” for osteoarticular infections. Dr. Clarabelle Devries worked with Dr. Pennock on prospective ultrasound evaluation of adolescents and adults to identify the prevalence of trochlear dysplasia. Dr. Hakan Pehlivan joined the spine team in continuing to study the impact of bracing on 3-dimensional changes in the spine. Dr. Megan Severson expanded upon previous work Dr. Upasani and the hip team had performed, by evaluating the 3-dimensional acetabular morphology of the neuromuscular hip. While the pandemic did eliminate the op-

portunity to share the years’ work at our annual Visiting Professor, the fellows will present their research at the annual Surgical Grand Rounds prior to the end of fellowship.

Our current UCSD research resident, Dr. Brendan Mitchell has been quite productive this year. Six of the projects that he worked on have already been submitted for publication – four of which he is first author. He is working on drafts of five other manuscripts, so we expect his final publication count with us will be in the double digits. His enthusiasm, organization, and attention to detail have made for a productive year and everyone on the team has truly enjoyed working with him.

Our last completed calendar year, 2019, saw an increase in the number of authored publications in peer-reviewed journals – with a total of 52 for the year as compared to 40 in 2018. At the moment we have 67 active or pending IRB submissions, which is down slightly from 80 the year prior. Our IRB has a mechanism in place for us to submit planned QI projects, so they may review and officially communicate their agreement that the project is indeed QI and thus exempt from IRB review. As the interest in QI projects increases, this has been a great resource for us to navigate the sometimes-murky distinction between QI and research.

I do hope that this finds all of you well. I very much look forward to our next reunion.



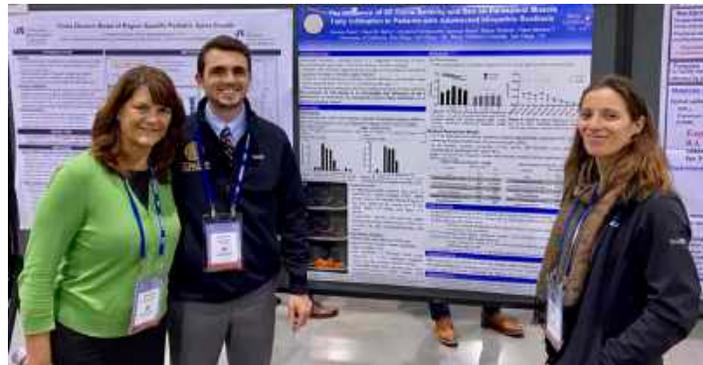
OBRC and Translational Research Year in Review

Written by Christine Farnsworth, MS

It has been a pleasure to be able to support the growing Rady Children's staff of 12 pediatric orthopedic surgeons plus four fellows. In doing so, we have a hand in addressing important clinical questions. We are privileged to have provided tools and resources for the training of future orthopedic surgeons, scientists, and engineers. Milestones of this academic year include five published manuscripts, four manuscripts submitted for consideration of publication, and six research abstracts that were presented at national and international meetings including ORS, IMAST (virtually), and AAOS (virtually). In 2019 and the first months of 2020, we generated a total of 39 3D printed models of bone and surrounding structures. These were used for research (19) or were patient specific models (20) of the spine, pelvis, tumors, feet, femurs, and tibiae generated for clinical care allowing surgeons to understand the deformity more completely, to plan for surgical correction, and to evaluate surgical implant type and size before entering the operating room.

We have enjoyed working with Adam Bunn (MS Kinesiology from San Diego State University), who has provided his expertise during gait analysis studies and in collaboration with several research projects involving kinematics and the motion analysis system. Adam has been a valuable resource and is able and willing to pitch in whenever he is needed. In addition, JP Pascua (brand new BS in Aerospace Structural Engineering!) has given a good deal of support for our 3D reconstruction efforts. Finally, the contributions of Harsha Bandarlage MS must be noted. This year, he performed numerous 3D analyses of hips and spine deformity, including evaluations of a very anatomically complicated cohort with spinal growing rods. Harsha has recently moved on to a position in the 3D printing industry, and we wish him and his family the best in this new endeavor.

We are very grateful to continue our research collaborations with the UCSD Department of Orthopaedic Surgery and Muscle Physiology lab (PIs Samuel Ward PT PhD, Bahar Shahidi PhD, David Berry PhD). We continue to work towards a better understanding of tissue components and muscular architecture involved with scoliosis. His-



ORS 2020, Phoenix, AZ. Poster with Connor Grant (and Bahar Shahidi PT PhD, Christy Farnsworth MS).

tology, RNA expression, and MR imaging of muscle from concave vs. convex sides of curves in AIS are being evaluated and compared.

With the help of the Systems Biology & Systems Medicine Lab (PI Shankar Subramaniam). We continue to evaluate RNA expression in scoliosis muscle from patients with different deformity origins (congenital, neuromuscular, idiopathic) with the goal of determining if there is potential for a muscular component in AIS etiology.

Our Bioengineering studies with the Cartilage Tissue Engineering Lab (PI Robert Sah MD ScD) include evaluation of hip synovial fluid of patients with DDH, 3D shape analysis of growth cartilage and joint surfaces, multi-level (macro-, meso- and micro-scale) imaging of growth and articular cartilage development, multi-level imaging of spine development and comparative anatomy investigation between growing mice and the pediatric population .

In collaboration with Kimberly Cooper PhD we are investigating a potential bipedal animal model for DDH by swaddling neonate Jerboa.

In addition, we get to work with the Rady Genomics Institute, 3D Innovations Lab (3DI Lab), and Children's Hospital of Pittsburgh of UPMC. Dr. Rickert and Dr. Mubarak have been working with the Genomics Institute to learn about the genetic contribution to tarsal coalition development. A new collaboration headed by Dr. Newton will be investigating genetic components of AIS that will help to develop a better understanding of curve progression risk. Justin Ryan, PhD is the director of 3DI Lab. We continue to collaborate and generate 3D models and a better understanding of pediatric orthopedic deformities and skeletal growth. Moving into the next year, Dr. Upasani and Dr. Edmonds will be collaborating with Patrick Bosch MD of Children's Hospital of Pittsburgh of UPMC to test a hip tether device that has potential to treat patients with subluxation and spasticity. Stay tuned!



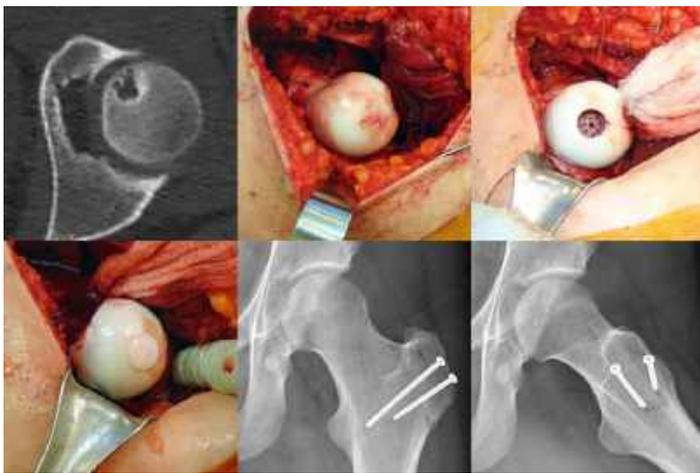
Jerboa

Hip Team Year in Review

Written by V. Salil Upasani, MD

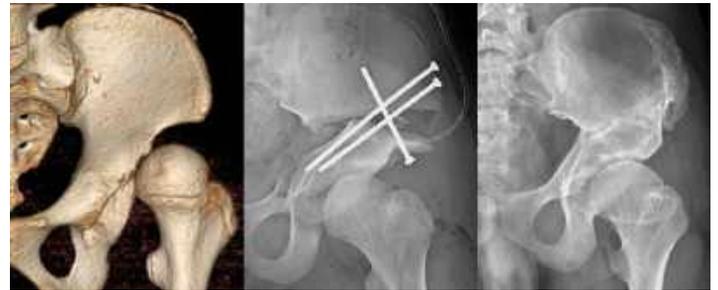
The International Center for Pediatric and Adolescent Hip Disorders at Rady Children's Hospital San Diego continues to be a leader in the treatment of complex congenital and developmental hip conditions. The Center's goal is to provide world-class care by applying the knowledge gained through clinical experience and research to allow our patients to live to their full potential. Our medical and surgical care is tailored to the special needs of the growing child. Our team of surgeons is supported by nurses, physician extenders, orthopedic technologists, 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 virtually at the POSNA Annual Meeting in San Diego.

We continue to grow as a referral source for complex patients. We recently treated a 24-year-old female who presented with worsening left hip pain. She is an active duty fighter pilot in the Airforce and injured her hip during a training exercise. She developed femoral head avascular necrosis from a traumatic dislocation of her hip and was on medical leave due to her disability. As can be seen on her pre-operative imaging, she had a large necrotic segment with subchondral collapse and early degenerative changes. She underwent a left surgical hip dislocation with osteochondroplasty and femoral head allograft and has recovered well from her procedure.



Another interesting case, which demonstrates the importance of pre-operative three-dimensional (3D) assessment of acetabular morphology developed at Rady Children's Hospital, is seen here. This 11-year-old male with Down syndrome presented with worsening left hip and knee pain. He was found to have severe left hip instability and acetabular deficiency that we were able to quantify with our 3D analysis techniques. He underwent a left hip triple innominate osteotomy to obtain significant correction of the acetabular fragment

and restore the hip center of rotation. He has gone on to heal the osteotomy well and has regained the ability to participate in activities without pain or instability.



Our hip research program continues to be an active member of various multi-center prospective study groups including the International Hip Dysplasia Registry (IHDR), the International Perthes Study Group (IPSG), and we will soon begin collaborating with the SCFE Longitudinal International Prospective Registry (SLIP) and the HIP HOPE Network. We also continue our strong collaborations with basic scientists at the University of California, San Diego including Robert Sah, MD, ScD at the UCSD Jacobs School of Engineering and Kim Cooper, PhD in the Division of Biological Sciences, Section of Cell and Developmental Biology.

We had three projects selected for presentation at the recent virtual POSNA annual meeting in San Diego. One project was a collaboration with Dr. Kingsmore and the Rady Children's Institute for Genomic Medicine. We studied a cohort of children with skeletal epiphyseal dysplasia who had been treated for bilateral hip pain and deformities and described a number of novel mutations that could help in the diagnosis of kids in the future and guide medical and surgical treatments. We also presented clinical outcomes of our prospective cohort of children with slipped capital femoral epiphysis treated with in situ screw fixation. We found that prophylactic treatment of all slip-related cam deformities was not necessary and that in situ fixation alone was adequate for most patients with mild to moderate slips, while more severe slips required secondary surgical procedures including osteochondroplasty or proximal femoral osteotomy. The third project compared a telescoping screw fixation system to traditional in situ pinning for SCFE and found that telescoping screws had an advantage when prophylactically treating hips at high risk of slipping to prevent the iatrogenic proximal femoral deformities seen with screw fixation. Dr. Upasani was also invited to speak at the POSNA Hip Subspecialty Day regarding the clinical impact of proximal femoral growth disturbance / avascular necrosis in patients with developmental dysplasia of the hip.

Scoliosis and Spine Deformity Center Year in Review

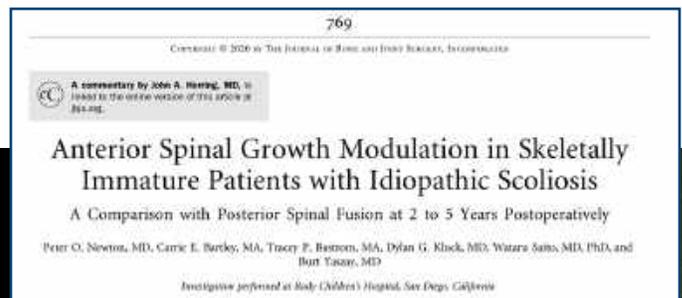
Written by Burt Yaszay, MD

This was another busy year for the spine service at Rady Children's Hospital. Dr. Newton completed his service as President of the Scoliosis Research Society at the annual meeting in Montreal. It was a very productive presidency with significant changes that will have a lasting positive influence on the society. A new logo was unveiled that better represented the international reaches of the society. The IMAST committee was reorganized to ensure that the meeting met the needs of all its members. Unfortunately, the first IMAST meeting under the new committee that was to be held in Athens was cancelled secondary to the recent pandemic. These are just a few of the projects that occurred during Dr. Newton's presidency. He now serves as an important adviser to the current president, Dr. Sponseller.

The annual meeting was also the culmination of a busy year for other members of the San Diego spine family. Dr. Yaszay served as the education chair which was responsible for the Society's education program. The main project was the premeeting course which was highlighted by a guest lecture from a former Blue Angel pilot. Dr. Miyanji (former fellow), served as the chair of the program committee. He was responsible for the academic program, which continues to grow in complexity, with an increasing number of members and abstract submissions. We cannot forget about our local host, Dr. Parent (former fellow). He was a gracious host, offering up some of his own wine and ensuring that we all got to experience the wonderful city of Montreal. One of the highlights of the annual meeting was recognizing Dr. Juergen Harms with the Lifetime Achievement Award. His contributions to the treatment of spine pathology is nearly limitless, including being a founding member of the Harms Study Group. After 25 years The Harms Study Group, under the leadership of Dr. Newton, remains the premier research organization studying pediatric spinal deformity.

Our research department under the leadership of Tracey Bastrom and Carrie Bartley, continues to work around the clock. Fortunately (or unfortunately for those coordinating), all the ideas generated from three productive surgeons will ensure that the research machine will never stop. Of course, this machine would not be as effective if not for all the hard work by our research team (Christine Farnsworth, Aileen Laurente-Mnkeni, Carlo Munar, and Kristin Nelson). The majority of our projects continue to be through the Harms Study Group, many of which are being completed by our residents and fellows. Significant attention is also being given to 3D imaging as well as anterior vertebral body tethering (VBT). While some of this research is collaborative, many recently published works are from San Diego as our institution was one the first to have access to 3D imaging or to perform VBT. Two of these papers on tethering were just published in JBJS.

Ultimately, the mission of the spine service is to provide the best care for our patients both inside and outside the operating room. While doing innovative research and providing education across the globe is exciting, it's the patients and their families that fuel Drs. Newton, Yaszay, and Upasani's pursuit of excellence each day. With the help of their team of advanced practitioners (Linh Darnell, Casey Abare, and Chrissy Paik) and nurses (Amy Kager and Brooke Clarke), Rady Children's Spine Service will continue to serve the needs of patients across the local, national, and international community.



Dr. Newton at the podium at SRS with the new logo on display.

Sports Medicine for the Young Athlete

360 Sports Medicine Year in Review

Written by Eric Edmonds, MD

Another year for the 360 Sports Medicine program, now 8 years old, that was marked by some unexpected twists, and some planned changes. The first half of the academic year was marked by continued growth as we expand our reach into Southern Riverside County adding the physical therapy component to the office just above Dr. Cheng, who continues to be our Full-Time representative in Murrieta. Emily Cidambi, MD who we welcomed as a new addition to our surgical team as a foot & ankle specialist is further growing our Dance Medicine program in both the Murrieta and San Diego markets. The second half of the year, much like the rest of the country, has been marred by the pandemic. We have had no shortage of surgeries to perform via an early backlog that was created during initial closures; but, the future is yet to take form regarding the return of youth sports.

Under the physician leadership of Dr Suraj Achar, the 360 Sports Medicine team and Rady Children's Hospital agreed to become the team physicians for the San Diego Loyal. They are the newest member of USL Championship, a USSF-sanctioned Division II league and one of the most competitive professional soccer leagues in the world.

Our team has had continued success with podiums and posters at national meetings. We had multiple presentations at PRISM and vPOSNA, and were slated continue our run of presentations at AOSM this summer, but that meeting has been canceled. Despite the uncertain times, our surgeons continue to shape the field of pediatric sports medicine, serving as moderators and presiders, and being elected to positions of leadership in our professional societies.

360
sports
medicine



Last year we said goodbye to our long time athletic trainer Kristina (Parvanta) Johnson, who continued to represent us at the PRISM annual meeting with her research. Her departure from clinical duties allowed us to hire Sarah Gilleland as our new ATC. She has done a tremendous job picking up the slack and toeing the line. We look forward to getting her involved in our research endeavors, as well. Katie Adrian, ATC is now becoming one of our stalwart teammates, as during the pandemic she had to take on significantly more clinical duties to help keep the team rocking and rolling with the temporary weekly team shifts that our department initiated to protect the Division and our patients during the pandemic. Thank you both, Sarah and Katie, for your hard work!

Yet again, a long time member of the 360 Sports Team is leaving us after years of service. Lynn Manheim, the first Nurse Practitioner on the service, has decided to retire from medicine. She helped shape what the 360 Sports Medicine service became, and for that we will be forever grateful. It will be a difficult transition for the rest of us, but we have no doubt that Lynn will adapt quickly to her new lifestyle. We wish you all the best in your retirement, congratulations!



Katie Adrian and Sarah Gilleland working diligently on charts for the sports medicine clinics.

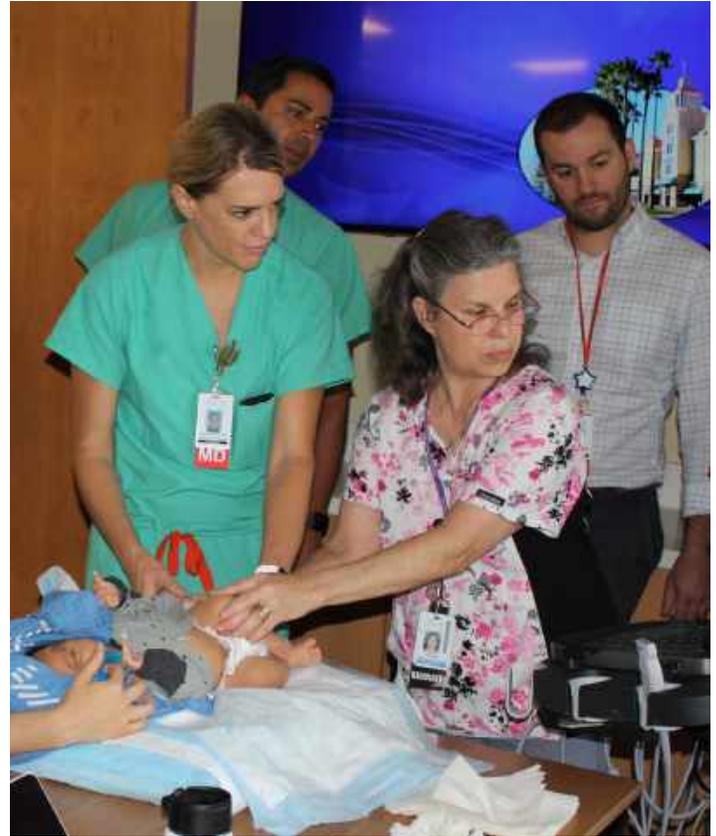


Good bye Lynn, enjoy retirement!

Infant Hip Ultrasound Workshop

Hands On Infant Hip Ultrasound Course

At the start of each fellowship year our team of internationally recognized hip experts, led by Dr. Salil Upasani and Dr. Scott Mubarak, put on an infant hip ultrasound workshop in which the fellows are trained in infantile hip ultrasonography. Fellows and residents are given a lecture on hip ultrasonography and then move onto performing an ultrasound examination on a volunteer baby. This year's volunteer was Dr. Cidambi and her son.



Advanced Practice Provider Team

Written by Chrissy Paik, PA-C

Advanced Practice Provider Team Members

Casey Abare, MSN, CPNP	Lynn Manheim, CPNP
Amanda Asaro, MPAS, PA-C	Chrissy Paik, MPAP, PA-C
Linh Darnell, PA-C	Sunny Park, CPNP
Allison Dickinson, PA-C	Emily Petty, PA-C
Katie Fields, CPNP	Raquel Sanchez, PA-C
Erynn Krasovic, PA-C	MaryLou Scott, MSN, CPNP
Abigail Nakamitsu, PA-C	Philip Stearns, MSN, CPNP

Our pediatric orthopedic team of PAs and NPs here at Rady Children's Hospital is a model for effective, high-functioning teamwork and patient-centered care. Much like a family, we characterize our work with values focused on honesty, discipline, creativity, humility, and curiosity. This year, we grew our amazing work family with the addition of Kimberly Padilla, C.P.N.P, which brought us to an all-time high of 15 PAs and NPs. We now comprise more than half of the clinical orthopedic team at Rady Children's Hospital.

As our team has grown, so has our ability to provide excellent access to care for the children of San Diego and the surrounding communities. This is evidenced by our expansion to the Murrieta Rady Children's location where orthopedics has a presence 5 days per week. The NPs and PAs now provide independent care under services such as the Acute Injury Clinic, Clubfoot Clinic, Hand Clinic, Lower Extremity Alignment Clinic, Sports Injury Clinic, Spine Screening Clinic and Toenail Clinic as well more specialized care in the surgeons' clinics at all four of our locations. The autonomy and efficiency of our group has many layers of benefits. Alone the PAs and NPs were able to provide care to more than 23,000 patients this year, thereby freeing up appointments for the more critical, high-risk, high-complexity patients in the physician clinics, providing clinic coverage so the physicians can operate a few days each week, and so the physicians have time to continue to produce high volume and high-quality research. The autonomous and collaborative care provided by our PA and NP group is essential to the success of our Rady Children's Orthopedic team as a whole.

This is now the second year of running our highly lauded, accessible and efficient Orthopedic Injury Clinic. Patients with acute orthopedic injuries are able to walk in without an appointment and receive high quality, comprehensive care – especially with the acquisition of the in-clinic Cone Beam CT scanner. This past year the PAs and NPs treated over 5,000 urgent orthopedic injuries, greatly satisfying our local pediatricians, coaches, parents, and of course our pediatric patients. In the era of COVID-19, we proved our adaptability, flexibility, and devotion to exceptional patient care by expanding our access to the Orthopedic Urgent Clinic, which is now running Monday-Friday 8 a.m.-7 p.m. and Saturdays 10 a.m.-6:30 p.m, all the while continuing to maintain patient numbers in the orthopedic specialty clinics as listed above.

Beyond our clinical role, the PAs and NPs continue to fulfill our medical curiosity, desire to learn, gift of teaching, and commitment to Rady Children's Orthopedics' prestigious research program. Every year a group of us attends one of the major pediatric orthopedic conferences (POSNA, POPS, IPOS, AAOS), and returns to work prepared to discuss pertinent research and to share any recommendations for changes in clinical practice. On a weekly basis, the PAs and NPs attend the Monday and Friday Bone Boards, ready and able to comment on any of the cases and to relay important information back to the NP/PA group in an effort to maintain our excellence in peer-reviewed, up-to-date, quality patient fracture care. As more than half of the clinical team in Orthopedics, the PAs and NPs also take great pride in assisting in the clinical teaching of the UCSD Medical Students, the Orthopedic Residents from UCSD, Navy, Army and Air Force, and our Pediatric Orthopedic Fellows.

In fact, our very own Erynn Krasovic, is now in charge of the orthopedic resident orientation, an important role that keeps her busy about twice each month as she ensures that each team of residents is trained in EPIC, familiar with clinic flow and their clinical expectations, and clear in their rounding and surgical roles on each team as well as when carrying the call pager. Many of the PAs and NPs also precept PA and nursing students from various programs throughout the country. Emulating the top-notch teachings from our very own renowned orthopedic physicians at Rady Children's, we share our knowledge of a wide range of pediatric orthopedic topics including, but not limited to: fracture care, developmental hip dysplasia, scoliosis, lower extremity alignment, club foot, cerebral palsy, and sports injuries.

Taking it another step further and expanding our joy of teaching beyond the hospital walls, Chrissy Paik gave a presentation about choosing a scoliosis surgeon to parents and families in TED Talk fashion at the Setting Scoliosis Straight Power Over Scoliosis educational event. She also sat on a panel of physicians, as the only PA, during a Q&A parent session at Camp Perthes, a summer camp organized by Perthes Kids Foundation, for children all ages 7-15 that have been diagnosed with Legg-Calvé-Perthes disease.

Sunny Park assisted Dr. Wenger in revising the Trauma chapter in the textbook, "Rang's Children's Fractures", a staple and necessary educational read for anyone in the practice of pediatric orthopedics. Finally, rounding out our ability to be a part of this cohesive organizational vision to remain a leader in innovative and cutting-edge research, we have some PAs and NPs that have been active in patient/study enrollment, clinical data collection, and data synthesis. A few of the more noteworthy and recent studies involving our team members include: "Prospective Evaluation of Operative versus Nonoperative Management of Type IIA Supracondylar Humerus Fractures", a study in it's final stages of data synthesis before submission, with Phil Stearns and Chrissy Paik as contributors; "Comparison of Surgical Outcomes Between a Triplane Proximal Femoral Osteotomy and the Modified Dunn Procedure for Stable, Moderate to Severe Slipped Capital Femoral Epiphysis", co-authored by Chrissy Paik; and "Assessment of Developmental Dysplasia of

Advanced Practice Providers

the Hip: Comparison of Ultrasound versus Radiographs in Patients Between 3 to 6 Months of Age”, a study currently in the midst of manuscript editing, co-authored by Emily Petty.

As we prepare for the year to come, the PAs and NPs would like to take a moment to recognize two momentous occasions that transpired this year and have left us feeling sad for a loss, but excited for a new life chapter; frightened at the potential prognosis, but now hopeful and overjoyed at best-case results and ultimate survivorship. First, we would like to send a fond and loving “bon-voyage” to Lynn Manheim, CPNP as she enters retirement. Lynn has been a strong and stable presence on our Sports team, working closely with Dr. Edmonds over the last 12 years to help ensure the best treatments for our local child and adolescent athletes. We will all miss Lynn dearly, but we know that because of the strong friendships formed within this supportive, positive, team-driven workplace, she will remain active in our lives outside of work.

In keeping with a workplace culture that has allowed and encouraged our PA and NP group to form what feels like a large family, what would a year be if someone in our family didn't have a life-altering experience. This year Raquel (“Rocky”) Sanchez was diagnosed with bilateral stage 3 breast cancer. The news came as a

heart-wrenching surprise to all of us as Rocky went out on medical leave in January. As many of you know, Rocky is like the emotional and comedic lifeline of our PA and NP group, not to mention a full-time contributor to daytime clinics and night call. So, her absence was not only difficult to manage clinically and administratively, but we all struggled to accept this sinister and cruel diagnosis given to Rocky. Yet in true Rocky form, with the utmost positivity, unwavering faith, humor, and with the strength of her insanely large and loyal friend and family circle, she has taken on this battle like a champion. Now having completed all 6 of her chemotherapy infusions with excellent tumor reduction and lymph node shrinkage, Rocky is set to begin her three-phase surgical treatment at the end of June. We continue to send our love and support to Rocky as she continues to make strides in her cancer battle, and we very much look forward to her transition into cancer remission and her return to work.

As we close on very productive year, we then look with eagerness for the adventures and successes that the 2020/2021 academic year will bring us. Confident that we will continue to help make the Orthopaedic Division at Rady Children's Hospital one of the best programs in the country (if not the world)!



L to R: Chrissy Paik, Linh Darnell, Phil Stearns, Allison Dickinson, MaryLou Scott, Erynn Krasovic, Casey Abare, Lynn Manheim, Emily Petty, Raquel Sanchez, Amanda Asaro, and Sunny Park. Not pictured are, Abigail Nakamitsu, and Kimberly Padilla.

Documentation (Our Publications)



Orthopedic trainees 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 January, 2019 – December 2019.

Abousamra O, Sponseller PD, Lonner BS, Shah SA, Marks MC, Cahill PJ, Pahys JM, Newton PO; Harms Study Group. Thoracic Lordosis, Especially in Males, Increases Blood Loss in Adolescent Idiopathic Scoliosis. *J Pediatr Orthop.* 2019;39(3):e201-e204.

Abousamra O, Sullivan BT, Samdani AF, Yaszay B, Cahill PJ, Newton PO, Sponseller PD. Three Methods of Pelvic Fixation for Scoliosis in Children With Cerebral Palsy: Differences at 5-year Follow-Up. *Spine.* 2019;44(1):E19-E25.

Abousamra O, Sullivan BT, Shah SA, Yaszay B, Samdani AF, Cahill PJ, Newton PO, Sponseller PD. Do seizures compromise correction maintenance after spinal fusion in cerebral palsy scoliosis? *J Pediatr Orthop B.* December 2019.

Auten JD, Naheedy JH, Hurst ND, Pennock AT, Hollenbach KA, Kanegaye JT. Comparison of pediatric post-reduction fluoroscopic- and ultrasound forearm fracture images. *Am J Emerg Med.* 2019;37(5):832-838.

Bachmann KR, Lu E, Novicoff WM, Newton PO, Abel MF, Harms Study Group. The Lumbosacral Takeoff Angle Can Be Used to Predict the Postoperative Lumbar Cobb Angle Following Selective Thoracic Fusion in Patients with Adolescent Idiopathic Scoliosis. *J Bone Joint Surg Am.* October 2019.

Bachmann KR, Yaszay B, Bartley CE, Bastrom TP, Reighard FG, Upasani VV, Newton PO; Harms Study Group Investigators. A three-dimensional analysis of scoliosis progression in non-idiopathic scoliosis: is it similar to adolescent idiopathic scoliosis? *Childs Nerv Syst.* 2019;35(9):1585-1590.

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Bastrom TP, Bartley CE, Newton PO, Harms Study Group. Patient-Reported SRS-24 Outcomes Scores After Surgery for Adolescent Idiopathic Scoliosis Have Improved Since the New Millennium. *Spine Deform.* 2019;7(6):917-922.

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Buckland AJ, Moon JY, Betz RR, Lonner BS, Newton PO, et al. Ponte Osteotomies Increase the Risk of Neuromonitoring Alerts in Adolescent Idiopathic Scoliosis Correction Surgery. *Spine.* 2019;44(3):E175-E180.

Caffrey JP, Jeffords ME, Farnsworth CL, Bomar JD, Upasani VV. Comparison of 3 Pediatric Pelvic Osteotomies for Acetabular Dysplasia Using Patient-specific 3D-printed Models. *J Pediatr Orthop.* 2019;39(3):e159-e164.

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Chambers HG, Chambers RC. The Natural History of Meniscus Tears. *J Pediatr Orthop.* 2019;39(Issue 6, Supplement 1 Suppl 1):S53-S55.

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The Year in Photos



Top row: Dr. Newton, Katie Adrian, Dr. Wallace, Dr. Pring, Dr. Chambers, Dr. Pehlivan, Casey Abare, Lynn Manheim. Bottom row: Sunny Park, Dr. Burns, Dr. Cidambi, Sarah Gilleland, and Chrissy Paik celebrating the holidays.



Dr Edmonds went to the University of Mississippi Medical Center in Jackson, MS to serve as Visiting Professor and give Grand Rounds while visiting former fellow Jaysson Brooks, left (Class of 2017). To his right is UMMC Chairman George Russell, Jr. and future pedi-pod Tyler McDonald.



Hoops Green with Dr. Newton. Hoops was visiting with patients while in town with the team. Hoops joined the Harlem Globetrotters in 2017 becoming the 15th woman to ever don the red, white, and blue uniform in the team's 90-plus year history.



Rocky Sanchez volunteering to have her trochlea evaluated by Dr. DeVries as part of one of the many projects Dr. DeVries worked on this year.

The Year in Photos



2019 Japanese Scoliosis Society - Takasaki City. Dr. Newton had a chance to catch up with Drs. Seki, Takahashi, Saito, Demura, Ohashi, and Ono, all of which spent time working on research with Dr. Newton in San Diego.



Dr. Severson participating in the Top Gun course at IPOS with a very tough critic, Dr. Davids (class of 1991) watching over her.



Dr. Upasani with Matt Boyle (left) and Haemish Crawford (right) at Starship Children's Hospital in New Zealand.

The Year in Photos



Dr. Newton with three generations of RCHSD fellows at IPOS in December. Dr. Megan Severson (current fellow), Dr. Clarabelle DeVries (current fellow), Dr. Edmonds (class of 2008), and Dr. Steven Frick (class of 1998).



Dr. Mubarak was a Visiting Professor in Buenos Aires, Argentina during the 39th Congress of the Argentina Society of Pediatric Orthopedics and Traumatology.



Dr. Edmonds with former fellows Matt Schmitz (class of 2012) and Kevin Shea (class of 1998) at the Peds Anatomy Study Group.



Halloween!

From the Archives



Staff photo from 1995



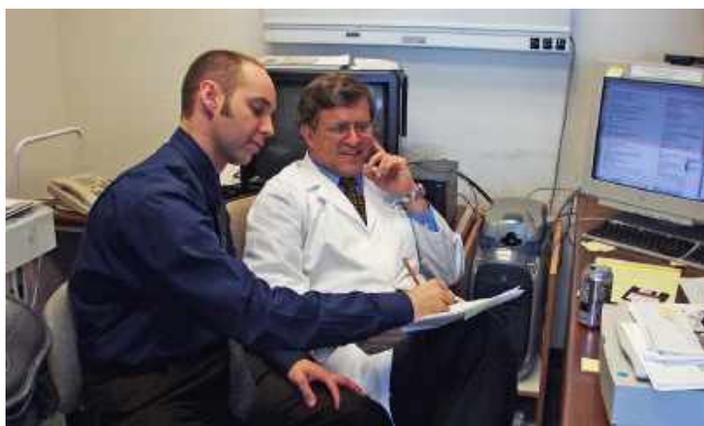
Fellowship class of 2001 with research staff. L to R: Phil Wilson, Wally Yassir, Tracey Bastrom, Sean Early, and Michelle Marks.



Vineeta Swaroop (class of 2008) with Mary Sefton Clark (left) and Kathleen Sellick (right). Dr. Swaroop won the Lena Sefton Clark Endowed Fellowship award during her fellowship year.



Dr. François Lalonde (center) in 2002 as a staff surgeon teaching international fellow Arji Mahadev (left), and Nurse Practitioner MaryLou Scott (right). Dr. Lalonde was an RCHSD fellow (class of 1999) that worked with us from 2001 to 2005.



Dr. Wenger and JD Bomar working on the first Connections Newsletter in 2001. The floppy disk on the desk and the CRT monitor make for a nice time stamp for this image.



2005 Visiting Professor Dr. Alvin Crawford keeping the crowd entertained during the rapid fire case presentation session.

From the Archives



The RCHSD Ortho Advanced Practice Provider roster of 2004. L to R: Lynn Manheim, Linh Darnell, Jen Forbes, Phil Stearns, MaryLou Scott, and Rocky Sanchez.



Our 2002 Visiting Professor Charles Price with Dr. Sutherland and our fellows. L to R: Arji Mahadev, Adam Barmada, Charles Price, David Sutherland, Tim Oswald, and David Brown.



A young UCSD resident, Dr. Upasani, with 2007 fellow Todd Ritzman during Friday morning journal club.



Dr. Mubarak making everyone laugh while rhapsodizing about Tamir Bloom during the 2007 fellowship graduation ceremony.



The fellowship class of 2005 with staff surgeons, including the new staff member, Dr. Maya Pring who was in the fellowship class of 2003 and joined on as a staff member following graduation. L to R: Dr. Newton, Jung Ryul Kim, Dr. Wallace, Dr. Mubarak, Dr. Wenger, Mark Adamczyk, Shyam Kishan, Rod Capelo, Dr. Chambers, Scott Van Valin, and Dr. Pring.

From the Archives



The fellowship class of 2008 with Karen Noble. L to R: Daniel Figueiredo, John Schlechter, Vineeta Swaroop, Karen Noble, Eric Edmonds, and Patrick Henderson.



The fellowship class of 2009. L to R: Abby Lynn (now Abby Allen), Megan Imrie, Alison Rozansky. Horizontal: Humberto Guzman.



Craig Louer (class of 2018) being recognized by Dr. Chambers as the 2018 Lena Sefton Clark award winner.



Dr. Krishna and Dr. Emily Cidambi welcomed a new Cidambi into the world this year!



Matt Schmitz (class of 2012) pondering the fraternity he has entered into as Dr. Chambers congratulates him on the successful completion of his fellowship.



Dr. Wenger educating students. Patrick Henderson (center, fellowship class of 2008) and Jon Peterson. Dr. Peterson would go on to be a clinical fellow in 2014.

From the Archives



The fellowship class of 2017. Dan Bland, Katie Rickert, Ryan Fitzgerald, and Jaysson Brooks.



Fellowship class of 2015. Imraan Ahmed, Josh Murphy, Andrew Pytiak, and Matt Stepanovich.



Drs. Newton, Wenger, and Mubarak with international fellow from the class of 2003, Dr. Muharrem Inan (Istanbul University) at the 2007 POSNA meeting in Florida.



The fellowship class of 2019 wanted a “boy band album cover” style photo to commemorate their fellowship year. #graduated L to R: Ernie Young, Peter Hahn, Jonathan Koenig, and Ronald Roiz.



Advanced practice providers Chrissy Paik, Katie Fields, and Sunny Park enjoying a moment of levity between clinics.

Connections 2020

**BEST
CHILDREN'S
HOSPITALS**

U.S. News & WORLD REPORT

ORTHOPEDICS
2020-21

We are happy to announce that we have made the top 10 pediatric orthopedic departments again!



**Rady
Children's**
Hospital
San Diego

The image features a large, multi-story glass building of the Rady Children's Hospital San Diego. The building is illuminated, and the name 'Rady Children's' is visible on the top and sides. The text 'Rady Children's Hospital San Diego' is overlaid on the image in a large, blue, serif font. The text is partially obscured by several teal-colored geometric shapes (squares and triangles) that are arranged in a circular pattern around the right side of the text.

Thank you for another successful year!