



UC San Diego
SCHOOL OF MEDICINE



Connections

A Newsletter from the Rady Children's Orthopedic and Scoliosis Program

2025

Issue 21



Message from the Chief

Dear Friends and Colleagues,

Welcome the Rady Children's Health/UCSD orthopedic Connections Newsletter for 2025. As always, the year in review is filled with details and fun photos I am sure you will enjoy. The team continues to grow and excel with spectacular contributions from each of physicians, advanced practice providers, researchers, and staff. In addition to the growth of the practice, another big change this year is that the parent companies of Rady Children's Hospital and Children's Hospital of Orange County have merged creating a new healthcare system called, *Rady Children's Health*.

Our focus remains in providing the absolute best orthopedic care for patients, passing the knowledge and experience to future stars, and leading in the pursuit of new knowledge. As our team of surgeons continues to grow with the recent addition of Matt Schmitz, MD (Sports, Hip preservation), Rachel Thompson, MD (CP, Gait, Muscle research), Madeleine Jackson, MD (Foot, Lower extremity, Trauma), and Mike Kwon, MD (Hand/Upper extremity), we also celebrated the incredible career of Hank Chambers, MD who retired this year. Thank you Hank for your decades of service in Sports and CP care and what you have done to build those sub-specialties within our program! We are all immensely grateful.

We are graduating a wonderful class of fellows and welcoming in an equally impressive new group. The training program led by Dr. Upasani remains a jewel of our program and a we highly value the opportunity to train the future generations/leaders of our specialty. We graduated our first Non-operative fellow this year; congratulations Brandon Barsky, MD. Dr. Schmitz has taken on the residency training with a similar commitment to the residents' (UCSD, Balboa Naval, San Antonio Army/Air Force) educational experience.

A special congratulations to Dr. Eric Edmonds, MD as he finished his presidency of PRiSM and is now the President-Elect for POSNA. We appreciate Dr. Edmonds' leadership both at home and abroad.

Our research team led by Dr. Edmonds, Tracey Bryan, and Christy Farnsworth continue to succeed. Congratulations to Dr. Upasani, MD who was honored with the Angela Kuo Memorial Award at POSNA this year. We are always searching for "orthopedic truths" and this year was particularly productive with the accepted manuscripts listed at the end of the newsletter. The team's presentations featured at the 51st Annual David Sutherland visiting professorship with Min Kocher, MD from Boston Children's Hospital serving as our honored professor.

From our Rady/UCSD orthopedic family to you and yours, wishing you all the best in the coming year. Enjoy the newsletter, find joy in the smiles and inspirations from the stories – especially the notes from former fellow Nirav Pandya, MD (UCSF), and always keep the connections strong.

Most sincerely,

Peter Newton, MD
Chief of Orthopedic Surgery
Surgeon-in-Chief

Message from the Clinical Fellowship Program Director



Dear Friends and Rady Orthopedic Family,

The 2024-2025 academic year has been another exciting chapter for our Pediatric Orthopedics and Scoliosis Fellowship at Rady Children's Hospital-San Diego. As we welcomed our 41st fellowship class, we also celebrated numerous milestones that highlight the continued growth and excellence of our clinical, educational, and research programs.

This year, we were proud to graduate an outstanding group of fellows: Dr. Stephanie Kha (Stanford), who will continue advanced training in Pediatric Limb Lengthening and Reconstruction at Sinai Hospital of Baltimore; Dr. Amy Steele (Harvard), heading to Stanford for a Sports Medicine fellowship; Dr. Ena Nielsen (University of Washington), joining the team at Seattle Children's Hospital; Dr. Alex Boulos (Brown University), joining Joe DiMaggio Children's Hospital; and Dr. Brandon Barsky, our inaugural non-operative pediatric orthopedic fellow, who will join Nicklaus Children's Hospital in Florida as their first non-operative orthopedic staff physician. Each of these talented individuals made significant contributions both in the clinic and in research, and we look forward to watching their careers flourish.

The incoming fellowship class for 2025-2026 is equally impressive, with trainees joining us from top programs including SUNY Downstate, Medical University of South Carolina, University of Oklahoma, and University of Virginia. We also welcomed our incoming ROAR Scholars, Lexy Ellingwood and Daniel Woo, who will be contributing to several exciting research initiatives across hip, spine, and sports medicine.

Our fellowship curriculum continues to evolve. We expanded our independent clinic opportunities, reinforced ultrasound training (including the annual infant hip ultrasound course), and grew research engage-

ment through the ROAR program. This year's fellows undertook a range of projects, from 3D modeling of growth cartilage, to studies on opioid prescribing patterns, vitamin D deficiencies in fracture care, and disparities in DDH diagnosis.

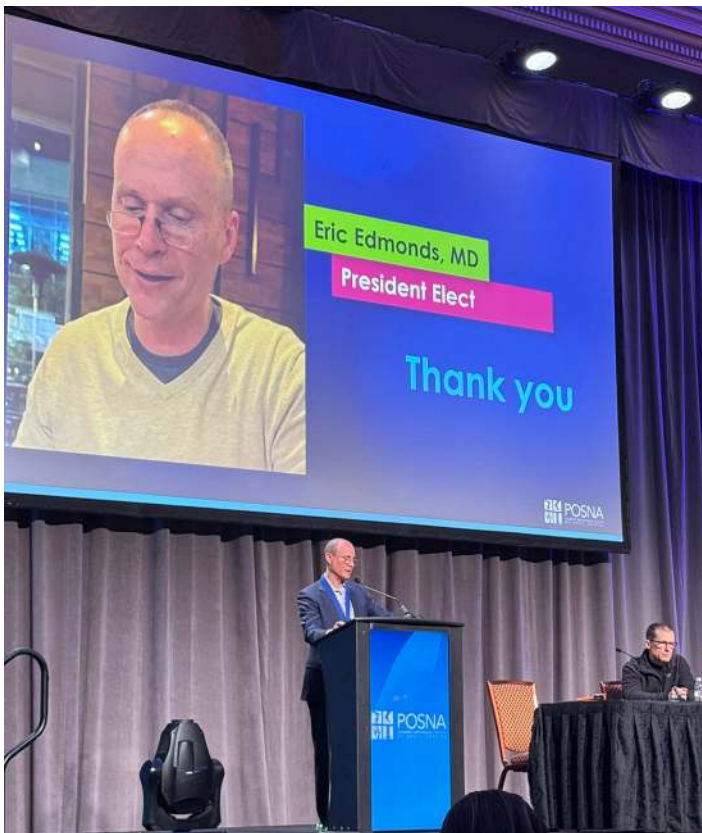
We were honored to host the 51st Annual David H. Sutherland Visiting Professorship, featuring Dr. Mininder Kocher from Boston Children's Hospital. Our alumni presence continues to strengthen at these events, and I encourage former fellows to join us for future VP programs and milestone reunions.

In parallel with our educational efforts, our division has grown significantly in clinical and academic capacity. The addition of new faculty in foot and ankle, hip preservation, cerebral palsy, trauma, and hand surgery reflects our commitment to being a true comprehensive center for pediatric musculoskeletal care. Each subspecialty service has become a leader in clinical care and research, solidifying Rady Children's Hospital as a national destination for complex pediatric orthopedic conditions.

I want to extend my gratitude to our fellowship team—including our attending faculty, research coordinators, administrative staff, and advanced practice providers—whose tireless mentorship and dedication sustain our mission to train the next generation of leaders in pediatric orthopedics.

Best,

V. Salil Upasani, MD
Clinical Fellowship Program Director



We are excited to announce that Dr. Edmonds is the President Elect of POSNA. He is also the outgoing PRISM president.



Dr. Edmonds was awarded Preceptor of the Year for the University of New England PA school. He was virtually awarded via Zoom by Diana and Maddie, two of the students that rotated with us.



The 4th Annual Scott Mubarak Surgical Grand Rounds

Each year, near the end of the fellowship year, a special grand rounds is held in which surgical fellows from various departments are offered the opportunity to present their research. Orthopedics is always well represented at this event with all five of our fellows presenting. The 2025 Best Paper award went to our own Amy Steele for her paper on the opioid use following knee and shoulder surgery. Dr. Alex Boulos took home 3rd place for his study on vitamin D levels in pediatric femur and tibia fractures.





Stephanie Kha (current fellow), Dr. Edmonds, Min Kocher (2025 Visiting Professor), Amy Steele (current fellow), Dr. Edmonds, Dr. Pennock, and Dr. Schmitz enjoying hiking at the beach.



This year's fellowship class enjoying themselves at IPOS. Top row: Amy Steele, Alex Boulous, and Brandon Barsky. Bottom row: Ena Nielsen, Stephanie Kha.



We are proud of Dr. Pring for her well deserved Patient Experience Spotlight Award!



New staff alert! JD McCrossin RCHSD nurse, Madeleine Jackson, MD, Michael Kwon, MD, and Pat Curran, MD caught enjoying a Padres Game.

2024-2025 Fellows – Rady Children’s Hospital



Brandon Barsky, MD

Dr. Barsky graduated from medical school at Florida Atlantic University in Boca Raton and completed residency at Nationwide Children’s Hospital in Columbus Ohio. Following graduation he will be returning to Florida as a non-operative pediatric orthopedic staff member at the Davie office of Nicklaus Children’s Hospital where he will be joining former fellow Avi Baitner (class of 2006). Dr. Barsky’s research this year focused on empiric antibiotic choice for acute hematogenous osteomyelitis.



Alex Boulos, MD

Dr. Boulos graduated from medical school and completed his residency at Brown University in Providence. Upon graduation, Dr. Boulos will join Eric Eisner (class of 2011) and Neal McNerney (class of 1998) at Joe DiMaggio Children’s Hospital in Fort Lauderdale. Dr. Boulos’ research this year focused on vitamin D levels in children with and without lower extremity fractures.



2024-2025 Fellows – Rady Children's Hospital

Stephanie Kha, MD

Dr. Kha graduated from medical school at Case Western Reserve University in Cleveland and completed residency at Stanford. Following graduation she will begin her second fellowship in Pediatric Limb Lengthening and Reconstruction at the Rubin Institute for Advanced Orthopedics at Sinai Hospital of Baltimore. Dr. Kha's research this year focused on establishing reference values for pediatric coronal and sagittal lower extremity alignment and on utilizing 3D computer modeling to quantify volumetric injury to the proximal tibial physis during tibial rigid IM nailing.



Ena Nielsen, MD

Dr. Nielsen completed medical school at the University of Southern California and residency at the University of Washington in Seattle. Next year she will be joining former staff physician Burt Yaszay and former fellow Mike Tretiakov (class of 2022) at Seattle Children's Hospital. Dr. Nielsen participated in a range of research topics while with us this year including studying the orthopedic injuries associated with eBike accidents, the impact that socioeconomic factors have on the diagnosis and treatment of DDH, and the outcomes of acetabuloplasties in skeletally mature patients with cerebral palsy.



Amy Steele, MD

Dr. Steele graduated from medical school at UC Davis and completed her residency at Harvard. Next year Dr. Steele will be completing a second fellowship in Sports Medicine at Stanford. Her research with us involved evaluating opioid use following common arthroscopic procedures, the timing of intervention for femoral shaft fractures, outcomes of distal femoral hemiepiphysiodesis techniques, and she has written a primer on splints and casts for JPOS-NA.



2025-2026 Incoming Fellows

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 arrive August 1, 2025 to begin their academic year. They are outstanding young orthopedic surgeons from throughout North America and we look forward to working with them.

Richard Campbell, MD

Undergraduate:
University of Miami
BS Neuroscience
Medical school:
University of Pennsylvania,
Perelman School of Medicine
Residency:
University of Virginia Medical
Center



Steven Burekhovich, MD

Undergraduate:
Brooklyn College
BA Art History, BS Biology
Medical school:
SUNY Downstate, Brooklyn
Residency:
SUNY Downstate, Brooklyn



Jonathan Pire, MD

Undergraduate:
College of Charleston
BA Business
Medical school:
Medical University of
South Carolina
Residency:
Medical University of
South Carolina



Katherine Wood, MD

Undergraduate:
The University of Notre Dame
BS Science-Business
Medical school:
University of Texas Health
Science Center at San Antonio
Residency:
University of Oklahoma Health
Sciences Center



Future Fellows – 2025 Match (for 2026-2027 Academic Year)

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

Richard Lee, MD

Walter Reed National Military Medical Center

Kelly McFarlane, MD

Stanford University

Brandon Marshall, MD

University of Iowa Hospitals and Clinics

Zachary Visco, MD

University of North Carolina

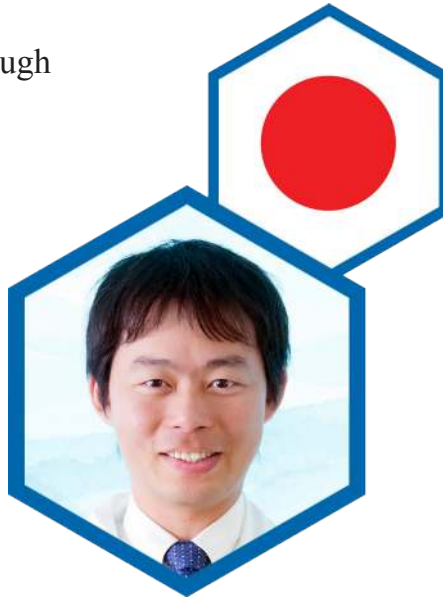
International Fellow

Keisuke Masuda, MD, PhD

Japan

October 2024 through

June 2025



Dr. Masuda presenting his work at our annual Visiting Professor conference.

Rady Orthopedic Academic Research Scholarship

Ashley “Lexy” Ellingwood, BS

2025-26 Rady Children’s Hospital, San Diego

ROAR Scholar

Lexy Ellingwood is a fourth-year medical student at the Medical College of Georgia at Augusta University and has been awarded the 2025-2026 ROAR Scholarship. She completed her undergraduate studies in Industrial Engineering at Georgia Tech. Her interest in orthopedics began during her gap years before medical school working as a perioperative tech and medical assistant at Peachtree Orthopedics in Atlanta. Throughout medical school, Lexy has pursued research, including work in a Cellular Biology and Anatomy lab studying osteoporosis. She is excited to continue growing as a clinician and researcher at Rady Children’s Hospital, particularly as she hopes to pursue a career in pediatric orthopedics. Lexy is grateful to Dr. Upasani, Dr. Edmonds, and Dr. Newton for their support and mentorship.



Sang “Daniel” Woo, BS

2025-26 Rady Children’s Hospital, San Diego

ROAR Scholar

Daniel Woo is a third-year medical student at the University of California, Riverside, and a proud recipient of the prestigious 2025–2026 ROAR Scholarship. His passion for orthopedic surgery is deeply rooted in the community that raised him. Growing up in a medically underserved region, he witnessed firsthand how orthopedic injuries were often left untreated due to barriers in accessing healthcare. These experiences inspired his commitment to becoming an orthopedic surgeon dedicated to advancing equitable care for underserved populations. He is grateful to Dr. Upasani, Dr. Edmonds, and Dr. Newton in addition to the esteemed orthopedic faculty at Rady Children’s Hospital for this opportunity and is eager to learn from this invaluable opportunity to grow as a future pediatric orthopedic surgeon.





Notes from a Former Fellow

Nirav Pandya, MD

*Professor of Orthopedic Surgery; Chief, Pediatric Orthopedic Surgery;
Vice Chair, Pediatric Orthopedic Clinical Operations; Director of
Pediatric Sports Medicine – UCSF
(Fellow – 2010-2011)*

My fellowship year at Rady from 2010 - 2011 was integral to who I have become as a physician. Reflecting on my 12 months in San Diego nearly 15 years ago (time flies!) has really brought to the forefront the amazing educational experience I received under the guidance of the pediatric orthopedic faculty. It seems like yesterday that I was sitting in morning conference answering questions from Dr. Wenger and Dr. Mubarak about surgical indications.

I was born and raised in Chicago and grew up playing multiple sports including basketball and track. At a very young age, I remember being drawn to career in medicine due to seeing my father's work as a family physician and my fascination with the medical staffs who take care of my beloved Chicago Bulls and Chicago Bears. I elected to stay locally for college at the University of Chicago where I majored in Biology and South Asian Studies while competing for the track team for 4 years as a long and triple jumper. I then continued my medical school at the University of Chicago, and it was here that my desire to pursue a career in orthopedic surgery was solidified under the mentorship of Dr. Terrance Peabody.

I then left Chicago after 26 years and went on to the University of Pennsylvania for orthopedic surgery residency. It was during my PGY2 rotation at the CHOP that I had the opportunity to work with Dr. Ted Ganley and Dr. Lawrence Wells, and it was here that my love for pediatric orthopedics and sports medicine was fostered. Having the ability to combine my passion for arthroscopic surgery with a younger, active patient population was how I wanted to spend the rest of my career. Although I enjoyed adult orthopedic surgery as well, the ability to take care of the diversity of pediatric orthopedic conditions was too hard to ignore. Rady Children's was my first choice for fellowship due to its rich history, robust clinical training, operative independence, and re-

search productivity. The educational experience was unparalleled during the year in every setting: conferences, research meetings, clinic, elective cases, and trauma call.

Beyond the "nuts and bolts" of the training, the family of the fellowship is truly what resonated with me the most to this day. Approximately a month after fellowship started, my father suddenly suffered a cardiac arrest and died while out a run. It was a completely unexpected occurrence as he was a healthy, long-distance runner. Not only was I faced with navigating the start of fellowship, but also, I was now having to support my widowed mother in Chicago. Five weeks later, my first child was born as well; an extremely joyous event but at the same time stressful with the death of my father. I leaned heavily on the Rady faculty / staff as well as my co-fellows: Hilton, Ryan, and Eric to get through this stressful time. All of Rady's former fellows fondly recollect the amazing educational experience of their training year, but it was the personal support of everyone at the hospital that did, and will always, resonate with me the most.



A young family in San Diego



Fellowship graduation day 2011.

After my year in San Diego, our family of 3 headed to the Bay Area where I began work at what was formerly known as the Children's Hospital of Oakland (now part of the UCSF Benioff Children's Hospital system). After navigating an academic affiliation of the hospital that shifted between Stanford and UCSF; I formally became faculty at UCSF in 2012. Although I began my career trying to do my best impression of my closest mentor from fellowship, Dr. Hank Chambers (tackling neuromuscular cases on the same day as arthroscopic ACL reconstructions), my pediatric and adolescent sports medicine practice began to grow exponentially.



UCSF pediatric orthopedic group

I became the director of our pediatric sports medicine program within a year and steadily grew our practice across Northern California. In 2019, I became the chief of pediatric orthopedic surgery at UCSF, and in 2021 became one of the vice-chairs in our orthopedic department. I also take part in the teaching of our UCSF orthopedic residents, adult sports medicine fellows, and pediatric orthopedic surgery fellows while administratively running our practice which spans across 8 clinical sites with 2 free-standing children's hospitals in Oakland and San Francisco. My clinical practice centers around sports injuries in young athletes, particularly ligament reconstruction and cartilage preservation.

I still find time to partake in clinical research; much of which was rooted in the principles that I learned during my year in San Diego. I have an academic focus on the outcomes of various reconstructive procedures in the skeletally immature athlete, the impact of sports specialization, and the role of health care disparities in the inequities seen in the delivery of sports medicine care in the young athlete. I have been blessed to be able to present and teach at multiple national and international meetings. I still always prepare myself with the question of, "What would Dr. Wenger ask me if he were at microphone right now?"

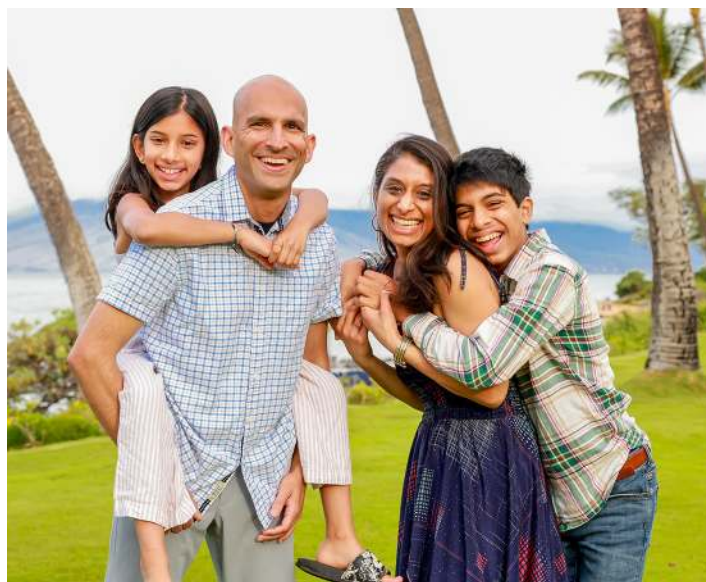
I also have fallen into the rather unexpected role of doing TV and radio work in the Bay Area providing analysis of professional sports injuries. As an avid sports fan and one of the early utilizers of various social media platforms, this has been an exciting

avenue for me to interact with our local community and disseminate orthopedic sports medicine knowledge to the broader public. At the end of the day, my family is what keeps me grounded. My wife, Neha, is a children's human rights attorney who helps to lead at a nationally recognized organization, doing much more interesting and impactful work than me. I now have two children, my 14-year-old son Sajjan and my 11-year-old daughter Sejal who keep me busy with their myriads of sports, theatre, and dance activities. My weekends are filled with coaching soccer, track, and basketball and trying to keep up with their energy level. Our life feels like a constant whirlwind, but we somehow manage to keep it all together.

Success is a hard term to define but I do feel that my time at Rady Children's has allowed me to forge a career in which I can impact the lives of others through medicine. The mentors that I had in San Diego have been integral to who I have not only become as a physician but also as person. These experiences will stay with me throughout my career.



Providing sports injury analysis on TV during the Warriors title run



Our family has grown. Sejal, Nirav, Neha, and Sajjan.



POSNA 2025 & Ortho Reunion

POSNA 2025 was held in Las Vegas, Nevada this year. We presented 3 podium presentations this year as well as 2 ePosters. Dr. Thompson's paper on a CP model in mice was nominated for an award. Please enjoy these photos from our annual Fellowship reunion.



Salil Upasani was awarded the Angela S.M. Kuo Memorial Research Grant award this year for a study on magnetic spinal growth modulation in a porcine model – congratulations Dr. Upasani!



Andy Pennock at the podium presenting his work on pediatric diaphyseal tibia fractures.

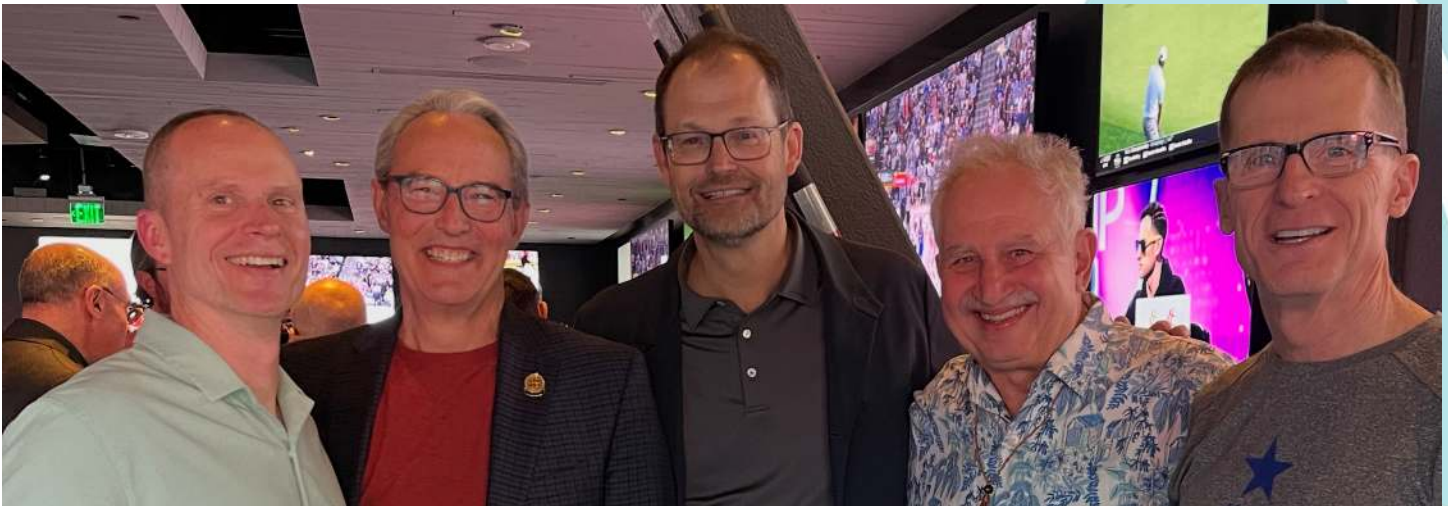


Officemates Matt Schmitz (class of 2012) and Rachel Thompson. Both are new staff physicians with RCHSD ortho.



Brendon Mitchell (Former UCSD resident) and Pat Curran (class of 2021)

2025 POSNA & Ortho Reunion



POSNA Presidents – past and future. Dr. Edmonds (2027 president, fellow class 2008), Dr. Newton (2013 president), Steven Frick (2019 president, fellow class of 1998), Dr. Mubarak (2005 president), Kevin Shea (2026 president, fellow class 1998).



Our new staff surgeon Rachel Thompson presenting her award nominated paper on the validation of CP mouse model.



Arji Mahadev (class of 2002) and Hank Chambers (class of 1990). Dr. Chambers is retiring this year – Congratulations!



Jessica Burns (class of 2020), Chrissy Paik (RCHSD PA-C), Scott Mubarak (Legend)

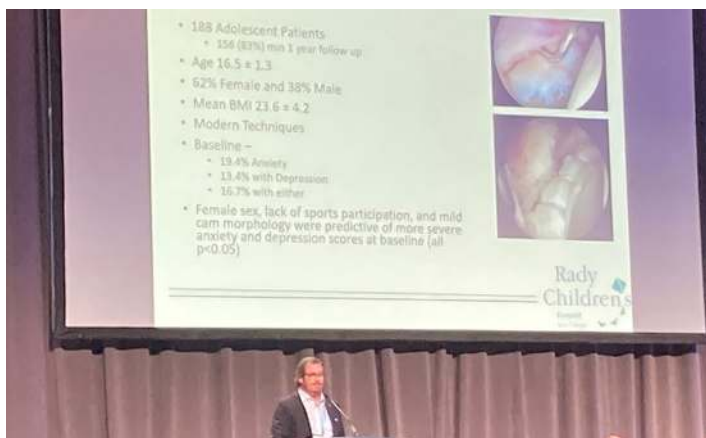


Jake Schulz (class of 2012) and Tamir Bloom (class of 2007).

2025 POSNA & Ortho Reunion



Justin Anderson (RCHSD PA-C), Josh Tadlock (class of 2023), Mark Katsma (class of 2023), and Amy Steele (current fellow).



Matt Schmitz (class of 2012) presenting his ANCHOR study group paper about the role of mental health on FAI outcomes.



Wally Yassir (class of 2001), Matt Schmitz (class of 2012) and Eric Fornari (class of 2012).



Shyam Kishan (class of 2005) and Geordy Gantsoudes (class of 2010).



Jaysson Brooks (class of 2017) at the mic during a POSNA session.

2025 POSNA & Ortho Reunion



Tracey Bryan (RCHSD Ortho Research Program Manager) and Michelle Marks (Setting Scoliosis Straight).



Suken Shah (Nemours), Peter Newton, Stephanie Kha (current fellow).



Scott Mubarak, Brock Kitchen (class of 2021), and Firoz Miyanji (class of 2006)



Casey Abare (RCHSD CPNP), Scott Mubarak, Jonathan Koenig (class of 2019), and Chrissy Paik (RCHSD PA-C).

2025 POSNA & Ortho Reunion



Bob Cho, Ray Liu, Rob Lark, and Geordy Gantsouders (all class of 2010).



It's all fun and games until POSNA posts a photo of you being dominated at arm wrestling.



Firoz Miyanji (class of 2006), Josh Tadlock (class of 2023), and Craig Louer (class of 2018).

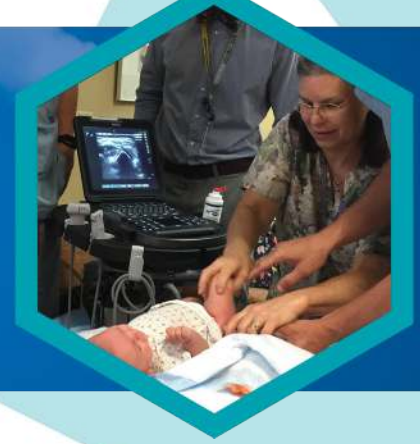


JD Bomar (RCHSD Research Coordinator), Arji Mahadev (class of 2002), and RJ Grewal (2024-2025 ROAR Fellow).



Hilton Gottschalk (class of 2011) at the podium.

Hands On Infant *Ultrasound Course*



In continuing with the tradition that Dr. Mubarak started decades ago, Dr. Salil Upasani holds an annual infant hip ultrasound course. Typically held near the start of each fellowship year, Dr. Upasani invites a family with a newborn child to come in so that

our fellows and residents can have hands on training 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.





51st Annual *David H. Sutherland* Visiting Professorship

Mininder Kocher, MD MPH

Rady Children's Hospital, San Diego – April 11, 2025

Dr. Mininder Kocher is the Chief of the Division of Sports Medicine at Boston Children's Hospital, Eagan Family Endowed Chair and Professor of Orthopaedic Surgery at Harvard Medical School. He is an internationally renowned expert in pediatric orthopedics and sports medicine.

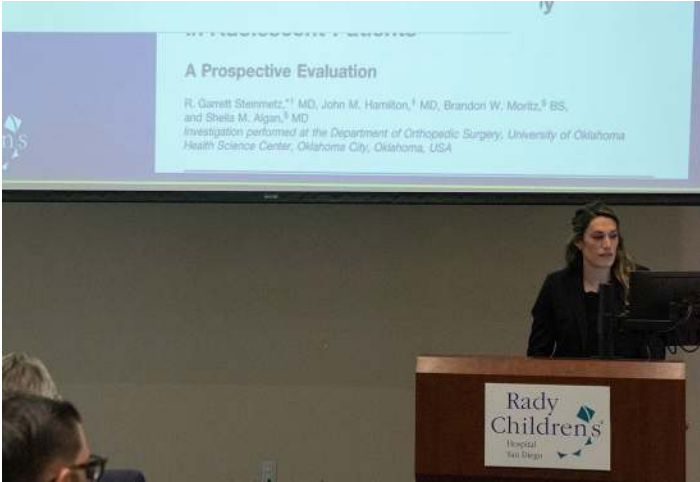
Dr. Kocher completed medical school at Duke University, followed by an Orthopedic Surgery Residency and Pediatric Orthopedics Fellowship at Harvard. He then went to the Steadman Hawkins Clinic in Vail, Colorado, for a Sports Medicine and Arthroscopic Surgery Fellowship. Additionally, he completed a Master's in Public Health and Business Administration at Harvard. His

clinical practice focuses on sports medicine and arthroscopic surgery of the knee, shoulder, hip, elbow, and ankle.

Dr. Kocher's research focuses on the clinical epidemiology of sports medicine and biostatistics and has been published in numerous scientific articles, book chapters, and textbooks. Dr. Kocher has been featured in the *New York Times*, *Scientific American*, *San Francisco Chronicle*, *Boston Globe*, *Wall Street Journal*, *Chicago Herald*, *ABC World News*, and *Sports Illustrated*. He has served in leadership positions with societal organizations, including President of POSNA, Founding member and President of PRISM, Treasure of AAOS and Board of Directors of AOSSM.



51st Annual David H. Sutherland Visiting Professorship





Research Team *Year in Review*

Written by Tracey Bryan, MA

Greetings to all, I hope that 2025 is off to a wonderful start for everyone. Our research team continues to be busy and has done an amazing job in helping our newest attendings integrate their research here at Rady.

Dr. Matthew Schmitz has assumed the role of Director for the Rady International Center for Pediatric and Adolescent Hip Disorders, which includes oversight of the Center's research efforts. The team is working on helping him launch an adolescent and young adult hip registry as part of the ANCHOR study group. Dr. Chris Souder has been active in continuing research on intramedullary nailing in tibia fractures in collaboration with the CORTICES group. Dr. Rachel Thompson was an active site PI in the IMPACCT study group while at UCLA. Our team is currently working with her and the lead site (Lurie Children's Hospital of Chicago) on launching Rady as a site to continue those efforts here. Dr. Michael Kelly and the spine research team recently completed enrolling for a pilot study examining immunophenotyping in patients undergoing surgical correction of neuromuscular scoliosis. This project was done in collaboration with the Center for Human Immunology and Immunotherapy Program at Washington University, St. Louis and was funded by a grant from the San Diego Spine Foundation as well as the CSSD Physician Development Fund. We've most recently welcomed Dr. Michael Kwon to the department and are looking forward to working with him on research endeavors.

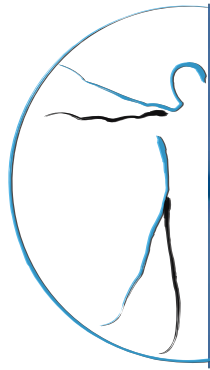
Our fellows and our ROAR student, RJ Grewal, are presently finalizing their research projects to be presented at our April Visiting Professor Day. Their projects involve studying disparities in hip dysplasia, changes in opiate prescribing patterns for post-operative sports patients, vitamin D levels in fracture patients, antibiotic choice for osteomyelitis, 3D volume analysis of the tibial physis after nailing, and acetabular morphology in normal hips. We are excited for the upcoming VP day and the opportunity to hear all of their presentations.

Our clinical research team consists of 7 full-time employees at present – Carrie Bartley, JD Bomar, Tracey Bryan, Sarah Brunel, Macy Dexter, Miranda Guzman, Emma Wadsworth. Sara Acevedo continues to support our division in an administrative capacity and we work very closely with Christy Farnsworth as the translational research manager.

As you can see from the bibliography at the end of this newsletter, our department continues to be successful and productive in regard to publication of our studies in peer-reviewed journals. This success has made us very popular with both local and national medical students interested in pursuing an orthopedic residency. We hope our impact on these young trainees inspires many to pursue careers in pediatric orthopedics.



Carrie Bartley, Miranda Guzman, Macy Dexter, Sarah Brunel, Sara Acevedo, Christy Farnsworth, JD Bomar, and Tracey Bryan.



Orthopedic Biomechanics & Translational Research Center

Year in Review



Written by Christy Farnsworth, MS

Throughout 2024-2025, the OBTRC continued its mission to provide tools and resources for orthopedic research, clinical care and the training of future orthopedic surgeons, physicians, scientists and engineers.

The 3D Innovations Orthopedic Engineer, Byron Beasley, has brought his remarkable skill set and has worked hard to provide more robust code for our legacy Matlab scripts for the 3D Spine Alignment Measurement Software (SAMS) and the Acetabular Coverage Evaluation Software (ACES) processes. In the last 9 months, there have been 25 ACES evaluations, 28 3D printed models and 27 3D models constructed for clinical care and decision making. More than 170 models, reconstructions and ACES were completed for research studies! Research projects underway in the 3D space include: modeling to determine MPFL insertion locations at a spectrum of ages, motion capture from non-ambulatory videos of children and babies with developmental challenges, quantifying in 3D the tibial physis involved with placement of nail fixation for fractures, and 3D analysis of growth modulation to treat torsional deformity (in pediatric patients) or create torsional deformity (in an animal model).

Presentations (posters or podium) were made at the International Congress on Early Onset Scoliosis, the International Meeting on Advanced Spinal Techniques and the Orthopaedic Research Society (ORS). POSNA was selected as the guest clinical society for the ORS annual meeting in Phoenix, AZ. POSNA leadership organized a symposium where the *POSNA 2025 Consensus-Based Clinical Research Agenda* of sixteen questions was presented to the ORS members and attendees with the aim of inspiring engineers and scientists to bring the “cool tools” to address pediatric specific orthopaedic disease and conditions. It was particularly inspiring for me to see the collaborations initiated during discussion groups which will pave the road for pairing better clinical questions with better basic science.

Our fellow rite-of-passage, the annual thoracoscopic spine tutorial and lab, was held in November 2024. Drs. Newton, Upasani, Kelly and Miyanji (fellow class 2006) instructed the four pediatric orthopedic surgical fellows and some additional national and international attendees in the thoracoscopic spinal approach, anterior discectomies, and tether instrumentation. Thank, Miranda and RJ for providing assistance!



Dr. Kha (current fellow), RJ Grewal (ROAR scholar), Dr. Nielsen (current fellow), and Dr. Upasani at the annual spine tutorial.

Our collaborations continue with the Boise Applied Biomechanics of Infants (BABI) Lab (Mechanical & Biomedical Engineering, Boise State University). The OBTRC and RCHSD Motion Analysis Lab teamed with the BABI lab this spring to perform gait analyses of normal pigs. We plan to move forward with gait studies using our pig model of DDH.

Our UCSD Connections continue with the Department of Bioengineering, Cartilage Tissue Engineering Lab, Robert Sah MD ScD evaluating multi-level (macro-, meso- and micro-scale) imaging of growth cartilage and articular cartilage development. We have access to state of the art imaging (3 and 7T !) and image processing at UCSD with the partnership of David Berry PhD. We also get to work with UCSD Orthopaedic Surgery investigators, the Wu Tsai Human Performance initiative, and the Rady Children's Institute of Genomics Medicine on several research studies that involve tissue accession protocols.

The OBTRC biomechanics lab is moving! The Pathology Department has generously and patiently shared space with the “bone crusher” (MTS testing machine) for the last 10 years. The new location, formerly an underwater welding training facility, is about one mile from the main hospital campus at the Rady Children's Aero Court location. We hope the lab will be back open for business by the summer. Thanks for reading our year in review!



Hip Team *Year in Review*

Written by Matthew Schmitz, MD

It was another banner year for the International Center for Pediatric and Adolescent Hip Disorders (ICPAHD) at Rady Children's Hospital San Diego. We continue to be a leading referral center for simple and complex hip conditions. We treat infants to young adults with a comprehensive team of surgeons, non-operative physicians, advanced practice providers, nurses, athletic trainers, and physical therapists helping our patients obtain the best possible outcomes for their hip conditions. We continue to grow and expand the team, increasing the volume and conditions treated for hip pathology from infancy to adulthood.

We are honored to welcome some new team members to the hip crew this year, with last year's graduating fellow Dr. Madeleine Jackson coming on board to add her expertise while also serving as our representative to the International Perthes Study Group. I am confident that Dr. Jackson will help our team grow from both a research perspective but also excellence in clinical care for the young hip patients in Southern California. I am also excited to announce that Dr. Rachel Thompson has joined our team. She adds an additional complex open hip surgery skill set and is well versed in periacetabular osteotomies and osteotomies of the proximal femur. After nearly a decade of practice in Los Angeles, Dr. Thompson's research and surgical skills are unmatched in the region. In addition, two new voices in our morning conferences are helping

teach the residents and fellows about a breadth of hip pathology and treatment options.

The team has continued to be prolific with research and education on a national and international scale. Drs. Schmitz, Thompson, and Upasani have lectured around the globe on cutting edge surgical treatments of hip pathology, incorporating both open and arthroscopic approaches. We have some fantastic research that is being guided by our hip research team (led always by the ever-present JD Bomar) and the help of our medical students, residents, and research fellow. This year's ROAR fellow, RJ Grewal has been sprinting through the year with multiple projects and will truly have great things to show from his year of research and mentorship.

Our orthopaedic fellows complete their year seeing a variety of surgical hip techniques including both open and arthroscopic surgeries (often combined) that are only done at a handful of medical centers around the globe. This gives them the educational base to take those techniques out to their future jobs across the country as we continue to expand our academic reach. I have no doubt that we will continue to expand the Hip Team with a goal of increasing our reach as a tertiary referral center from across the country and a destination for patients with hip preservation needs.



One of this year's fellows, Dr. Amy Steele, got the opportunity to write primer on hip spica casting while with us.



Dr. Schmitz presenting his work on the relationship between mental health and FAI surgical outcomes at POSNA in Las Vegas.

Scoliosis & Spine Deformity Center *Year in Review*



Written by Michael Kelly, MD

The Spine Service has been busy with cases, guests, and travel. We remain active in the Scoliosis Research Society, the Pediatric Orthopaedic Society of North America, the Harms Study Group, the International Spine Study Group, and the AO Spinal Deformity Knowledge Forum. Our participation in these groups includes both instructional lectures and the opportunity to present our research, with current interests in spinal alignment, biomarker development, and growth modulating, non-fusion techniques. Our group served as authors on both (clinical and translational research) award winning papers at the Scoliosis Research Society Annual Meeting in Barcelona. In addition, Dr. Upasani was the distinguished guest speaker at the Asian Pacific Pediatric Orthopedic Society Meeting in Singapore while Dr. Kelly was invited to the 18th Annual Spine Symposium at the Texas Scottish Rite Hospital for Children in Dallas, where Dr. Newton has previously been the honored guest. Each of the three spine surgeons participated in the SRS L.E.A.D. program this year, either as mentors or mentees.

Our research program remains one of the most productive pediatric spine programs, with over 40 peer-reviewed publications in 2024-2025 in journals including The Journal of Bone and Joint Surgery and JAMA-Surgery. Our work on spinal alignment in adolescent idiopathic scoliosis has expanded to include prior fellow

Stefan Parent from Montreal and colleagues in France. Keisuke Masuda, visiting from Nara, Japan, is reporting on the use of the San Diego “bending cast” for the treatment of early onset scoliosis. We welcomed Dr. Timothy Laswell from Calgary for a week, who impressed us when he detailed the robot he has built to perform automated ultrasound examinations. Our collaborations with Drs. Vijay Ravindra and Lauren Stone, from the Department of Neurological Surgery, have explored self-image in scoliosis, patient-reported outcome instruments in myelomeningocele, and occipito-cervical dissociations. We are fortunate to work in the operating room with them, as well, performing spinal column shortening surgeries for failed tether cord releases.

None (!) of our fellows this year will pursue spine surgery in their practices, but their participation in the Tuesday evening conferences is unflappable. We have several residents applying to or preparing for fellowships in spine surgery, with an interest in pediatric spinal deformity. Irrespective of their final destination, we hope to impart some of the Rady “culture” into them, sparking an interest in investigation and leadership. As our paths cross over the next year, please grab us and say “hello” as we love to hear of your successes.



Former fellow Keith Bachmann (class of 2016), research team members Carrie Bartley, Sarah Brunel, and Miranda Guzman, Kash Upasani, Salil Upasani, Tracey Bryan, Carrie Bower (neurophysiologist), and Melanie Venne (neurophysiologist) enjoying themselves at the Setting Scoliosis Straight annual Gala.



360 Sports Medicine Year in Review

Written by Eric Edmonds, MD

The 360 Sports Medicine program has finally turned 13 years old! For those who have triskaidekaphilia, and have always enjoyed operating in room 13, this is an auspicious year. Although Dr. Chambers officially retired from clinical practice at the end of 2024, and Dr. Pruss decided to help build the school of medicine in Reno; we gained Dr. Matt Schmitz and augmented the role that Dr. Pring is playing on the service. We could not be more excited about the changes, as they have huge potential for the program. We no longer have a three-month surgical waiting list, for one!

The Sports Medicine team continues to rock it with Drs. Achar, Cheng, and Kaufmann, as well as Drs. Edmonds and Pennock. Our first Non-Operative Pediatric Orthopedic fellow, Brandon Barsky, will have successfully completed his work with us, while at the same time serving in a capacity to fill the role of a sports medicine provider (given the fact that he had previously completed a Sports Medicine fellowship). He was a great asset during the year as we said goodbye to Dr. Pruss. To continue to balance this need, Dr. Pring has stepped into the limelight (even though she officially stepped out of the operating room and also became the hospital's Assistant Chief Medical Officer). She will continue to put her ABOS Sports sub-certification to good use by growing her sports practice – and there are now even talks for developing a female athlete program.

The heart-and-soul of the Sports team (the nurses and the athletic trainer staff) has also seen some big changes. Our stalwart nurse, Val Young-Calandra left us for other opportunities (and we wish her the best), but it allowed us to hire Lakeshia Watson who has joined team Edmonds. She has so far, in a trial by fire, kept us moving forward and has created many “friends” amongst the parents who call for advice and assistance with their young athlete. Athletic trainers Domanique Peretti and Gabe Saltzman continue to be the backbone of our program, while we said goodbye to Kevin Berning and Meg Montjoy. As our program tries to expand we contract at times, but this process has actually created a much better system for our athletic trainer team by pushing the system to develop different levels including a supervisor role (which should help with our recruitment and retention). Erik Hiliker has joined Team Pennock. He received his Bachelor's of Science in Athletic Training from San Diego State University in 2014 and his

NASM-Corrective Exercise Specialist certification in 2019. He worked at Gavilan College in Gilroy, CA until joining us this year. We are also pleased to announce that we were able to recruit one of the first rotating master-level students from Point Loma Nazarene to join us, Devin Tilden, M.S., ATC. She received her B.S. in Kinesiology from Biola University and worked with the San Diego Loyal during their 2023 season. She will be a great asset to our Murrieta clinic, where she will join Dr. Cheng in serving the families of the Inland Empire closer to their homes.

Academically speaking, Drs. Pennock, Schmitz, and Edmonds continue to represent our practice at PRiSM, AAOS, POSNA, AOSSM and beyond. They had a combined 22 peer-reviewed publications go into print since the last Connections. They continue to promote trainees from UCSD and UC Riverside, as well as Balboa Naval Medical Center and the San Antonio Military Medical Center, and have branched out to working with students at the University of Nevada, Las Vegas, University of Toronto, California NorthState Medical School, Idaho College of Osteopathic Medicine, and Albany Medical College. In fact, as of the time of this writing, there were 25 individual trainees (from resident to undergraduate student) actively involved in a research project related to Spraua (Sports and Trauma) through the group. At the close of last year, via the multicenter collaborative efforts of the FACTS study group, Dr. Edmonds won the Best Clinical Paper at the EPOSNA meeting in Washington DC. Again, the surgeons could not do any of this work without the efforts of our research staff who should really get all the kudos, including JD Bomar, Macy Dexter and Emma Wadsworth.

Dr. Edmonds concluded his year as the PRiSM President, having reshaped the infrastructure of the society (creating regular Presidential Line calls, starting the PRiSM Podcast, and guiding the redesign of the entire RIG [research interest group] structure). At the same time, he was elected to be Vice-President of the Pediatric Orthopedic Society of North America and will take the reins of that society in 2026. More importantly, in a combination of efforts we had four medical students (3 from UCSD and 1 from UCR) travel to Columbus, Ohio for the PRiSM annual meeting to present their work – and they all did a fantastic job. Thank you Halle, Emily, Colleen and Michael for your efforts and performance.

Advanced Practice Providers Year in Review



Written by Chrissy Paik, MPAP, PA-C

Advanced Practice Provider Team Members

Casey Abare, MSN, CPNP
Justin Anderson, PA-C
Amanda Asaro, MPAS, PA-C
Jaspreet Bimbh, PA-C
Allison Dickinson, PA-C
Erynn Krasovic, PA-C
Linh Munch, PA-C
Abigail Nakamitsu, PA-C
Megan Neaton, PA-C
Kimberly Padilla, CPNP

Chrissy Paik, MPAP, PA-C
Sunny Park, CPNP
Evan Pugh, PA-C
Eric Roman, PA-C
Raquel (Rocky) Sanchez, PA-C
Lexi Santellano-Bartsch, PA-C
MaryLou Scott, MSN, CPNP
Philip Stearns, MSN, CPNP
Katy Roldan, MPAS, PA-C



Megan Neaton, PA-C



Eric Roman, PA-C



Evan Pugh, PA-C

The year 2024-2025 was one of growth for our APP team. With this expansion not only in numbers, but in breadth and scope of practice, we have increased our capacity to treat and serve our local pediatric orthopedic community. We welcomed the addition of three PAs, Megan Neaton, Eric Roman, and Evan Pugh. Megan and Eric have taken charge of our inpatient and daytime call pager duties and will rotate rounding on our current inpatients, attending morning conference, initiating new and following up on existing floor consults, assisting in post-op medication reconciliation and discharge planning, performing ED and trauma consults as well as fracture reductions and other orthopedic bedside procedures. Megan and Eric are the first in our practice to be hired in this capacity. Evan will join our team of outpatient PAs. They are all continuing to work hard to refine their roles, and in doing so they ensure effective communication within and between care teams, efficient high-quality patient care, and appropriate scheduling of time-sensitive orthopedic follow-up.

Megan graduated from Michigan State University with a bachelor's degree in Kinesiology in 2017 and earned her master's degree from Arcadia University's physician assistant program in 2020.

Eric graduated from the University of California at Davis with a bachelor's degree in Neurobiology, Physiology, and Behavior and double-majored in Spanish in 2019. He attended the Johns Hopkins University School of Medicine and earned a Master of Science in Anatomy Education in 2021. He graduated with a Master of Physician Assistant Practice degree from the Keck School of Medicine of USC in 2024.

Evan graduated from Christopher Newport University in 2021 where he majored in cell and molecular biology. He graduated from Eastern Virginia Medical school in 2024 with his

Masters in Physician Assistant Studies. Evan works closely with Dr. Thompson, focusing on patients with cerebral palsy and other neuromuscular disorders.

Lexi Santellano-Bartsch has shown great dedication and talent in training our new hire APPs and orthopedic residents. Her role requires that she keeps up-to-date with ever changing best practices in clinical pediatric orthopedic care. This year Lexi's leadership earned her the title of Assistant Director of Resident Education. In this new management role, Lexi will be working directly with Dr. Schmitz, the Director of Resident Education, helping to manage the ortho education program as well as continuing to facilitate successful growth of the inpatient PA position.

Our orthopedic APP team had another strong turnout this year in helping to run the Rady Children's Hospital Physician Assistant Weekend Medical Academy (PA WMA). The Medical Academy programs are implemented through the Center for Healthier Communities (CHC) and they provide learning and growth opportunities for high school students with an interest in health careers. Amanda Asaro and Chrissy Paik, the co-creators of the PA WMA, worked to make connections with local physician assistants, recruiting them to help sit on provider panels and assist in skills labs. With the help of PAs Jaspreet Bimbh and Eric Roman this year, Amanda and Chrissy facilitated portions of the weekend programming including lectures and the student favorite-a suturing skills workshop. This volunteer educational event is not only a great way for our APPs to help provide community outreach, promote our roles and diversity in healthcare, but it is also a great space to hone and cultivate presentation and leadership skills which can one day be used on a larger stage, such as at a national orthopedic education conference.



Rehab Team Year in Review

Written by Talia Soto, BA, Alyssa Wieand, BS, and Anna Burch, MA

The Rehabilitation Medicine Department continues to expand its research portfolio, actively engaging in over 30 comprehensive studies. These include retrospective and prospective research projects, sponsored clinical trials, and ongoing collaborations with the Orthopedics Department.

Dr. Andrew Skalsky is leading multiple investigations: one evaluating the impact of ITB pumps on length of hospital stay and pain management in cerebral palsy patients undergoing spinal fusion surgery, and another studying the safety and patency of catheter access point aspiration in ITB pumps, with a focus on associated complication rates. Additionally, he continues to investigate changes in hypertonicity of patients pre- and post- ITB pump implantation utilizing an instrumented glove in collaboration with UCSD Jacobs School of Engineering.

Dr. Susan Biffel and Dr. Kyle Ryan are continuing their work on a sponsored clinical drug trial aimed at validating the efficacy of Valbenazine in treating dyskinetic cerebral palsy among pediatric and adult rehabilitation patients. Seven patients have been screened and six have been successfully enrolled, maintaining Rady Children's Hospital as the top enrolling site in this global trial.

In September 2024, our physicians traveled to Quebec City, Canada to present at the 78th Annual AACPDM Conference. Dr. Skalsky shared findings on the effects of AFOs on walking distance within the CMT patient population and his case study on intranasal baclofen. Additionally, Dr. Mackenzie Brown's study investigating the effects of stretch casting on gait for idiopathic toe-walkers was also presented at this conference.

Shortly after the AACPDM Conference, our physicians presented multiple studies at the 2024 AAPM&R Annual Conference here in San Diego. Dr. Pritha Dalal presented a longitudinal study of chronic pain management outcomes from the Rady Children's Inpatient Pain Program. Dr. Joan Le presented a retrospective analysis on the accuracy of fetal ultrasound in predicting neurological lesion levels in myelomeningocele. Dr. Skalsky presented a study on functional outcomes in brain tumor patients undergoing proton radiation therapy and concurrent inpatient rehabilitation as well as a case report on the use of intranasal baclofen. Dr. John Luce presented a case report on a lip flip technique to treat neurological lip biting behaviors. Finally, Dr. Ryan presented a safety assessment of catheter access port aspiration in ITB pump management.

In conjunction with the AAPM&R conference, the department hosted Pediatric Rehabilitation Day where care providers from around the world attended and listened to presentations from a few of our rehabilitation care providers and collaborators. These talks addressed advancements in pediatric rehabilitation, focusing on bone health, treatment of neurological and orthopedic conditions, innovative therapies, and research developments in pediatric disabilities.

Lastly, Dr. Ryan traveled to Houston, Texas to present at the Spasticity X Conference. He presented findings on catheter patency complications in ITB pumps and a case report on intranasal baclofen.

Overall, we are proud of the continued growth and visibility of our department's research efforts and look forward to another year of innovation and collaboration in advancing pediatric rehabilitation care.



Motion Analysis Lab & Human Performance Center

Year in Review



Written by Rachel Thompson, MD

Our Motion Analysis Laboratory, housed within the Southern Family Center for Cerebral Palsy, continues to expand in size, scope, and impact.

Under the direction of John Collins, our laboratory has quickly grown into one of the busiest motion analysis centers in Southern California. We completed 117 clinical patient analyses over the past 12 months. These clinical analyses play a crucial role in surgical decision making. Each evaluation is reviewed by a growing multi-disciplinary team, which includes orthopaedic surgeons, physiatrists, neurologists, physical therapists, kinesiologists, orthotists, physician associates and nurses. This allows for wholistic review of all ambulatory patients who are considering surgical intervention at our center, ensuring that our surgical decisions are based in the objective data produced by the lab in the context of the psychosocial dynamics that may impact our surgical success.

Importantly, of the 117 clinical evaluations that were completed, 24 were seen for post-operative or repeat evaluation. This practice has allowed our team to critically evaluate our outcomes in real-time so that we may continue to refine our surgical and medical techniques and approach to patient care. Moreover, the majority of these clinical studies were additionally enrolled into one or more research protocols, allowing our team to build a robust database from which we may study disease progression and surgical effects well into the future. We evaluated an additional 35 patients for research protocols only this past year.

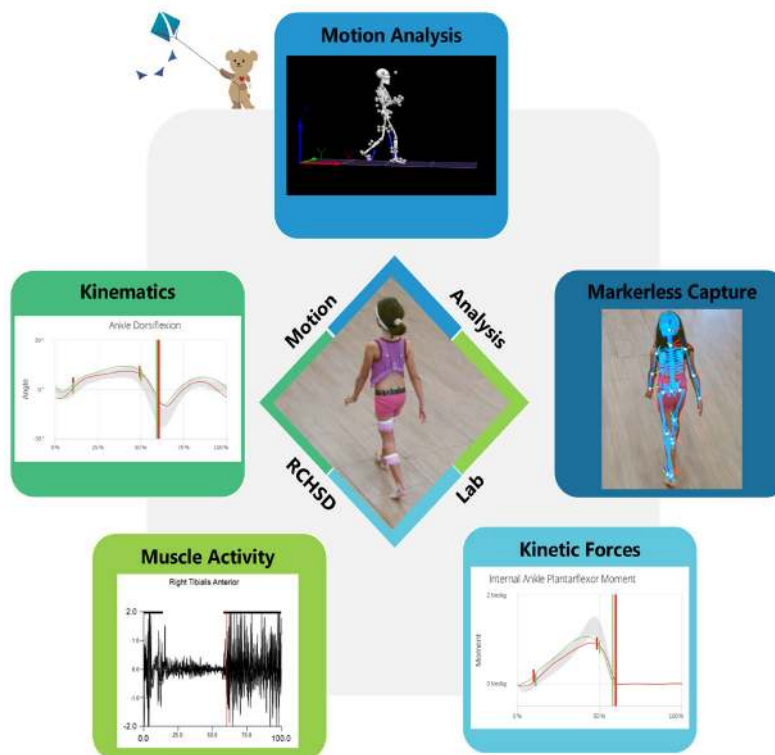
Along these lines, our lab and members of our lab have been quite busy with research and educational presentations over the past year. Collectively, we have presented at the annual meetings

for the American Academy of Cerebral Palsy and Developmental Medicine, the Gait and Clinical Movement Analysis Society, and the American Society of Biomechanics. Dr. Thompson additionally served as faculty for gait/cerebral palsy courses at the International Pediatric Orthopaedic Symposium, and Drs. Chambers and Thompson served as faculty for the Management of Lower Extremity Deformities in Cerebral Palsy course.

We continue to collaborate closely with UCSD as well as SDSU. In fact, our current collaboration with the UCSD Bioengineering Department is focused on building and integrating a smartphone-based gait analysis app, with broad implications for clinical practice outside of RCH and UCSD. In this vein, we are continuing to work on validating the use of our markerless motion analysis system in very young children. This work will allow our lab and other labs around the world to soundly utilize markerless analysis for very young patients and additional patients who may not otherwise tolerate the markers necessary to complete gait analysis, opening this technology for more universal use. In addition

to this work, we continue to utilize our expertise to collaborate with our hip surgeons, sports surgeons and foot and ankle surgeons, adding depth to research in hip development and ACL recovery, in particular.

In July we added a new kinesiologist and engineer to the lab, Martins Amaechi. In September, Dr. Rachel Mednick Thompson joined the team as the Co-Director for the Southern Family Center, and Dr. Pat Curran was named the Medical Director of the Motion Analysis Laboratory. We all look forward to another fruitful year full of patient interactions, research breakthroughs and exciting new collaborations!





Spreading the Word Our Publications & Travels

The Rady Children's Hospital 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, 2024 – December 2024.

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Arif, H.A., Morales, J.A., Howard, R., Silva, M.A., Sebt, S., Edmonds, E.W., 2024. *Evaluation of Online Shoulder Instability-Related Patient Education Materials*. HSS J 15563316241254056.

Azad, T.D., Schwab, F.J., Lafage, V., Soroceanu, A., Eastlack, R.K., Lafage, R., Kebaish, K.M., Hart, R.A., Diebo, B., Kelly, M.P., Smith, J.S., Daniels, A.H., Hamilton, D.K., Gupta, M., Klineberg, E.O., Protosaltis, T.S., Passias, P.G., Bess, S., Gum, J.L., Hostin, R., Lewis, S.J., Shaffrey, C.I., Burton, D., Lenke, L.G., Ames, C.P., Scheer, J.K., 2024. *Stronger association of objective physical metrics with baseline patient-reported outcome measures than preoperative standing sagittal parameters for adult spinal deformity patients*. J Neurosurg Spine 40, 692–699.

Bastrom, T.P., Kelly, M.P., Upasani, V.V., Newton, P.O., Harms Study Group, 2024. Pain Medication Use *Two Years After Adolescent Idiopathic Scoliosis Fusion Surgery*. Spine (Phila Pa 1976) 49, 15–21.

Benedict, B., Frumkin, M., Botterbush, K., Javeed, S., Zhang, J.K., Yakdan, S., Neuman, B.J., Steinmetz, M.P., Ghogawala, Z., Kelly, M.P., Goodin, B.R., Piccirillo, J.F., Ray, W.Z., Rodebaugh, T.L., Greenberg, J.K., 2024. *Using Multimodal Assessments to Reevaluate Depression Designations for Spine Surgery Candidates*. J Bone Joint Surg Am 106, 1704–1712.

Cahill, P.J., Miyajni, F., Lullo, B.R., Samdani, A.F., Lonner, B.S., Pahys, J.M., Hwang, S.W., Haber, L.L., Alanay, A., Shah, S.A., Parent, S., Blakemore, L.C., Hoernschemeyer, D.G., Neal, K.M., Newton, P.O., Harms Study Group, 2024. *Incidence of Tether Breakage in Anterior Vertebral Body Tethering*. J Pediatr Orthop 44, e323–e328.

Campbell, L., Bryan, T.P., Edmonds, E.W., 2024. *Intermediate Outcomes of Medial Ulnar Collateral Ligament Reconstruction Using Gracilis Allograft in Adolescent Patients*. Orthop J Sports Med 12, 23259671241228868.

Campbell, R.E., Rudic, T., Hafey, A., Driskill, E., Newton, P.O., Harms Research Study Group, Bachmann, K.R., 2024. *Curve progression following selective and nonselective spinal fusion for adolescent idiopathic scoliosis: are selective fusions stable?* Spine Deform.

Carreon, L.Y., Glassman, S.D., Smith, J.S., Kelly, M.P., Yanik, E.L., Baldus, C.R., Lurie, J.D., Edwards, C., Lenke, L.G., Buchowski, J.M., Crawford, C.H., Koski, T., Lafage, V., Gupta, M., Kim, H.J., Ames, C.P., Bess, S., Schwab, F.J., Shaffrey, C.I., Bridwell, K.H., 2024. *Cost-effectiveness Improves for Operative vs Nonoperative Treatment of Adult Symptomatic Lumbar Scoliosis at Eight-Year Follow-up*. Spine (Phila Pa 1976).



Dr. Schmitz presenting at IPOS in December with Dr. Edmonds looking on longingly.

Carveth, S.L., Bomar, J.D., Scott, M., Rickert, K.D., Upasani, V.V., 2024. **Traditional Versus Water-resistant Short Leg Casting: A Randomized Controlled Pilot Study.** J Pediatr Orthop 44, 327–332.

Catanzano, A., Upasani, V.V., Bryan, T.P., Yaszay, B., Newton, P.O., Harms Study Group, 2024. **Breaking the Rules in Three Dimensions: What to Expect After a Thoracic-only Fusion With Structural Thoracic and Thoracolumbar Curves.** J Pediatr Orthop 44, e242–e248.

Catanzano, A.A., Bastrom, T.P., Bartley, C.E., Yaszay, B., Upasani, V.V., Newton, P.O., 2024a. **Depression Screening in Pediatric Orthopedic Surgery Clinics and Identifying Patients At-Risk.** J Pediatr Orthop 44, 291–296.

Catanzano, A.A., Newton, P.O., Shah, V.J., Yaszay, B., Bartley, C.E., Bastrom, T.P., 2024b. **From PHQ-2 to SRS-22: how a depression screening tool relates to SRS scores in patients with adolescent idiopathic scoliosis.** Spine Deform 12, 125–131.

Cetik, R.M., Gum, J.L., Lafage, R., Smith, J.S., Bess, S., Mullin, J.P., Kelly, M.P., Diebo, B.G., Buell, T.J., Scheer, J.K., Line, B.G., Lafage, V., Klineberg, E.O., Kim, H.J., Passias, P.G., Kebaish, K.M., Eastlack, R.K., Daniels, A.H., Soroceanu, A., Mundis, G.M., Hostin, R.A., Protosaltis, T.S., Hamilton, D.K., Hart, R.A., Gupta, M.C., Lewis, S.J., Schwab, F.J., Lenke, L.G., Shaffrey, C.I., Ames, C.P., Burton, D.C., International Spine Study Group, 2024. **Intraoperative fluid management in adult spinal deformity surgery: variation analysis and association with outcomes.** Spine Deform.

Chung, B.H., Shaw, K.A., Burke, J.S., Jackson, K.L., Schmitz, M.R., Boomsma, S., Hurvitz, A.P., Moreland, C.M., O'Brien, F.P., Antosh, I.J., Huh, J., Waterman, B.R., Wheatley, B.M., Potter, B.K., 2024. **Consensus and Equipose in the Management of Military Trainee Femoral Neck Stress Fractures: A Survey of Military Surgeons.** Mil Med 189, e82–e89.

Cognetti, D.J., Chambers, H.G., 2025. **Complications After Pediatric ACL Reconstruction: A Meta-analysis.** J Pediatr Orthop 45, e99–e100.

Dolan, L.A., Weinstein, S.L., Dobbs, M.B., Flynn, J.M.J., Green, D.W., Halsey, M.F., Hresko, M.T., Krengel, W.F., Mehman, C.T., Milbrandt, T.A., Newton, P.O., Price, N., Sanders, J.O., Schmitz, M.L., Schwend, R.M., Shah, S.A., Song, K., Talwalkar, V., 2024. **BRAIST-Calc: Prediction of Individualized Benefit From Bracing for Adolescent Idiopathic Scoliosis.** Spine (Phila Pa 1976) 49, 147–156.

Edmonds, E.W., Farnsworth, C.L., 2024. **A comparison of cone beam computed tomography, standard computed tomography, and plain radiographs in the evaluation of medial epicondyle humerus fractures.** J Pediatr Orthop B 33, 308.

Findlay, M.C., Tenhove, S.A., Johansen, C.M., Kelly, M.P., Newton, P.O., Iyer, R.R., Kestle, J.R.W., Gonda, D.D., Brockmeyer, D.L., Ravindra, V.M., 2024. **Disparities in Indications and Outcomes Reporting for Spinal Column Shortening for Tethered Cord Syndrome: The Need for a Standardized Approach.** Spine (Phila Pa 1976) 49, 1521–1529.

Fithian, A.T., Edmonds, E.W., Egger, A.C., Nissen, C.W., Bomar, J.D., Veerkamp, M.W., Gupta, R., PRISM Shoulder Research Interest Group, Parikh, S.N., 2024. **Evaluation and Management of Glenohumeral Instability in Adolescent Patients: An Expert Consensus Statement.** Orthop J Sports Med 12, 23259671241271735.

Flaugh, R.A., May, C.J., Curran, P., Miller, P.E., Kasser, J.R., Shore, B.J., 2024. **MRI of the Spine in Patients who Toe Walk: Is There a Role?** J Pediatr Orthop 44, 267–272.

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Gannotti, M.E., Sarmiento, C.A., Gross, P.H., Thorpe, D.E., Hurvitz, E.A., Noritz, G.H., Horn, S.D., Msall, M.E., Chambers, H.G., Krach, L.E., 2024b. **Adults with cerebral palsy and functional decline: A cross-sectional analysis of patient-reported outcomes from a novel North American registry.** Disabil Health J 17, 101593.

Greenberg, J.K., Frumkin, M., Xu, Z., Zhang, J., Javeed, S., Zhang, J.K., Benedict, B., Botterbush, K., Yakdan, S., Molina, C.A., Penicooke, B.H., Hafez, D., Ogunlade, J.I., Pallotta, N., Gupta, M.C., Buchowski, J.M., Neuman, B., Steinmetz, M., Ghogawala, Z., Kelly, M.P., Goodin, B.R., Piccirillo, J.F., Rodebaugh, T.L., Lu, C., Ray, W.Z., 2024. **Preoperative Mobile Health Data Improve Predictions of Recovery From Lumbar Spine Surgery.** Neurosurgery 95, 617–626.





Drs. Upasani and Souder attended the annual CORTICES study group meeting at Seattle Children's Hospital in September.

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Hassan, F.M., Lenke, L.G., Berven, S.H., Kelly, M.P., Smith, J.S., Shaffrey, C.I., Dahl, B.T., de Kleuver, M., Spruit, M., Pellise, F., Cheung, K.M.C., Alanay, A., Polly, D.W., Sembrano, J., Matsuyama, Y., Qiu, Y., Lewis, S.J., AO Spine Knowledge Forum Deformity, 2024. *Independent Prognostic Factors Associated With Improved Patient-Reported Outcomes in the Prospective Evaluation of Elderly Deformity Surgery (PEEDS) Study*. Global Spine J 14, 2298–2310.

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Yuichi Hoshino (Japan), Andy Zhou (China), James Hui (Singapore), Chih-Kai Hong (Taiwan), Li Qi Wei (China), Eric Edmonds (USA).



Our own Amanda Asaro, MPAS, PA-C presenting her work at the American Society for Surgery of the Hand in September.

Kim, H.J., Lenke, L.G., Pizones, J., Castelein, R., Trobisch, P.D., Yagi, M., Kelly, M.P., Chang, D.-G., 2024. *Adolescent Idiopathic Scoliosis: Is the Feasible Option of Minimally Invasive Surgery using Posterior Approach?* Asian Spine J 18, 287–300.

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RCHSD had a strong showing at IPOS in December. Brandon Barsky (current fellow), Dr. Upasani, Stephanie Kha (current fellow), Dr. Schmitz, Amy Steele (current fellow), Ena Nielsen (current fellow), Megan Neaton (RCHSD PA), Dr. Thompsen, Evan Pugh (RCHSD PA), and Eric Roman (RCHSD PA).



SOA (Singapore Orthopedic Association) dinner (October). Dr. Edmonds (center). On either side of Dr. Edmonds is Emeritus Professor Lee Eng Hin (good friend and contemporary of Drs. Mubarak and Wenger) and his wife Sarahlee. Next to Sarahlee is Arjandas Mahadev (fellow class 2002). To Dr. Arjandas' right is Kenneth Wong, and then Lam Kai Yet (with his wife Ivy). To Dr. Eng's left is James Hui, Christine Ho, Andrew Lim, and Maryse Bouchard.

Louer, C.R., Upasani, V.V., Hurry, J.K., Nian, H., Farnsworth, C.L., Newton, P.O., Parent, S., El-Hawary, R., Pediatric Spine Study Group (PSSG), 2024. *Growth modulation response in vertebral body tethering depends primarily on magnitude of concave vertebral body growth*. Spine Deform 12, 1689–1698.

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Mitchell, B.C., Ellis, H., Wilson, P., Pennock, A.T., 2024. *An Evidence-Based Approach to Managing Adolescent (Ages 10 to 19 Years) Diaphyseal Clavicle Fractures*. J Am Acad Orthop Surg 32, e156–e165.

Mullin, E.P., Edmonds, E.W., 2024. *Treatment of Refractory Osteochondral Lesions of the Talus with a Novel Transmalleolar Drilling Technique: A Case Report*. JBJS Case Connect 14.

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F.J., Lenke, L.G., Shaffrey, C.I., Bess, S., Ames, C.P., Burton, D., 2024. *Analysis of tranexamic acid usage in adult spinal deformity patients with relative contraindications: does it increase the risk of complications?* J Neurosurg Spine 40, 684–691.

Pennock, A.T., Bomar, J.D., Pedowitz, J.M., Carveth, S.L., 2024. *The Creation and Validation of an Ankle Bone Age Atlas and Data Predicting Remaining Ankle Growth*. J Pediatr Orthop 44, e278–e284.

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Jaspreet Bimbh, PAC, Crissy Paik, PA-C, and Eric Roman, PA-C putting on a Weekend Medical Academy suturing workshop.



New RCHSD staff surgeon Dr. Rachel Thompson presenting her work at the St. Louis CP course in February.

Perkins, C.A., Nepple, J.J., Pang, J.H., Busch, M.T., Edmonds, E.W., Ellis, H.B., Kocher, M.S., Li, Y., Pandya, N.K., Pennock, A.T., Sabatini, C.S., Spence, D.D., Willimon, S.C., Wilson, P.L., Heyworth, B.E., 2024b. *Changes in Fracture Shortening Occur in the First 2 Weeks Following Completely Displaced Adolescent Clavicle Fractures*. J Pediatr Orthop 44, e686–e690.

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Rohrback, M., Wagner, K.J., Abdelaziz, A., Kaufman, B.E., Souder, C.D., Ellington, M.D., 2024. *Treatment of proximal tibial buckle fractures: removable knee immobilizer versus long leg cast*. J Pediatr Orthop B 33, 227–232.

Rupp, G.E., Adrian, K.M.V., Bomar, J.D., Chau, J., Pennock, A.T., Edmonds, E.W., 2024. *Comparison of Outcomes in Pediatric and Adolescent Posterior Cruciate Ligament Injuries With and Without Meniscal Tears: Operative Versus Nonoperative Management*. Orthop J Sports Med 12, 23259671231222281.

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Sardi, J.P., Smith, J.S., Gum, J.L., Rocos, B., Charalampidis, A., Lenke, L.G., Shaffrey, C.I., Cheung, K.M.C., Qiu, Y., Matsuyama, Y., Pellisé, F., Polly, D.W., Sembrano, J.N., Dahl, B.T., Kelly, M.P., de Kleuver, M., Spruit, M., Alanay, A., Berven, S.H., Lewis, S.J., AO Spine Knowledge Forum Deformity, 2024. *Opioid Use Prior to Adult Spine Deformity Correction Surgery is Associated With Worse Pre- and Postoperative Back Pain and Prolonged Opioid Demands*. Global Spine J 21925682241261662.

Sarmiento, C.A., Gannotti, M.E., Gross, P.H., Thorpe, D.E., Hurvitz, E.A., Noritz, G.H., Horn, S.D., Msall, M.E., Chambers, H.G., Krach, L.E., 2024. *Adults with cerebral palsy and chronic pain experience: A cross-sectional analysis of patient-reported outcomes from a novel North American registry*. Disabil Health J 17, 101546.



Our team presented a variety of posters at PRISM in January. Brendon Mitchell (former UCSD resident), Michael Silva (UC Riverside), Dr. Edmonds, Emily Pedrick (UCSD), Colleen Sweeney (UCSD), and Halle Wall (UCSD).

Scott, J.A., Dwek, J.R., Cheng, K.Y., Bryan, T.P., Edmonds, E.W., 2024. *The Buford Complex Redefined: A Pathologic Morphology in Sheep's Clothing*. Orthop J Sports Med 12, 23259671241252834.

Shaw, K.A., Miyanji, F., Bryan, T., Parent, S., Newton, P.O., Murphy, J.S., Harms Study Group, 2024. *Vertebral body tethering for Lenke 1A curves: the lumbar modifier predicts less optimal outcomes*. Spine Deform 12, 663–670.



First annual PRISM team debate. Lauren Redler (New York City), Cliff Willimon (Atlanta), Dr. Pennock, Kevin Shea (Stanford, class of 98), Henry Ellis (Dallas), Yi-Meng Yen (Boston), Jeff Nepple (St. Louis), Crystal Perkins (Atlanta), Stephanie Logterman (Orlando), Ted Ganley (Philadelphia).

Shinohara, K., Bryan, T.P., Bartley, C.E., Kelly, M.P., Upasani, V.V., Newton, P.O., 2025. *The Utility of the Surgical Apgar Score in Assessing the Risk of Perioperative Complications Following Spinal Fusion Surgery for Pediatric Patients With Scoliosis and Cerebral Palsy*. Spine (Phila Pa 1976) 50, 96–102.

Shinohara, K., Newton, P.O., Kelly, M.P., Upasani, V.V., Bartley, C.E., Bryan, T.P., Harms Study Group, 2024. *Intrawound Vancomycin Powder Reduces Delayed Deep Surgical Site Infections Following Posterior Spinal Fusion for Adolescent Idiopathic Scoliosis*. Spine (Phila Pa 1976) 49, 1577–1582.

Smith, J.S., Elias, E., Sursal, T., Line, B., Lafage, V., Lafage, R., Klineberg, E., Kim, H.J., Passias, P., Nasser, Z., Gum, J.L., Eastlack, R., Daniels, A., Mundis, G., Hostin, R., Protopsaltis, T.S., Soroceanu, A., Hamilton, D.K., Kelly, M.P., Lewis, S.J., Gupta, M., Schwab, F.J., Burton, D., Ames, C.P., Lenke, L.G., Shaffrey, C.I., Bess, S., International Spine Study Group, 2024. *How Good Are Surgeons at Achieving Their Preoperative Goal Sagittal Alignment Following Adult Deformity Surgery?* Global Spine J 14, 1924–1936.

Speirs, J.N., Parent, S., Kelly, M., Upasani, V.V., Petcharaporn, M., Bryan, T.P., Newton, P.O., 2024. *Three-dimensional vertebral*

shape changes confirm growth modulation after anterior vertebral body tethering for idiopathic scoliosis. Spine Deform 12, 1017–1024.

Spence, D.D., Wilson, P.L., Pennock, A.T., Nepple, J.J., Pandya, N.K., Perkins, C.A., Li, Y., Ellis, H.B., Sabatini, C.S., Edmonds, E.W., Willimon, S.C., Bae, D.S., Busch, M.T., Kocher, M., FACTS Study Group, Heyworth, B.E., 2024. *Treatment of Severely Shortened or Comminuted Clavicular Fractures in Older Adolescent Athletes*. Am J Sports Med 52, 423–430.

Stambaugh, J.R., Bryan, T.P., Edmonds, E.W., Pennock, A.T., 2024. *Arthroscopic Shoulder Stabilization in High School Football Players*. Orthop J Sports Med 12, 23259671241239334.

Stone, L.E., Ames, C.P., Pellise, F., Newton, P.O., Upasani, V.V., Kelly, M.P., Harms Study Group, 2025. *Scoliosis Research Society-22r and Ceiling Effects: Limited Capabilities for Precision Medicine With Adolescent Idiopathic Scoliosis*. Spine (Phila Pa 1976) 50, 34–39.

Stone, L.E., Newton, P.O., Catanzano, A.A., Oba, H., Lenke, L.G., Boachie-Adjei, O., Kelly, M.P., Gupta, M.C., Harms Study Group, Fox Study Group, 2024a. *Severe (>100 Degrees) Thoracic Adolescent Idiopathic Scoliosis - A Comparison of Surgical Approaches*. Global Spine J 21925682241264768.

Stone, L.E., Sindewald, R., Kelly, M.P., 2024b. *Self-image in spinal deformity: a state-of-the-art review*. Spine Deform 12, 1179–1202.

Tadlock, J.C., Rupp, G.E., Farnsworth, C.L., Bomar, J.D., Caffrey, J.P., Upasani, V.V., 2024. *The Anterior Modified San Diego Acetabuloplasty Does Not Increase Superior-Anterior Coverage in Patient-Specific 3D-Printed Models*. J Pediatr Orthop 44, 316–321.

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Dr. Thompson presenting her work at AAOS in March.

Turner, J.D., Ray, W.Z., Kelly, M.P., Chou, D., Lenke, L.G., Uribe, J.S., Potts, E.A., 2024. **Introduction. Proceedings of Spine Summit 2024.** J Neurosurg Spine 41, 563.

Upasani, V.V., Bartley, C.E., Bastrom, T.P., George, S., Parent, S., Kelly, M.P., Newton, P.O., 2024. **3D analysis of the preoperative deformity in AIS can be used to guide surgical treatment decisions for selective thoracic fusion.** Spine Deform 12, 717–725.

Upasani, V.V., Farnsworth, C.L., Caffrey, J.P., Olmert, T., Brink, I., Cain, P., Mannen, E., 2025. **Defining the segmental tension generated in a vertebral body tethering system for scoliosis.** J Orthop Res 43, 441–445.

Vasudevan, R.S., Rupp, G.E., Zogby, A.M., Wilps, T., Paras, T., Pennock, A.T., 2024a. **Decreased Posterior Tibial Slope and Its Association With Pediatric Posterior Cruciate Ligament Injury.** Am J Sports Med 52, 1498–1504.

Vasudevan, R.S., Zogby, A.M., Wilps, T., Paras, T., Pennock, A.T., 2024b. **Change in Posterior Tibial Slope Angle After Displaced Pediatric Tibial Tubercle Fracture: A Model for Growth Modulation in the ACL-Deficient Knee.** Orthop J Sports Med 12, 23259671231224498.

Whitaker, C.M., Miyanji, F., Samdani, A.F., Pahys, J.M., Sponseller, P.D., Bryan, T.P., Newton, P.O., Hwang, S.W., Harms Study Group, 2024. **Prospectively Collected Comparison of Outcomes Between Surgically and Conservatively Treated Patients With Adolescent Idiopathic Scoliosis.** Spine (Phila Pa 1976) 49, 1210–1218.

Willey, M., Spiker, A.M., Schmitz, M.R., Belzile, E.L., Sierra, R.J., Clohisy, J., ANCHOR Group, Stover, M., 2024. **Peri-Operative Management of Periacetabular Osteotomy: A Report of Current Practices from the Anchor Group, Supporting Literature, and Areas for Future Investigation.** Iowa Orthop J 44, 159–166.

Williamson, T.K., Dave, P., Mir, J.M., Smith, J.S., Lafage, R., Line, B., Diebo, B.G., Daniels, A.H., Gum, J.L., Protosaltis, T.S.,



Dr. Curran presented a paper on secondary ossification centers of the hip at EPOS this year.

Hamilton, D.K., Soroceanu, A., Scheer, J.K., Eastlack, R., Kelly, M.P., Nunley, P., Kebaish, K.M., Lewis, S., Lenke, L.G., Hostin, R.A., Gupta, M.C., Kim, H.J., Ames, C.P., Hart, R.A., Burton, D.C., Shaffrey, C.I., Klineberg, E.O., Schwab, F.J., Lafage, V., Chou, D., Fu, K.-M., Bess, S., Passias, P.G., International Spine Study Group, 2024. **Persistent Lower Extremity Compensation for Sagittal Imbalance After Surgical Correction of Complex Adult Spinal Deformity: A Radiographic Analysis of Early Impact.** Oper Neurosurg (Hagerstown) 26, 156–164.

Yu, C.-Y., Mannen, E.M., Lujan, T.J., Uzer, G., Upasani, V., Edmonds, E.W., Fitzpatrick, C.K., 2024. **Porcine computational modeling to investigate developmental dysplasia of the hip.** J Orthop Res 42, 2043–2053.

Zuckerman, S.L., Sardar, Z.M., Marciano, G., Cerpa, M., Hassan, F.M., Kerolus, M.G., Kelly, M.P., Bourret, S., Hasegawa, K., Wong, H.-K., Dennis Hey, H.W., Riahi, H., Le Huec, J.-C., Lenke, L.G., 2024. **The Importance of Pelvic Obliquity in Assessing Spinal Coronal Alignment: Normative Values, Demographic, and Radiographic Correlations.** Clin Spine Surg 37, E124–E130.



There was a mini RCHSD fellowship reunion at the annual Kaye Wilkins Course in Austin. (L to R) Hilton Gottschalk (class of 2011), Julia Sanders (class of 2018), Katy Rickert (class of 2017), Eric Edmonds (class of 2008), Matt Schmitz (class of 2012), Matt Ellington (class of 2016), Chris Souder (class of 2013).



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