

# OJO

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School of  
**MEDICINE**



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## Letter from the Editors

We are pleased to present the eleventh edition of the Oregon Journal of Orthopaedics.

As our world slowly returns back to a new normal, we have embraced the ways in which living through the pandemic has made us stronger. This year, the OJO will be distributed primarily in digital form in order to reach a broader audience, we hope you enjoy reading this year's edition as much as we have enjoyed compiling it.

In this edition of the OJO, we welcome new faculty to OHSU, Emanuel and Doernbecher, as well as celebrate Dr. Turker in his recent retirement. We highlight the industrious researchers at OHSU, particularly the graduating chiefs and their senior theses. Current initiatives on Diversity, Equity and Inclusion at OHSU are highlighted. We also herald the return to events "in person" with photos from this year's Annual Beals Lectureship.

We are grateful to the residents and staff at OHSU, Samaritan Health and our clinical affiliate hospitals for contributing to this year's OJO. Special thanks to Dr. Gundle for his enthusiasm in leading our team and editing the journal this year. Congratulations to this year's graduating class, we have enjoyed working with and learning from all of you and wish you the best in your future endeavors!

**Faculty Editor:** Kenneth Gundle, MD

**Senior Editors:** Laura Sokil, MD, Danielle Peterson, MD

**Junior Editors:** Phillip Lam, MD, Kate Hutchison, MD and David Cornwell, BS

**Editors Emeriti:** Elliott Cole, MD and Connor Pihl, MD

## Letter from the OHSU Interim Chairman



Dear Colleagues:

As we enter our second decade of the Oregon Journal of Orthopaedics (11th volume!), we have adapted to a new digital format. You will still read, however, a great collection of research abstracts, awards, program and alumni updates, Departmental news, and photographs. Hopefully this will spark a memory of your own time in academic training from years ago and remind you how things have changed over time. Perhaps adaptation with an eye on the past has been the constant theme for this past academic year.

The OHSU Department of Orthopaedics & Rehabilitation remains a proud source of scholarship, education, and service. During the early COVID-19 pandemic many faculty and residents used clinical downtime to focus on research and scholarship. Such extra efforts were rewarded after the peer review process in 2022 with a plethora of new and exciting publications (see this list here in OJO). This is certainly a new change. We have seen the onset of new clinical trials here in the Department and are actively enrolling patients weekly. While collecting Patient Reported Outcome Measures is never simple, some Orthopaedic Sections are now doing this on a regular basis with the data starting to influence research studies and care pathways. Residents and students are still instrumental in the care of patients at OHSU, and our Educational Program has never been stronger. The Residency Program attracted over 700 applications for our five positions, and matched another stellar group to start in July. Again in adaptation mode, we completed the entire interview process virtually and decided that remaining virtual produced an equitable and smarter solution than returning to in-person interviews. At the same time, we are graduating another fine class of PGY5 residents off to great fellowships. It is impossible to thank all the people responsible for the year-over-year commitment to the hard work of training a single surgeon. The faculty and residents have also grown to be a greater part of medical student education each year, with several faculty serving as formal advisors and preceptors for students. As is typical, the Department is carrying far greater weight to teach the workforce of tomorrow than its mere small footprint at OHSU.

The Clinical Service of the Department remains strong. Many readers may not know that Oregon has for years been the state with the lowest number of hospital beds per capita. In past years, that meant we were using our hospital resources wisely. As the pandemic required a surge in resources, however, all the hospitals in the state are full and even beyond capacity at times. This has strained personnel, resources, and hospitals greatly and is felt at all levels by those providing healthcare in Oregon daily. OHSU has announced plans to build a new hospital tower, amazingly fitting one more building here on the hill at the site of the old dental school. This large project may take five years to completion. For now, we use our inpatient and outpatient service locations well, but the emergency room, hospital, operating rooms, and clinics are all very busy. Patient transfers between hospitals for higher levels of care still occur, but often requiring extra communication. Nearly one-quarter of the OHSU Operating Room time is directed by an Orthopaedic Surgeon. Clinics remain open to new patients. The faculty still provide thoughtful advice and care for challenging patient problems every day. And as chair, I still see evidence of month over month growth in our clinical enterprise to meet the needs of the State of Oregon.

So please read on. We hope you enjoy this issue as much as the previous ten you received in your standard mailbox. As the State and OHSU opens again to in person events, we hope to see you soon.

Darin Friess, MD MPH  
Interim Chair,  
OHSU Dept of Orthopaedics & Rehabilitation

## Letter from the OHSU Program Director



### 一期一会

This spring we rekindled our actual journal club, gathering in person at Hopworks Urban Brewery. We reviewed articles on diversity, equity, and inclusion, with an in-depth discussion supported by an OHSU Faculty Innovation award received by Dr. Bopha Chrea. It was a great evening, on a topic where orthopaedic surgery as a field must succeed yet has continued to stumble. It was a joy to meet together and have a meal. I am likewise looking forward to our upcoming Beals Memorial Seminar, in-person in the Knight Cancer Research Building's auditorium, with visiting professor Dr. Judith Baumhauer. While I am thankful of the technology that allows for virtual meetings, being present together for such events is great for the soul.

With each meeting, be it with a resident or faculty member or patient or any member of the healthcare team, we leave an impression. Perhaps the chance to meet again will happen soon, but perhaps not. What should we make of these opportunities, especially after the many moments which were curtailed or altered by the pandemic? Each such greeting is an unrepeatably moment, to be treasured and approached with care. This is what is meant by the Japanese idiom 'ichigo-ichie.' With origins linked to the tea ceremony, the phrase evokes the one-in-a-lifetime nature of each interaction. Seeing residents take in the American Academy of Orthopaedic Surgery Annual Meeting, or just running into friends and far-flung colleagues in Chicago, reminded me of the value and transience of these moments.

As we graduate another great class of competent and caring orthopaedic surgeons, there have been so many once-in-a-lifetime memories with each. Thank you to these five amazing humans, whose hard work and dedication have improved our program throughout and beside their own training. I am so looking forward to celebrating with you and yours this June. Congratulations to the nearly-graduates, and good hunting to them as well as our soon-arriving new class of interns.

In these pages we see evidence abounding of the resiliency and strength of the faculty and trainees of the Department. Each grant, published study, event and new member of our community represent an innumerable string of moments taken seriously – of interactions that mattered. The swirl of the pandemic and the world has asked much of us, and the residency program has found a way to put our own imprint on the storm.

Whether next year brings you to a fellowship, or a new position or role, or simply another year of challenges and opportunities – let us be present in each fleeting encounter. And may we have many unique chances to meet up, continuing to support orthopaedic surgery education and practice in the beautiful State of Oregon.

Kenneth Gundle, MD  
OHSU Orthopaedic Surgery Residency Program Director

## Good Samaritan Regional Medical Center Orthopedic Surgery Residency Program Letter from the Program Director



Wellness and burnout are big buzzwords in medicine right now. I trained in the 90s, and no one ever once mentioned either of these things. Most of the doctors who are my age just don't get why there's such an emphasis on wellness these days. We trained well before the 80-hour work week. We also had a fraction of your debt when we finished school. Personally, I paid off half my med school loans during residency. (They had interest rates in the teens, which was really stressful for me.) Many of us went straight from high school to college to med school to residency. We were young and often unmarried. Maybe we just didn't know any better. I should also add that, at least in Milwaukee, we all walked uphill in the snow to and from work every day.

I could spend this time telling you why you are weak, and we were strong. I could hypothesize about different parenting styles creating different expectations. I enjoy telling people stories about my worst weekends on call and the long strings of every other night call, but that doesn't really solve anything. Instead, I will give you what I think are some easy, small strategies to make your life better – whether you feel burned out or not.

Take care of each other. I always felt like my co-residents were family. We protected each other and helped each other out. I think this was one of the biggest reasons we were all happy while we worked those long hours. Scrubbing someone out when they were on a long string of call and whispering answers during grand rounds pimp sessions was routine. During interviews I tell candidates that we have a family atmosphere in Corvallis. It's a big selling point, and one I firmly believe. I consider the residents my children. I get mad when I don't think the kids are working together as a team. I cry like my mom at graduation. Taking care of someone else is a sure way to make yourself feel better.

Treat all your patients like they're your grandmother. This was advice given to me during my first week of residency by Steve Hoer, a PGY5 at the time. I tell my residents this every year at orientation. You can't hear it too often. When you're tired and just want to go home, think of grandma, and you will always do the right thing. No one wants to cut corners when it's grandma. You don't get lectured or chastised at morning check out if you do the right thing. You get to do more surgery when you prepped ahead like you would for grandma.

Here's an eyeroller, but it's true. Look at the glass as half full. Keep a positive outlook. I make my son tell me three good things from his day at bedtime. When he's grumpy and claims he has none, I start listing a long string of them. They don't have to be big. "They had ice cream in the freezer in the lounge today." "I finished an ankle fracture before the tourniquet alarmed 60 minutes." When you learn to look for the positives, you start to notice them more than the negatives.

Remember how lucky you are to have matched into orthopaedics. In the recent match, just 65% of MD seniors and 55% of DO seniors matched in ortho. You're lucky to be here. One of my attendings gave me a great lesson in how to view your day. Someone who doesn't like their job looks at the clock and says, "It's only 2:00." We look at the clock and say, "Oh my gosh, it's already 2:00!"

Lastly, a line from Margaret Atwood's *The Handmaid's Tale*: "Nolite te bastardes carborundorum."

Sincerely,  
Jacque Krumrey, MD  
Residency Program Director  
Samaritan Health Services

# Residency Faculty

OHSU Residency Core Faculty

## Adult Reconstruction



**Thomas Huff, MD**  
Fellowship Director



**Ryland Kagan, MD**



**Kathryn Schabel, MD**  
Director Comprehensive  
Joint Replacement,  
Section Head



**Matthew Halsey, MD**  
Section Head



**Scott Yang, MD**

## Pediatrics

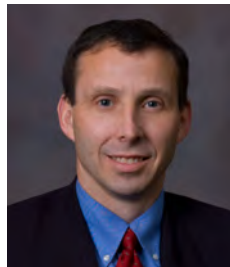
## Orthopaedic Oncology



**Yee-Cheen Doung, MD**  
Director of Clinical  
Operations



**Kenneth Gundle, MD**  
Residency Program  
Director



**James Hayden, MD, PhD**  
Section Head



**Hans Carlson, MD**  
Section Head



**Nels Carlson, MD**  
Assistant Dean of  
Continuing Professional  
Development

## Physical Medicine & Rehabilitation

## Foot & Ankle



**Lara Atwater, MD**



**Bopha Chrea, MD**  
Director of Diversity,  
Equity & Inclusion



**James Meeker, MD**  
Section Head



**Trish Ann Marie  
Otto, DPM**



**Brian Johnstone, PhD**  
Section Head

## Podiatry

## Research / Basic Science



# Residency Faculty

OHSU Residency Core Faculty

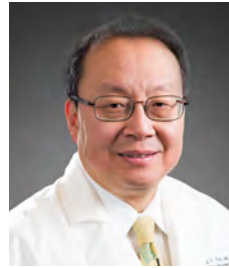
## Spine



**Clifford Lin, MD**  
Fellowship Director,  
Section Head



**Travis Philipp, MD**



**Jung Yoo, MD**  
Director of Spine  
Center

## Sports Medicine (Surgical)



**Jacqueline Brady, MD**  
Associate Residency  
Program Director,  
John & Susan Hayhurst  
Distinguished Scholar in  
Orthopaedic Research and  
Innovation; Section Head



**Dennis Crawford, MD,  
PhD**



**Andrea Herzka, MD**

## Trauma



**Darin Friess, MD**  
Interim Chair



**Zachary Working, MD**  
Section Head



**Adam Mirarchi, MD**  
Fellowship Director

## Upper Extremity



**Omar Nazir, MD**  
Director of Wellness  
& Health;  
Section Head



**Robert Orfaly, MD,  
FRCS(C)**  
Quality Medical  
Director

# Residency Faculty

## Portland VA Medical Center Residency Core Faculty



**Lucas Anissian, MD, PhD**



**Mark Berkson, MD**  
Section Chief for  
Orthopedic Surgery

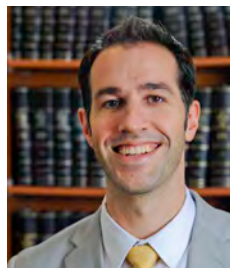


**Kenneth Gundle, MD**



**Ryan Wallenberg, MD**

## Shriners Hospital for Children Residency Core Faculty



**Jeremy Bauer, MD**  
Director of Education



**Robert Bernstein, MD**  
Chief of Staff

## Legacy Emanuel Hospital Residency Core Faculty



**Steve Vande, MD**  
Hand/Upper Extremity  
Site Director



**Corey Vande Zandschulp, MD**  
Trauma

## Kaiser Permanente Pediatrics Residency Core Faculty



**Stephen Renwick, MD**



**Tracy Townsend, MD**

## Orthopedic + Fracture Specialists Residency Core Faculty



**Paul Duwelius**  
Joint Replacement/  
Trauma & Fracture



**Brett Andres**  
Director

# Residency Faculty

Samaritan Health Services Orthopedic Surgery Core Faculty



Erin Campaigniac, MD



Wael Ghacham, MD



Jacqueline Krumrey, MD  
Program Director



Jason Lin, MD



Christopher Noonan, MD



Donald Pennington, DO



Nicholas Tedesco, MD



Luis Vela, DO, FAOAO

## Program Fellowships 2021-2022

### Sports Medicine Primary Care Fellows



John Mitchell, MD



Christy Prill, MD



Jhade Woodall, MD

### Hand Fellow



# New Faculty Spotlight:

A Q&A session with Kimberly Hall, MD

By Danielle Peterson, MD

**Hometown:** Kaneohe, HI;

**Medical School:** John A. Burns School of Medicine, University of Hawaii, Honolulu, HI

**Residency:** Orthopedic Surgery, Stanford Hospital and Clinics, Stanford, CA

**Fellowship:** Orthopedic Surgery Sports Medicine, University of Michigan, Ann Arbor, MI

**Favorite Restaurant in Portland:** Brick and mortar restaurant – Eem. All comers – Kau Kau PDX

**Go-to OR music?** If I'm choosing, it's usually "The Green Radio" Playlist on Spotify. Otherwise, whatever Anesthesia is playing

### Tell us a little about yourself.

I was born and raised in Hawaii and still very much consider Hawaii to be my home, even though I haven't lived there since medical school. I enjoy water activities primarily swimming, playing water polo, outrigger canoe paddling, and surfing. It's been a bit difficult to do those here so hiking, snowboarding, and biking have filled that hole nicely so far. My husband and I have enjoyed exploring Oregon since we moved here, whether that's going to the coast or to the mountains or even just checking out new restaurants, breweries, and wineries.

### What brought you to Hillsboro Medical Center?

This job was a great opportunity that matched my interest in being in a smaller practice at a more community-based level while also having the opportunity to work with students and residents in an educational setting.

### What made you choose Sports Medicine as a specialty?

There are many things I love about Orthopedics but I have always appreciated the focus on improving quality of life. I love that the sports medicine subspecialty works to improve the quality of life of people at any age and with any activity level.

### Favorite thing about Portland/PNW so far?

So far, I have loved the accessibility of activities here – whether we want to go biking or snowboarding or check out the coast, all of these options are readily available to us within a couple hours drive.

### What are some goals you have for your practice?

I hope to build a practice that provides consistent, reliable, great care to the patients of Hillsboro and beyond.

### What is the biggest difference between practicing in Oregon and where you were trained?

The biggest difference so far has been the weather – the rains a lot more here than it did in northern California, and it was definitely a lot colder in the Midwest.

### Do you have any research interests or projects you're looking forward to pursuing?

I currently have an interest in improving and increasing the literature available regarding water polo athletes and their injuries. We'll see where that takes me.

### What is something that you learned during your training that you wish you knew earlier in residency?

I definitely wish I took more notes during residency. I didn't really start documenting the details of all of my cases until I was a senior resident, and it's amazing how many cases that you wish you remembered or little pieces of advice that you wish you wrote down. Would have been nice to have notes from those cases for the first few years of residency.

### Any advice for graduating chiefs?

As you move from residency to fellowship and into early practice, I have three pieces of advice: 1) Have confidence in your training and your level of knowledge, 2) Don't settle for "this is how I was taught" – try to understand why your mentors are doing what they are doing so that you can do the same, and 3) Never be afraid to ask for help



# New Faculty Spotlight:

A Q&A session with Stephen Wallace, MD

By Danielle Peterson, MD

**Hometown:** Paducah, KY

**Medical School:** Baylor College of Medicine;  
Houston, TX

**Residency:** Loyola University Medical Center;  
Maywood, IL

**Fellowship:** Orthopaedic Trauma – Harborview  
Medical Center; Seattle, WA  
Limb Lengthening and Complex Reconstruction –  
Hospital for Special Surgery; New York, NY

**Favorite Restaurant in Portland:**

Finding new foodie favorites every week.

**Go-to OR music?**

The room picks the mix most often. But if I had it my way: Classic Rock Mondays, Country Tuesdays, Wildcard Wednesdays, Salsa Thursdays...

**Tell us a little about yourself.**

I was born in small town Kentucky. I have five siblings including an adopted twin. I worked as an engineer for a global health company before attending medical school. I've been in a recent running kick.

**What brought you to Summit Orthopaedics/Emanuel?**

Summit Orthopaedics offers a perfect mix of trauma and complex reconstruction in the private practice setting in conjunction with valuable resident education and teaching opportunities.

**What made you choose to become dual fellowship trained in Trauma and Deformity?**

Inspired by both my patients and mentors during residency, I chose dual Trauma and Deformity fellowships. I am captivated with specific orthopaedic solutions to complex extremity problems. My deformity training gives me additional perspectives and complementary tools to tackle issues like limb malalignment, bone defect management, and amputation / reconstruction surgery.

**Favorite thing about Portland/PNW so far?**

Trails, mountains, water, snow, trees, bridges, summer, fall, winter, spring.

**What are some goals you have for your practice?**

My goals are to advance orthopaedic service through uncompromised patient care, impactful research, technological progress, and widespread education.

**Do you have any research interests or projects you're looking forward to pursuing?**

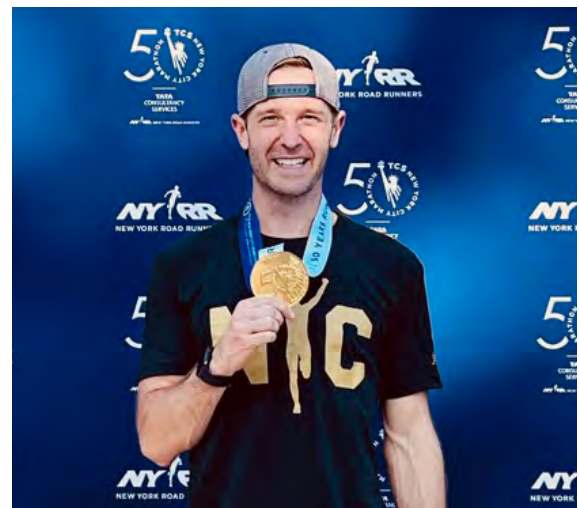
I am focused on pushing the limits for limb salvage, advanced reconstruction, and amputation surgery through projects like three-dimensional surgical planning, automatic hexapod struts, and osseointegration.

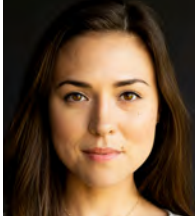
**What is something that you learned during your training that you wish you knew earlier in residency?**

Find what drives you and fiercely pursue.

**Any advice for graduating chiefs?**

Remember why you started. Stay patient centered. Thank your mentors. Pay it forward.





### New Faculty Spotlight:

A Q&A session with Tracy Townsend, MD

By Danielle Peterson, MD

**Hometown:** I grew up overseas in Korea and Japan, then Florida and Washington, DC, so I don't really have a hometown!

**Medical School:** University of Virginia School of Medicine, Charlottesville, VA

**Residency:** Harbor-UCLA Medical Center, Torrance, CA

**Fellowship:** Boston Children's Hospital, Boston, MA

**Favorite Restaurant in Portland:** Top Burmese

**Favorite activity outside of the hospital:**

Exploring Forest Park

**Go-to OR music?**

The Organica playlist on Spotify

#### Tell us a little about yourself.

I'm of mixed East Asian and European descent, and thus very interested in the intersection of Eastern and Western medicine practices. I'm married to the Love of my life Michael Townsend, and we have one son Leonardo "Leo". Outside of orthopaedic surgery, I'm really interested in the integration of psychedelic plant medicines into western allopathic health systems, and believe they will play a big role in all areas of medicine, including physician development.

#### What brought you to Kaiser?

I was interested in a general pediatric orthopaedic practice, and at Kaiser, I get to deliver orthopaedic care to everyone 16 and under. I love that it is not fee for service and that I am in the same network with all of the primary care providers who refer their patients to me with the same electronic health record which facilitates better care coordination and delivery. I also have fantastic mentors with whom I am able to be co-surgeons, which allows for a real meeting of the minds for difficult cases. This is also a very progressive organization, as far as health care goes, and physicians here really try to prioritize work life balance.

#### What made you choose Pediatric Orthopaedics as a specialty?

I can't think of a greater honor or privilege than taking care of the medical needs of children. It is also a wonderfully diverse field. I get to treat everything from femur fractures to ACL ruptures to scoliosis, and I manage to have a lot of fun along the way, thanks to some of my hilarious patients.

#### Favorite thing about Portland/PNW so far?

The nature, the open minded people, the emphasis on localism.

#### What are some goals you have for your practice?

We are currently working to develop a comprehensive model for virtual fracture care, something that a lot of busy parents really appreciate. I also hope to create a suite of complementary and holistic care that addresses the mental, emotional, and spiritual dimensions of the musculoskeletal system.



**What is the biggest difference between practicing in Oregon and where you were trained?**

The biggest difference is I get to follow up with all of my patients and there is much better continuity of care.

**Do you have a personal interest in a specific aspect of pediatric orthopaedic surgery, and why?**

I have an interest in preventative musculoskeletal care and believe that healthy habits implemented during childhood have benefits that compound over a lifetime.

**What is something that you learned during your training that you wish you knew earlier in residency?**

I wish that I had more compassion for myself as a humble learner and also understood that orthopaedic surgery is a constantly evolving field, and thus there is no one right way to do

anything. All throughout training, it felt like there was this expectation that I should already know the “right” answer, and so I didn’t ask enough questions. I was too busy trying to impress my attendings, when really I should have been asking why more.

**Any advice for graduating chiefs?**

My advice is to really invest in your relationships, whether that’s relationships with your attendings during fellowship or in your personal life with your family and loved ones. There is something to glean from every interaction that you have, and if you keep an open mind, you never know who you will cross paths with and what opportunities will come your way. Take notes on all of your patients and save all operative reports, imaging, and post-op protocols. Cultivate a Beginner’s Mind and always be learning, no matter how small the detail. Take time for self care - you can’t take care of others well if you aren’t taking care of yourself.

# Enough: Looking Back on Thirty Years with Ronald Turker, MD

By Ronald Turker MD

Was thirty years of practice enough? Enough for me to retire? Irrelevant.

The question is whether it was enough time to pay off my debt. Not the Jacobian debt owed to a Laban-like healthcare system, at times capricious and cruel, but the debt of trust. Trust bestowed by my patients, my colleagues, and my students.

My story begins in 1981, I was happily attending an upstate New York college and studying to become a paramedic. And that was the plan. I'd graduate and head back to New York City to work. A single phone call from my father changed all that. He asked me how the ambulance gig was going.

I told him, "Great. Loving it!" He also asked about my patients. "What happens to them after you leave the hospital? Do you ever hear?"

My response was "Well, sometimes the E.D. nurses or docs give me updates. But you don't really know what happens afterwards." He pressed. Then he followed with a simple question. "Aren't you curious?"

And that was it, the dislodged pebble that started a career. Of course, I was curious. Of course, I cared.

After getting into med school, my first step was to find a mentor. Ritchie Cantor, head of the Peds E.D., was smart, funny, and compassionate: he could also cut through bullshit like a kosher butcher on a Friday afternoon. Our job, he said, is to support our patients through the journey, even though we know where every train's heading.

Below are four pearls I've gathered through my career.

**Pearl number one:** Pick your mentors like you would a spouse. They truly affect your life.

[Orthopedics and Me.](#)

I am an accidental orthopedist. In med school, I set my sights on becoming a pediatric general surgeon. But in 1987, I did not match into a single general surgery program in the country.

**Pearl number two:** It never pays to piss off the department chairman.

Thanks to Dr. Patricia Numann, the student program director, I landed a general surgery "prelim" spot in a trial-by-fire Southside Chicago hospital. A hospital that no longer exists. A year later, as funding for my position dried up, I was shown mercy by the Orthopedic Chairman, who hired me to fill an unexpected vacancy.

**Pearl number three:** It's always better to be lucky than good.

I am indebted to all these good people who shepherded me along the way and to those who kept me afloat. None of us has gotten to this position of trust and respect without the help of countless others, including our patients, our support team at work, and our families at home.

My aim to do the right thing every day was my Sisyphean attempt to satisfy that debt. At times exhausted and irritated, but mostly exhilarated, I appreciated all that medicine brought me.

**Pearl number four:** Learn to love the rock.

I don't believe in altruism—we get what we give. It's the version of karma where you lay your head on the pillow and know you did your best. Then get up the next day, and do it again. Never perfectly, but always with good intent.

Were thirty years enough? Am I square with my debt?

My head says no, but my body says it will have to do.



# Update on diversity, equity, and inclusion (DEI) initiatives

By Kate Hutchison, MD and Bopha Chrea, MD

The last year has provided many opportunities for new and old initiatives alike in the orthopaedics and rehabilitation department. Orthopaedic surgery remains the least gender-diverse medical subspecialty with approximately 15% of residency positions filled by women. Additionally, the racial and ethnic diversity within orthopaedics has in fact decreased within the last 20 years. As medicine becomes more aware of issues of diversity and inclusion both within the ranks of physicians as well as within the interactions with patients, we will continue with efforts to bring a focus to these issues within our own community.

While COVID-19 precautions have limited the ability of visiting professors to present grand rounds in person, it has also allowed for multiple grand rounds speakers to virtually visit the program to speak on issues of structural inequalities. Dr. Jaysson Brooks of Texas Scottish Rite Hospital for Children joined us to speak on neuromuscular scoliosis and then met with the residents for a deeply engaging session on structural racism. Dr. Selina Poon of Shriners' Hospital for Children in Southern California, a leading expert in research on diversity and inclusion within orthopaedic surgery, also joined us for Grand Rounds to highlight her research on trends in gender, racial, and ethnic diversity within orthopaedics as well as the impact on USMLE exam performance. Finally, Grand Rounds will also be given by Dr. Nancy Yen Shipley, one of the co-founders of Speak Up Ortho, an initiative to address bias, inequities, and harassment within orthopaedic surgery. She and fellow Speak Up Ortho panelists will discuss their work and research as part of this important initiative with the department.

Thanks to a grant obtained by Dr. Chrea, in April 2022 a resident journal club focused on DEI topics allowed for discussion of equity and inclusion within the program and within orthopaedics as a subspecialty. Articles discussed included several by Dr. Poon. This is a journal club focus we hope to continue moving forward into the future. An additional new program for 2022 is a DEI subinternship scholarship for visiting medical students rotating with OHSU orthopaedic surgery. Scholarship funds are available to students who are underrepresented in medicine (URM), with the hope that a lower financial burden for away rotations allows for more equity within the already complex and costly residency application process.

Finally, we are excited to have been able to resume community outreach partnerships outside of OHSU. Dr. Friess, Dr. Chrea, and Amy Sothern PAC spent a morning at the Jefferson High School career fair as part of the Ontrack OHSU partnership to highlight orthopaedics as a career choice with an interactive demonstration for 9th grader students. The Wy'east Partnership has also been active this year, with portions of musculoskeletal education taught by orthopaedic surgeons including clinical workshops with physical exam skills and casting and splinting workshops. We look forward to more opportunities to interact with the community outside of OHSU in the year to come.

# A Reflection on Three Years as Hayhurst Professor

By Danielle Peterson, MD and Jacqueline Brady, MD

As Dr. Jacqueline Brady completes her three-year term as the Hayhurst Professor, she reflects on work accomplished during this time:

The Hayhurst Fund, in support of Orthopaedic Innovation and Research, has been an incredible asset to scholarly work in the OHSU Department of Orthopaedics & Rehabilitation. First and foremost, it funded a research assistant, John Ghattas, who has been productive on several fronts. He has kept us up to speed as a member of the active and ongoing JUPITER multicenter research project focusing on patellar instability. Initial publications from that ongoing research effort have focused on imaging reliability and epidemiology, and we expect to be able to add valuable information to guide treatment of patients with patellar instability as we complete the longer-term follow-up of each patient. With John's assistance navigating the paperwork and communications, OHSU is becoming a member of the STaR Trial, a Department of Defense funded multicenter effort focusing on treatment of patients with multiligamentous knee injuries. Finally, John has spent countless hours helping to gather data in the arthroscopy lab as the residents on the sports rotation (and those participating in our once annual Arthroscopy Boot Camp) practice surgical techniques in the shoulder, knee, and hip. We are in the process of analyzing motion pattern data to determine whether we can detect short-term improvement in arthroscopic skills on an objective basis, and hope to be presenting and publishing soon.

In the arthroscopy lab, the Hayhurst Fund has been a twofold help from an equipment standpoint: first, in upgrading our motion pattern sensors to the more technologically advanced set that no longer requires an hours-long processing step; and second, in updating the surgical tools that we use in the lab to match those that the residents see in the operating room. We now have a fully functional arthroscopy lab

experience on three different platforms: the dry FAST tools and models for practice of fundamental skills, the wetlab experience with donor materials, and a virtual reality simulator to allow repetition and modification of the surgical landscape (for example, create a particular pattern of a labral tear in the shoulder and a meniscus tear in the knee) as the residents improve their skills.

The final role of the Hayhurst Fund in its first iteration was the support of a project designed to better understand the "work" of orthopaedic surgery. The Whoop device is a validated tool for measurement of sleep and recovery. The Hayhurst Fund was used to purchase enough devices, straps, and battery packs to outfit all interested residents and faculty. Preliminary findings include the finding that home call for residents and faculty significantly decreases sleep quantity and quality, and baseline physiologic parameters take multiple days to return to baseline. The study is ongoing, thanks to our participants. We hope that this project will be helpful in particular for making decisions about optimal safety and wellness when creating call schedules and planning patient handoffs, based on what we learn about resident and faculty sleep and recovery.

A new faculty beneficiary of this very generous support will be chosen in the coming months, with a goal to pass the mantle as the new academic year begins. The Hayhurst legacy will therefore be multiplied. We are incredibly thankful to have this support, and aim to make our specialty better for it!



# Iron in the Fire

By Laura Sokil, MD

**Inspired by an idea:** Built on personal experience, Dr. Zachary Working, Director of Orthopaedic Trauma at OHSU, and Dr. Danielle Peterson, OHSU PGY-3, set out to develop an investigator initiated, randomized controlled drug trial investigating the use of intravenous iron therapy (IVIT) for anemia after orthopaedic fracture care. With this idea of developing a high-quality trial with level 1 evidence came the need for considerable funding. They were recently awarded three grants to fund various aspects of the study, including the Medical Research Foundation Early Clinical Investigator Grant (Peterson), Collins Medical Trust Grant (Working), and Orthopaedic Trauma Association Resident Research Grant (Peterson).

**Premise for the trial:** Acute blood loss in orthopaedic trauma and operative fracture care contributes substantially to perioperative anemia, which places patients at increased risk for complications including surgical site infection, cardiovascular complications, and even death. Anemia has further clinical implications in quality of life measures and is associated with fatigue, impaired physical performance, decreased exercise capacity, and mood disturbances. Thus, evaluation and treatment of perioperative anemia is critical in risk mitigation within orthopaedic surgery. The current standard of care for anemia is transfusion of packed red blood cells only in cases of severe anemia due to the substantial associated risks of transfusion. A safer alternative is desirable because a critical number of patients do not meet the restrictive transfusion threshold and may suffer negative effects from anemia during recovery from the acute insult. The focus of this project is to pilot investigation of the benefits of IVIT in traumatically injured patients. Working and Peterson aim to assess the effect of IVIT on resolution of anemia, patient-reported fatigue, physical function and depression, and immune cell function. Peterson states, “we expect this study to provide a better understanding

of IVIT, which has the potential to alter our treatment approach of anemia in patients who sustain traumatic orthopaedic injury, thereby leading to decreased risks and improved recovery.”

**Advancing the field:** The study has expanded beyond the Orthopaedic Department, with critical partnerships in the Department of Hematology and Division of Trauma. Dr. Joseph Shatzel, Assistant Professor of Biomedical Engineering and fellowship trained in Hematology & Medical Oncology, has been a crucial clinical advisor in anemia and the use of IVIT in their patient population. Dr. Joseph Aslan, Assistant Professor of Biomedical Engineering, and his lab are contributing necessary basic laboratory resources to better understand the biologic consequences of anemia in the traumatic setting and the role iron repletion plays on platelet function. Dr. Nick Willett, Associate Professor in Bioengineering at the University of Oregon Knight Campus, will be collaborating with the team to further characterize immune cell response after trauma. Dr. Martin Schrieber, Professor of Surgery, has graciously offered to be an advisor to the project as he is extensively experienced in clinical research, funding acquisition, and large-scale trials.

Reflecting on her work over the past several months, Dr. Peterson states that, “Success so far has been marked by hard work and many failures - hundreds of hours of prep work, rejected grant applications, unanticipated road blocks. We have learned so much in getting this study off the ground and with each failure came the opportunity to grow. We knew we had a great idea, but without the bumps in the road, we would never have had such an incredible team or study plan. We are excited by the possibilities this study has to expand and positively impact the care of our trauma patients. I personally am truly thankful to have the unwavering support of Dr. Working and the Orthopaedic Department to go after my research dreams during residency!”

## Adult Reconstruction:

Crawford DA, Lombardi AV, Berend KR, et al. Early outcomes of primary total hip arthroplasty with use of a smartphone-based care platform: a prospective randomized controlled trial. *Bone Joint J.* 2021;103-B(7 Supple B):91-97. doi:10.1302/0301-620X.103B7.BJJ-2020-2402.R1

Kendall J, Pelt CE, Yep P, Mullen K, Kagan R. Trends in Polyethylene Design and Manufacturing Characteristics for Total Knee Arthroplasty: An Analysis From the American Joint Replacement Registry. *J Arthroplasty.* 2022;37(4):659-667. doi:10.1016/j.arth.2021.11.012

Yount SE, Kallen MA, Schifferdecker KE, et al. The PROMIS<sup>®</sup>-Plus-Osteoarthritis of the Knee (OAK) profile measure integrates generic and condition-specific content to enhance relevance and efficiency. *J Clin Epidemiol.* 2021;135:158-169. doi:10.1016/j.jclinepi.2021.03.028

Zhao S, Kendall J, Johnson AJ, Sampson AAG, Kagan R. Disagreement in Readmission Rates After Total Hip and Knee Arthroplasty Across Data Sets. *Arthroplast Today.* 2021;9:73-77. doi:10.1016/j.artd.2021.04.002

## Foot and Ankle:

Chrea B, Day J, Dean DM, et al. Comparing Open vs Minimally Invasive Techniques for the Correction of Hallux Valgus: Clinical and Patient Reported Outcomes. *Foot Ankle Orthop.* 2022;7(1):2473011421S00143. doi:10.1177/2473011421S00143

Chrea B, Day J, Henry J, Cody E, HSS Orthopaedic Foot and Ankle Surgery Group, Ellis S. Influence of Complications and Revision Surgery on Fulfillment of Expectations in Foot and Ankle Surgery. *Foot Ankle Int.* 2021;42(7):859-866. doi:10.1177/1071100720985231

Chrea B, Eble SK, Day J, et al. Clinical and Patient-Reported Outcomes Following Peroneus Brevis Reconstruction With Hamstring Tendon Autograft. *Foot Ankle Int.* 2021;42(11):1391-1398. doi:10.1177/10711007211015186

Meeker JE, Weiss J, Thompson AR, Feng J. Changes in Plantar Forces and Pressures During Functional Movement with an Intrepid Dynamic Exoskeletal Orthosis Brace. *Foot Ankle Orthop.* 2022;7(1):2473011421S00361. doi:10.1177/2473011421S00361

Reilly ME, Conti MS, Day J, et al. Modified Lapidus vs Scarf Osteotomy Outcomes for Treatment of Hallux Valgus Deformity. *Foot Ankle Int.* 2021;42(11):1454-1462. doi:10.1177/10711007211013776  
OHSU Investigator: Bopha Chrea, MD

Urness D, Thompson AR, Soddors E, Ensrud E, Meeker JE. Comparison of a Simple Anatomic Landmark-Based Achilles Tendon Measurement with Ultrasound and MRI Measurements. *Foot Ankle Orthop.* 2022;7(1):2473011421S00479. doi:10.1177/2473011421S00479

Wong LH, Chrea B, Atwater LC, Meeker JE. Evaluation of Lisfranc Injuries: How Involved is the First Tarsometatarsal Joint? *Foot Ankle Orthop.* 2022;7(1):2473011421S00066. doi:10.1177/2473011421S00066

## Orthopaedic Oncology:

Gundle KR. CORR Insights<sup>®</sup>: International Validation of the SORG Machine-learning Algorithm for Predicting the Survival of Patients with Extremity Metastases Undergoing Surgical Treatment. *Clin Orthop Relat Res.* 2022;480(2):379-381. doi:10.1097/CORR.0000000000002078

Keltner CH, Lima APS, West M, Gundle KR, Fuss C, Davis LE. Primary Aortic Angiosarcoma: A Review of Two Cases Highlighting Unique Imaging and Clinical Characteristics. *Radiol Cardiothorac Imaging.* 2021;3(4):e210040. doi:10.1148/ryct.2021210040

Madison CJ, Melson RA, Conlin MJ, Gundle KR, Thompson RF, Calverley DC. Thromboembolic risk in patients with lung cancer receiving systemic therapy. *Br J Haematol*. 2021;194(1):179-190. doi:10.1111/bjh.17476

Prophylactic Antibiotic Regimens in Tumor Surgery (PARITY) Investigators, Ghert M, Schneider P, et al. Comparison of Prophylactic Intravenous Antibiotic Regimens After Endoprosthetic Reconstruction for Lower Extremity Bone Tumors: A Randomized Clinical Trial. *JAMA Oncol*. 2022;8(3):345-353. doi:10.1001/jamaoncol.2021.6628  
OHSU Investigator: Yee-Cheen Doung, MD, Kenneth Gundle, MD, James Hayden, MD, Ph.D

#### **Pediatrics:**

Chong DY, Schrader T, Laine JC, et al. Reliability and Validity of Visual Estimation of Femoral Head Hypoperfusion on Perfusion MRI in Legg-Calve-Perthes Disease. *J Pediatr Orthop*. 2021;41(9):e780-e786. doi:10.1097/BPO.0000000000001945  
OHSU Investigator: Scott Yang, MD

Goldstein ZT, Thompson AR, Robbins MA, Yang SS, Nazir OF, Mirarchi AJ. Optimizing Graft Extraction From the Femoral Condyle for Fresh Osteochondral Allograft Transplantation in Treating Osteochondritis Dissecans of the Capitellum: Best Fit Based on Radius of Curvature. *J Pediatr Orthop*. Published online June 2, 2021. doi:10.1097/BPO.0000000000001867

Watzig BF, Peterson DF, Thompson AR, Friess DM, Working ZM, Yang SS. Is the Iliac Cortical Density Similarly Positioned in the Developing Pediatric Pelvis? *J Orthop Trauma*. 2021;35(11):e411-e417. doi:10.1097/BOT.0000000000002079

#### **Physical Medicine and Rehabilitation:**

Arakawa J, Woelber E, Working Z, Meeker J, Friess D. Complications of Intraosseous Access: Two Case Reports From a Single Center. *JBJS Case Connect*. 2021;11(2). doi:10.2106/JBJS.CC.19.00382

Lindsay SE, Wurster L, Woolf K, Gundle KR. An Unusual Presentation of Inflammatory Shoulder Arthritis Associated with Nivolumab: A Case Report. *JBJS Case Connect*. 2021;11(4). doi:10.2106/JBJS.CC.21.00301

#### **Research and Basic Science:**

Bauer SR, Harrison SL, Cawthon PM, et al. Longitudinal Changes in Adiposity and Lower Urinary Tract Symptoms Among Older Men. *J Gerontol A Biol Sci Med Sci*. Published online August 10, 2021:glab227. doi:10.1093/gerona/000000000000227  
OHSU Investigator: Lynn Marshall, ScD

Bauer SR, Cawthon PM, Ensrud KE, et al. Lower urinary tract symptoms and incident functional limitations among older community-dwelling men. *J Am Geriatr Soc*. 2022;70(4):1082-1094. doi:10.1111/jgs.17633  
OHSU Investigator: Lynn Marshall, ScD

Bergin PF, Rothberg DL, Spitler CA, et al. The Prevalence of Metabolic and Endocrine Disturbances on Fracture Nonunion. *Endocr Pract*. Published online March 10, 2022:S1530-891X(22)00074-X. doi:10.1016/j.eprac.2022.03.003  
OHSU Investigator: Bopha Chrea, MD

Brant JE, Smith S, Radoslovich SS, et al. Effects of delayed postoperative void and preoperative urologic symptoms on delay in time of discharge for elective lumbar decompression surgery. *Spine J*. Published online December 25, 2021:S1529-9430(21)01095-0. doi:10.1016/j.spinee.2021.12.012

Carroll RS, Olney RC, Duker AL, et al. Collagen X Marker Levels are Decreased in Individuals with Achondroplasia. *Calcif Tissue Int*. Published online March 11, 2022. doi:10.1007/s00223-022-00966-0  
OHSU Investigator: Brian Johnstone, PhD

Coghlan R, Olney R, Boston B, Coleman D, Johnstone B, Horton W. Norms for clinical use of CXM, a real-time marker of height velocity. *J Clin Endocrin Metab* (2021) 1:e255-e264 doi: 10.1210/clinem/dgaa721

Duong V, Bennell K, Clifton-Bligh R, Deveza L, Elliott J, Guilak F, Hall M, Henderson L, Hodges P, Johnstone B, Linklater J, Little C, Lohmander L, Maclachlan L, Mudge A, O'Leary S, Ravi V, Sterling M, Vicenzino B, Yu S, Zaki S, Hunter D. Exploring translational gaps between basic scientists, clinical researchers, clinicians, and consumers: Proceedings and recommendations arising from the 2020 Mine the Gap online workshop. *OA and Cartilage Open* (2021) 3(2):100163. doi: 10.1016/j.ocarto.2021.100163

Hutchison CE, Remnick JI, Love ER, Karan S, Gundle KR. Orthopaedic Surgery Residency Program Adherence to Universal Interview Offer Day Guidelines: A Retrospective Analysis. *J Am Acad Orthop Surg*. Published online April 28, 2022. doi:10.5435/JAAOS-D-22-00006

Li S, Stöckl S, Lukas C, et al. Curcumin-primed human BMSC-derived extracellular vesicles reverse IL-1 $\beta$ -induced catabolic responses of OA chondrocytes by upregulating miR-126-3p. *Stem Cell Res Ther*. 2021;12(1):252. doi:10.1186/s13287-021-02317-6

OHSU Investigator: Brian Johnstone, PhD

Pattappa G, Reischl F, Jahns J, et al. Fibronectin Adherent Cell Populations Derived From Avascular and Vascular Regions of the Meniscus Have Enhanced Clonogenicity and Differentiation Potential Under Physioxia. *Front Bioeng Biotechnol*. 2021;9:789621. doi:10.3389/fbioe.2021.789621

OHSU Investigator: Brian Johnstone, PhD

Sandell L, Johnstone B. The articular cartilage. In: 'Rheumatology' (eds. M Hochberg et al) Elsevier, Amsterdam (2021)

Senders A, Bauer SR, Chen Y, et al. Lower urinary tract symptoms are associated with musculoskeletal pain among older men: Preliminary evidence for central sensitization as a mechanism? *NeuroUrol Urodyn*. 2021;40(8):1929-1938. doi:10.1002/nau.24767

OHSU Investigator: Lynn Marshall, ScD

Sennett M, Friedman J, Ashley B, Stoeckl B, Patel J, Alini M, Cucchiari M, Eglin D, Madry H, Mata A, Semino A, Stoddart M, Johnstone B, Moutos F, Estes B, Guilak F, Mauck R, Dodge G. Long term outcomes of biomaterial-mediated repair of focal cartilage defects in a large animal model. *Eur Cell Mat* (2021) 41:40-52 doi: 10.22203/eCM.v041a04

Stöckl S, Eitner A, Bauer RJ, König M, Johnstone B, Grässel S. Substance P and Alpha-Calcitonin Gene-Related Peptide Differentially Affect Human Osteoarthritic and Healthy Chondrocytes. *Front Immunol*. 2021;12:722884. doi:10.3389/fimmu.2021.722884

Thampi P, Tabbaa SM, Johnstone B, et al. Surface topography as a tool to detect early changes in a posttraumatic equine model of osteoarthritis. *J Orthop Res*. Published online August 27, 2021. doi:10.1002/jor.25175

Wong LH, Meeker JE. The promise of computer adaptive testing in collection of orthopaedic outcomes: an evaluation of PROMIS utilization. *J Patient Rep Outcomes*. 2022;6(1):2. doi:10.1186/s41687-021-00407-w

### Spine:

Brant JE, Smith S, Radoslovich SS, Wyland A, Walker JR, Lieberman EG, Yoo JU. Effects of delayed postoperative void and preoperative urologic symptoms on delay in time of discharge for elective lumbar decompression surgery. *Spine J*. 2021 Dec 25:S1529-9430(21)01095-0. doi: 10.1016/j.spinee.2021.12.012

Dong Q, Luo G, Lane NE, et al. Deep Learning Classification of Spinal Osteoporotic Compression Fractures on Radiographs using an Adaptation of the Genant Semiquantitative Criteria. *Acad Radiol*. Published online March 26, 2022:S1076-6332(22)00130-1. doi:10.1016/j.acra.2022.02.020

Laurita J, Brant JE, Degener-O'Brien K, et al. Utility of upright radiographs in traumatic thoracolumbar fracture management. *BMC Musculoskelet Disord*. 2022;23(1):296. doi:10.1186/s12891-022-05243-7

Philipp T, Radoslovich SS, Yoo JU. Risk Factors Associated With Femoral Ring Allograft Breakage in ALIF. *Global Spine J*. 2021 Jan;11(1):57-62. doi: 10.1177/2192568219890294.

Ross MN, Iyer S, Gundle KR, Ross DA. Association of Preoperative Hemoglobin A1c and Body Mass Index with Wound Infection Rate in Spinal Surgery. *Int J Spine Surg.* 2021;15(4):811-817. doi:10.14444/8104

Spivak JM, Zigler JE, Philipp T, Janssen M, Darden B, Radcliff K. Segmental Motion of Cervical Arthroplasty Leads to Decreased Adjacent-Level Degeneration: Analysis of the 7-Year Postoperative Results of a Multicenter Randomized Controlled Trial. *Int J Spine Surg.* 2022;16(1):186-193. doi:10.14444/8187

Zusman NL, Radoslovich SS, Smith SJ, Tanski M, Gundle KR, Yoo JU. Physical Examination Is Predictive of Cauda Equina Syndrome: MRI to Rule Out Diagnosis Is Unnecessary. *Global Spine J.* 2022;12(2):209-214. doi:10.1177/2192568220948804

### Sports Medicine:

Abraamyan T, Johnson AJ, Wiedrick J, Crawford DC. Marrow Stimulation Has Relatively Inferior Patient-Reported Outcomes in Cartilage Restoration Surgery of the Knee: A Systematic Review and Meta-analysis of Randomized Controlled Trials. *Am J Sports Med.* 2022;50(3):858-866. doi:10.1177/03635465211003595

Anderson DE, Bogner EA, Schiffman SR, Rodeo SA, Wiedrick J, Crawford DC. Evaluation of Osseous Incorporation After Osteochondral Allograft Transplantation: Correlation of Computed Tomography Parameters With Patient-Reported Outcomes. *Orthop J Sports Med.* 2021;9(8):23259671211022680. doi:10.1177/23259671211022682

Fabricant PD, Heath MR, Mintz DN, et al. Many Radiographic and Magnetic Resonance Imaging Assessments for Surgical Decision Making in Pediatric Patellofemoral Instability Patients Demonstrate Poor Interrater Reliability. *Arthroscopy.* Published online April 7, 2022:S0749-8063(22)00225-0. doi:10.1016/j.arthro.2022.03.033  
OHSU Investigator: Jacqueline Brady, MD

Fabricant PD, Heath MR, Veerkamp M, et al. Reliability of Radiologic Assessments of Clinically Relevant Growth Remaining in Knee MRI of Children and Adolescents With Patellofemoral Instability: Data From the JUPITER Cohort. *Orthop J Sports Med.* 2021;9(4):2325967121991110. doi:10.1177/2325967121991110  
OHSU Investigator: Jacqueline Brady, MD

Görtz S, Tabbaa SM, Jones DG, et al. Metrics of Osteochondral Allografts (MOCA) Group Consensus Statements on the Use of Viable Osteochondral Allograft. *Orthop J Sports Med.* 2021;9(3):2325967120983604. doi:10.1177/2325967120983604  
OHSU Investigator: Dennis Crawford, MD

Otlans PT, Buuck T, Rosencrans A, Brady JM. Orthopaedic Resident Arthroscopic Knot-Tying Skills Are Improved Using a Training Program and Knot-Tying Workstation. *Arthrosc Sports Med Rehabil.* 2021;3(3):e867-e871. doi:10.1016/j.asmr.2021.02.009

Wallenberg RB, Belzer ML, Ramsey DC, et al. MRI-Based 3-D Volumetric Assessment of Fatty Infiltration and Muscle Atrophy in Rotator Cuff Tears. *J Shoulder Elbow Surg.* Published online January 28, 2022:S1058-2746(22)00162-8. doi:10.1016/j.jse.2021.12.037

### Hand and Upper Extremity:

Hm F, Lj H, Ar T, et al. Humeral shaft fractures: a cost-effectiveness analysis of operative versus nonoperative management. *Journal of shoulder and elbow surgery.* Published online April 6, 2022. doi:10.1016/j.jse.2022.02.033  
OHSU Investigators: Adam Mirarchi, MD, Omar Nazir, MD

Lara TR, Kagan RP, Mirarchi AJ. Reply to "First and Second Letters Regarding "Traditional Versus Digital Media-Based Hand Therapy After Distal Radius Fracture." *J Hand Surg Am.* 2022;47(3):e5. doi:10.1016/j.jhssa.2021.09.027

Lara TR, Kagan RP, Hiratzka SL, Thompson AR, Nazir OF, Mirarchi AJ. Traditional Versus Digital Media-Based Hand Therapy After Distal Radius Fracture. *J Hand Surg Am.* 2022;47(3):291.e1-291.e8. doi:10.1016/j.jhssa.2021.06.018

Thompson AR, Brant JE, Ensrud ER, Mirarchi AJ. Tendon Transfers for the Treatment of Finger Flexion Weakness in a Patient With Inclusion Body Myositis: A Case Report. *JBJS Case Connect.* 2021;11(2). doi:10.2106/JBJS.CC.20.00747

**Trauma:**

Cornwell DQ, Thompson AR, Ivie RM, Working ZM, Friess DM, Meeker JE. Methamphetamine in Orthopaedics: Considerations of an At-Risk Population. *JBJS Rev.* 2021;9(6). doi:10.2106/JBJS.RVW.20.00229

Hellwinkel JE, Working ZM, Certain L, García AJ, Wenke JC, Bahney CS. The intersection of fracture healing and infection: Orthopaedics research society workshop 2021. *J Orthop Res.* 2022;40(3):541-552. doi:10.1002/jor.25261

Kagan R, Hart C, Hiratzka SL, Mirarchi AJ, Mirza AJ, Friess DM. Does Resident Participation in the Surgical Fixation of Hip Fractures Increase Operative Time or Affect Outcomes? *J Surg Educ.* 2021 Jul-Aug;78(4):1269-1274. doi:10.1016/j.jsurg.2020.11.011.

McKibben NS, Lindsay SE, Friess DM, Zusman NL, Working ZM. Methods of Quantifying Intraoperative Blood Loss in Orthopaedic Trauma Surgery: A Systematic Review. *J Orthop Trauma.* Published online November 17, 2021. doi:10.1097/BOT.0000000000002313

Mullis BH, Agel J, Jones C, et al. Unilateral Sacral Fractures Demonstrate Slow Recovery of Patient-Reported Outcomes Irrespective of Treatment. *J Orthop Trauma.* 2022;36(4):179-183. doi:10.1097/BOT.0000000000002260  
OHSU Investigator: Darin Friess, MD

Patterson JT, Ishii K, Tornetta P, et al. Smith-Petersen Versus Watson-Jones Approach Does Not Affect Quality of Open Reduction of Femoral Neck Fracture. *J Orthop Trauma.* 2021;35(10):517-522. doi:10.1097/BOT.0000000000002068  
OHSU Investigator: Darin Friess, MD

Rane A, Jacobson LG, Kellam P, et al. External Validation of the Radiographic Investigation of the Distal Extension of Fractures Into the Articular Surface of the Tibia (RIDEFAST Study). *J Orthop Trauma.* 2021;35(9):479-484. doi:10.1097/BOT.0000000000002044

Tornetta P, DeHaan A, Hinds D, Axelrad TW. The Orthopaedic Traumatologist and the Peritrochanteric Hip Fracture- Does Experience Matter? *J Surg Orthop Adv.* 2021;30(3):140-143.

Working ZM. Introduction-JOT Care Controversies. *J Orthop Trauma.* 2021;35(10):505. doi:10.1097/BOT.0000000000002137

Working ZM, Marchand LS. Commentary on: "Diagnosing Fractures of the Distal Tibial Articular Surface in Tibia Shaft Fractures: Is Computed Tomography Always Necessary?". *J Orthop Trauma.* 2021;35(9):490-491. doi:10.1097/BOT.0000000000002190

Working ZM, Peterson D, Lawson M, et al. Collagen X Longitudinal Fracture Biomarker Suggests Staged Fixation in Tibial Plateau Fractures Delays Rate of Endochondral Repair. *J Orthop Trauma.* 2022;36(Suppl 2):S32-S39. doi:10.1097/BOT.0000000000002307

Zusman NL, Woelber E, McKibben NS, et al. Methamphetamines and Acetabular Reoperation Rates: Poor Outcomes From the Front Lines. *J Orthop Trauma.* 2021;35(12):e491-e495. doi:10.1097/BOT.0000000000002133

**Samaratin:**

Goodeill T, Lin J, Krumrey J. Rotational Ankle Fracture Dislocation With Associated Lisfranc Fracture. *Cureus.* 2021;13(8):e17148. doi:10.7759/cureus.17148

Harris TA, Krumrey J, Sharp J. Development of an Effective Treatment Algorithm for the Stubbed Great Toe. *Cureus.* 2021;13(8):e17246. doi:10.7759/cureus.17246

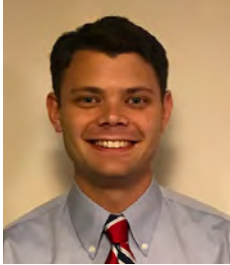
Jiganti M, Pipitone O, Than J, Stanley R, Passanise A, Krumrey J. A Single Dose Versus Two Doses of Tranexamic Acid for Extracapsular Hip Fractures. *Cureus.* 2022;14(1):e21239. doi:10.7759/cureus.21239

Than J, Jiganti M, Tedesco N. Simultaneous primary bilateral hip resection arthroplasty. *Arthroplast Today.* 2021;12:24-28. doi:10.1016/j.artd.2021.09.008

Westlake B, Mazzi J, Tedesco N. Osteoid Osteoma Treatment with Microwave Ablation: A Report of Two Cases. *Medicina (Kaunas).* 2021;57(5):470. doi:10.3390/medicina57050470



**Impact of PROFHER on Trends in Proximal Humerus Fracture Treatment in the United States.** Sam Cheesman, MD/MBA, Qian Yang, MPH, Jung Yoo, MD, Omar Nazir, MD, Adam Mirarchi, MD



### Sam Cheesman, MD/MBA

Hometown: Muncie, IN

Medical School: Indiana University, Indianapolis, IN

Fellowship Plans: Hand Fellowship at University of New Mexico

### INTRODUCTION

PROximal Fracture of the Humerus Evaluation by Randomization (PROFHER) is a high-quality randomized controlled trial (RCT) published in 2015 that compares outcomes for operative and nonoperative treatment of proximal humerus fractures (PHFs). The study found no difference in Oxford Shoulder Scores between operative and nonoperative groups at 2 and 5 years. The aim of this study was to assess whether the high-quality data produced by the PROFHER trial was implemented by American orthopaedic surgeons, namely, to examine whether operative treatment decreased following its publication in 2015.

### METHODS

Using the PearlDiver database, patients with PHFs were identified with ICD-9 and ICD-10 codes from 2011-2019. The year 2015 was established as the point at which change would be expected in practice patterns. CPT codes were used to identify patients who underwent operative treatment including open reduction internal fixation (ORIF), total shoulder arthroplasty (TSA) and hemiarthroplasty. Patients not undergoing these treatments were presumed to be treated nonoperatively. Statistical analysis was performed using simple linear regression as well as piecewise linear regression to assess both change over time as well as change in slope starting in 2015.

### RESULTS

Simple linear regression analysis showed increase in total operative treatment (0.18% per year,  $p = 0.01$ ) as a result of increased rate of ORIF (0.06% per year,  $p=0.04$ ) and TSA (0.27% per year,  $p<0.001$ ); there was a decrease in rate of hemiarthroplasty treatment (-0.15% per year,  $p<0.001$ ). Despite these changes, piecewise linear regression showed no significant change in slope (change in rate of treatment per year) in 2015 for total operative treatment, ORIF or TSA.

### CONCLUSIONS

This study illustrates that the PROFHER study did not significantly impact rates of operative treatment in the United States. This warrants additional investigation into the implementation of research findings in the field of orthopaedic surgery.

### **Gigli Saw Olecranon Osteotomy for Distal Humerus Fractures: A Cadaveric Study.**

Ryan W Hadden, MD; Austin R Thompson, BS; Omar F Nazir, MD; Zachary M Working, MD; Adam J Mirarchi, MD



#### **Ryan Hadden, MD**

Hometown: Salem, OR

Medical School: University of Alabama, Birmingham, AL

Fellowship Plans: Hand and Upper Extremity, Brown Department of Orthopaedic Surgery

#### **PURPOSE**

A novel plate-on Gigli saw osteotomy technique has been developed to simplify olecranon osteotomy management. The goal of this study was to evaluate the difference in procedural time, osteotomy surface area, and surgeon self-reported confidence in performing the standard chevron osteotomy and novel plate-on Gigli saw technique.

#### **METHODS**

Four board certified orthopaedic surgeons and ten residents each performed chevron and Gigli saw olecranon osteotomy techniques on cadaveric specimens. All osteotomies were stabilized with an olecranon plate and screws. Time to complete the procedure and time to complete each osteotomy were separately collected for each technique. Osteotomies were analyzed for quality of reduction using three separate reduction parameters. Digital images of the osteotomized surface areas were captured and analyzed via ImageJ Software. Pre and post simulation surveys were completed addressing participant experience. A Likert scale was used to discern self-reported confidence.

#### **RESULTS**

The chevron technique required more total time on average than the Gigli saw technique, however, the difference was deemed equivalent. Time to complete the olecranon osteotomy was greater on average

with the chevron technique than Gigli saw technique, however, the difference was only trivial. The surface area resulting from the chevron technique was larger on average than the surface area from the Gigli saw technique; this was a trivial difference. While half of the reductions with the chevron technique were of poor reduction quality, only one reduction with the Gigli saw technique was of poor reduction quality. Nonetheless, the proportion of participants that achieved poor reduction quality with the chevron technique but not the Gigli saw was found to be equivalent to the proportion of participants that achieved poor reduction quality with the Gigli saw technique but not the chevron technique. Self-reported confidence was significantly greater with the Gigli saw technique than with the chevron technique.

#### **CONCLUSIONS**

The two techniques demonstrated equivalence in total time and reduction quality, and only a trivial difference in surface areas. However, the Gigli saw technique demonstrated a better pattern of reduction, and greater participant confidence than the chevron technique.

#### **CLINICAL RELEVANCE**

The plate-on Gigli saw osteotomy technique is a simple alternative to the standard chevron osteotomy that yields a more predictable reduction pattern and is easy to perform.

### **Application of DA (Damage Assessment) software to preoperative MRI for prediction of surface area of tissue applied during osteochondral allograft reconstruction in the knee.**

Samuel G Moulton, MD; Matthew Provencher, MD; Armando Vidal, MD; Jack Wiedrick, MS, MA; Kaytee Arnold, BS; Dennis Crawford MD, PhD



#### **Samuel Moulton, MD**

Hometown: Eugene, OR

Medical School: OHSU, Portland, OR

Fellowship Plans: UCSF Sports Medicine & Shoulder Fellowship

#### **BACKGROUND**

Preoperative imaging is routinely used to estimate the quantity of tissue provided for fresh osteochondral allograft in the knee. Use of three-dimensional (3D) modeling software for this purpose may improve defect assessment to allow a more accurate estimate of osteochondral allograft tissue required for reconstruction and eliminate the potential circumstance of acquiring an inadequate quantity of tissue for transplant surgery.

#### **PURPOSE**

The purpose of this study was to evaluate the capacity of the Damage Assessment (DA) 3D MRI modeling software for predicting the osteochondral allograft surface area used in surgery.

#### **METHODS**

Patients who underwent fresh osteochondral allograft (FOCA) surgery to the distal femur with preoperative MRI imaging were included. The DA reports included total surface area of the lesion and the surface area of each subarea of injury (Red: full-thickness cartilage injury ICRS Grade IV; Pink: partial-thickness cartilage injury ICRS Grade 2-3; Purple: bone cyst; Blue: bone marrow edema; Green: bone loss). Probability of overestimation of graft tissue area by DA was estimated using a Bayes-moderated proportion, and the relationship between the prediction discrepancy (i.e. over- or underestimation)

and the magnitude of the DA estimate was assessed using nonparametric local-linear regression.

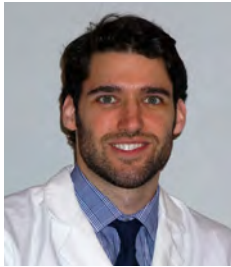
#### **RESULTS**

A total of 36 FOCA surgeries and corresponding DA reports were analyzed. The DA total surface area measure overestimated the area of FOCA tissue transplanted an estimated 81.6% of the time (95% CI [67.2, 91.4]), corresponding to a median overestimation of 3.14 cm<sup>2</sup>, or 1.78x the area of FOCA actually transplanted. The DA software overestimated the area of FOCA transplanted 100% of the time for defect areas measured >4.21 cm<sup>2</sup>. For defects <4.21 cm<sup>2</sup>, the maximum-magnitude underestimation of tissue area was 1.45 cm<sup>2</sup>, or on the fold scale 0.63x the transplanted area; this is approximately 2/3 of what is required, so a plausible heuristic is that multiplying a small (i.e. <4.21) DA-measured area of injury by a factor of ~1.5 would yield an overestimation of the tissue area transplanted most of the time.

#### **CONCLUSION**

The DA 3D modeling software overestimated osteochondral defect size >80% of the time in 36 distal femoral FOCA cases. A policy of consistent but limited overestimation of osteochondral defect size may provide a more reliable basis for predicting the minimum safe amount of allograft tissue to acquire for transplantation.

**Oncology Patients Are High Cost Outliers in Total Joint Replacement Bundled Payment Systems.** Erik Woelber, MD; Kenneth R. Gundle, MD; Jonah Geddes, MPH; Kathryn L. Schabel, MD; James B. Hayden, MD, PhD; Saifullah R. Hasan, BS; Lauren M. Raymond, BS; Yee-Cheen Doung, MD



### Erik Woelber, MD

Hometown: Anchorage, AK

Medical School: University of Washington, Seattle, WA

Fellowship Plans: Adult Reconstruction, Rothman Orthopaedics

### BACKGROUND

In 2016, the Centers for Medicare and Medicaid Services began its first mandatory bundled payment program, the Comprehensive Care for Joint Replacement (CJR) model, which covers a 90-day episode of care. This study determined whether oncology patients enrolled in the CJR bundle incur higher hospital costs than patients with osteoarthritis (OA).

### METHODS

A retrospective review of all patients enrolled in the CJR bundled payments system from April 1, 2016 to June 31, 2018 at a single academic medical center was conducted. To determine whether tumor patients had higher total episode costs, this group was compared to patients diagnosed with OA using a 2-tailed t-test. To adjust for moderators of total hospital costs, we used generalized linear regression with a log-link, including multiple variables abstracted from chart review.

### RESULTS

Three hundred fourteen patients met inclusion criteria (12 primary or metastatic tumors, 302 OA). Fifty-eight percent of tumor patients were over the target price vs 16% of OA patients. The mean tumor patient had \$40,862 for total internal hospital costs compared to \$16,356 in the OA group

( $P < .001$ ). Length of stay was greater in the tumor group (6.75 vs 2.0 days,  $P < .001$ ). A greater percentage of tumor patients were discharged to a skilled nursing facility (67% vs 27%,  $P = .006$ ) with significantly higher skilled nursing facility episode costs (\$18,852 vs \$7731,  $P = .04$ ). With adjustment for fracture status, tumor patients were 5.36 times more likely to exceed the CJR target price than OA patients (risk ratio 5.36, confidence interval 3.44-8.35,  $P < .001$ ) and 50 times more likely to be outliers over the regional threshold than OA patients (risk ratio 50.33, confidence interval 16.33-155.19,  $P < .001$ ).

### CONCLUSION

Oncology patients enrolled in the CJR bundled payment model incur significantly higher costs and have higher cost variability than patients with OA. We recommend that oncology patients be excluded from the CJR bundle.

**Acetabular Risk Calculator (ARC): A Perioperative Risk Stratification Tool to Predicting Major Postoperative Complications in Acetabular ORIF.** Natalie L Zusman, MD; Megan Rushkin, MPH; Natasha S McKibben; David M Gallacher; Darin M Friess, MD, MPH, FAAOS; Zachary M Working, MD



### Natalie Zusman, MD

Hometown: Portland, OR

Medical School: OHSU, Portland, OR

Fellowship Plans: Pediatric Orthopaedics, at Children's Hospital Los Angeles

### OBJECTIVES

The purpose of this study was to create a data-driven risk stratification tool to predict postoperative complications following acetabular open reduction internal fixation.

### DESIGN

Retrospective cohort study

### SETTING

Level 1 academic trauma facility

### PATIENTS/PARTICIPANTS

371 adult patients received unilateral traumatic acetabular open reduction internal fixation between 2008-2018

### INTERVENTION

Open or percutaneous reduction and internal fixation

### MAIN OUTCOME MEASUREMENTS

Major medical (such as pneumonia, septic shock, death) and surgical (conversion to arthroplasty, deep infection, loss of reduction) complications occurring within 30 and 365 days postoperative, respectively.

### RESULTS

24% of the 371 included patients experienced at least one major complication. Of the potential variables analyzed, variables predictive of complication were (in order of most to least predictive): ISS > 35, operative time > 2.7hr, age > 53yrs, trauma system entry, intraoperative blood loss > 1L, female sex, preoperative hemoglobin < 10.2 (g/dL), BMI > 28.5 kg/m<sup>2</sup>, associated fracture patterns, ASA≥3, and after-hours surgery (>50% of OR time after 15:00). Model performance: discrimination (ROC AUC=0.77), calibration (Hosmer-Lemeshow P=0.72).

### CONCLUSIONS

We present a sophisticated risk stratification tool (Acetabular Risk Calculator, "ARC") predictive of major complications after acetabular ORIF using 8 pre and 3 perioperative variables (after-hours surgery, operative time and blood loss). Surgeons may utilize the ARC during decision making with the aim to anticipate and mitigate complications

**3D Printed Models as an Adjunct to Resident and Fellow Education for Complex Acetabular Fractures.** Andrew Hadeed, DO; Scott Sandilands, DO; Robert Mercer, MD; Christina Salas, PhD; Rick Gehlert, MD



### Andrew Hadeed, DO

Hometown: Los Gatos, CA

Medical School: West Virginia School of Osteopathic Medicine, Lewisburg, WV

Fellowship Plans: Trauma, St. Louis University

### BACKGROUND

Understanding of complicated acetabular fracture patterns is critical to development of a successful operative plan and positive patient outcomes. 3D models of acetabular fractures are accurate, detailed, and patient-specific making them a useful adjunct for education and operative planning. They have also been shown to reduce operative time. The purpose of this study is to use 3D models in preoperative planning to determine how it affects comprehension of fracture classification, operative plan, and confidence in the operating room.

### METHODS

Patients over the age of 18 with an acetabular fracture who presented to a Level 1 trauma center in New Mexico from December 2018 to June 2019 were randomized into two groups. The treatment group had a 3D printed model of their fracture generated for use by the operative team. The control group only reviewed radiographs and CT preoperatively. Exclusion criteria included any fracture that was to be treated non-operatively or with external fixation. Attendings, trauma fellows and residents involved in the patient's care completed a 5-point Likert scale survey after surgery to assess for fracture and fixation understanding, as well as confidence in the operating room. The survey results were compared between the two groups.

### RESULTS

A total of 10 patients were randomized to the treatment group and 10 patients in the control group. Twenty survey responses were submitted from the attendings, and 38 responses were submitted from fellows and residents. The trainees involved in the treatment group were more likely to identify the correct acetabular fracture classification (75% vs 40% respectively;  $P=.04$ ). However, there was no difference in the trainee's confidence level, perceived participation in the operating room, or accuracy of preoperative plan (compared to the attending's). The attending surgeon did feel that the trainees had a better understanding of the fracture (Score of 3.5 vs 4.6 out of 5;  $P=0.003$ ) and were more involved in surgery (4.1 vs 4.8;  $P=0.07$ ) when able to preoperatively review a 3D model.

### CONCLUSION

3D models of complex acetabular fractures can improve residents and fellows' understanding of fracture patterns, but do not significantly improve their confidence in the operating room or their fixation planning. Review of a 3D model by the operative team also resulted in the attending surgeons having more confidence in their trainees' understanding of the fracture and the perception of more involvement in the operating room.

### Hematoma Blocks in Pediatric Femoral Shaft Fractures- Preliminary results.

Petersen, Tyler, DO



#### Tyler Petersen, DO

Hometown: Vancouver, WA

Medical School: Western University of Health Sciences, Lebanon, OR

Fellowship Plans: Trauma, University of Pittsburgh

#### BACKGROUND

Pediatric femoral shaft fractures of the femur in patients from 6 months to 5 years are primarily treated with cast immobilization, and pain is generally treated with short courses of narcotic pain medication in combination with Tylenol and ibuprofen on the floor and then upon discharge. Our study wishes to look at the effect of a fracture hematoma block using 0.2% ropivacaine on the utilization of narcotic medications both on the floor and at home by these patients.

#### METHODS

This preliminary study compared 20 patients who had received the hematoma block with 20 patients prior to implementing hematoma blocks to examine average morphine equivalent dosages both in the OR, the PACU, and the floor post-operatively. All spica casting was completed in the Legacy Emanuel operating room with anesthesiologist sedation.

#### RESULTS

Overall we have found low utilization of narcotics (morphine equivalent dosing) in both hematoma block and non-hematoma blocked patients, with a trend towards less usage in hematoma blocked patients intra-operatively (0.28 MED vs 0.36 MED) the PACU (0.09 MED vs 0.19 MED), and the floor (2.14 MED vs 2.26 MED) however this did not

reach significance. There were no complications noted with the blocks, and OR time was not significantly increased.

#### CONCLUSION

This is a preliminary study, and more numbers will be needed to show a true difference in the groups if any. Thus far it is showing to be a safe adjunct to femoral shaft fractures being treated in a hip spica cast with potential advantage of better pain control. We hope to continue this data collection and see if overall utilization decreases in a significant manner.

## Time to Functional Outcome Optimization After Musculoskeletal Tumor Resection.

Babe Westlake, DO; Olivia Pipitone, MPH; Nicholas Tedesco, DO.



### Babe Westlake, DO

Hometown: Sparks, NV

Medical School: Western University of Health Sciences, Lebanon, OR

Fellowship Plans: Orthopaedic Oncology, University of Utah

### BACKGROUND

There is ample literature describing surgical outcomes after oncologic musculoskeletal tumor surgery, however, there is limited understanding of the time to optimization of functional outcome scores after resection. The purpose of this study was to identify the time to functional outcome optimization of Musculoskeletal Tumor Society (MSTS) Scores after surgery for bone and soft tissue tumors and to identify factors correlated with recovery.

### METHODS

We retrospectively reviewed 187 patients from April 2016 to May 2021 that had undergone surgical treatment for musculoskeletal tumors. We assessed MSTS scores to determine the time to optimization and evaluated patient-specific and surgical factors for any influence on post-operative recovery.

### RESULTS

The majority of patients (92%) achieved their optimized score in one year or less. Eighty-two percent achieved the maximum MSTS score of 30. Osseous tumors, malignancy, adjuvant treatment with radiation and/or chemotherapy, deep location for soft tissue tumors, and bony work required for soft tissue tumors all significantly impacted time to MSTS score optimization.

### CONCLUSION

The majority of patients with musculoskeletal tumors undergoing surgery can be expected to improve up to one year post-operatively. Those with bone tumors, malignant tumors, treatment with radiation and/or chemotherapy, deep soft tissue tumors, and bony work for soft tissue tumors can expect to have a longer recovery time and are at higher risk for not achieving pre-morbid functionality.



# Resident Directory 2021-2022

OHSU Residents (PGY-4 to PGY-1)

## PGY-4 Class

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**Elliott Cole, MD, MPH**

Hometown:  
Memphis, TN

Medical School:  
University of  
Tennessee,  
Memphis, TN



**Derek Bond, MD**

Hometown:  
Hillsboro, OR

Medical School:  
OHSU, Portland, OR



**Loren O. Black, MD**

Hometown:  
Portland, OR

Medical School:  
OHSU, Portland, OR



**Connor Pihl, MD**

Hometown:  
Juneau, AK

Medical School:  
University of  
Washington,  
Seattle, WA



**Jamil Kendall, MD**

Hometown:  
St. Thomas, Virgin Islands

Medical School:  
Howard University,  
Washington, DC

## PGY-3 Class

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**Michelle Lawson, MD**

Hometown:  
Seattle, WA

Medical School:  
University of  
Rochester,  
Rochester, NY



**Danielle Peterson, MD**

Hometown:  
Mill Creek, WA

Medical School:  
University of  
Washington,  
Seattle, WA



**Frank Rodgers, MD**

Hometown:  
Columbia, SC

Medical School:  
University of South  
Carolina, Columbia, SC



**Laura Sokil, MD**

Hometown:  
Lower Merion, PA

Medical School:  
Thomas Jefferson  
University,  
Philadelphia, PA



**Naomi Turner, MD**

Hometown:  
Bloomington, MN

Medical School:  
University of  
Minnesota,  
Minneapolis, MN

# Resident Directory 2021-2022

OHSU Residents (PGY-4 to PGY-1)

## PGY-2 Class

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**Kate Hutchison, MD**

Hometown:  
Evanston, IL

Medical School:  
University of  
Pennsylvania,  
Philadelphia, PA



**Mackenzie Kelly, MD**

Hometown:  
Portland, OR

Medical School:  
Oregon Health &  
Science University,  
Portland, OR



**Phil Lam, MD**

Hometown:  
Portland, OR

Medical School:  
Oregon Health &  
Science University,  
Portland, OR



**Sarah Lindsay, MD**

Hometown:  
Greenwood Village, CO

Medical School:  
Stanford School of  
Medicine, Stanford, CA



**Kyle Minkel, DO**

Hometown:  
San Luis Obispo, CA

Medical School:  
Western University  
of Health Sciences,  
Pomona, CA

## PGY-1 Class

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**Jordan Arakawa, MD**

Hometown:  
Olympia, WA

Medical School:  
Oregon Health &  
Science University,  
Portland, OR



**Sarah Hanna, MD**

Hometown:  
Federal Way, WA

Medical School:  
Oregon Health &  
Science University,  
Portland, OR



**Aidan Morrell, MD**

Hometown:  
Newberg, OR

Medical School:  
Virginia Commonwealth  
University, Richmond, VA



**Katherine Velicki, MD**

Hometown:  
Garden Grove, CA

Medical School:  
Washington University  
School of Medicine,  
St. Louis, MO



**Sebastian Welling, MD**

Hometown:  
Juneau, AK

Medical School:  
University of  
Washington School of  
Medicine, Seattle, WA

# Resident Directory 2021-2022

Samaritan Health Services Residents (PGY-4 to PGY-1)

## PGY-4 Class

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**Taylor Brown, DO**

Hometown:  
Appleton, WI

Medical School:  
Kansas City  
University,  
Kansas City, MO



**Teigen Goodeill, DO**

Hometown:  
Centralia, WA

Medical School:  
Pacific NW University  
of Health Sciences,  
Yakima, WA



**Jared Sanderford, DO**

Hometown:  
Greeley, CO

Medical School:  
Rocky Vista University  
of Osteopathic  
Medicine, Parker, CO

## PGY-3 Class

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**Christopher Canario, DO**

Hometown:  
Newark, CA

Medical School:  
Rocky Vista University  
of Osteopathic  
Medicine, Parker, CO



**Delaney Keane, DO**

Hometown:  
Los Gatos, CA

Medical School:  
West Virginia School  
of Osteopathic  
Medicine,  
Lewisburg, WV



**Alexandra Mackenzie, DO**

Hometown:  
Sonora CA

Medical School:  
Rocky Vista University of  
Osteopathic Medicine,  
Parker, CO

# Resident Directory 2021-2022

Samaritan Health Services Residents (PGY-4 to PGY-1)

## PGY-2 Class

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**Maxwell Jiganti, DO**  
Hometown: Gig Harbor, WA  
Medical School: Burrell College of Osteopathic Medicine, Las Cruces, NM



**Jibrán Khan, DO**  
Hometown: Dallas, TX  
Medical School: Rocky Vista University College of Osteopathic Medicine, Parker, CO



**Jacob Pearson, DO**  
Hometown: Craig, CO  
Medical School: Rocky Vista University College of Osteopathic Medicine, Parker, CO

## PGY-1 Class

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**Jeremy Brown, DO**  
Hometown: St. Petersburg, FL  
Medical School: Rocky Vista University College of Osteopathic Medicine, Parker, CO



**Clarian Smyth, DO**  
Hometown: Happy Valley, Oregon  
Medical School: Western University of Health Sciences College of Osteopathic Medicine of the Pacific, Lebanon, OR



**Robert Wood, DO**  
Hometown: Erie, PA  
Medical School: Lake Erie College of Osteopathic Medicine, Erie, PA

# Alumni Updates: Class of 2019

**Have an update for us? Want to keep in touch with the latest happenings?**  
Follow us or send a note through our social media accounts!

**Twitter:** @ohsuortho

**Instagram:** ohsuortho

**Facebook:** <https://www.facebook.com/ohsuortho>



## **COURTNEY BELL, MD**

After graduating residency in 2019, I moved to the east coast to complete my adult reconstruction fellowship at the Rothman Institute. I had an amazing opportunity to build upon my skills and knowledge from OHSU in total joint replacement and bonus trauma call. I couldn't ask for better mentors and friends from OHSU and fellowship.

After fellowship, my husband and I moved to Naples, Florida which has been a great place to live and where I am currently in private practice doing primary and revision hip and knee replacement as well as taking care of many, many hip fractures in Southwest Florida.



## SHANJEAN LEE, MD

After graduating from residency in 2019, I started practice as a general orthopedic surgeon at the VA hospital in Reno. My partner Mikey and I chose Reno, NV as our new home partly because of the strong orthopedic program at the Reno VA and partly because of Reno's proximity to the Sierra Nevada mountains, as we both love to rock climb.

Since starting practice at the Reno VA, I have built a truly general practice - my week in the OR might include a reverse total shoulder, a MPFL reconstruction, a total knee, a rotator cuff repair,



and some carpal tunnel releases or a hip fracture to round things out. Because of this, I am so grateful for the well-rounded program at OHSU and for the mentors there who continue to guide me when I have questions about tough cases. Also since starting in Reno, I have had the opportunity to spend more time in Yosemite and completed one of my lifetime goals - free climbing El Capitan! All in all, life after residency has been very fulfilling in multiple arenas: full of new challenges and learning opportunities that have helped me keep growing as a person and as an orthopedic surgeon.



### **ELIZABETH LIEBERMAN, MD**

After graduating from residency in 2019 I moved to St. Louis for a fellowship in Adult Reconstruction and Hip Preservation at Washington University in St. Louis. The first part of my fellowship was spent learning complex arthroplasty and hip preservation procedures and exploring St. Louis (highly recommend going to a Cardinals baseball game and trying Gooney Butter Cake if you go!). The COVID pandemic hit during the second half of my fellowship, which shook things up a bit but allowed for some time to do research and more trauma/urgent arthroplasty procedures. After fellowship, I returned to Portland and got married in a very small ceremony, which was completely different from the wedding my husband Steve and I started planning in 2019 but ended up being pretty amazing. I have been in practice

at Adventist Health Portland for the past two years and have enjoyed working in a small community hospital doing mostly arthroplasty procedures and fracture care. I will be joining the Orthopaedic + Fracture Specialist group this summer and am excited to work with OHSU residents. Last year I started the OHSU Orthopaedic Alumni Association and look forward to being able to plan in-person events soon. I also joined the board of the Oregon Association of Orthopaedic Surgeons and was able to participate in the Orthopaedic Advocacy Week, which I highly recommend to anyone who is interested in getting involved. Outside of work I spend my time throwing a ball for my two black labs, Seamus and Wrigley, chasing PRs on my Peloton, and working on my new hobby- golf, which is incredibly humbling.



### PETERS OTLANS, MD

After five memorable years in Portland, I moved to Philadelphia to complete a sports medicine fellowship at Thomas Jefferson University, through the Rothman Orthopaedic Institute. While the COVID pandemic struck during my time there, I had experiences that will last me a lifetime. While there, I helped take care of each of the city's major professional sports franchises, two college teams, and high schools, gaining invaluable experience with their team physicians, medical staff, and athletes. In addition, Rothman challenged me clinically and academically with an ambitious program created to get us extensive operating room and research experience. It was truly eye-opening and I am so grateful to all of my (many) mentors there!

Making the trip with me to Philadelphia was Maria, who I met in Portland. She has been an incredible support to me throughout this entire journey. We were married last June and are expecting a baby

girl later this summer. We have settled back in the Pacific Northwest and I have joined a private practice in Burien, called Proliance Southwest Seattle Orthopedics. There are some OHSU connections here, as one partner, Dr. Brian Jones, is a previous OHSU spine fellow, and another, Dr. Alan Barronian, is father to recent OHSU ortho residency graduate Trevor. They have welcomed me with open arms to our relatively small practice of five surgeons. I am working with the local school district as a team doctor and doing a variety of cases here, including simple and complex arthroscopy, arthroplasty, and community trauma.

OHSU trained me well, and I feel well-equipped to handle pretty much any case I encounter. If I have doubts or questions I reach out to mentors, partners, and old friends, especially my residency cohort who are the best! A heartfelt hello and thank you to all my former Portland mentors, friends, and coresidents. I miss you all!





### TRAVIS PHILIPP, MD

After graduating in 2019 I moved to the East Village/Gramercy area of Manhattan for my spine fellowship at NYU. I worked with wonderful faculty and had great co-fellows. It was certainly an interesting year to be in NYC with COVID hitting just past the halfway point of my fellowship. We knew the situation was bad when all of the orthopaedic surgeons were distributed throughout the hospital working in different roles. I found myself working on a medicine team for a couple of weeks during the peak, which was certainly an experience I was not expecting. I will always be grateful for all of the people that pulled together and worked through that difficult time. It was a humbling experience.

The silver-lining was that with everything shut-down, my wife who had been splitting time

between NYC and Portland was now just in NYC. After fellowship we made our way back to Portland and I was very fortunate to start practice at OHSU. The learning curve the first couple years of practice is far and away the steepest that I've experienced throughout my training as a surgeon. I've been fortunate to have wonderful partners to bounce things off of and help me continue to grow as a surgeon. I have also been working with the school of medicine as an academic advisor for the medical students which has been a rewarding experience in addition to my clinical duties.

Most exciting since graduating residency though has been the arrival of our beautiful and energetic (she still doesn't seem to sleep) daughter, Campbell. She was born on Thanksgiving in 2021 and has been keeping us on our toes ever since.

## OHSU Annual Beals Lectureship



*Rodney K. Beals, MD*

The Beals memorial lectureship is an annual event established in honor of the late Rodney K. Beals, MD, Professor Emeritus in the Department of Orthopaedics & Rehabilitation at Oregon Health & Science University, who taught orthopaedics for more than 50 years. Dr. Beals was a lifelong “Oregonian” and spent his entire professional career practicing orthopaedic surgery in Portland, OR. Dr. Beals was a committed clinician, master surgeon, revered educator and accomplished researcher. It was not only out of respect for his scientific accomplishments, but for his humble guidance and mentorship that the OHSU Department of Orthopaedics & Rehabilitation established the annual Beals Memorial Lecture Series.

Dr. Beals attended Willamette University for his undergraduate training, graduating in 1952, and received his medical degree from the University of Oregon Medical School (precursor to OHSU) in 1956. He completed his internship at Minneapolis General Hospital followed by a General Surgical Residency in San Bernadino County Hospital in California. He ultimately completed his training in Orthopaedic Surgery at the University of Oregon Medical School in 1961. Dr. Beals immediately joined the faculty and rapidly rose through the ranks at OHSU, serving as Head of the Division of Orthopedics from 1981 to 1994. Dr. Beals also served as the first chairman for the Department of Orthopaedic Surgery at OHSU in 1994. At the age of 77, he remained an active member of the Orthopaedic faculty at OHSU until the time of his passing on August 7, 2008.

Dr. Beals was an accomplished researcher throughout his career. He was nationally recognized for his research on skeletal manifestations of growth disturbances in children. He authored more than 150 peer-reviewed publications. Dr. Beals was also a revered educator. During his tenure at OHSU, he helped train more than 150 orthopaedic surgeons in residency. He also helped thousands of patients and mentored countless numbers of medical students. Throughout his remarkable career, Dr. Beals represented and personified excellence in medicine and orthopaedic surgery.

# Visiting Lectureships



Guest Lecturer 2022  
**Judith F. Baumhauer,  
M.D., M.P.H.**

**Professor and Associate  
Chair of Orthopaedic  
Surgery Director, UR  
Clinical Health**

**Informatics Core for the  
UR Health Care System,  
University of Rochester  
Medical Center**

## **BEALS GUEST LECTURER**

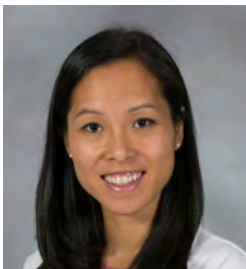
### **Judith F. Baumhauer, MD, MPH**

Dr. Baumhauer received her Bachelor's degree from Springfield College, Master's degree in Biology from Middlebury College, and Doctorate of Medicine from the University of Vermont College of Medicine. She completed orthopaedic residency at the Medical Center Hospital of Vermont and a Fellowship in Foot and Ankle Surgery at the Medical College of Wisconsin. While working as an Attending at the University of Rochester, she obtained a Master in Public Health degree from the University of Rochester Department of Community and Preventive Medicine.

Dr. Baumhauer is the past president of the American Board of Orthopaedic Surgery, American Orthopaedic Foot and Ankle Society (AOFAS) and Eastern Orthopaedic Association. She currently is the President of the PROMIS Health Organization.

Dr. Baumhauer has published over two hundred peer reviewed papers and book chapters. Her research interest focuses on the use of patient-reported outcomes (PROs) in clinical decision-making to improve the care provided to patients. She has studied how collecting and sharing PROs affect patient engagement, patient satisfaction and clinical efficiency. Dr. Baumhauer is a Board of Trustee for the American Journal of Bone and Joint Surgery and a reviewer for *Clinical Orthopaedics*

and *Related Research*, *Foot and Ankle International*, *American Journal of Bone and Joint Surgery*, and the *Journal of Orthopaedic Research*.



OHSU Faculty Speaker  
**Bopha Chrea, MD**

## **OHSU FACULTY SPEAKERS**

### **Bopha Chrea, MD**

Dr. Chrea is a fellowship-trained foot and ankle surgeon. She specializes in helping people get back to their pre-injury level of activity, whether that is running marathons, playing a collegiate sport, or simply walking for exercise. She provides advanced treatment options and specializes care for a wide variety of foot and ankle conditions and disorders including fractures, arthritis, minimally invasive surgery, deformity correction, and soft tissue injuries including Achilles tendon injuries.



OHSU Faculty Speaker  
**Nick Willett, PhD**

### **Nick Willett, PhD**

Nick Willett, PhD, is an Associate Professor in the Department of bioengineering at the University of Oregon Knight Campus and runs a research lab with a focus on engineering strategies for musculoskeletal regeneration and rehabilitation. Dr. Willett is the Associate Director of the University of Oregon site for the Wu Tsai human performance alliance and is helping to lead the Regenerative Rehabilitation Moonshot.

The OHSU Orthopaedic Surgery Department held its annual Rodney K. Beals Memorial Seminar on May 21, 2022. The event featured visiting professor Judith Baumhauer, MD who presented her research on Patient-Reported Outcomes at her home institution, the University of Rochester, and the “Win-Win” of Volunteerism in Orthopaedics. OHSU faculty lecturers included Dr. Bopha Chrea, MD and Dr. Nick Willett, Ph.D, and OHSU graduating chief residents presented their senior theses. The department was pleased to return to an in-person event, in addition to providing the option to livestream.



Pictured L-R: Sam Cheesman, MD; Bopha Chrea, MD; Ryan Hadden, MD; Guest Faculty Judith Baumhauer, MD; Sam Moulton, MD; Kenneth Gundle, MD; Erik Woelber, MD; Darin Friess, MD; Nick Willett, Ph.D; Natalie Zusman, MD



Dr. Kenneth Gundle speaks about Dr. Beals' legacy at OHSU



Guest speaker Dr. Judith Baumhauer, MD congratulates our graduating chief residents

## Shriners Hospital for Children – Beattie Lecture Series



Mr. Byron J. Beattie was the owner and operator of a printing plant in Portland, Oregon. Mr Beattie became acquainted with Dr “French” Eldon Chuinard, while Dr Chuinard was the chief of staff at Shriners Hospital for Children, Portland. He was so impressed with the importance of the educational mission of Shriners Hospital that he created an endowment fund to support our local education activities. The first seminar was held in 1985.



Guest Lecturer 2021  
**Mark A. Erickson,  
MD, MMM**

### **BEATTIE GUEST LECTURER 2021**

#### **Mark A. Erickson, MD, MMM**

Dr. Erickson is the Medical Director of the Spine Center and Professor at Children’s Hospital Colorado. He completed his medical degree at Wright State University Boonshoft School of Medicine, orthopaedic residency at Wright State University, and pediatric orthopaedic fellowship at Texas Scottish Rite Hospital for Children. His practice focuses on the treatment of children and young adults with spinal disorders.

Dr. Erickson’s research interests include the management of spinal deformity in children, multi-institutional approaches to gaining insights towards improving quality, and local quality improvement initiatives. He has been involved in the development of a multidisciplinary task force to look at all variables that could have an impact on surgical site infection in spine surgery patients. He is involved in several national multi-center studies including the Prospective Pediatric Scoliosis Study, Fox Pediatric Deformity Study Group, Minimize Implants/ Maximize Outcomes, and the Children’s Spine Study Group.

The Shriners Hospital for Children was honored to have Dr. Erickson speak on the following at the 2021 Beattie Lecture:

- Leadership in Orthopedics, We Really Need to Step It Up!
- The Process Towards Continuous Improvement: Surgeons, Residents, Fellows, and the Whole Team
- Multidisciplinary Approach to Complex Patients in Pediatric Orthopedics



## 59TH ANNUAL DILLEHUNT MEMORIAL LECTURE

The Dillehunt Memorial Lecture honors the contribution of a great surgeon and legendary teacher, Dr. Richard Dillehunt, who inspired many orthopaedists. With his keen interest in medical education, he played a prominent role in the development of the medical school on the hill. He was particularly devoted to children and was instrumental in the establishment of the Shriners Hospitals for Children, Portland. He became Shriners first Chief Surgeon in 1920, and served in that position until his retirement in 1943. His legacy continues through the Dillehunt Memorial Trust Fund, sponsoring visiting distinguished Pediatric Orthopaedic Surgeons from throughout the world.



## DILLEHUNT GUEST LECTURER 2022

### Tim Theologis, MSc, PhD, FRCS

Professor Tim Theologis is a Consultant Orthopedic Surgeon at Oxford University Hospitals NHSFT, Associate Professor at Oxford University and Research Professor at Oxford Brookes University. He has clinical and research links with the Oxford Gait Laboratory. His interests include developmental dysplasia of the hip, musculoskeletal tumours, and neuromuscular disorders, including cerebral palsy. He is involved in the supervision of postgraduate degrees and the training of orthopedic residents. He is Emeritus Editor in Chief for Gait and Posture. He has been a Board member of the British Society for Children's Orthopaedic Surgery since 2009 and is BSCOS President 2018-2020.

Guest Lecturer 2022  
**Tim Theologis, MSc,  
PhD, FRCS**

Featured Professor,  
2022

Consultant  
Orthopaedic Surgeon  
at Oxford University  
Hospitals NHSFT

Associate Professor at  
Oxford University

Research Professor  
at Oxford Brookes  
University, Oxford,  
United Kingdom

# Grand Rounds Lectures 2021-2022

## OHSU Grand Rounds Topics and Speakers 2021-2022

*Opportunistic Use of CT Scans for Evaluation of Bone Mineral Density*, Travis Philipp, M.D., May 2, 2022

*Intraoperative Fluoroscopic Radiation Exposure in the OR: How Much is Safe?*, Timothy Keenen, M.D., March 7, 2022

*Effective QI Project Design in Orthopaedics*, Gail Armstrong, Ph.D., D.N.P, ACNS-BC, FAAN, February 7, 2022

*Ultrasound Diagnostic and Therapeutic Use in the Superior Extremity*, Adam Mirarchi, M.D., January 31, 2022

*Ergonomics: An Update*, Omar Nazir, M.D., January 3, 2022

*History of PROMIS pfCAT (An Orthopaedic Story)*, James Meeker, M.D., December 6, 2021

*Hospice General Inpatient (GIP) Level of Care at OHSU*, Billy Warshal, M.D., November 29, 2021

*Distal Tibial Nailing...How distal is too distal?*, Milton T.M. Little, M.D., FAOA, FAAOS, November 1, 2021

*Diversity in Orthopedic Surgery*, Selina Poon, M.D., M.P.H., October 18, 2021

*2021 Resident Leadership Forum (RLF)*, Natalie Zusman, M.D. and Sam Cheesman, M.D., August 30, 2021

*Sleep On It: Sleep Best Practices for Our Demanding Lives*, Tanvi Mukundan, M.D., June 7, 2021

Available to view on <https://www.ohsu.edu/ortho/orthopaedic-grand-rounds-lecture-archive>

## Shriners Grand Rounds Topics and Speakers 2021-2022

*Bidirectional Learning in Global Orthopedics: Missed Opportunities*, Dr. Sanjeev Sabharwal, April 14, 2022

*Technological Innovations in Orthopedic Surgical Education*, Dr. Bryan Tompkins, February 10, 2022

*Wrong Side Surgery and Metacognition*, Dr. Kristen Carroll, December 9, 2021

*My Journey...Recruiting and Mentoring the Under-Represented... an Orthopaedic Necessity*, Dr. Alvin Crawford, October 14, 2021

*Total Hip Arthroplasty in the Very Young Patient: Challenges, Clinical outcomes, and Strategies to Facilitate THA in the Very Young patient*, Dr. John Clohisy, August 12, 2021

*History of Pediatric Orthopaedic Surgery at SHC-P*, Dr. Michael Aiona, June 10, 2021

# Resident and Teaching Awards

**LEO S. LUCAS OUTSTANDING ORTHOPAEDIC EDUCATOR AWARD:** Presented to the faculty member most instrumental in the development of future orthopaedic surgeons.

**MORRIS HUGHES AWARD:** Presented to the resident who best demonstrates concern for patients and for education of the next generation of physicians.

**RESEARCH AWARD:** Presented to the resident recognized for a commitment to the development, execution and publication of original research during residency.

**RODNEY BEALS AWARD:** Awarded yearly by faculty to the best resident based on intelligence, quality of work, work ethic, and effect on the environment.

YEAR	LEO S. LUCAS	MORRIS HUGHES	RESEARCH AWARD	RODNEY BEALS AWARD
2007	Tom Ellis	Rob Tatsumi	Joseph Schenck	
2008	Dennis Crawford	Stephan Pro	Kate Deisseroth	
2009	Darin Friess	Stephan Pro	Khalid Shirzad	
2010	Amer Mirza	Gary Kegel Gregory Byrd	Patrick Denard	
2011	James Hayden	Jayne Hiratzka	Jayne Hiratzka Matthew Harrison	
2012	Jesse A. McCarron	Luke Rust	Dawson Brown Matthew McElvany	
2013	James Hayden	Laura Matsen Ko Jacqueline Munch	Adam Baker	
2014	Adam Mirarchi	Rich Myers	Trevor McIver	
2015	Kathryn Schabel	Dustin Larson	Alexander DeHaan	
2016	Paul Duwelius	Jacob Adams	Thomas Kowalik	
2017	Jacqueline Brady	Ryland Kagan	Michael Rose	
2018	Darin Friess	Dayton Opel	Derek Smith	Elizabeth Lieberman
2019	Kenneth Gundle	Elizabeth Lieberman	Shanjean Lee	Taylor Lara
2020	Yee-Cheen Doung	Taylor Lara	Duncan Ramsey	Loren Black
2021	Kenneth Gundle	Trevor Barronian	Sean Sterrenberg	Natalie Zusman



## Additional Award Recipients from OHSU's Department of Orthopaedics and Rehabilitation:

**Dr. Kenneth Gundle** was awarded an OHSU Reinvestment Award for Protective Lead for Orthopaedics & Rehabilitation

**Dr. Kathryn Schabel** was awarded an OHSU Reinvestment Award for Pre-Op Education via EdCOMM videography for Orthopedic Surgery

**Dr. Omar Nazir** was awarded an OHSU Reinvestment Award for Assessment tool to combat burnout for Orthopaedic Surgery and Rehabilitation

**Dr. Zachary Working** was awarded the Collins Medical Trust Grant

**Dr. Danielle Peterson** was awarded the Medical Research Foundation Early Clinical Investigator Grant and the Orthopaedic Trauma Association Resident Research Grant

PGY4 Residents **Dr. Jamil Kendall** and **Dr. Loren Black** were selected to attend the AOA Annual Resident Leadership Forum, June of 2022.

**Dr. Jamil Kendall** won Best Poster in Adult Reconstruction Knee, American Academy of Orthopaedic Surgeons Annual Meeting 2022

**Dr. Michelle Lawson** was selected to be a member of the American Board of Orthopaedic Surgery (ABOS) Resident Advisory Panel

**MS4 Stephanie Zhao** won Best Poster in Adult Reconstruction Knee, American Academy of Orthopaedic Surgeons Annual Meeting 2021

# OHSU Orthopaedic Program Alumni Directory

GRADUATE		FELLOWSHIP TRAINING	CURRENT PRACTICE LOCATION
<b>2021</b>			
Torgom Abraamyan	Sports Medicine, Southern California Orthopedic Institute, Van Nuys, CA		
Trevor Barronian	Total Joint Arthroplasty, Rothman South Jersey, Atlantic City, NJ		
Jason Laurita	Adult Reconstructive Surgery, Houston Methodist Hospital, Houston, TX		
Michael Robbins	Hand/Upper Extremity, University of Utah, Salt Lake City, UT		
Sean Sterrenberg	Arthroplasty, Reno Orthopedic Clinic, Reno, NV		
<b>2020</b>			
Nikolas Baksh	Spine, New York University, New York, NY Orthopaedic Oncology, Memorial Sloan Kettering Cancer Center, New York, NY		
Taylor Lara	Adult Reconstruction, Florida Orthopaedic Institute, Tampa, FL	Saint Alphonsus, Boise, ID	
David Putnam	Adult Reconstruction, OHSU, Portland, OR	Kaiser Permanente, Hillsboro, OR	
Duncan Ramsey	Orthopaedic Oncology, Massachusetts General Hospital, Boston, MA	UT Health Rio Grande Valley, Weslaco, TX	
Grant Sun	Foot and Ankle, Baylor University, Dallas, TX	The Orthopedic Specialty Clinic at TOSH, Salt Lake City, UT	
<b>2019</b>			
Courtney Bell	Adult Reconstruction – Rothman Institute, Egg Harbor, NJ	NASA Neuroscience and Spine Associates, Fort Myers, FL	
Shanjean Lee		VA Sierra Nevada Healthcare System, Reno, NV	
Elizabeth Lieberman	Adult Reconstruction – Washington University, St. Louis, MO	Adventist Health, Portland, OR	
Peters Otlans	Sports Medicine – Jefferson University, Philadelphia, PA	Proliance Southwest Seattle Orthopedics, Burien, WA	
Travis Phillip	Spine – New York University, New York, NY	Oregon Health & Science University, Portland, OR	
<b>2018</b>			
Hannah Aultman	Hand & Upper Extremity – University of Chicago, Chicago, IL	Orthopedic + Fracture Specialists, Portland, OR	
Karlee Lau	Hand & Upper Extremity – University of Alabama, Birmingham, AL	University of Alabama, Birmingham, AL	
Dayton Opel	Hand & Upper Extremity – Cleveland Clinic, Cleveland, OH	SSM Health, Madison, WI	
Derek Smith	Hand Surgery - Mary S. Stern, Cincinnati, OH	Desert Orthopedics, Bend, OR	
Benjamin Winston	Arthroplasty – Tahoe Reno Orthopedic Clinic, NV	Kaiser Permanente, Portland, OR	
<b>2017</b>			
John Cox	Adult Reconstruction - Scripps Health, San Diego, CA	Scripps Health, San Diego, CA	
Ryland Kagan	Adult Hip and Knee Reconstruction and Hip Preservation – Univ. of Utah, Salt Lake City, UT	Oregon Health & Science Univ., Portland, OR	
Joseph Langston	Adult Reconstruction – Melbourne Orthopaedic Group, Melbourne Australia	Southern Oregon Orthopedics, Medford, OR	
Michael Rose	Sports Medicine – Steadman Hawkins Clinic, Denver, CO	The CORE Institute, Phoenix, AZ	
Ryan Wallenberg	Orthopedics – St. Vincent Hospital, Portland, OR	VA Portland Health Care System, Portland, OR	
<b>2016</b>			
Jake Adams	Adult Reconstruction - Mayo Clinic, Scottsdale, AZ	Regenerative Orthopaedic Center, Tualatin and Oregon City, OR	
Kirsten Jansen	Adult Reconstruction - Indiana University, Indianapolis, IN	STL Orthopedics, Chesterfield, MO	
Tom Kowalik	Trauma & Adult Reconstruction - Orthopedic + Fracture Specialists, Portland, OR and Sydney Australia Arthroplasty & Trauma	Tuality Orthopaedic, Sports, Spine & Rehabilitation Center, Hillsboro, OR	
Jared Mahylis	Shoulder & Elbow - Cleveland Clinic, Cleveland, OH	Henry Ford Health System, Detroit, MI	
Farbod Rastegar	Spine - Cleveland Clinic, Cleveland, OH	Aurora Orthopaedics, Grafton, WI	

GRADUATE		FELLOWSHIP TRAINING	CURRENT PRACTICE LOCATION
<b>2015</b>			
Alex DeHaan	Adult Reconstruction - Tahoe Reno Arthroplasty Fellow, Reno, NV	Orthopedic + Fracture Specialists, Portland, OR	
Troy Miles	Adult Reconstruction - UC Davis, Davis, CA	Shasta Orthopaedics, Redding, CA	
Dustin Larson	Hand and Upper Extremity - Univ. of New Mexico, Albuquerque, NM	Olympic Medical Physicians Orthopaedic Clinic, Port Angeles, WA	
Vivek Natarajan	Pediatrics - Childrens Hospital of Pittsburgh, PA	Advocare - The Orthopaedic Center, Cedar Knolls, NJ	
John Seddon	Foot & Ankle - Melbourne Orthopedic Group, Melbourne, Vic, Australia	UC Health Orthopaedics Clinic, Colorado Springs, CO	
<b>2014</b>			
Zachary B. Domont	Sports Medicine - Univ. of Pennsylvania, Philadelphia, PA	AMG-Lincolnshire Orthopedics, Lincolnshire, IL	
Jia-Wei Kevin Ko	Shoulder & Elbow - Rothman Institute, Thomas Jefferson Univ., Philadelphia, PA	Orthopedic Physician Associates, Seattle, WA	
Trevor C. McIver	Spine - Spine Institute of Arizona, Scottsdale, AZ	St. Cloud Orthopedics, Sartell, MN	
Richard J. Myers	Orthopaedic Trauma - Univ. of Maryland, College Park, MD	Sentara Orthopedic Trauma Specialists, Norfolk, VA	
Brent M. Roster	Foot & Ankle - Univ. of California Davis Medical Center, Sacramento, CA	Missoula Bone and Joint Clinic, Missoula, MT	
<b>2013</b>			
Adam P. Baker	Foot & Ankle - Northwest Orthopedic Specialists, Portland, OR	Kaiser Permanente, Portland, OR	
Michael Kuhne	Trauma Orthopedics - Univ. of California, San Francisco General Hospital, San Francisco, CA	Enloe Medical Center, Chico, CA	
Laura J. Matsen Ko	Adult Reconstruction - Thomas Jefferson Univ., Philadelphia, PA	Orthopedic Physician Associates, Seattle, WA	
Jacqueline Brady (Munch)	Shoulder Surgery, Sports Medicine - Hospital for Special Surgery, New York, NY	Oregon Health & Science Univ., Portland, OR	
Daniel C. Wiekling	Foot & Ankle - Melbourne Orthopaedics, Melbourne Australia	Asante Physician Partners, Grants Pass, OR	
<b>2012</b>			
Dawson S. Brown	Sports Medicine - Southern California Orthopedic Institute, Van Nuys, CA	West Sound Orthopedics, Silverdale, WA	
Peter D. Fredericks	Trauma Orthopedics - Indiana Orthopaedic Hospital, Indianapolis, IN	UCHealth Orthopaedics Clinic, Colorado Springs, CO	
Matthew D. McElvany	Shoulder & Elbow - Univ. of Washington Medical Center, Seattle, WA	Kaiser Permanente, Santa Rosa, CA	
Cuchulain Luke Rust	Foot & Ankle - Orthopaedic Associates of Michigan, Grand Rapids, MI	Rebound Orthopedics, Vancouver, WA	
<b>2011</b>			
Matthew J. Harrison	Foot & Ankle - Oakland Bone & Joint Specialist Clinic, Oakland CA; Middlemore Hospital, Auckland, New Zealand	Alta Orthopedics, Santa Barbara, CA	
Jayne R. Hiratzka	Spine Surgery - Univ. of Utah, Salt Lake City, UT	Southern Oregon Orthopedics, Medford, OR	
Jackson B. Jones	Adult Reconstruction - Harvard Medical School's Brigham and Women's Hospital, Boston, MA	Reno Orthopedic Clinic, Reno, NV	
<b>2010</b>			
Matthew W. Bradley		Orthopedic Sports Medicine & Spine Care Institute, St. Louis, MO	
Gregory D. Byrd	Hand - Beth Israel Deaconess Medical Center, Boston, MA	Olympia Orthopedics, Olympia, WA	
Adam E. Cabalo	Spine - Spine Care Medical Group, Daly City, CA	Southern Oregon Orthopedics, Medford, OR	
Patrick J. Denard	Shoulder - Centre Orthopédique Santy, Lyon, France and San Antonio Orthopaedic Group, San Antonio, TX	Southern Oregon Orthopedics, Medford, OR	
Gary Kegel	Hand - St Luke's-Roosevelt Hospital Center, New York, NY	Group Health Capital Hill Medical Center, Seattle, WA	
<b>2009</b>			
Stephen L. Pro	Sports Medicine - Santa Monica Orthopaedic and Sports Medicine Group, Santa Monica, CA	Ortho Kansas, Lawrence, KS	
Khalid Shirzad	Foot & Ankle - Duke Univ. School of Medicine, Durham, NC	Northwest Orthopedic Specialist, Spokane, WA	
Abner M. Ward	Hand - SUNY Stony Brook Univ. Hospital & Med. Ctr., Stony Brook, NY; Sports Medicine - Southern CA Center for Sports Med., Long Beach, CA; Shoulder & Elbow - Alps Surgery Institute, Annecy, France; Shoulder & Elbow - Schulthess Klinik, Zurich, Switzerland	Yosemite Bone and Joint, Inc., Merced, Turlock, Modesto and Manteca, CA	
<b>2008</b>			
Kate B. Deisseroth		VA Medical Center, Lebanon, PA	
Andy J. Kranenburg	Surgery and Trauma - San Francisco Spine Institute, San Francisco, CA	Southern Oregon Orthopedics, Medford, OR	
Kenna Larsen	Hand - Univ. of New Mexico, Albuquerque, NM	Utah Orthopaedics, Ogden, UT	

GRADUATE		FELLOWSHIP TRAINING	CURRENT PRACTICE LOCATION
<b>2007</b>			
William Magee	Sports Medicine -TRIA Orthopaedic Center, Park Nicollet Methodist Hospital, Minneapolis, MN		Rockwood Clinics, Spokane, WA
J. Rafe Sales	Spine-San Francisco Spine Institute, San Francisco, CA		Summit Spine, Portland, OR
Joseph Schenck	Sports Medicine - Perth Orthopaedic Sports Medicine Center, Perth, Australia and Arthroscopic Surgery and Computer Navigated Total Joint Arthroplasty - Sir Charles Gairdner Hospital, Nedlands, Western Australia		Orthopedic & Sports Medicine, Portland, OR
Robert L. Tatsumi	Spine - LA Spine Institute, Santa Monica, CA		Oregon Spine Care, Tualatin, OR
<b>2006</b>			
Catherine A. Humphrey	Trauma - Vanderbilt Univ. Medical Center, Nashville, TN		Univ. of Rochester Medical Center, Rochester, NY
Amer J. Mirza	Trauma - Harborview Medical Center, Seattle, WA		Summit Orthopaedics, LLP, Portland, OR
Mark B. Wagner			Orthopedics NW, Tigard, OR
<b>2005</b>			
Patrick A. Dawson	Upper Extremity and Sports Medicine - Congress Medical Associates, Pasadena, CA		Cascade Orthopaedic Group, Tualatin, OR
Suresh Kasaraneni			Scott Memorial Hospital, Scottsburg, IN
Christopher M. Untch	Surgical Services - Davis Monthan AFB, Tucson, AZ		Arizona Orthopedics, Tucson, AZ
Corey J. Vande Zandschulp	Trauma - OrthoIndy, Methodist Hospital, Indianapolis, IN		Summit Orthopaedics, LLP, Portland, OR
<b>2004</b>			
Benjamin C. Kam			Medical Center Point, Colorado Springs, CO
Britton Frome (Polzin)	Hand Surgery - UT Southwestern, Dallas, TX		Summit Orthopaedics LLP, Portland, OR
<b>2003</b>			
Jennifer R. Miller	Sports Medicine - Congress Medical Associates, Pasadena, CA		Idaho Sports Medicine Institute, Boise, ID
John B. (Jeb) Reid	Sports Medicine - Taos Orthopaedic Institute, Taos, NM		Asante Physician Partners, Ashland, OR
Eric F. Shepherd	Trauma - UC Davis Medical Center, and Auckland City Hospital, NZ		Santa Barbara Orthopedic Associates, Santa Barbara, CA
<b>2002</b>			
Michael A. Binnette	Spine - Univ. of Washington, Seattle, WA		OA Center for Orthopaedics, Portland, ME
Kevin M. Kahn	Trauma - Universitatsspital, Zurich Switzerland, Vanderbilt Orthopaedic Inst., Nashville, TN		Rebound Orthopedics & Neurosurgery, Vancouver, WA
Tamara S. Simpson	Trauma - UCSF - Sports Medicine; Hennepin Medical Center, Minneapolis, MN		Cascade Orthopaedic Group, Tualatin, OR
<b>2001</b>			
Michael J. Gustavel	Sports Medicine - San Diego Sports Medicine and Orthopaedic Center, San Diego, CA		Idaho Sports Medicine Institute, Boise, ID
James B. Hayden	Musculoskeletal Oncology - Massachusetts General Hospital, Boston, MA		Oregon Health & Science Univ., Portland, OR
Todd W. Ulmer	Sports Medicine - Univ. of Washington, Seattle, WA		Columbia Orthopedic Associates, Portland, OR
<b>2000</b>			
Mark S. Metzger	Joint, Spine & Tumor - Harvard Medical School, Boston, MA		
Lorenzo L. Pacelli	Hand & Microvascular Surgery - Hand Center, San Antonio, TX		Scripps Clinic Torrey Pines, La Jolla, CA
Edward A. Perez	Trauma - R. Adams Cowley Shock Trauma Center, Baltimore, MD		Broward Health, Fort Lauderdale, FL
<b>1999</b>			
Anthony I. Colorito	Sports Medicine - Cincinnati Sports Medicine and Orthopedic, Cincinnati, OH		Orthopedic & Sports Medicine, Portland, OR
John M. Kioschos	Shoulder and Elbow Surgery - Florida Orthopaedic Institute, Tampa, FL		
Jill A. Rider-Graves			
<b>1998</b>			
John D. Curtis			Dory Orthopaedics, Uab Medical West, Bessemer, AL
Darrin F. Eakins	Sports Medicine and Knee - Royal N Shore Hospital, Sydney, Australia		Ortho Wilmington, Wilmington, NC
Ronald D. Wobig	Sports Medicine and Knee - Louisiana State Univ., Lake Charles, LA		Beaver Sports Medicine, Corvallis, OR

GRADUATE		FELLOWSHIP TRAINING	CURRENT PRACTICE LOCATION
<b>1997</b>			
Dennis J. Davin			
Kevin M. Lee			Upper Valley Orthopedics, Rexburg, ID
Ronald L. Teed			Cascade Orthopedic Surgery, Hillsboro, OR
<b>1996</b>			
Knute C. Buehler	Lower Extremity Reconstruction - Scripps Clinic and Research Foundation, San Diego, CA		Center Orthopedic & Neurosurgical Care & Research, Bend, OR
Thomas J. Croy			310 Villa Road, Ste 108, Newberg, OR
Marc R. Davidson	Sports Medicine - The Hughston Clinic, Columbus, GA		Advantage Orthopedic and Sports Medicine Clinic, LLP, Gresham, OR
<b>1995</b>			
Douglas R. Bagge			Cortez Orthopedics, Cortez, CO
Robert A. Foster	Hand and Microvascular Surgery - Univ. of Minnesota, MN		Texas Orthopedics Sports and Rehabilitation Association, Austin, TX
Gregory A. Voit	Hand and Microvascular Surgery - Univ. of New Mexico Health Sciences Center, Albuquerque, NM		
<b>1994</b>			
Robert J. Grondel	Sports Medicine and Shoulder - Mississippi Orthopaedic & Sports Medicine Clinic; Trauma - Emanuel Hospital, Portland, OR		Orthopaedic Institute of Henderson, Henderson, NV
Allen L. Hershey	Lower Extremity Reconstruction - Scripps Clinic and Research Foundation, San Diego, CA		Precision Orthopedics and Sports Medicine, Salinas, CA
Brian J. Padrta	Foot and Ankle - Florida Orthopaedic Institute, Univ. of South Florida, Tampa, FL		Northwest Orthopaedic Specialists, Spokane, WA
Mark R. Rangitsch			Cheyenne Orthopaedics LLP, Cheyenne, WY
<b>1993</b>			
Blaine A. Markee			
Dean K. Olsen			Park Nicollet Orthopaedics, Burnsville, MN
Andrew H. Schmidt	Adult Reconstruction, Shoulder Surgery, Trauma - Hennepin County Medical Center, Minneapolis, MN		Hennepin County Medical Center, Minneapolis, MN
<b>1992</b>			
Edward C. Pino	Sports Medicine - Cincinnati Sports Medicine, Cincinnati, OH; Foot & Ankle - Michigan Internat. Foot and Ankle Center, Detroit, MI		Kaiser Permanente, Denver, CO
Stephen S. Tower			Anchorage Fracture & Orthopedic Clinic, Anchorage, AK
Michael R. Van Allen	Hand and Microsurgery - Univ. of Alabama, Birmingham, AL		Legacy Meridian Park Medical Center, Tualatin, OR
<b>1991</b>			
Ronald R. Bowman			Tigard Orthopedic & Fracture Clinic, Portland, OR
William H. Dickinson			
Richard A. Rubinstein	Methodist Sports Medicine Center, Indianapolis, IN		Providence Portland Medical Center, Portland Knee Clinic, Portland, OR
<b>1990</b>			
Gregory T. Bigler	Sports Medicine and Arthroscopy - Harvard Medical School, Massachusetts General Hospital, Boston, MA		Thomas & Bigler Knee and Shoulder Institute, Las Vegas, NV
Adrian B. Ryan			Anchorage Fracture & Orthopedic Clinic, Anchorage, AK
Theodore S. Woll	Foot and Ankle - Univ. of Washington, Seattle, WA		Rebound Orthopaedics, Vancouver, WA
<b>1989</b>			
James R. Hazel			Tri-City Orthopaedics, Kennewick, WA
Asa E. Stockton			Eureka Community Health Center, Eureka Open Door, Eureka, CA
Keith J. Ure	Joint Replacement - Joint Replacement Institute, Orthopaedic Hospital, Los Angeles, CA		Olympic Medical Center, Sequim, WA
Robert G. Zirschky			Hope Orthopedics of Oregon, Salem, OR
<b>1988</b>			
John D. DiPaola			Occupational Orthopedics, Tualatin, OR
Jeffrey E. Flemming	Texas Southwestern Medical Center - Texas Back Institute, Dallas, TX		Providence Portland Medical Center, Portland, OR
Morris Hughes			
Michael B. Wyman			Orthopedic Specialists, Portland, OR

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**To our Education Manager:** Robin Sasaoka is an invaluable resource for residents as they progress through OHSU. She fulfills all of her roles for the department with ease and we are so grateful to work with her. She will be moving out to the east coast this summer but continuing her work with the residency and returning to Oregon for our events throughout the academic year. Congratulations, Robin, on your big move and we are so happy that we will still get to work with you!



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