

# OJO

The Oregon Journal  
of Orthopaedics

Volume IX June 2020



School of  
**MEDICINE**

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3 Advance the knot pusher towards the meniscus while maintaining tension on the suture to complete the repair.

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Cover Art: Photograph by Derek Bond, MD

## Letter from the Editors

Welcome to the ninth volume of *The Oregon Journal of Orthopaedics*. We want to thank our faculty, residents, alumni and all of our supporters for their contributions.

In this edition we chose to highlight innovations within orthopaedics in the state of Oregon. This will include a look at a new shoulder fellowship with Dr Denard, the innovation within SIGN Fracture Care International, the exciting new grant obtained by Dr Brady for simulation training and the work occurring under Dr Madey and Dr Bottlang in their lab.

OHSU is also privileged to welcome a new faculty member, Dr Lara Atwater, to the Department of Orthopaedics & Rehabilitation.

In the research field, we highlight the year's publications. We will also highlight the senior projects completed by the residents at OHSU and Samaritan Health Services.

Finally, we will have an opportunity to catch up with prior graduates from OHSU Department of Orthopaedics and Rehabilitation to see where life has taken them.

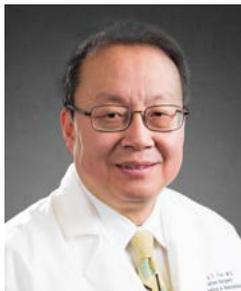
Faculty Editor: Darin Friess, MD

Senior Editors: Erik Woelber, MD and Trevor Barronian, MD

Junior Editors: Loren Black MD, Elliott Cole, MD and Connor Pihl, MD

Editors Emeriti: Jason Laurita, MD, Nikolas Baksh, MD and David Putnam, MD

## Letter from the OHSU Chairman



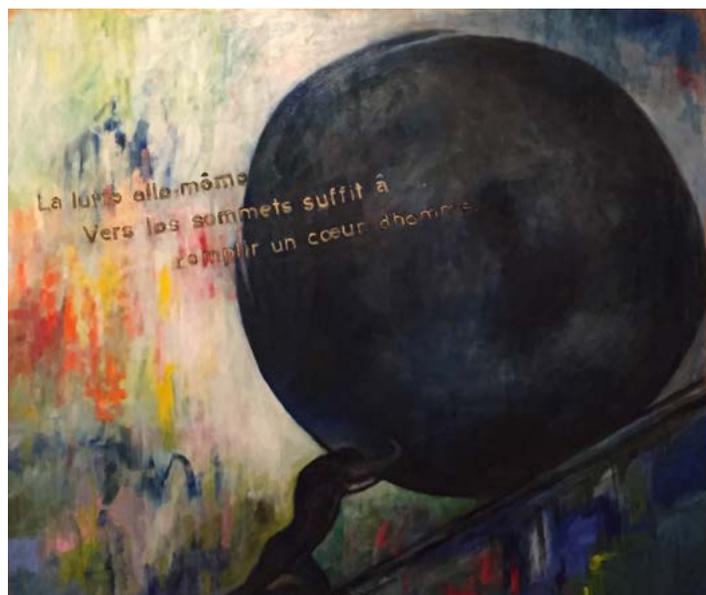
As a philosophy student in college, I fell in love with existential writer Camus and tried to read everything he had ever written. I am not sure, but I think I succeeded. Like so many great writers, his words transcend his period and speak of universal truth. In this time of the pandemic crisis brought by COVID-19, one cannot help but draw a comparison between Camus' mid-20th century novel *Plague*, its fictional city of Oran, and America today.

In *Plague*, the devastation creeps upon the population whose lives are preoccupied with banality and commercialism. The horror that follows is unimaginable to most because cruel, random, meaningless death was always kept at a distance from ordinary life. Camus uses the plague to depict the stark realism of absurdity and fragility in human life that we were happy to ignore, exposed starkly in the unimaginable magnitude and immediacy of dying in a plague. The inhabitants react to the situation initially with wishful belief, 'It won't last, it's too stupid.' When I read his words, 'A pestilence does not have human dimensions, so people tell themselves that it is unreal, that it is a bad dream which will end', it reminds me of Dr Fauci's words today. Yes, the disease does not have human understanding or meaning, it only has its own nature that our wishful thinking cannot defeat.

However, Camus is not a pessimist. In his view, man can find his own meaning and purpose by carrying out his role in human community with neither hope nor despair. It is the man portrayed in his essay of Sysphus, 'La lutte elle-même vers les sommets suffit à remplir un cœur d'homme. Il faut imaginer Sisyphe heureux.' His man is not a hero, but just a protagonist in his own life. A man whose victory is not the achievement but the work itself. His Sysphus in *Plague* is Dr. Rieux. He is a human, ordinary in his flaws, but capable of owning his meaning through the amelioration of suffering in his fellow men. In these trying times, we show up, do our work, and be whatever we can to provide help to our fellow men. We will never get that rock over the summit, but we can imagine ourselves happy.

This is my last year as the chair of this department. In my job, I never expected to roll the the rock over the summit and there will be much work still left to be done. But like Camus' Sysphus, I am happy. I was blessed that I was not alone like Sysphus. I had so many of you next to me pushing the rock with me. I hold each of you dearly in my heart. To borrow Shakespeare, 'We few, we happy few, we band of brothers...' and sisters. Thank you for a wonderful sixteen years.

Sincerely,  
Jung Yoo, MD  
Chair and Professor, OHSU Department of  
Orthopaedics & Rehabilitation



*My painting of Sysphus with Camus' words (oil on canvas, 36 in/36 in)  
I wanted to show not a weak man, but a powerful man, and a rock that is impossible to push. The color and shade of the man and the rock are the same, as a man is indistinguishable to his work.*

## Letter from the OHSU Program Director



When I was a worried medical student one of the most useful pieces of advice I ever received was that no matter what specialty, what location, what payment, or what business troubles I received, these issues would all seem so much less important than the relationship with my patients. This advice has steered my career and I continue to share it with students and residents following in my footsteps. The advice always leads me to a true path when treating patients, but seemed in my mind to relate mostly to the business aspects of medicine. As the COVID pandemic shut everything down, I realized this advice could mean so much more.

Fortunately, at OHSU we were not faced with ventilator shortages or Orthopedic residents running an ICU code, but we were all faced with small ethical decisions. We came to realize how difficult and scary it was for early patients to have to wait with fractured extremities for a COVID test result. We learned how debilitating a 2-4 month delay in arthritis or arthroscopic surgery can affect the pain and suffering for patients. As much as early conversations centered around provider safety and later conversations around difficult budgets, clearly the most difficult conversations were with patients struggling through the pandemic and how it affected their individual care. Turning routine postop visits to phone or virtual visits has changed the structure of the conversation, but the core relationship with patients remains the center of what we do as physicians. So I work to give that same advice to the students and residents again.

As a residency program, we made early changes to ensure that no residents were changing hospitals, to lessen the possibility of coronavirus exposure. We split the large cohort of OHSU residents into two teams, each working one week in the hospital and one week at home. Neither team had in-person contact with the other team for weeks at a time. All conferences moved to virtual platforms, which has provided some new opportunities and exciting learning structures. Despite the difficulties grade-school students may face through on-line school, our highly motivated orthopedic students and residents excelled in these new electronic formats (and dragged some faculty kicking and screaming into the electronic age). Residents and faculty have submitted record numbers of abstracts and papers as we finally had time to focus on research. Surgical case volumes for every resident are down, but we all get more time to prepare and debrief for each and every case. In short, education is different now, but no less valuable. I have full faith that our residents will leave their time at OHSU well prepared for a lifetime dealing with simple and complex patient issues. And I hope that during their weeks of fewer patient encounters, they might have also grown to miss those relationships as well.

The COVID pandemic has rightly helped us to stop, re-examine the old, and make changes going forward. Starting this July, Dr. Kenneth Gundle will be taking over as Residency Program Director. He has plans for an amazing social media strategy, so please look for us on not only Facebook where we've been, but also Twitter and Instagram. Nobody thinks my idea for 15-second Tik-Tok surgical technique videos is wise, but maybe I just don't understand it yet. I'm still learning to use these new formats for education. I've already learned to use telemedicine for virtual visits, and am excited how this can enhance my patient care in the future.

Onward,  
Darin Friess, MD  
Residency Program Director

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



Greetings from Corvallis. First and foremost, we achieved initial ACGME accreditation in September! That means we have a site visit sometime in the next year or so, then we're set. It also means that this year's PGY1s will be our first class eligible to take their board exam with either the AOA or the ABOS. I could not have done this without the assistance of Kelli Olson, our previous program coordinator, the GME Operations Manager, Sam Bartholomew, all of our residents, and the outstanding faculty at Good Samaritan Regional Medical Center, Albany General Hospital, Randall Children's Hospital, Legacy Emanuel, and OHSU. We all owe a debt of gratitude to Dr. Luis Vela for his vision and perseverance in establishing the Orthopaedic Residency here at Good Sam.

Now that my Oscar acceptance speech is complete, let's talk about what's happening at the program. All three graduating chiefs have matched into the fellowships of their choice. They will be scattered throughout the US for programs in Pediatric Orthopaedics, Orthopaedic Traumatology, and Adult Reconstruction. We wish them all the best, and I'll miss the latest chicks to leave the nest.

Heavy on my mind is residency selection for the 2021-22 year. We will be going from the manageable pool of purely osteopathic candidates to what I hear might be greater than 400 candidates from the osteopathic and allopathic pools. Interviews will definitely be drastically different, and I am seeking out advice from my friends and colleagues at established programs like OHSU. I actually enjoy reading candidate's personal statements. Some are quite entertaining. As I have told our faculty, failure to run a spell and grammar check seems to be an easy tool for the initial sorting of candidates. I recently read a commentary by Vinay Prasad, MD, MPH, entitled "Stopping the Med School 'Arms Race.'" I recommend you Google this up if you haven't read it. Dr. Prasad tells the story of a high school freshman who wrote asking to work with his health policy team. You read that right, high school freshman. He talks about the number of medical school/residency candidates who have multiple publications, patents, and/or national presentations. Dr. Prasad ponders whether or not this has actually created better physicians. It's something I often think about, too. As I sort through the current applications, I find my age showing. I want to know if a candidate has worked at the sort of menial job you can obtain at age 16. While scoring well on a standardized test might give me some information about a candidate, I also know that some of the best residents I've worked with are not the best test takers. Between my first and second drafts of this, the USMLE decided to make Part I of the boards a simple pass/fail. I think(?) it's a good thing, but whether or not a score is assigned to the result, I'm left with a lot of questions. How do I know if a candidate has grit? How do I know if a candidate is mature and self-confident without being arrogant? Will the next five years with this person be filled with painful conversations about professionalism? Will the next five years be filled with intellectual stimulation on both sides that also includes fun and a personal connection? I guess time will tell how this all plays out. In the meantime, I'll do my best to find a way of disarming the selection process.

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

# Faculty Directory 2019-2020

OHSU

## Adult Reconstruction

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Thomas Huff, MD



Ryland Kagan, MD



Kathryn Schabel, MD  
Medical Director,  
Comprehensive Joint  
Review Program



Lara Atwater, MD



James Meeker, MD

## Foot & Ankle

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## Orthopaedic Oncology

---



Yee-Cheen Doung, MD  
Director, Clinical  
Operations



Kenneth Gundle, MD



James Hayden, MD, PhD  
Director, Quality



Matthew Halsey, MD



Scott Yang, MD

## Pediatrics

---

## Physical Medicine & Rehabilitation

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Hans Carlson, MD



Nels Carlson, MD  
Assistant Dean of  
Continuing Professional  
Development



Erik Ensrud, MD

## Podiatry

---



Trish Ann Marie Otto, DPM

# Faculty Directory 2019-2020

OHSU

## Research / Basic Science



**Brian Johnstone, PhD**  
Director, Research



**Lynn Marshall, ScD**  
Program Director,  
PhD in Epidemiology,  
OHSU-PSU School of  
Public Health



**Jayme Hiratzka, MD**



**Clifford Lin, MD**  
Fellowship Director,  
Spine



**Jung Yoo, MD**  
Chairman

## Sports Medicine (Surgical)



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



**Dennis Crawford, MD,  
PhD**  
Director, Sports Medicine



**Andrea Herzka, MD**



**Darin Friess, MD**  
Director, Trauma &  
Residency Education,  
Vice-chairman



**Zachary Working, MD**

## Trauma

## Upper Extremity



**Adam Mirarchi, MD**  
Director, Hand and  
Upper Extremity



**Omar Nazir, MD**



**Robert Orfaly, MD,  
FRCS(C)**

# Faculty Directory 2019-2020

Portland VA Medical Center



Lucas Anissian, MD, PhD



Mark Berkson, MD  
Section Chief for  
Orthopedic Surgery



Kenneth Gundle, MD



Ryan Wallenberg, MD

Shriners Hospital for Children



Michael Aiona, MD



Jeremy Bauer, MD  
Director of Education



Robert Bernstein, MD  
Chief of Staff



Daniel Bouton, MD



Krister Freese, MD



Katie Fuchs, MD



Heather Kong, MD



J. Krajbich, MD, FRCS(C)



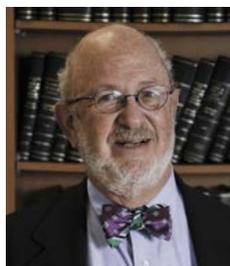
D. Laron, MD



Ellen Raney, MD



Dennis Roy, MD



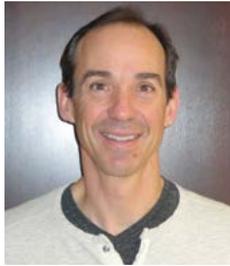
Michael Sussman, MD



Michelle Welborn, MD

# Faculty Directory 2019-2020

Legacy Emanuel Hospital



**Doug Beaman, MD**  
Foot & Ankle



**Britton Frome, MD**  
Hand/Upper Extremity



**Richard Gellman, MD**  
Trauma



**Craig Gillis, DO**  
Hand/Upper Extremity



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



**Amer Mirza, MD**  
Trauma/Adult  
Reconstruction



**Corey Vande Zandschulp, MD**  
Trauma

Kaiser Permanente, Pediatrics



**Stephen Renwick, MD**



**Ronald Turker, MD**

# Faculty Directory 2019-2020

Orthopedic + Fracture Specialists - Participating actively in resident education



**Brett Andres, MD**  
Sports Medicine/  
Joint Replacement/  
Trauma & Fracture



**Hannah Aultman, MD**  
Upper Extremity/  
Trauma & Fracture



**Mac Beall, MD**  
Upper Extremity/  
Pediatric Orthopaedics/  
Trauma & Fracture



**Brad Butler, MD**  
Sports Medicine



**James Davitt, MD**  
Foot & Ankle/  
Sports Medicine/  
Trauma & Fracture



**Alex DeHaan, MD**  
Joint Replacement/  
Trauma & Fracture



**Alec Denes Jr, MD**  
Joint Replacement/  
Sports Medicine/  
Trauma & Fracture



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



**Jason Kurian, MD**  
Sports Medicine/  
Joint Replacement/  
Trauma & Fracture



**Mark Manoso, MD**  
Spine/  
Joint Replacement/  
Trauma & Fracture



**Hans Moller III, MD**  
Trauma & Fracture



**Rolf Sohlberg, MD**  
Upper Extremity/  
Pediatric Orthopaedics/  
Trauma & Fracture



**Richard Southgate, MD**  
Joint Replacement/  
Trauma & Fracture



**Vanessa Stas, MD**  
Joint Replacement/  
Trauma & Fracture



**Jeana Summers, DO**  
Pediatric Orthopaedics/  
Trauma & Fracture



**Kimberly Workman, MD**  
Foot & Ankle/  
Joint Replacement/  
Trauma & Fracture

# Faculty Directory 2019-2020

Program Fellowships 2019-2020

## Sports Medicine Primary Care Fellows



Charles Craig Rudy, MD

## Spine Fellow



## Hand Fellow



Jean Pierre Valette, MD

Vikram Sampath, MD

Sharon Monsivais, MD

## In Celebration of Dr. Yoo's Tenure as Chairman of Orthopaedics and Rehabilitation, 2004 – 2020

By: Darin Friess, MD



The OHSU Department of Orthopaedics and Rehabilitation has a long list of names that have shaped the history of musculoskeletal care in Oregon. Many of those names you can read about elsewhere in these OJO pages, such as Rodney Beals, Richard Dillehunt, and Leo Lucas. Jung Yoo has made a similar mark during his tenure as Department Chair. Since his Graduation from medical school at The University of Chicago, he started his role as a great clinician. During his residency at Case Western Reserve University he advanced skills as a prodigious researcher and innovator. During his tenure on the faculty at Case Western from 1991 to 2004 he developed as an

educator and leader. Jung Yoo has brought all these skills together as Department Chair at OHSU from 2004 – 2020 and has changed the face of musculoskeletal medicine. He developed a small department into a leading force at OHSU, fulfilling all the facets of a successful academic practice. The many lives he has touched to develop surgeons, educators, scientists, and genuine human beings is the legacy he leaves behind. There is no adequate method to provide gratitude for these life lessons other than to continue to do the work, be leaders, and simply take excellent care of each and every patient. While many of those he has touched would prefer a grand celebration at the conclusion of his tenure, as many of us know, Dr. Yoo prefers quieter pleasures and the joy of a job well done. Thank you Dr. Yoo for being the shepherd of this Department.



### New Faculty Spotlight:

A Q&A session with Lara Atwater, MD

By: Elliot Cole, MD

**Hometown:** Honolulu, Hawaii

**Medical School:** Georgetown University, Washington, DC

**Residency:** Johns Hopkins University, Baltimore, MD

**Fellowship:** Institute for Foot and Ankle Reconstruction, Mercy Hospital, Baltimore, MD

**Favorite Restaurant in Portland:** Tasty n Alder

**Go-to OR music?** Kygo

#### Tell us a little about yourself.

I am married to my college sweetheart and we have an 11-month-old son. I grew up surfing and kayaking but I've yet to try it here in Oregon.

#### What brought you to OHSU?

I was looking for an academic job where I can teach and be involved with research. I was originally born in Hawaii but have lived/studied/trained on the East Coast since college. Oregon was completely different from both of these places and felt like a new adventure! I also felt that the department was filled with particularly kind and smart people – I was excited by the idea of becoming their colleague.

#### What made you choose foot and ankle as a specialty?

It's difficult and expansive - foot and ankle surgeons perform almost 500 different procedures. It's also a decade or two behind other subspecialties from a research perspective. I knew I would never get bored from a technical or intellectual standpoint.

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

Our favorite place in Portland so far is the Japanese Garden. We also love all the waterfalls and hikes!

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

I'd like my practice to be busy and broad: arthroplasty, sports, trauma, deformity. Hopefully a nice mix of both simple and complex cases.

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

When I ask people "what do you do", they tell me what they like to do on weekends, not what they do for a living. I love the paradigm shift.

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

I'm grateful that OHSU has a weight bearing CT scanner, the research possibilities are very exciting!



# Oregon Shoulder Fellowship Receives American Shoulder and Elbow Surgeons (ASES) Recognition

By: Elliott Cole, MD and Patrick Denard, MD

For Dr. Patrick Denard, a commitment to strengthening the craft of orthopaedic surgery has been a foundational value since his time in residency. As a native Oregonian, he received his undergraduate degree from the University of Puget Sound before attending medical school at Dartmouth and eventually returning to Oregon to complete his orthopaedic residency at Oregon Health & Science University (OHSU). As a senior resident, he was known for guiding junior residents through difficult cases, and as a chief he received the Research Award, given annually to the graduating resident who most exemplifies a commitment to furthering orthopaedic knowledge. As part of OHSU Chairman Dr. Jung Yoo's first class of interns, the development of Denard's technical and teaching capabilities made such an impression on the faculty that he was asked to join the staff after graduating. Denard instead chose to go into private practice, and he eventually settled in Medford, Oregon.

Even as he built a thriving private practice at Southern Oregon Orthopedics, Denard has remained extremely active in the orthopaedic academic world. He has over 130 publications listed on PubMed and has authored multiple book chapters. He has also co-authored a textbook on arthroscopic shoulder surgery principals (*The Cowboy's Companion: A Trail Guide for the Arthroscopic Shoulder Surgeon*), and he continues to be invited to speak on a variety of shoulder related topics around the country.

While building his practice and pursuing his academic interests, Denard found himself drawn back to the mentorship and teaching experiences he had during his residency and fellowship training. Since residency, Denard has completed

two fellowships: the first focusing on shoulder arthroscopy in San Antonio, Texas under the guidance of Dr. Stephen Burkhart and another program focusing on shoulder arthroplasty under Dr. Gilles Welch in Lyon, France. Denard credits Dr. Burkhart with instilling in him the drive to be a productive researcher as well as showing him how to give feedback and motivate trainees.

These experiences paired with his commitment to continuing orthopaedic education are what led Denard to start the Oregon Shoulder Fellowship five years ago. "I've always been interested in education, continuing to learn, and participating in teaching the next generation of orthopedic surgeons. The process makes me better, makes the next generation better, and strengthens the craft", says Denard. His first fellow five years ago had already completed a fellowship but was looking for more shoulder training. That fellow spent six months training with Denard before going into practice, and Denard found the experience both personally and professionally rewarding.

Denard has spent the last five years building the fellowship program, and one of his main goals has been to have the program formally recognized by the American Shoulder and Elbow Surgeons (ASES). Although Shoulder and Elbow fellowships do not receive accreditation from the American Council on Graduate Medical Education (ACGME), they can receive formal recognition from the ASES. The recognition is a seal of approval from one of the preeminent bodies of shoulder and elbow surgeons, and the formal sanctioning can help attract high quality applicants to the program. After years of hard work, the fellowship recently received formal ASES recognition, an achievement

Denard is proud of and one he thinks will help both attract fellows and sustain the program. Formal ASES recognition allows the fellowship to participate in the ASES match, increasing the program's visibility and likelihood of attracting high quality applicants. Denard admits, "it's been a long process" and a considerable effort to achieve this recognition for the program. But he also says it's been something he's been interested in since the program's conception. For a fellowship program to receive this recognition, it requires two ASES-registered surgeons be involved in the training, at least one of whom must be a full ASES member. Becoming a full member is itself a long process, requiring ASES membership for at least five years as well as making a "substantial contribution" to the ASES, which involves a point system that takes publications, leadership, and other criteria into account. Denard believes the effort to meet these requirements will pay off for the overall betterment of the program.

Having just finished interviewing a strong group of applicants, Denard is looking forward to bringing on a new fellow August 2021. The fellowship itself is a one-year program focusing on advanced arthroscopic techniques, arthroplasty, and shoulder and elbow trauma, with three dedicated operative days and two days of clinic each week. Fellows are also expected to make an academic contribution by completing at least two research projects during the year, either by collaboration with Denard's ongoing research or through pursuing their own areas of interest. Funding for the program is through the Southern Oregon Orthopedic Research Foundation, with some contribution from hospital and industry groups. Training will take place at both Southern Oregon Orthopedics and Asante Health Systems locations. Dr. Matthew Nugent and Dr. Cameron Phillips will join Denard in training the fellows.

Denard says his goal with the program is to help fellows hone their surgical technique before entering independent practice, while also supporting their research interests and further

promoting their professional development. He hopes that decades from now, he can look back at his efforts and see that he helped create an alumni network of well-trained, highly regarded shoulder and elbow surgeons, and he believes that formal ASES recognition for the program is an important step in achieving that goal.

*For more information about the Oregon Shoulder Fellowship, please visit <https://www.oregonshoulder.com/fellowship-patrick-denard.html>*

# Innovation Meets Altruism

By: Trevor Barronian, MD

Orthopaedics is a field heavily driven by innovation. Whether it is in techniques, medications, or orthopaedic implants there is a continuous push to improve upon what we have. This is an important attitude as forward progress directly benefits the patients who receive the care provided. By chance this article's focus was directed to Sign Fracture Care International. Initially the intention was to highlight Acumed, LLC, an orthopaedic implant company headquartered in Hillsboro. However, I reached out to a former Acumed employee and found that he is currently working for SIGN Fracture Care International. This provided me with the opportunity to learn more about the exciting innovation going on there.

### What is SIGN Fracture Care?

SIGN Fracture Care is an organization based in Washington State and was founded in 1997 by Dr Lewis Zirkle. The idea was born out of his exposure to local hospitals while serving in Vietnam during the 1960s. The poor condition of these hospitals and lack of supplies affected him deeply, prompting him to found a company to help with fracture care. The mission statement on SIGN's website states "SIGN gives the injured poor access to fracture surgery by donating orthopaedic education and implant systems to surgeons in developing countries". True to their statement, they provide supplies to more than 50 countries around the world. More than that however, they also provide education to local physicians in these countries to ensure a lasting impact.

### The people they treat

When discussing innovation, it is important to remember that often the patients who are benefiting from the newest innovations are those with the resources to purchase the treatments. As recently as 2017, the World Health Organization

estimates that 800 million people spend at least 10 percent of their income on their health expenses. This added burden of health care is enough to push 100 million people over the line into extreme poverty. In these settings, innovation has to take a slightly different form. The focus has to be on availability and cost in addition to outcomes and quality. This is where companies like SIGN can make a large impact on these patients' lives.

### Local involvement

Locally, SIGN is situated in an unassuming building in the southeast of Portland. This building is owned by Randy Huebner, the founder of Acumed. The building serves as a warehouse, office space, machine shop and design space for product development and manufacture. As previously mentioned, one of the ways in which SIGN provides aid is through the donation of implants. The implants are donated from companies, such as Acumed, or are designed and created by SIGN itself. Looking specifically at the donation side of their supply chain, there is a large variety of individuals and companies who contribute these implants. I had the chance to visit SIGN at the Portland location. SIGN contributors and employees develop custom sets of instrumentation made up of a variety of parts for use, which may even be originally from different companies. This ensures that when they are sent overseas there is a wide assortment of components to allow the surgeons to safely perform the necessary surgeries.

Two local individuals are intimately involved with SIGN Fracture Care and serve on the board. The first is Randy Huebner, mentioned above, In addition to serving on the board, he supplies implants and physical working space to SIGN in cooperation with Acumed. The second individual is Richard Gellman MD, a prominent orthopedic

traumatologist practicing at Emanuel Hospital. Dr Gellman frequently participates in trips with the organization to provide aid and training, and also recruits doctors from many other countries to help with education.

### Innovations

One of SIGN's more well-known products is the intramedullary nail, designed so that a single nail can be used in the femur or the tibia. This is an important consideration as getting supplies to more remote locations or impoverished regions can be difficult. Another impressive design of the nail is that it can be placed without fluoroscopy, which is required with standard intramedullary devices. This design feature addresses the fact that fluoroscopy is not often available in poorer regions. SIGN created a custom attachment to their nail insertion handle which puts the surgeon in the general area of the screw hole. Then, with a series of drills and an instrument called a slot finder, the hole is localized by feel and the screw is placed. Then, furthering the idea of this design and to help decrease operative time and blood loss, they developed a nail that replaces the screw holes with distal fins. These fins allow the nail to bind within the bone and helps prevent the fracture from rotating.

Orthopaedic innovations are crucial in getting care to the parts of the world that often need it most. There will always be a need for surgeons, engineers and others involved in the field to critically analyze the tools and techniques they use with the mindset of how these can be improved. And the importance of having spaces like the one in Portland where people have the equipment and space to let their creative juices flow cannot be overstated.



# The John and Susan Hayhurst Distinguished Scholar

By: Jacqueline Brady, MD

On Sept 30, 2019, the OHSU Orthopaedics and Rehabilitation Department gathered at the Multnomah Athletic Club with representatives of the OHSU Foundation to celebrate the investiture of Dr. and Mrs. Hayhurst in support of orthopaedic research and innovation, in the form of the newly established John and Susan Hayhurst Professorship. The evening was unforgettable; we as an orthopaedic department are floored by their generosity and goodwill, and it was wonderful to have members of the OHSU Foundation present to give a more global perspective on the meaning of gifts like this one. Dr. Jung Yoo gave his thoughts as chairman on the lasting impact made by this donation, and Dr. Dennis Crawford commented as surgical director of the sports division. We learned that the origin of the funds is in large part due to Dr. Hayhurst's own innovation in the creation of arthroscopic tools. The gift has been turned into an endowment that will benefit numerous surgeons

attached to a camera—surgeons looked through the end to visualize the joint, then made open incisions to address the pathology they identified. The earnings that prompted this gift originated largely from innovations of his own creation that advance our techniques in arthroscopic surgery. It is fitting, then, that we start by using his generosity to support our efforts in arthroscopic simulation training. The VirtuOHSU laboratory on campus is a perfect setting in which to teach arthroscopic skills: we have a robust and well-run Body Donations Program housed within the center, so residents can practice surgeries in a realistic “wet lab” environment. VirtuOHSU is a Center of Excellence for Storz, one of the makers of imaging technology for visualizing the inside of joints using an arthroscope.

We have been working on knee and shoulder simulation for several years now, but with the collaboration of my partner, Dr. Andrea Herzka, we have added hip arthroscopy to the curriculum. This is a boost to our simulation activities for two main reasons: 1) Residents get more practice with a 70-degree arthroscope, which is less commonly encountered in knee and shoulder surgery, and 2) Residents get more exposure, in a safe environment, to a very difficult skill with a very steep learning curve. We measure resident motion patterns as they work their way through six wet labs over the course of their 10-11 week rotation on orthopaedic sports surgery. Having validated a model showing that motion patterns correlate with level of expertise in arthroscopy, we are now investigating whether we can track improvement over the course of the sports rotation. Recently, we have made two improvements: 1) We upgraded the sensors to a technology that does not require the usual lengthy intermediate step, to process the firestorm of data points recorded as the residents complete the tasks; and 2) We added a sensor to track motions of the head and neck in addition to the original focus on the trunk and upper extremities. Medical education



*Pictured in back, left to right: Dr. Jung Yoo and Susan Hayhurst. Pictured in front: Provost Elena Andresen, MD, Dr. John Hayhurst, and Dr. Jacqueline Brady*

in my department going forward. I am the lucky first beneficiary, and I am committed to making sure the Hayhurst family feels their gift was worthwhile.

Dr. Hayhurst is a self-taught arthroscopist who remembers the days when the arthroscope was not



*Professor Dennis Crawford MD, PhD articulating the confluence between Dr. John Hayhurst's vision and Dr. Jaqueline Brady's research, in celebration of her appointment as the first John and Susan Hayhurst Professorship award recipient*

research is often a lengthy process, because the accumulation of data is necessarily slow, but we are already seeing consistencies in motion patterns that correlate with what we see on the video screen and on direct observation of resident movements.

OHSU is also a collaborator in a multicenter study to validate dry tools to develop arthroscopic skills. Simulation efforts can be varied and inevitably expensive. Standardized, validated trainers are needed to develop basic skills before launching into the more advanced world of wet simulation, virtual reality, and ultimately the clinical setting. The general surgery community has had laparoscopic trainers as part of their credentialing process for several years now, in a program called the Fundamentals of Laparoscopic Surgery (FLS). Arthroscopic trainers with various modules that comprise the Fundamentals of Arthroscopic Surgery Training (FAST) program are of great interest as a similar set of standardized and validated tools for basic arthroscopic skills. OHSU led phase 1 of the multicenter study, in order to establish benchmarks and evaluate how a PGY-1 resident should perform on a ring transfer task compared to a PGY-5 resident, for instance.

Recently, three of our faculty traveled with six residents to the Orthopaedic Learning Center (the laboratory at the headquarters of our American Academy of Orthopaedic Surgeons) in Rosemont, IL to study the transfer validity of the FAST tools for performance in simulated and clinical environments. The residents and faculty met with others from 8 programs around the country. The residents were “pre-tested” in the operating room ahead of the trip, with a focus on diagnostic arthroscopy and simple procedures such as partial meniscectomy and

subacromial decompression. Then at the Orthopaedic Learning Center, they spent a full day working with the FAST tools to develop skills that progressed from horizon control and periscoping with the angled camera to biting simulated meniscus and passing sutures through targets in simulated tissue. They were then tested on dry shoulder models, virtual reality simulators, and donor tissue to establish their arthroscopic skills before heading home. In the final portion of this phase 2 of the study, they will be post-tested in the clinical environment to determine how the practice with the FAST tools affected their performance in the operating room.

I have also been tapped via the Arthroscopy Association of North America to be a member of the task force to implement these FAST tools into the virtual reality environment. The Virtamed simulator is the most popular virtual reality trainer for arthroscopy skills, and building the FAST tools into its software affords us a new level of ability to evaluate and direct resident training. For instance, if the simulator recognizes that a resident has trouble maintaining the horizon level with the camera, it can direct the resident to modules to practice this specific skill before allowing progress through the remainder of the curriculum.

The “holy grail” of surgical simulation is to prove that our practice in a laboratory setting makes trainees safer and more efficient. With the aid of Dr. and Mrs. Hayhurst’s generous donation, OHSU arthroscopy simulation is well on its way to making this a reality.



*OHSU residents and faculty studying and practicing arthroscopic skills at the Orthopaedic Learning Center in Rosemont, IL*

# National VA Database Driven Clinical Research – Annual Report Update

By: Kenneth Gundle, MD

The Veterans Healthcare Administration (VHA) is collectively the largest health system in the country. As a result, the VA databases contain an ever expanding set of information that can be harnessed for impactful clinical research. Granular data exists for all patient encounters, including skilled nursing facility stays and information on Veterans treated outside of VHA. Each day over a million new points of clinical information are entered into the vast relational data architecture.

At the time of our last update, we were focusing on metastatic disease in the femur. That work has led to over a dozen presentations at annual meetings, and several publications. One our residents, class of 2019 Dr. Travis Philipp, was lead author in the Clinical Orthopaedics & Related Research publication entitled, “Is there an association between prophylactic femur stabilization and survival in patients with metastatic bone disease?” OHSU School of Medicine Class of 2020 Dr. Jacob Mikula, who starts his orthopaedic surgery residency at Johns Hopkins this summer, was also a co-author. Relatedly, Dr. David Putnam from our residency class of 2020 published a systematic review entitled, “Treatment modalities for pathologic fractures of the proximal femur pertrochanteric region” in the Journal of Arthroplasty. The newly minted Dr. Phillip Lam (OHSU SOM '20) is joining our residency in June and co-authored that paper. OHSU SOM class of 2021 Sarah Hanna, along with graduating chief resident Dr. Duncan Ramsey, have two additional manuscripts under review about perioperative radiation referrals and how best to identify impending pathologic fractures within databases.

The Clinical Data Science Research Group at the Portland VA was joined by a data scientist last year, and she has been a huge help. Cecelia Madison completed a graduate program with the OHSU Department of Medical Informatics and Clinical Epidemiology, and is now fully immersed in the world of VA data. She helps residents and staff with cohort creation and data wrangling through programming in SQL and R. We have also collaborated on natural language processing tools and determining consistent objective means of calculating key variables such as inpatient length of stay. We've also had the ongoing support of Tahnee Groat, research manager for the Operative Care Division.

In addition to metastatic disease of the femur, we are investigating the care of sarcomas within VHA and have proposals to partner with industry to study the uptake and outcomes of new devices. We are also studying the impact of clinical trial publications on the rates of partial meniscectomy, and have applied for extramural funding to investigate the impacts of COVID-19 on musculoskeletal care nationwide.

We have made some progress since the last update, but there is so much more to be done. Reach out if you would like to learn more!

# Orthopaedic Surgery Interest Group (OSIG) Engages Medical Students Interested in Orthopaedics at OHSU: A Review of Programming, Involvement, and Impact

By: Zachary Goldstein, BS; Tasha McKibben, BS; David Cornwell, BS; Kenneth Gundle, MD

The goal of the Orthopaedic Surgery Interest Group (OSIG) is to cultivate interest in the field of orthopaedics and engage medical students interested in orthopaedic surgery. This mission is achieved through collaboration with the Department of Orthopaedics and Rehabilitation at OHSU. OSIG hosts activities including monthly research meetings, surgical simulations, sterile technique workshops, and first assist opportunities that expose students to different aspects of a career in orthopaedic surgery. The diversity of OSIG events and strong partnership with OHSU has allowed it to remain one of the largest and most active student interest groups. This year OSIG's membership increased from 199 to 237, including 45 new members from the M.D. class of 2023. The following is a review of this year's programming and impact.

Early in their first year at OHSU, medical students are invited to attend the OSIG "Research Trajectory" talk hosted by OSIG faculty advisor Dr. Kenneth Gundle. This talk highlights the optimal time to complete research and prepare for a strong application into a competitive specialty. The content of this talk is reinforced by monthly research meetings led by Dr. Natalie Zusman, a PGY-3 orthopaedics resident. OSIG research meetings provide students with opportunities to learn about ongoing projects in the department, discuss and overcome obstacles inhibiting productivity, and present progress and ideas for new studies. The engagement of OSIG with research is outstanding, evidenced by 22 posters and projects presented at the 2019 OHSU Research Symposium. Additionally, OSIG continues to guide projects towards successful acceptances to national journals and conferences

throughout the year. New this year, OSIG student leaders constructed an orthopaedic conference calendar with abstract deadlines and conference locations to be used by students, residents, and faculty. This calendar, updated quarterly, is available to the public on the OSIG website: <https://www.ohsu.edu/ortho/orthopaedic-surgery-interest-group>.

In addition to developing research within the department, OSIG has continued to host sterile technique workshops that allow students to familiarize themselves with the sterile field and operating environment. During these workshops OHSU perioperative staff train students on how to properly scrub, gown and glove, and navigate the operating room during a case. OSIG leaders teach students how to operate scrub machines, locker rooms, and navigate the surgical floor. In response to student feedback, a third workshop was added this year increasing our total capacity to 45 students. Surveys were distributed before and after workshops to measure the participants' level of comfortability with tasks such as scrubbing in and gloving (Figure 1).

Notably, the average student comfortability with navigating scrub lockers, surgical floors, and operating rooms rose from 1.5/10 to 7.6/10. The average student comfortability with being in a sterile field increased from 3.6/10 to 5.9/10. Before entering the wards in their second year, students do not receive formalized sterile technique training through the university. Orientation to the surgical floor, operating rooms, and sterile field helps prepare students for clinical exposure. This organized training facilitated by OSIG not only aids students as they begin

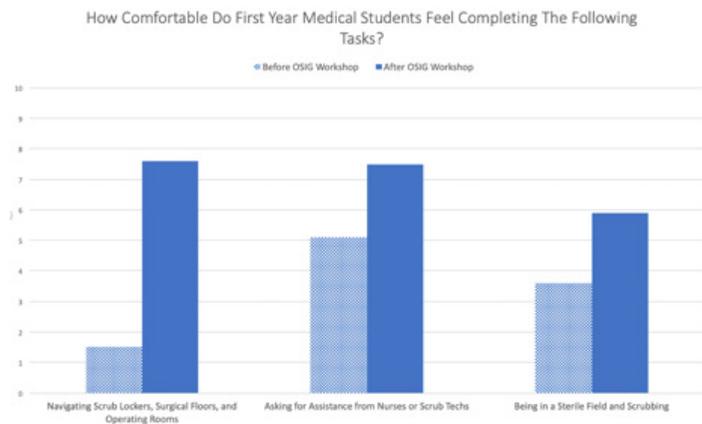


Figure 1

preceptorships, but also alleviates pressure from staff who share the responsibility of helping new students navigate the OR safely.

This year through OSIG’s Surgical Simulation Labs (Simlabs), students were provided early, supervised exposure to both suturing and common orthopaedic surgical approaches. The Simlabs allow students to hone their skills tying knots, develop muscle memory involved in suturing, and elevate general surgical knowledge before working directly with patients. Simlabs make use of OHSU’s Virtu-OHSU surgical simulation environment, and immediately follow orthopaedic resident’s arthroscopic training. Hands-on manipulation of fresh cadaveric tissue is preceded by an educational lecture on surgical approaches and common anatomical landmarks. These lectures are taught by department faculty and allow students to ask questions about the worksheets they complete before entering the Simlab. Each of the three yearly Simlabs accommodates 12 students from the first and second year classes and is a unique opportunity to work directly with orthopaedics attendings and residents.

Beyond research, surgical simulations, and sterile technique workshops, OSIG has also continued to expand the First Assist Program. First Assist is coordinated with department administrators and allows students to work in the operating room with specified attending surgeons. This year 6 preclinical and clinical students were able to participate, more than doubling the number

of students involved in this highly sought-after program. Through First Assist, students receive unparalleled hands-on experience in the care of orthopaedic patients while also providing assistance at times when residents are unavailable.

With the help of the Department, faculty, and residents, OSIG continues to provide opportunities for medical students to gain early exposure to and develop a passion for the field of orthopaedic surgery.



2019-2020 OSIG Student Leads: Tasha McKibben, Zachary Goldstein, David Cornwell  
 Resident Lead and Research Advisor: Natalie Zusman, MD  
 Faculty Sponsor and Research Advisor: Kenneth R. Gundle, MD

**Presented at OHSU’s Research Week - 2020**

**Comparing BMP-9 with TGF-β1 for Tissue Engineering Stable Articular Cartilage.** Cory Kim, BS

**Does Surgical Delay Impact Blood Loss During Acetabular Fracture Surgery?** Natasha McKibben, BS

**Multimodal Preoperative Screening for Recent Nicotine and Marijuana Use in Hip and Knee Arthroplasty Patients at the Portland VA Medical Center.** John Tabb, BA

**Orthopaedic Care of the Transgender Patient.** Ariana Stuart, BA

**Pivot Kick Study: Can a Novel Physical Exam Maneuver for Medial Meniscus Tears Predict Improvement After Partial Medial Meniscectomy?** Jorge Walker, MS

**Readmission Rates After Total Hip and Knee Arthroplasty Vary Across Different Datasets.** Stephanie Zhao, MSL

**A Systematic Review of Tuberosity Healing and Outcomes Following Reverse Shoulder Arthroplasty for Fracture According to Humeral Inclination of the Prosthesis.** Joe O’Sullivan BS

**Is the Iliac Cortical Density Similarly Positioned in the Non-Dysmorphic Developing Pelvis?** Benjamin Watzig, BS

**Definitive Treatment? Risk Factors for Reoperation Within One Year of Below Knee Amputation.** Liam Wong, BS

**Methamphetamines & Acetabular Reoperation Rates: Poor Outcomes From the Front Lines.** David Gallacher, BS

**Location-specific differentiation potential of clonal articular cartilage progenitor cells.** Leah Snyder, BS

# Talking Innovation with Dr. Steven Madey

By: Connor Pihl, MD

In practice as a hand and microvascular specialist with Summit Orthopaedics since 1997, Dr. Steven Madey MD has served in a variety of roles throughout his career, including site director for OHSU and Samaritan Health Services orthopaedic surgery residency rotations at Legacy Emmanuel Hospital. During ten-week blocks, OHSU (2nd and 4th years) and Samaritan (4th year) orthopaedic surgery residents have the opportunity to share in and benefit from Dr. Madey's unique measure of knowledge, surgical skill, business acumen, and enthusiasm for innovation. Inspired by this last quality as the theme of the current volume of the OJO, I was thankful to have the chance to get his unique take on orthopaedic innovation in the state of Oregon. Motivated by his fruitful work as an University of Iowa orthopaedic resident and Hand Fellow, Dr. Madey founded the Legacy Biomechanics Laboratory in 1999 with his Iowa collaborator Dr. Michael Bottlang, PhD. Oriented to the design and evaluation of new treatment modalities that advance patient care, the lab has matured and expanded over the last two decades, seeing much success along the way. With over 50 publications and many innovative technologies and products brought to market - such as the Pelvic sling, MatrixRIB plating system, far cortical locking constructs, active plating constructs, a mechanoactive transduction and evaluation tissue bioreactor, and most recently advanced helmet technology- it's fair to say the Legacy Biomechanics Laboratory has been a pioneering player in Oregon's history of orthopaedic innovation.

Faced with questions like "why would you do that (in Portland), it's impossible", at the outset, Drs. Madey and Bottlang leveraged Legacy Health

support, NIH grants, DoD grants, and creative ingenuity to establish the State's first private basic and applied orthopaedic research lab. Reflecting on the early years, Dr. Madey identified niche focus, "grit", and a collaborative spirit driven by deep respect for interdisciplinary perspectives as key to early progress in a region that lacked the "history and architecture" of places like Boston, Texas, and the North Carolina Research Triangle. "Knowing exactly who we were and what we could and couldn't do", allowed Drs. Madey and Bottlang to carve out a space for the lab initially focused on evaluating industry devices in an Oregon landscape with few other players.

Through this early work, Drs. Madey and Bottlang steadily built up the experience, infrastructure, talented team, financial support, and both local and national relationships to allow their expansion into the novel design sphere. With a simple mantra of - identify a single problem, understand that problem, and leverage your unique capabilities to engineer a solution - they have carefully grown their intellectual and on-market portfolio. Seeing success right alongside the Legacy Biomechanics Lab, the greater Portland and Oregon biotech industry at large has also grown and flourished, due in no small part to significant advances such as Dr. Brian Druker's use of Imatinib (Gleevec) to treat CML, investments and basic science breakthroughs by OHSU and the Phil Knight Institute, and relocation and expansion of Acumed, LLC in Beaverton, OR just to name a few.

Pressed to share his thoughts on the future of orthopaedic innovation in Oregon, Dr. Madey was bullish about what could be achieved by "any

driven individual who wants to make it happen”. To those so inclined, in addition to now being able to realize the benefits of operating within a maturing biotech landscape, Dr. Madey noted first-hand the assistance aspiring innovators can gain through State established and/or supported programs such as the Oregon Manufacturing Extension Partnership (OMEP). With OMEP’s “phenomenal” support, Drs. Madey and Bottlang have most recently set out on a new endeavor, actually manufacturing the innovative technology they have created through their game-changing helmet company WaveCel.



The company’s helmet insert product, which is uniquely able to flex, crumple and glide to divert rotational impact forces away from the head in a crash, was awarded with the highest possible safety rating (5 stars) by Virginia Tech University’s helmet testing facility and has disrupted the industry. The public’s response to Madey’s partnership with bicycle giant Trek Bontrager has been so enthusiastic that the company relocated from their original five-thousand square foot manufacturing space in Milwaukie to a nearly fifty-thousand square foot facility in Wilsonville that will allow them to fulfill an estimated demand for 1.5 million helmets over the next year. If you haven’t already, the next time you’re out on the road or trail you may just notice the company’s characteristic neon green honeycomb-esque material on a fellow rider’s helmet!

Asked if he could have imagined his career unfolding in this way as he took his first steps towards establishing the Legacy Biomechanics Laboratory over 20 years ago, Dr. Madey’s response was simple - “of course not”. It appears to me that with his example of what can be achieved by staying both curious and committed to an iterative process of improvement, growth, adaptation, and redefinition throughout a career, future orthopaedic innovators have much to look forward to as we venture into a new decade in an Oregon landscape that’s never looked so promising.



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**Risk Factors for Radiotherapy Failure in the Treatment of Spinal Metastases.** [Baksh N](#); McKibben N; Chen Y; Gao L; Nguyen T; Brown S; Jaboin J; Lin C.



### Nikolas Baksh, MD

Hometown: Lancaster, PA

Medical School: Case Western Reserve University, Cleveland, OH

Fellowship Plans: Spine, New York University, New York, NY

#### OBJECTIVE

The spinal instability in neoplasia score (SINS) was developed as a referral tool for medical providers treating patients with metastatic spine disease. There is limited research studying SINS correlation with rates of failure after radiation therapy. The goal of this study was to evaluate risk factors for failure of radiation therapy. We hypothesized that a higher SINS would correlate with failure.

#### METHODS

We performed an IRB approved retrospective cohort study at a tertiary academic center. All patients with spinal metastasis being treated with radiation between September 2014 and October 2018 were identified. Pediatric patients and patients with myeloma, leukemia, lymphoma, sarcoma, cord compression, history of prior radiation or surgery, or inadequate follow up were excluded. Baseline demographics were recorded and the SINS calculated. Variables analyzed were primary tumor type, Karnofsky and ECOG scores, time to treatment, dosage, and type of radiation. The outcome was radiation therapy failure as defined by persistent pain, need for re-irradiation, or surgical intervention. Chi squared and Fisher exact tests were used for analysis of the categorical variables. Continuous variables were analyzed with the student t-test. The multivariate regression model was built from the univariate analysis.

#### RESULTS

583 patients were identified; of those, 170 met the inclusion criteria. Mean follow up was 218 days. 43 patients failed radiation therapy, 10 required repeat radiation, and 7 underwent surgery. 36 reported no pain relief, including some that required re-irradiation and surgery. Significant risk factors on univariate analysis were SINS grouping (<6, 7-12, >12) ( $p = 0.143$ ), biologically effective dose (BED) > 43 ( $p = 0.047$ ), categorical Karnofsky (<50, 50-70, >80) ( $p = 0.003$ ), continuous Karnofsky ( $p = 0.001$ ), ECOG (0-2, 3-4) ( $p = 0.025$ ), and male gender ( $p = 0.092$ ). BED (OR 0.451), Karnofsky (OR 0.736), and male gender (OR 2.147) were included in the final regression model. The multivariate regression model had an AUC of 0.695, a sensitivity of 0.8140 and a specificity of 0.5276.

#### CONCLUSIONS

Lower performance scores, lower BED, higher SINS, and male gender were associated with radiation failure on univariate analysis. However only BED < 43, decreased Karnofsky score and male gender were associated with radiation failure in the multivariate model.

## **Traditional Versus Digital Media-Based Hand Therapy After Distal Radius Fracture.** [Lara T](#); Kagan R; Hiratzka S; Thompson A; Nazir O; Mirarchi A.



### **Taylor Lara, MD**

Hometown: Memphis, TN

Medical School: University of Tennessee, TN

Fellowship Plans: Adult Reconstruction, Florida Orthopaedic Institute, Tampa, FL

### **PURPOSE**

Distal radius fractures (DRF) are common injuries with a rising incidence. A significant portion of the cost of care is attributable to therapy services. Our purpose was to evaluate the effectiveness of a self-directed hand therapy program guided by digital media compared to traditional therapy.

### **METHODS**

We conducted a randomized controlled trial in patients 18 years or older who underwent open reduction internal fixation (ORIF) of DRF with volar plating. Subjects were randomized to traditional hand therapy using a twelve-week protocol or an identical protocol presented in digital videos and performed at home. QuickDASH (QD) scores were collected as the primary outcome at 2, 6, and 12 weeks. Visual Analog Scale (VAS) scores, Veterans RAND 12-item Health Survey (VR-12) scores, wrist and forearm range of motion, wrist circumference, and grip strength were recorded as secondary outcomes.

### **RESULTS**

Fifty-one patients were enrolled. 22 were randomized to the digital media group and 29 to the traditional group. QD scores were significantly improved in the digital media group at 6 weeks (least square mean  $30.55 \pm 4.96$  versus  $43.99$

$\pm 4.03$ ,  $p=0.04$ ) but this was not clinically significant; no group difference existed at 2 weeks or 12 weeks. Ulnar deviation was greater in the digital media group at 12 weeks ( $37 \pm 12.4$  versus  $26 \pm 11.45$ ,  $p=0.025$ ). VAS or VR-12 scores showed no difference at any time point.

### **CONCLUSIONS**

Our novel digital media program was at least as effective as traditional therapy for patients undergoing volar plating of distal radius fractures. There is the potential for improvements in the early recovery period as well as the potential to improve value and access to care.

### **Mortality Associated With Proximal Femur Metastatic Lesions Is Decreased When Treated With Arthroplasty Compared to Intramedullary Nailing in the VA Healthcare System.** Putnam D; Gundle K.



#### **David Putnam, MD**

Hometown: Santa Cruz, CA

Medical School: OHSU, Portland, OR

Fellowship Plans: Adult Reconstruction, Scripps Health, San Diego, CA

#### **BACKGROUND**

The proximal femur represents the most common site of metastatic bone disease in the appendicular skeleton, and associated pathologic pertrochanteric femur fractures contribute to cancer related morbidity and mortality. Goals of surgical management of these fractures include pain relief, mobilization and avoidance of revision procedures. Controversy exists as to whether these injuries are best managed with intramedullary nailing or with arthroplasty.

#### **QUESTIONS/PURPOSES**

In this study, we sought to determine mortality rates as well as length of stay in patients with pathologic proximal femur fractures treated with intramedullary nailing or arthroplasty in the Veterans Health Administration system. Patients and Methods: This retrospective database comparative study included patients in the national Veterans Health Administration (VHA) with surgery taking place between September 30 2010 and October 1 2015. Patients were selected using ICD-9 and CPT codes associated with their care within the Veterans Administration Informatics and Computing Infrastructure Corporate Data Warehouse (VINCI).

#### **RESULTS**

679 patients were included in this study; 265 were treated with arthroplasty and 414 were treated with intramedullary nails. As would be expected in the VHA population, 95% of these patients were male with lung (24%), prostate (19%) and hematologic malignancies (15%) comprising the primary cancer diagnoses. Follow up was longer in the arthroplasty group (2.3 years) compared to the intramedullary nail group (1.9 years) and this difference was statistically significant ( $p < 0.01$ ). The arthroplasty cohort was also older and less comorbid.

Age and Gagne comorbidity scores were both associated with decreased survival ( $0 < 0.001$ ) and receiving arthroplasty as a treatment modality for proximal femur metastatic disease as opposed to intramedullary nailing was associated with survival this difference persisted after adjusting for age and comorbidities using a multivariate analysis.

#### **CONCLUSION**

This retrospective database cohort study found that when used for the treatment of proximal femur metastatic disease, arthroplasty was associated with increased patient survival when compared to intramedullary nailing and this difference persisted when adjusting for age and comorbidities.



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**Identification of Infectious Species After Resection of Soft-tissue Sarcomas.** Ramsey DC; Jones RA; Weiss JK; Hayden W; Hayden J; Barnes P; Doung YC. *J Surg Onc* 2019 Jun;119(7):836-42.



**Duncan Ramsey, MD**

Hometown: Dallas, TX

Medical School: University of Texas, San Antonio, TX

Fellowship Plans: Orthopaedic Oncology, Massachusetts General Hospital, Boston, MA

**BACKGROUND**

Pathogenic species in deep tissue infections after soft-tissue sarcoma (STS) resection is largely unstudied, particularly the role of anaerobic bacteria, risks factors for those pathogens, and the time course of infection presentation.

**METHODS**

Retrospective analysis of 64 patients requiring operative debridement for deep tissue infection after STS resection was undertaken to identify infectious species and study risk factors for anaerobic infections. Kaplan–Meier methods examined the time course of infection presentation.

**RESULTS**

STS subtypes were most commonly pleomorphic STS, myxofibrosarcoma, and undifferentiated STS. Staphylococcus aureus was the most common organism isolated (56%) (Figure 1). Twenty (31%) infections were positive for ≥1 anaerobic organism. Twelve gram-positive and 10 gram-negative aerobic organisms were isolated. Most (90%) anaerobic-containing infections were polymicrobial, vs 52% of purely aerobic infections. No significant risk factors for anaerobic infections were identified. Median time from tumor resection until debridement was significantly greater for anaerobic infections (54.5 days) than for purely aerobic infections (29.5 days; P = 0.004), a difference so pronounced that using “presentation after 53 days” as a proxy for the presence of anaerobic pathogens had an accuracy of 81% (Figure 2).

**CONCLUSIONS**

Because polymicrobial and anaerobic bacterial infections are common, we strongly support antibiotic use with anaerobic coverage at debridement, particularly for infections presenting later.

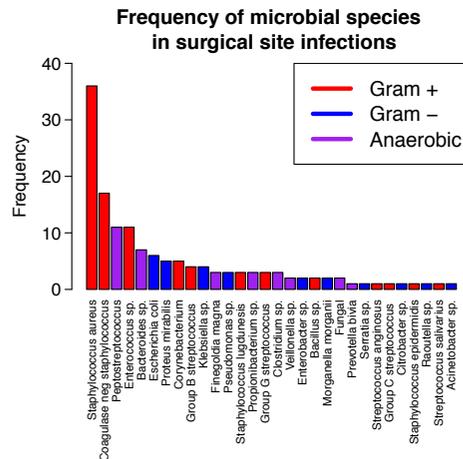


Figure 1

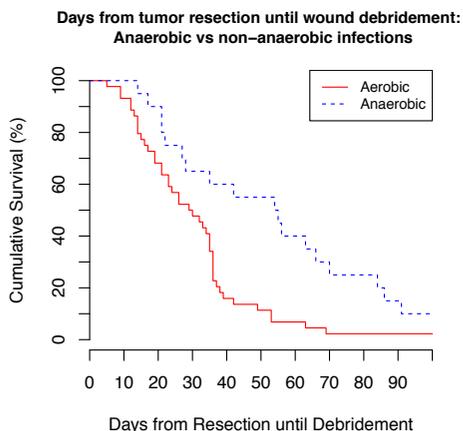


Figure 2

## Effects of Immediate Postoperative Physical Therapy on Negative Events Following Ambulatory Orthopaedic Surgery. Sun G; Gundle K; Contag A; Crawford D.



### Grant Sun, MD

Hometown: Reno, NV

Medical School: University of Utah, Salt Lake City, UT

Fellowship Plans: Foot and Ankle, Baylor University, Dallas, TX

### BACKGROUND

Postoperative physical therapy on the day of surgery (SDPT) for inpatient orthopaedic patients is known to improve function and reduce hospital length of stay. However, as far as we are aware, this has not been examined in the outpatient surgical setting.

### OBJECTIVES

We examined whether negative event rates (triage phone calls, ER (emergency room) visits) and Press Ganey satisfaction scores were different in patients receiving SDPT compared to those that did not.

### METHODS

One surgeon performed 590 ambulatory shoulder or knee procedures. Patients who had significant postoperative activity restrictions and underwent surgery on Thursdays received SDPT; those undergoing surgery on Fridays did not. To determine if there was a hidden day-of-week bias, two control groups without postoperative activity restrictions also underwent surgery on Thursday or Friday.

### RESULTS

Negative event rates did not differ based on SDPT in those with postoperative activity restrictions (0.86 vs. 0.69, respectively,  $p=0.29$ ) or in those with no activity restrictions (0.40 vs.

0.26, respectively,  $p=0.12$ ) (Table 1). Press Ganey scores similarly did not differ significantly based on SDPT, with mean scores of 9.2 and 9.0, of 10, in those with postoperative activity restrictions ( $p=0.53$ ) (Table 2).

### CONCLUSION

SDPT did not affect negative event rates or Press Ganey scores in patients with or without postoperative activity restrictions. This may reflect a ceiling effect, given the high baseline level of satisfaction associated with these procedures. A larger cohort and different metrics could be important additional elements to identify the impact of this complementary educational method in the post-operative ambulatory setting.

Table 1. Rate of negative events (ER visits and triage phone calls) per surgery

	Thursday SDPT	Friday No SDPT	P-value
Postoperative activity restrictions	0.86% (233/271)	0.69% (99/144)	0.29
No postoperative activity restrictions	0.40% (35/87)	0.26% (23/88)	0.12

Abbreviations: SDPT, Same day physical therapy.

Table 2: Press Ganey Scores averaged by group

	Thursday SDPT	Friday No SDPT	P-value
Postoperative activity restrictions, score $\pm$ SD (N)	9.2 $\pm$ 1.1 (53)	9.0 $\pm$ 1.2 (27)	0.53
No postoperative activity restrictions, score $\pm$ SD (N)	9.2 $\pm$ 1.3 (14)	9.3 $\pm$ 1.2 (12)	0.94

Abbreviations: SDPT, Same day physical therapy; SD, Standard deviation; N, Number.

## Management of the Pediatric Mallet Finger. Krohn EF.



### Eric Krohn, DO

Hometown: Richland, WA

Medical School: Lake Erie College of Osteopathic Medicine, Erie, PA

Fellowship plan: Pediatrics, University of Michigan, Ann Arbor, MI

Disruption of the extensor mechanism at the distal interphalangeal joint leads to the deformity commonly called a “mallet finger”. This is a common injury in the pediatric population, but research specifically on the management of these injuries in the pediatric population is lacking and treatment tends to mirror the adult world. To better define the management of these injuries in children, the most current literature on management of these injuries has been brought together with the key concepts of adult management.

A mallet finger refers to the disruption of the extensor mechanism at the distal interphalangeal (DIP) joint. Open physes in close proximity to the zone of injury as well as compliance issues are two factors that must be considered when treating these injuries in children. The main goals of the treatment are to restore active DIP joint extension and avoid any secondary deformities. Generally, nonoperative treatment with extension orthotic use is the preferred mode of treatment. Operative treatment is a topic of controversy as there is insufficient evidence to determine definitive indications. In addition, most research in this field has been done on adults, with pediatric therapy mirroring what is found in the adult population. The objective of this study was to synthesize the literature on treatment of mallet fingers in the pediatric population.

Improper treatment can lead to significant functional impairments. Treatment options for the pediatric mallet finger include various splint configurations

for nonoperative management, or a multitude of surgical techniques for operative treatment. Crawford proposed a treatment assessment classification and it is a widely used measure of outcomes. It evaluates flexion and extension of the DIP joint as well as the presence or absence of pain.

### MANAGEMENT OF THE ACUTE MALLET FINGER

Acute mallet fingers are those presenting <28 days from injury. Nonoperative treatment with an extension orthosis is by far the most commonly used treatment modality. Currently, the majority of treatment involves only extension splinting of the DIP joint.

### SPLINTING

There is a paucity of evidence for nonsurgical management of pediatric mallet fingers specifically. Plastic stack splints, and thermoplastic and aluminum form splints are common splint designs - no significant differences between splint styles and functional outcomes are reported. All styles immobilize the DIP joint in full extension to slight hyperextension continuously, and maintain the joint in full extension during hygiene. Across all ages, average continuous splint wear time is  $7.0 \pm 1.2$  weeks. Thereafter, most nighttime splinting recommendations are 2 weeks of nighttime use. If the DIP joint is inadvertently flexed during treatment then the protocol is restarted.

Complications in adults, at least, include some residual extensor lag of  $\sim 8^\circ$ , leading to functional impairments. Casting is an option, although compliance has been

shown to be directly related to the final extensor lag. In the pediatric population, compliance can be an issue and so casting remains an option in a child who will not tolerate splinting and in those where operative intervention is not warranted.

### OPERATIVE MANAGEMENT

Indications for surgery have not been fully defined in adults or children. A 2008 Cochrane review determined that there was insufficient evidence to recommend specific surgical indications. Commonly reported indications are >30% involvement of the articular surface and significant volar subluxation of the distal phalanx. Open fractures are generally treated with irrigation and debridement, and fixation with or without direct tendon repair if possible. Relative indications in these injuries are the inability to comply with nonoperative treatment and patients who will have a difficult time performing their jobs with an external splint (musicians, surgeons).

Surgical techniques include Kirschner wiring, extension block wiring, small screws, hook plate, pull-through wires/suture, figure-of-eight wiring, tension band wiring, umbrella handle K-wire fixation, and external fixation. Biomechanically, pull-through sutures are more stable with no loss of reduction compared to K-wires, figure-of-eight wiring, and a pull-through wire. Even so, most of these techniques use a K-wire to immobilize the DIP joint in extension with extension block splinting being the most common. Those that support open reduction feel that the associated complications can be overcome with meticulous, anatomic, surgical reduction. Closed reduction proponents are concerned that open management is difficult due to the small articular fragment, inability to assess DIP joint congruency and damage to the tenuous soft tissue envelope. If a K-wire is used it is usually left in place for 6-8 weeks and then removed and followed by 2 weeks of nighttime splinting.

In acute closed mallet injuries without significant articular surface involvement and no volar

subluxation, splinting is as effective as surgical intervention. Complications with operative management include infection, nail deformity, joint incongruity, implant failure and residual pain, reported to be as high as 52% with K-wire fixation. Management of pediatric mallet injuries mirrors adult injuries. As there are no large studies comparing the different types of operative management in the pediatric population, indications loosely follow those of adults.

### MANAGEMENT OF THE CHRONIC MALLET FINGER

Nonoperative management of the chronic mallet finger is generally recommended. However, surgery is recommended if there is an extensor lag of 40° or if there is a functional deficit. Operative management is focused on DIP joint stabilization and improvement of DIP joint extension. Common techniques are the central slip tenotomy and tenodesis. Patient satisfaction is high and additional procedures are generally not required for recurrent deformity. For multiple failed treatments, however, arthrodesis is a viable salvage operation but all attempts to avoid this in the pediatric population should be undertaken.

### CONCLUSION

While there are few studies that relate specifically to pediatric mallet fingers, existing studies do support using similar treatment algorithms as those in adults. All acute, reducible bony or soft tissue mallets are best initially treated with splinting. Operative management is preferred if there is volar subluxation of the distal phalanx or an open fracture. The choice of a splint or surgical intervention has not been shown to significantly change patient outcomes, though no head to head assessment of different surgical techniques has been performed in children. In the chronic mallet finger, nonoperative management should be tried before operative intervention is considered. Splinting for at least 8 weeks is generally recommended. In those mallets that have failed multiple interventions or in chronic, contracted mallet fingers arthrodesis is a viable option, but only after failure of all treatment options.

**Image Distortion in Biplanar Slot Scanning: Technology Specific Factor.** Sharp J; Bouton D; Degan T; Annabelle L; Seinko S; Welborn M.



### Jennifer Sharp, DO

Hometown: Cheyenne, WY

Medical School: Kansas City University, Kansas City, KS

Fellowship Plans: Trauma, Northern California Orthopedic Associates, Sacramento, CA

### BACKGROUND

Biplanar digital slot scanning technology became commercially available in 2007. Its use has become the standard of care at academic centers after studies showed a dramatic reduction in radiation exposure compared to traditional radiographs. Yet, the amount of distortion and reproducibility of this type of imaging modality has yet to be investigated. The purpose of this study was to evaluate the degree of image distortion in sequentially obtained EOS images in the PA and lateral planes by analyzing markers with known dimensions, imaged in different locations in the scanner, and measured by different observers.

### METHODS

Four 25mm radio-opaque markers were placed at C3, T1, T12, and L5 on a full-length skeleton. The skeleton was suspended in the biplanar digital slot scanner and imaged in ten different positions within the scanner. This included the center-center position, followed by images where the skeleton was moved first 5cm and then 10cm in the forward, backward, leftward, and rightward directions as referenced to the center of the slot scanner. Five PA and five lateral images were obtained in each of the ten different positions described above. Two orthopaedic attending physicians and three orthopaedic resident physicians then measured the markers for a total of 3200 marker measurements, which were recorded into a database for analysis. Intraclass Correlation Coefficient (ICC) estimates and their 95% confidence intervals were used to examine image distortion. ICC's were used to examine the inter-rater reliability

between the residents and the attending physicians.

### RESULTS

Average marker size was 24.77. Image distortion and SEM accounted for approximately 0.5-1.5% of total the measurement. Overall there was good reliability and consistency when looking at markers in different views (ICC .790), planes, and locations within the image. Horizontal measurements were found to be more consistent and have better reliability (ICC 0.881) than vertical measurements (ICC .386). Position within the scanner had minimal impact on the accuracy of the measurements.

### CONCLUSIONS

All imaging modalities are associated with error. This study demonstrates that there is minimal error due to performance of the measurement, as well as that due to the imaging modality. Biplanar slot scanning technology did have a tendency to underestimate the size of the object being measured, however, this is not clinically relevant as the least accurate location and measurement direction only erred by 1.5% from the true length. This contradicts both our study looking at image distortion in MCGR patients as well as Michael et al's study on SEM in spine length measurements. Indicating that the sources of error in those cases are likely due to patient specific factors. Measurements made in biplanar slot scanning machines used for sequential imaging analysis should continue to be approached with caution, and every effort should be made to minimize patient specific sources of error such as motion and sway.

## Incidence of Marijuana Product Use in a Patient Population Undergoing Total Joint Arthroplasty in a Marijuana Legal State. Williams M; Ryan J.



### Mark Williams, DO

Hometown: Kennesaw, GA

Medical School: Philadelphia College of Osteopathic Medicine, Philadelphia, PA

Fellowship plan: Adult Reconstruction, University of Louisville, Louisville, KY

### INTRODUCTION

Marijuana product usage is a controversial topic within the medical community as is the topic of pain control and products used to control pain. Patients undergoing orthopedic procedures and more specifically, total joint arthroplasty are commonly prescribed opioids pre-operatively for joint-related pain and then again for post-operative pain. Given the current opioid epidemic, multi-modal strategies for treatment of arthritis and joint related pain are at the forefront of orthopedics today. These strategies primarily aim to reduce post-operative narcotic pain medication use. After the legalization of recreational marijuana product use in Oregon on July 1, 2015 these products are being used more openly by patients undergoing total joint arthroplasty. There is no published literature on the incidence of recreational marijuana product use in patients undergoing total joint arthroplasty and how this may relate to their pre or post-operative narcotic pain medication requirements.

### METHODS

This is a retrospective review of a single, fellowship-trained, adult reconstruction surgeon's practice. One year of pre-operative history and physical notes of patients undergoing primary or revision hip and knee arthroplasty within the time period of January 1, 2017 to December 31, 2017 were reviewed (296 total patients). If a patient underwent multiple surgeries within the study timeframe, only their most recent surgery was included. Data

was collected on pre-operative marijuana use, pre-operative narcotic pain medication use, and narcotic pain medication use at three months post-operatively. The rate, frequency, and type of marijuana product usage was noted when available. The Oregon Prescription Drug Monitoring Database was used to check narcotic pain medication prescriptions pre and post-operatively.

### RESULTS

The data collected over one year demonstrated that the overall incidence of preoperative marijuana product usage in patients undergoing total joint arthroplasty was 15.0% (44 patients out of 296). Associations between marijuana use and pre-operative opioid use, post-operative opioid use, alcohol use, and tobacco use were tested with Pearson's Chi-squared, and with Fisher's Exact test when expected cell sizes were smaller than 5. When variables were statistically significant, relative risk and 95% confidence intervals was used to estimate the magnitude of the association. Pre-operative opioid use was significantly associated with marijuana use ( $p=.03$ ). Compared with patients taking neither opioids nor tramadol, patients taking any opioid were 1.94 times as likely to use marijuana (95% CI = 1.07-3.50) and patients taking only tramadol were 2.26 times as likely to use marijuana (95% CI = 1.04-4.90) as patients taking no prescription pain medication. There was a trend of greater tobacco use among marijuana users, though this was of borderline statistical significance ( $p=.05$ ). Continued

post-operative opioid use at 3 months ( $p=.61$ ) and alcohol use ( $p=.82$ ) were not significantly associated with pre-operative marijuana use.

### CONCLUSION

The overall incidence of a marijuana product use in patients undergoing total joint arthroplasty was 15.0%. This incidence was slightly lower than the average of 19% active users in Oregon according to the 2019 Oregon Health Authority facts sheet regarding marijuana use. Patients who were using pre-operative narcotic pain medications or tramadol were more likely to use marijuana products, but marijuana use was not significantly associated with continued post-operative opioid pain medication use. Orthopedic surgeons performing hip and knee arthroplasty procedures in states that have legalized recreational marijuana should be prepared to openly address the use of these products by their patients in the perioperative period.



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OHSU Residents (PGY-4 to PGY-1)

## PGY-4 Class



**Torgom Abraamyan, MD**

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**Trevor Barronian, MD**

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Total Joint Arthroplasty,  
Rothman South Jersey,  
Atlantic City, NJ



**Jason Laurita, MD**

Hometown:  
Camden, ME

Medical School:  
Dartmouth Medical  
School, Hanover, NH

Fellowship Plans:  
No fellowship



**Michael Robbins, MD**

Hometown:  
Paradise, CA

Medical School:  
University of  
California, Davis, CA

Fellowship Plans:  
Hand/Upper Extremity,  
University of Utah, Salt  
Lake City, UT



**Sean Sterrenberg, MD**

Hometown:  
Silverton, OR

Medical School:  
University of  
Washington,  
Seattle, WA

Fellowship Plans:  
Arthroplasty, Reno  
Orthopedic Clinic,  
Reno, NV

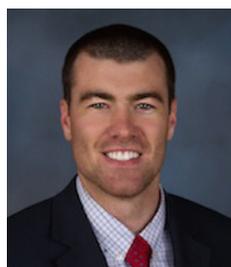
## PGY-3 Class



**Sam Cheesman, MD**

Hometown:  
Muncie, IN

Medical School:  
Indiana University,  
Indianapolis, IN



**Ryan Hadden, MD**

Hometown:  
Salem, OR

Medical School:  
University of Alabama,  
Birmingham, AL



**Sam Moulton, MD**

Hometown:  
Eugene, OR

Medical School:  
OHSU, Portland, OR



**Erik Woelber, MD**

Hometown:  
Anchorage, AK

Medical School:  
University of  
Washington,  
Seattle, WA



**Natalie Zusman, MD**

Hometown:  
Portland, OR

Medical School:  
OHSU, Portland, OR

# Resident Directory 2019-2020

OHSU Residents (PGY-1 to PGY-4)

## PGY-2 Class

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**Elliott Cole, MD**  
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-1 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 2019-2020

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

## PGY-4 Class

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**Justin Brohard, DO**

Hometown:  
Decatur, IL

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

Fellowship Plans:  
Foot and Ankle,  
University of  
Washington at  
Harborview, Seattle, WA



**Shaun Conley, DO**

Hometown:  
St. Louis, MO

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

Fellowship Plans:  
Pediatrics, Children's  
Hospital, Los Angeles,  
CA



**Justin Than, DO**

Hometown:  
San Jose, CA

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

Fellowship Plans:  
Total Joints, Cedar  
Sinai, Los Angeles, CA

## PGY-3 Class

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**Andrew Hadeed, DO**

Hometown:  
Los Gatos, CA

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

Fellowship Plans:  
Trauma



**Tyler Petersen, DO**

Hometown:  
Vancouver, WA

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

Fellowship Plans:  
Trauma



**Babe Westlake, DO**

Hometown:  
Sparks, NV

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

Fellowship Plans:  
Arthroplasty/  
Oncology

# Resident Directory 2019-2020

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

## PGY-2 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-1 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 Scoles, DO**  
Hometown:  
Sonora CA  
  
Medical School:  
Rocky Vista University  
of Osteopathic  
Medicine, Parker CO

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\*Trademark of Smith+Nephew



### **JOHN COX, MD**

After an amazing fellowship year at Scripps Clinic in San Diego, like many people I got bit by the California bug and couldn't leave. I now work and live in the Bay Area for Kaiser Permanente. I primarily do hip and knee arthroplasty with a mix of fractures, hand injuries, and infections from call. Since the end of residency, I met the love of my life and we recently got married.

You will remember residency as having some of the most challenging and rewarding times of your life. Orthopedics is truly fulfilling, and I am eternally grateful for having the opportunity to be in this field. OHSU does a remarkable job preparing you and you will leave a skilled, knowledgeable, and empathetic surgeon thanks to their amazing faculty and leadership. Moving forward, it is important to get a solid perspective from each practice type when deciding on your first job. I am happy to talk to anyone about working for Kaiser (each area is managed independently and vary quite a bit). Thank you everyone at OHSU and hope to see you all soon!

## Alumni Updates: Class of 2017



### **RYLAND KAGAN, MD**

After graduation three years ago, I spent a year at the University of Utah for a fellowship in adult reconstruction and hip preservation under the mentorship of Dr. Chris Pelt, Dr. Jeremy Gililland, and my fellowship director Dr. Chris Peters. The experience of being a guest in another world-class hospital gave me guidance as to how to balance a busy clinical volume with pushing our field forward with impactful research.

When I left the OHSU orthopaedic residency program, I knew I'd be back here, in my home city, practicing alongside my mentors. I returned to Portland to work alongside my esteemed senior partners, Dr. Thomas Huff and Dr. Kathryn Schabel. Their guidance has been invaluable as I navigate these first years and focus my practice on hip and knee reconstruction. Due to their years of work we are excited to be on the precipitous of having a full research team and this will allow us to participate in multi-center national and international collaborative clinical research. We

also are extremely excited to have our first adult reconstruction fellow start this coming fall.

Currently, I divide my time between OHSU and our partner in East Portland, Adventist Hospital. Although unexpected, my time at Adventist has provided me a welcome counter balance to the complex sub-specialized patient population that OHSU serves.

Through every step of my medical journey, my wife Kelsey has been by my side. Together we adopted two large rescue dogs who keep us active with neighborhood runs and long-distance road trips. We are fanatics of desert dirt roads and snowy mountain tops and when we aren't working, we are likely wandering around the backcountry in our camper. The four of us have climbed the highest peak in Utah, swam in just about every lake in the Pacific Northwest, biked along the Arizona-Mexico border, and fished in the choppy waters of the Gulf of Alaska. I'm excited for my future career with OHSU and the adventures to come with my family.



## JOE LANGSTON, MD

I remember reading these alumni updates as a resident and finding it hard to imagine my future self at that point. Even now, it's hard to believe how far I've come. I often find myself thinking about how lucky and privileged I am to have made it through the arduous journey of becoming a surgeon.

After residency, I ventured to Melbourne, Australia to complete my hip and knee reconstruction fellowship. Expanding my knowledge of primary and revision arthroplasty was the goal, but I accomplished so much more. My time abroad with my wife (Kim) and 2 children (Farrah and Zev, now 7 and 5) brought us closer together as a family, as we navigated the unknown of living in a new country, and gave us so many amazing memories that we will cherish for the rest of our lives.

Upon my return to the US, I moved to Ashland, Oregon and began private practice with Southern Oregon Orthopedics. I had always heard the first year in practice was the most challenging and educational of your entire career, including residency, and I can vouch that the statement is 100% true. You are truly put to the test in countless ways, not only measuring your medical knowledge and surgical skill, but also discovering your resilience and refining the lifelong learning required for the job.

As an eager young surgeon in the first year of practice, you're ready to take on anything that comes your way. A

significant portion of my practice in the first year was general orthopedics. In addition to primary and revision joint replacement, I was doing everything from hip arthroscopy for FAI, ACL reconstructions, knee scopes, and basically any fracture care from a pelvic ex-fix (on my first night of call as an attending – long story) to tibial plateau fractures and even pediatric elbow pinning and spica casts for pediatric femur fractures.

There was a never-ending stream of challenges that came my way, but my confidence in approaching these cases stemmed from my education with the attendings I had worked with over the 5 years I spent at OHSU. My gratitude toward my OHSU mentors who shaped my surgical skills and taught me the art of orthopedics cannot be understated. They helped me become the surgeon that I am today and I am honored to now call them colleagues.

My time in Southern Oregon was brief, but still instrumental in my career during that first year of practice. An opportunity arose for me to move across the country once again to Denver, Colorado and my family and I decided to take it. I am now working at Kaiser Permanente and focus on mostly primary and revision joint replacement, but also still do general orthopedic trauma. I focus on patient-centered care through shared decision-making, enabling patients to align their personal preferences and values with the appropriate evidence-based treatment plan.

I will always look back at my time in residency with a deep appreciation. My resident cohort was the best that I could ask for and we've developed lifelong friendships that will continue to grow in years to come. Those 6am meetings every day were demanding and the expectations placed on residents were unremitting; now that I've made it to the other side, I wouldn't have it any other way. My advice to the younger generation is to be mindful of the opportunity provided to you at OHSU. My education was far and above anything I could have expected. Don't take any learning experience for granted because you never know what your future holds. Sometimes, the obstacle is the way and you will be better because of it.



### **MICHAEL ROSE, MD**

I can't believe it has been three years since I finished residency. Where has the time gone? At times it feels like only yesterday. After graduation, my wife Sarah and I moved to Denver where I completed a sports medicine fellowship at the Steadman Hawkins Clinic. There, I was able to hone my arthroscopic and clinical skills as well as help take care of the Denver Broncos and Colorado Rockies. My skiing also got considerably

better. I guess it's true what they say about fellowship... after Denver, I took a job with the CORE Institute and we moved to Phoenix. CORE is a large multi-specialty group that falls into the "privademics" model with resident education and research. It was a great fit and my practice allowed me to immediately focus on sports medicine. I have an interest in hip arthroscopy, and have been working to build that part of my practice over the last year and a half. My goals over the next couple of years are to become more involved in resident education and possibly even help start a sports fellowship at CORE. On the personal side of things, Sarah and I love living in Phoenix. It's paradise 8 months out of the year and hot as hell the other four. When we are not working, we like to do things outdoors, including hiking and playing golf. We bought a house and have taken up desert landscaping, filling our yard with a wide assortment of citrus trees, cacti, and flowering succulents. Additionally, we have finally been able to travel and visited Japan and Spain last year. We want to take at least one big trip every year to see as much of the world as possible. When I look back on my time, it's funny how the long hours and never-ending call weekends have been replaced by fond memories. I truly believe OHSU was a wonderful residency program that prepared me for anything I might face out in practice. I am grateful to support the OJO by sharing our story.



### **RYAN WALLENBERG, MD**

It is crazy to think that it has been 3 years since graduating residency. I have many fond memories from residency and am grateful for the education I received in what seems like such a short period of time. I appreciated the relationships with both residents and faculty during this time and try to maintain them to this day. After graduating residency, I took several months off to prepare for boards and spend some quality time with my family. I started as full-time faculty at the Portland VA in September 2017. I remain here as a general orthopaedist, including primary hip and knee replacements, fracture care, and other sports related procedures. It has been great being able to work alongside Drs Berkson, Anissian, and Gundle and I feel very lucky to have them as

my partners. I have particularly enjoyed being able to spend time with the residents as they rotate through our service. The VA has been a wonderful fit for me to balance both work and family life. My wife, Mckenna, is a radiologist at The Vancouver Clinic, as a women's imager. We have two wonderful (and very energetic) kids. My daughter, Elliot, is three and a half years old and my son, Oliver, is one and a half. They keep us very busy at home but it has been very fulfilling and I wouldn't change a thing. I wanted to personally thank all of the faculty at OHSU for the countless hours they spent in clinic and the OR to prepare us for the real world as orthopaedic surgeons. I especially want to thank Dr. Yoo and Dr. Friess for the continued devotion they have to the residency program.

## Alumni Updates: Class of 2008



### **KATE DEISSEROTH, MD**

After graduating from OHSU, I moved to Anchorage Alaska to begin a General Orthopedics practice at Elmendorf Air Force Base. It is here I had my two boys and enjoyed exploring the outdoors in a true wilderness state. I separated from the Air Force after 14 years as a Lt Col in 2017, after a move to Andrews AFB in Maryland. More recently I started to work in the VA system in Pennsylvania. My practice has morphed to the needs of my changing population and now is mostly joint replacements. I still enjoy the outdoors and am always looking for new places to travel with my kids!

## Alumni Updates: Class of 2004



### **BENJAMIN KAM, MD/MPH**

If there's anything my training at OHSU prepared me well for—learning under three different Chairmen, starting a family during residency, etc.—it's adaptability and change.

After graduation I went directly back on to active duty in the US Air Force, first taking an overseas assignment in Japan, followed by the USAF Academy in Colorado, and Alaska. Overseas was culturally rich, but not very surgically busy, so my real growth as a surgeon was in Colorado. During that time, we took care of division I sports, I got re-acquainted with joint replacement, and was deployed to a combat support hospital in Afghanistan. I was quite involved with the Society of Military Orthopaedic Surgeons and helped develop the jointly taught Disaster Response Course and online toolkit. We moved on to Alaska where in addition to my practice, I took command of surgical operations and also fulfilled a position on the Board of Counselors with the AAOS. For the past 12 years I also periodically returned

to Oregon, doing locums in a small rural hospital in Florence, OR. I retired from active duty in 2016 and am now in full time general orthopaedics practice in Colorado Springs. Our oldest (Zane) is now a sophomore at the USAF Academy. We still have a high school senior (Kai) and freshman (Ellie) in the house.

Despite lacking a formal fellowship on my CV, I learned, trained, and added hip arthroscopy and direct anterior THA due to a need in the community and am the lead surgeon for our hospital's robotic joint replacement program here in Colorado Springs.

Our time in residency was precious to me, and while I learned quite a bit of surgery and clinical care, I do think it mostly provided a great foundation for a lifetime ability to learn, adapt, and grow with the needs of my community. I'm amazed and so happy with how the department has grown and have every expectation that OHSU will continue to foster and develop great orthopaedic surgeons for our communities.

## Alumni Updates: Class of 1993



### ANDREW SCHMIDT, MD

I don't recall exactly what I said when I gave my "speech" at the OHSU Orthopaedic graduation dinner in June 1993, but I am pretty sure I did not say that I was looking forward to spending the next 27 years in Minnesota, which is exactly what happened. I am married to another OHSU alum, Dr. Jamie Lohr (Pediatrics, '91), and we ventured to the north woods to do fellowships. I did my fellowship with Dr. Richard Kyle in total joints, but I was also had the opportunity to do a lot of trauma, which were the two things that I was most interested in. Jamie completed her 4-year pediatric cardiology fellowship at the University of Minnesota. Despite our initial goal of returning to Portland (or at least the West Coast) once we were done with our training, we both took the path of least resistance and became faculty members at our respective institutions.

We have two children. Our oldest, Michael, was born in 1991, while we were residents. Our daughter, Katherine, was born 5 years later, after fellowships were done. Michael is an aerospace engineer, and Katherine is pursuing an MSN/RN at Rush University.

I have been privileged in my career to have fantastic mentors, including many from my time at OHSU. To this day, I relate to the Minnesota orthopaedic residents lessons that Dr. Beals taught me, among which are that you can say a lot with a few words, and that culture and expectations are important. Dr. Duwelius was instrumental in introducing me to Dr. Kyle, who accepted me as his fellow based on a phone-call that Dr. Duwelius took the time to make (another important life-lesson). Drs. Keenen, Aiona, Colville, Woll, Vincent, and Guyer all were fantastic teachers and I still am thankful for things that each of them taught me.

Currently, I enjoy a busy clinical practice in total joint replacement and trauma, have been active in clinical research (much of it related to acute compartment syndrome). I now spend my "spare time" speaking, writing and editing. As a family, we have always enjoyed skiing and traveling. Our most recent adventure was a family trip to visit Antarctica in Dec 2018. We hope to make our next journey to the Arctic region.

My wife and I both miss OHSU. When visiting Portland last summer, we unexpectedly had an opportunity to experience the new Emergency Room and the Center for Health and Healing after Jamie suffered an ankle fracture. Sam did a great job splinting her in the ED, and Dr Friess was able to repair her fracture a couple of days later. She even made it to her pediatric meeting at Skamania Lodge the day after her surgery. My wife and I both have a lot of gratitude for OHSU Orthopaedics.

## OHSU Beals Lectureship



*High School*



*Residency*



*Department Chief*



*Consummate surgeon and dedicated teacher to his last day*

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.

**It is unfortunate that the 2020 Beals Memorial Seminar had to be cancelled due to Covid-19.**

## 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 2019  
**Brian Snyder, MD**

### **BEATTIE GUEST LECTURER 2019**

#### **Brian Snyder, MD**

Brian Snyder MD/PhD is a Board Certified Pediatric Orthopaedic Surgeon on staff at Boston Children’s Hospital, where his clinical practice focuses on congenital and acquired deformities about the hip, spine and appendicular skeleton as consequence of genetic and neuromuscular diseases as well as pediatric trauma.

He is Professor of Orthopaedic Surgery, Harvard Medical School and a Research Professor of Biomedical Engineering, Boston University, School of Engineering. The Center for Advanced Orthopaedic Studies, that he previously directed, is a multi-disciplinary core research facility associated with the Departments of Bioengineering at Harvard University, Massachusetts Institute of Technology, Boston University, Harvard Medical School and the Harvard Combined Orthopaedic Residency Program.

The Laboratory focuses on basic and applied research in musculoskeletal biomechanics. His translational research program merges the analytic techniques developed in the laboratory with the innovative diagnostic and surgical techniques developed at Boston Children’s Hospital for treating musculoskeletal diseases. He has been principal investigator of NIH/NCI RO1, NIH/NIAMS R21, R01, NASA, DoD, private foundations (Whitaker, OREF, Susan B Komen, AO/ASIF, Coulter, POSNA, SRS) and industry sponsored grants.

In addition to representing the Board of Orthopaedic Specialty Societies to the FDA and Device Forum, he is a member of the NIH/NIAMS Tissue Engineering Study Section and the SBIR/STTR panel that evaluates orthopaedic devices and biologics.

# Visiting Lectureships

## Shriners Hospital for Children – Dillehunt Memorial Lecture



### 58TH 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.

It is unfortunate that the 2020 Dillahun Memorial Lecture had to be cancelled due to Covid-19.

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# 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	N/A	
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

## OHSU RESEARCH AND INNOVATION AWARD - RECIPIENTS FROM THE DEPARTMENT OF ORTHOPAEDICS AND REHABILITATION:

### ELECTED CHAIR OF THE COLLEGE OF FELLOWS

Brian Johnstone, recognized by the International Combined Orthopedic Research Societies

### YOUNG INVESTIGATOR AWARD

Ryland Kagan, recognized by the Western Orthopaedic Association

### 22ND ANNUAL FRANK B. SMITH RESEARCH AWARD

Adam Mirarchi, recognized by the North Pacific Orthopaedic Society

### KATHRYN CRAMER CAREER DEVELOPMENT AWARD

Zachary Working, recognized by AO Trauma North America

# OHSU Orthopaedic Program Alumni Directory

GRADUATE		FELLOWSHIP TRAINING	CURRENT PRACTICE LOCATION
<b>2019</b>			
Courtney Bell	Adult Reconstruction - Rothman Institute, Egg Harbor, NJ		
Shanjean Lee			VA Sierra Nevada Healthcare System, Reno, NV
Elizabeth Lieberman	Adult Reconstruction - Washington University, St. Louis, MO		
Peters Otlans	Sports Medicine - Jefferson University, Philadelphia, PA		
Travis Phillip	Spine - New York University, New York, NY		
<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		Specialty Physicians of Illinois, Olympia Fields, IL
Farbod Rastegar	Spine - Cleveland Clinic, Cleveland, OH		Aurora Orthopaedics, Grafton, WI
<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. Wieking	Foot & Ankle - Melbourne Orthopaedics, Melbourne Australia		Asante Physician Partners, Grants Pass, OR

# OHSU Orthopaedic Program Alumni Directory

GRADUATE		FELLOWSHIP TRAINING	CURRENT PRACTICE LOCATION
<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	Oregon Health & Science Univ., Portland, 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, CA and Turlock, 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	
<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	

# OHSU Orthopaedic Program Alumni Directory

GRADUATE		FELLOWSHIP TRAINING	CURRENT PRACTICE LOCATION
<b>2004</b>			
Benjamin C. Kam			Medical Center Point, Colorado Springs, CO
Britton Frome (Polzin)	Hand Surgery - UT Southwestern, Dallas, TX		Colorado Springs Health Partners, Colorado Springs, CO
<b>2003</b>			
Jennifer R. Miller	Sports Medicine - Congress Medical Associates, Pasadena, CA		Idaho Sports Medicine Institute, Boise, ID
John B. Reid	Sports Medicine - Taos Orthopaedic Institute, Taos, NM		Taos Orthopaedic Institute, Taos, NM
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		Campbell Clinic Orthopaedics, Germantown, TN
<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		Tri Star Skyline Medical Center, Nashville, TN
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
<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		

# OHSU Orthopaedic Program Alumni Directory

GRADUATE		FELLOWSHIP TRAINING	CURRENT PRACTICE LOCATION
<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
<b>1987</b>			
Dale G. Bramlet	Orthopaedic & Plastic Surgery, Hand and Upper Extremity - Univ. of Rochester Medical Center, Rochester, NY		Advent Orthopedics, Pinellas Park, FL
Scott B. Jones			Orthopedic & Sports Medicine Center of Oregon, Portland, OR
Stefan D. Tarlow	Knee Surgery - Dr. Jan Gillquist, Sweden; Sport Medicine - Dr. James Andrews, Birmingham, AL		Advanced Knee Care, PC, Scottsdale, AZ
<b>1986</b>			
Mark J. Buehler	Hand - Duke Univ., Durham, NC		Providence Hospital, Portland, OR
Wendell D. Ferguson	Providence Medical Center, Portland, OR		Vallejo Kaiser Medical Center, Vallejo, CA
Paul A. Switlyk	Shoulder - Univ. of Western Ontario, London, ON		Orthopedic & Sports Medicine Center of Oregon, Portland, OR

# OHSU Orthopaedic Program Alumni Directory

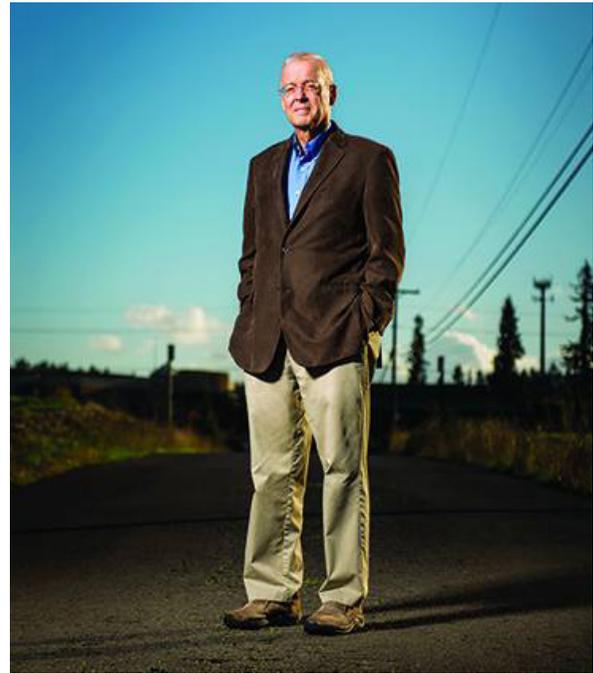
<b>1985</b>	Stanley J. Neitling Daniel N. Ovardia	<b>1976</b>	Wayne C. Kaesche Walter A. Smith Stephen J. Thomas	<b>1968</b>	Benjamin F. Balme James D. Kunzman James D. Nelson Frederick D. Wade	<b>1959</b>	Raymond A. Case James V. Harber	<b>1947</b>	Edward A. LeBold
<b>1984</b>	Steven J. Bruce Kenneth A. Hermens Wendy M. Hughes	<b>1975</b>	Randy W. Crenshaw John O. Hayhurst Patrick T. Keenan Kelsey C. Peterson Ned R. Schroeder	<b>1967</b>	Michael S. Baskin John W. Gilsdorf John W. Thompson	<b>1958</b>	Richard G. Gardner William D. Guyer	<b>1946</b>	William P. Horton Clyde D. Platner Faulkner A. Short
<b>1983</b>	Michael J. Grundy Paul J. Mills John C. Schwartz	<b>1974</b>	Thomas W. Hutchinson Robert J. Porter Frederick L. Surbaugh	<b>1966</b>	Charles A. Bonnett McGregor L. Church Don D'Amico Fred G. Grewe Howard E. Johnson	<b>1957</b>	Hadley F. Fitch Richard S. Gilbert	<b>1945</b>	Joseph H. Gill
<b>1982</b>	Julie Isaacson James D. Livermore John S. Toohy	<b>1973</b>	James L. Baldwin David A. Haaland Craig MacCloskey	<b>1965</b>	Arthur L. Eckhardt John Hazel Richard L. Mercer	<b>1956</b>	William E. Hummel Joseph R. McProuty Jack B. Watkins	<b>1943</b>	Paul G. Hafner
<b>1981</b>	Christopher A. Blake Wayne K. Nadamoto Samuel K. Tabet	<b>1972</b>	Michael S. Hmura Grant D. Lawton Michael R. Marble	<b>1964</b>	Robert F. Corrigan Richard C. Zimmerman	<b>1955</b>	Edward A. Attix Max M. Bocek	<b>1942</b>	Rodney Begg Harold E. Davis
<b>1980</b>	Lenart C. Ceder Jonathan H. Hoppert Robert W. Jordan	<b>1971</b>	Charles B. Bird Robert G. Chuinard Jim Dineen Ilmar O. Soot	<b>1963</b>	Donn K. McIntosh Michael R. Rask	<b>1954</b>	Howard I. Popnoe Dale D. Popp	<b>1940</b>	Leslie S. Porter
<b>1979</b>	Brian Laycoe Donald Peterson James Robbins	<b>1970</b>	Philip J. Fagan Robert J. Foster Art Hauge Edwin A. Kayser Gerald T. Lisac Ira M. Yount	<b>1962</b>	Phaen Gambee Norman D. Logan Keith A. Taylor	<b>1953</b>	Donald D. Smith	<b>1938</b>	Arthur M. Compton
<b>1978</b>	Lyle Mason Edgar K. Ragsdale Enoch D. Shaw	<b>1969</b>	Thomas E. Fagan Michael H. Graham George W. Ingham Joseph P. Klein Scott Struckman	<b>1961</b>	Rodney K. Beals Thomas A. Edwards George Keyes Ralph E. Peterson	<b>1952</b>	Melvin L. Makower	<b>1935</b>	E.G. Chuinard
<b>1977</b>	David L. Noall Byron K. Skubi Robert K. Smith Theodore J. Vigeland	<b>1960</b>	Charles A. Fagan Calvin H. Kiest Betty J. Hohmann Robert W. Straumfjord Bud Yost	<b>1951</b>	Bob Maris William E. Snell James W. Weed	<b>1950</b>	Ralph Thompson	<b>1931</b>	Harry Leavitt
						<b>1949</b>	Howard Cherry Boyd G. Holbrook Richard J. Hopkins	<b>1929</b>	D.G. Leavitt
						<b>1948</b>	Robert F. Anderson George W. Cottrell Carl L. Holm	<b>1928</b>	Leslie C. Mitchell
								<b>1925</b>	John LeCocq
								<b>1924</b>	Leo S. Lucas

## In Memoriam: John Tongue, M.D. R '74 (1946-2019)

It is with great sadness that we said goodbye to **John R. Tongue, M.D. R '74** on August 25, 2019 at the age of 73. Dr. Tongue passed away peacefully at his beloved Oswego Lake home with his devoted wife Nancy at his side. He was a renowned orthopedic surgeon and a great friend of the department. He served as a clinical associate professor of orthopedics and rehabilitation, OHSU School of Medicine, and past president of the School of Medicine Alumni Council.

Dr. Tongue's contributions to Oregon are profound and of lasting impact. I was extremely fortunate to have John as a mentor and a friend. His energy and passion to improve our profession and the lives of all Oregonians was boundless and inspirational. I learned a great deal from John about the power of political advocacy and physicians speaking as one voice to further important causes. John also brought great pride to the Oregon orthopedic community as he traveled the country and the globe in his many leadership roles. This was all the more a profile in courage as so much was accomplished while he persevered through eight years of sarcoma tumors. Always committed, he demonstrated his support and dedication to the work of the OHSU Alumni Council and speaking with students and alumni at events such as the white coat ceremony for first year medical students. John proudly served his community as a renowned orthopedic surgeon, a champion of public safety, and an enthusiast for the natural beauty of Oregon.

John Richard Tongue, a fourth-generation Oregonian, was born in Portland on March 1, 1946 to Justice Thomas H. Tongue III and Bernice Mary Healy Tongue. John was the second of three sons. He attended Ainsworth Grade School, and pedaled a hilly newspaper route through his West Hills neighborhood. After being given a copy of "Doctor Dan the Bandage Man" by his



pediatrician, Johnny decided he would be a doctor when he grew up. At age 14 he earned the rank of Eagle Scout, and graduated from Lincoln High School in 1964.

John majored in Political Science at Northwestern University in Evanston, Illinois, class of 1968, and remained a proud Wildcat for life. After graduating from Saint Louis University School of Medicine in 1972, John returned to Oregon for a surgical residency at OHSU. It was there that he fell in love with young nursing student Nancy Klein. They married March 20, 1976, and she joined him in San Francisco where he completed his orthopedic training. After two additional fellowships, John and Nancy together set up his office in the First Addition neighborhood of Lake Oswego. He later moved his practice to Tualatin and operated at Meridian Park hospital for 40 years.

John loved to ski, hike, camp, kayak, and canoe, but fly-fishing Oregon's rivers brought him

the greatest joy. He deeply valued community involvement and was a long-time member of Lake Oswego Rotary and Our Savior's Lutheran Church. He served as the volunteer football team doctor for Lake Oswego High School for 21 years and he and Nancy led the first ever phone-a-thon fundraiser for the school district. As a father, John delighted in his three children. He made it a priority to summit Mt. Hood with each of them and took every opportunity to encourage his children to value education, service to others, family and faith. As a leader in Boy Scout Troop 12, he instilled those same values in many young men and led them on adventures throughout the wilderness of the Pacific Northwest.



Working in the emergency room, Dr. Tongue saw firsthand the devastation caused by car crashes. As a teenager, a seat belt had saved his own life. John dedicated years to passing the Oregon Safety Belt Law, the only law in the nation to be enacted by popular vote. In 1985 he was named Oregon Doctor Citizen of the Year. When he was knighted by the Royal Rosarians in 2008, it was said, "Sir Knight John R. Tongue has saved more lives of innocent Oregonians who will never know what he did for them than any other Oregonian." Dr. Tongue continued to volunteer in the cause of traffic safety by advocating over the years for lower speed limits, and developing the graduated licensing program for new drivers.

Dr. Tongue was a leader in his profession. He pioneered the effort to improve communication between doctors and patients in orthopedics. He served as president of the American Academy of Orthopaedic Surgeons (AAOS), the world's largest orthopedic education organization. John fulfilled his boyhood dream of traveling around the world as he and Nancy were invited to orthopedic meetings in Canada, England, Scotland, South Africa, New Zealand, Australia, China, Japan, and

Costa Rica. John won countless awards for his work, including the 1991 Public Service Award from the National Highway Traffic Safety Association and the prestigious Humanitarian Award from the AAOS in 2003.

John is survived by his wife Nancy Klein Tongue and their three children: Christopher Tongue (Christina Tongue), Laura Los (Dr. Evan Los), and Lisa McQuiston (Jack McQuiston), as well as by his brothers Thomas Tongue (Dr. Andrea Tongue) and James Tongue, and cherished extended family. He was preceded in death by beloved nephew John Klein. "Shasha" was most heart-broken to leave his five adored grandchildren: Peter Los, Megan Los, Josephine Tongue, Andrew McQuiston, and Isaac Los.

John will remain in our prayers and in our gratitude for his life of service. Memorial donations can be made to the [Orthopaedic Research and Education Foundation](#) or the [Oswego Heritage Council](#).

*Robert Orfaly, MD*



*Pictured are, left to right: Dr. Robert Orfaly, Dr. John Tongue, Senator Jeff Merkley, Dr. Tim Keenan, and Dr. Susan Williams, at an AAOS National Orthopaedic Leadership Conference in Washington DC*

## Special Thanks

The editors and the entire Department of Orthopaedics and Rehabilitation at OHSU would like to thank the following individuals for their generous donations.

The Beals family continues their generosity to our department with contributions in the name of Dr. Rodney Beals, and in their estate plans as an eventual beneficiary. The history of our department and orthopaedics in the state of Oregon would not be the same without the significant contributions of Dr. Beals, and the Beals family contributions are vital to keeping Dr. Beals hopes for Oregon Orthopaedics alive.

### **\$10,000 - \$50,000**

Medical Device Business Services, Inc  
AO Trauma North America  
Depuy Synthes USA HQ, Inc.

### **\$5,000 - \$10,000**

Smith & Nephew, Inc.  
Dr. John S. Toohey

### **\$1,000 - \$5,000**

American Medical Society for  
Sports Medicine, Inc.  
Dr. David L. Noell  
Orthopaedic Research &  
Education Foundation  
Dr. Ted J. Vigeland

### **Up to \$1,000**

Mr. Kim B. Batcheller  
Dr. Edward B. Bynum  
Domont Family Foundation  
Dr. Clyde B. Kernek  
Dr. Richard A. Rubinstein, Jr.  
Mrs. Judith Swaggerty

## In Addition

In addition, we sincerely thank the many contributors who wish to remain anonymous, as well as the past and present residents, faculty and staff who so kindly donate to our department.

### **Marie Kane, Technical Writer**

The editors would like to thank Marie Kane for all of her support to make this journal a reality. This is especially true this year as getting everything put together took extra steps. She has been an invaluable asset to this journal and without her expertise and tireless work this journal would not be what it is today. For these reasons she deserves a round of applause and thanks.

### **Robin Sasaoka, Education Manager**

A special thanks to our Education Manager, Robin Sasaoka. She is an invaluable resource for residents as they progress through OHSU. She is always available to assist with any questions or concerns in addition to her role of organizing resident education, schedules, vacations, and assisting with financial matters.

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The goal of this publication is to grow and mature over the next several years. We would love any input from our alumni and local community on ways to improve the journal.

If you are an alumnus and your information has changed with regard to your current practice type and/or practice location, please contact us so that your information can be updated for next year's journal.

### **Department of Orthopaedics & Rehabilitation**

OHSU Physicians Pavilion, Suite 430  
3181 SW Sam Jackson Park Road  
Portland, OR 97239  
Tel: 503 494-6400 • Fax: 503 494-5050

During these unique and trying times, it is important to take a moment to stop and reflect on what we are doing. The words of Marge Piercy, recommended by Dr. Jacqueline Brady, highlight the importance of hard work, determination and drive in moving us forward.

## To be of use

By Marge Piercy

The people I love the best  
jump into work head first  
without dallying in the shallows  
and swim off with sure strokes almost out of sight.  
They seem to become natives of that element,  
the black sleek heads of seals  
bouncing like half-submerged balls.

I love people who harness themselves, an ox to a heavy cart,  
who pull like water buffalo, with massive patience,  
who strain in the mud and the muck to move things forward,  
who do what has to be done, again and again.

I want to be with people who submerge  
in the task, who go into the fields to harvest  
and work in a row and pass the bags along,  
who are not parlor generals and field deserters  
but move in a common rhythm  
when the food must come in or the fire be put out.

The work of the world is common as mud.  
Botched, it smears the hands, crumbles to dust.  
But the thing worth doing well done  
has a shape that satisfies, clean and evident.  
Greek amphoras for wine or oil,  
Hopi vases that held corn, are put in museums  
but you know they were made to be used.  
The pitcher cries for water to carry  
and a person for work that is real.

# Please Consider Supporting the OHSU Department of Orthopaedics and Rehabilitation

You can make a significant impact on our ability to train the next generation of specialists, advance patient care, and develop new knowledge through research. We are building on a legacy of excellence that spans Richard Dillehunt, M.D., and Leo Lucas, M.D., to Lawrence Noall, M.D., and Rodney Beals, M.D., John Hayhurst, M.D., to our current department chair, Jung Yoo, M.D. Your personal gift is a vital part of this legacy and will help us advance the future of Orthopaedics.

Please make your gift to the Department of Orthopaedics and Rehabilitation by donating to one or more of the fund areas below. Each provides crucial and strategic resources for our educational, training and research missions.

## **Rodney K. Beals, M.D. Endowment for Faculty Excellence in Orthopaedics & Rehabilitation**

Supports innovative and mission-focused work of exceptional faculty members. This fund honors Dr. Beals' legacy while enabling faculty to explore new horizons to advance the field of Orthopaedics.

## **Lawrence Noall, M.D. Fund for Excellence in Orthopaedic Resident Education**

Supports resident education and training.

## **John and Susan Hayhurst Endowed Professorship and Distinguished Scholar**

Supports faculty leadership in research and innovation and is OHSU's first-ever endowed faculty position in Orthopaedics. Holders of this prestigious appointment are provided with additional resources to propel new advancements in the field and may be appointed as either a Professor or Distinguished Scholar.

## **Orthopaedic Research Endowment**

Provides essential support for basic science research in the field of Orthopaedics.

## **OHSU Department of Orthopaedics & Rehabilitation Support Fund**

Making a gift to this fund is one of the best ways to advance the education, training and research missions of the department. It is often used to capitalize on unique opportunities and provide crucial bridge funding for innovative projects.

Please contact us if you to discuss these and other giving opportunities, or if you have (or plan to) include the OHSU Department of Orthopaedics and Rehabilitation in your estate plans.

## **Ways to Give**

The OHSU Department of Orthopaedics and Rehabilitation gratefully accepts outright gifts or pledges, as well as deferred or planned gifts.

**Outright gifts and pledges:** You can make an outright gift of cash or certain other assets with the option of making your gift as a pledge over a period of up to five years.

**Planned or deferred gifts:** A gift made through your will or trust, retirement account or life insurance, is a great way to support OHSU Orthopaedics. OHSU Foundation can also assist with gifts of real estate, stocks, bonds, gifts-in-kind and other marketable assets.

[www.ohsufoundation.org](http://www.ohsufoundation.org)

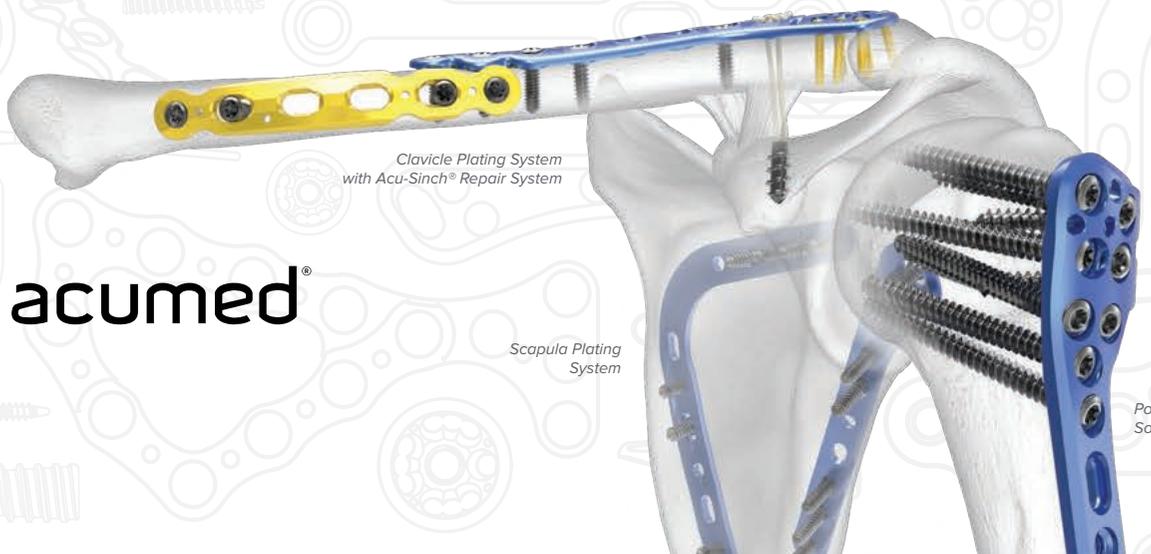
OHSU Foundation

1121 SW Salmon St., Suite 100

Portland, OR 97205

<https://www.ohsu.edu/ortho/giving-opportunities>

For further inquiries, please contact Tim Coffey, Senior Director of Development, OHSU  
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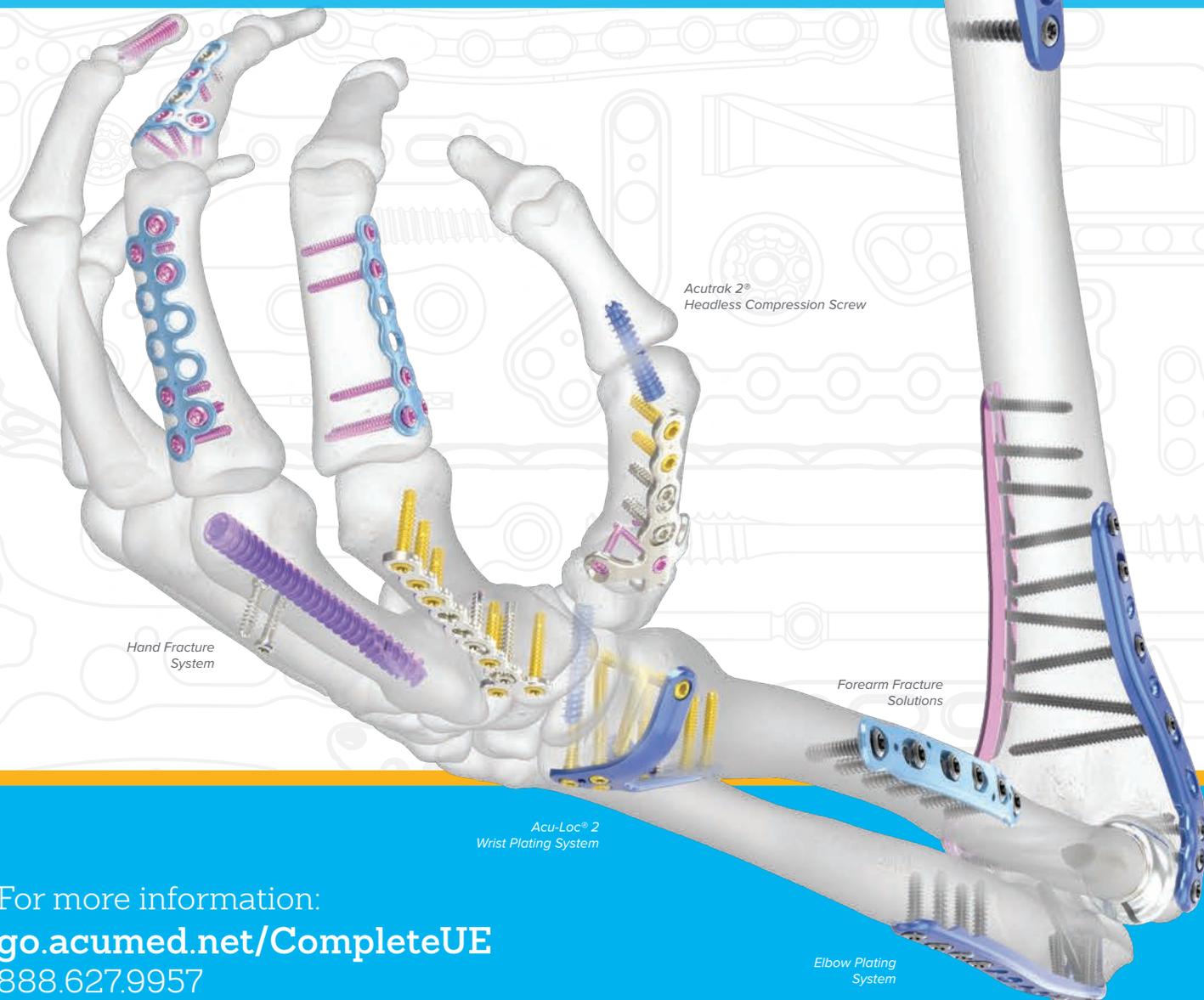


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