BREAKING NEVS



for the alumni & friends of the University of Nebraska Medical Center Department of Orthopaedic Surgery & Rehabilitation

ROOTEDIN COMPASSION

Spring 2022



Breaking News Spring 2022

Breaking News is published two times a year for alumni and friends of the UNMC Department of Orthopaedic Surgery.

Chair: Kevin L. Garvin, M.D.

Administrator: Julie Zetterman, MBA

Communications: Annie Spielman

For questions or comments, email anspielman@unmc.edu or call 402.559.4433

Department of Orthopaedic Surgery 985640 Nebraska Medical Center Omaha, NE 68198-5640

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Message From the Chair

Dear All,

It is an exciting time in the Department of Orthopaedic Surgery and Rehabilitation and Nebraska Medicine.

First, since celebrating 100 years as a Department of Orthopaedic Surgery we have just completed a book recording the history titled, *Rooted in Compassion: A Century of Advancement in Orthopaedic Medicine*. We were thrilled to have the Omaha World-Herald's help, including Christine Zueck-Watkins and Chris Christen, with this important accomplishment.

Resident education and surgical simulation is a second milestone for the department. Surgical skills and simulation are strongly encouraged by the Board of Orthopaedic Surgery (ABOS)'s Residency Review Committee (RRC). The timing of The Dr. Edwin G. and Dorothy Balbach Davis Global Center was perfect for our department. Under the directon of Dr. Justin Siebler, Vice Chair of Education, Dr. Matthew Mormino and other faculty, the first year residents received a one month immersion in surgical skills.

The department of research is a third area of significant accomplishment with a current group of five National Institue of Health (NIH) grants and several research accomplishments highlighted by nearly 100 publications last year. Under the direction of Vice Chair of Research, Dr. Matthew Halanski, the department's future in research is well orchestrated for continual success.

Finally, new faculty, including Joshuea Cameron, MD, Emmet Gannon, MD, and staff, including Mikenzie Nordeen, Lisa Stillahn, Annie Spielman, Elliot Blackman and more, have injected further energy to the vibrant and active group of nearly 30 orthopaedic surgeons and the 150 employees.

We extend our deepest gratitude for your support to help us to accomplish the goals to improve musculoskeletal care in Nebraska and beyond.

Kevin Z. Darmi

Kevin L. Garvin, MD Professor and Chair L. Thomas Hood, MD, Professorship



A Century of Advancement in Orthopaedic Medicine



Dr. August Frederick Jonas



Dr. John Prentiss Lord

The department is proud to announce the upcoming publication of Rooted in Compassion: A Century of Advancement in Orthopaedic Medicine, which explores the rich history of the UNMC Department of Orthopaedic Surgery and Rehabilitation.

n October 2019, the department celebrated the 50th anniversary of the residency and the 100th anniversary of the department, tracing the history back to 1919 when Dr. John Prentiss (J.P.) Lord was named the first Chair of Orthopaedic Surgery. The first orthopaedic seed was planted by Dr. August Frederick Jonas in 1892. Dr. Jonas was also among the first to teach orthopaedic surgery and remained the primary instructor of orthopaedics until Dr. J.P. Lord joing the college in 1914. Since its inception, the department has been instrumental in the establishment and evolution of the country's leading orthopaedic membership organizations including the American Academy of Orthopaedic Surgeons (AAOS) which was officially founded in 1933. Dr. H.



Founders of the American Academy of Orthopaedic Surgeons with Dr. H. Winnett Orr highlighted, who also taught at UNMC in the department of Orthopaedic Surgery & Rehabilitation. Winnett Orr, one of the seven founders of the AAOS, contributed to teaching orthopaedic surgery at the Omaha Medical College, now known as the University of Nebraska Medical Center in 1911 – 1912.

Dr. Orr praised Drs. Jonas and Lord for being early luminaries in the developing field of bone and joint surgery. Today, Dr. Orr is well represented at the UNMC McGoogan Library which accepted curatorship of the Orr Collection, an extensive collection of rare books and classics on the evolution of the healing arts, military medicine, general literature and more. Though specialization was slow to the University of Nebraska Medical Center during the first half of the 20th century, the department began to gain agency thanks to a shift in the philosophy of medical education immediately following WWII. Post-graduate interns relied on the opportunity to care for patients assisting the community physicians who volunteered their time for ward and clinic attending and classroom teaching at the college. Because the clinical and surgical education was provided by volunteer faculty members, there was no formal structure to the "residency" program in its infancy. Then, despite continuing to be staffed by an increasing number of volunteer surgeons, there appears to have been a fall-off in orthopaedic training putting the Department of Orthopaedic Surgery behind other specialties in the establishment of a formal, certified residency program. In 1965, due to the rapidly increasing demand for orthopaedics in private practice, it was no longer sufficient



Dr. L. Thomas Hood



Dr. Kevin L.Garvin

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to rely on the volunteer work of community orthopaedic surgeons and the in-house coverage provided by surgery residents assigned to orthopaedic rotations to provide care to patients at the University and Douglas County Hospitals. The need for an academic Department of Orthopaedic Surgery at the University of Nebraska became apparent.

Though not the first to propagate the idea of a formal residency Drs. Merl Musselman, Chester Waters Jr., L. Thomas Hood, Stanely Bach and Dwight Burney all played crucial roles in getting the program off the ground. Ultimately, Dr. L. Thomas Hood, Chairman of the Department of Orthopaedics from 1968-1974, founded the UNMC Orthopaedic Residency Training Program which celebrated its 50th anniversary in 2019. In July and August of 1970, Dr. Hood studied in England under Dr. John Charnley, the father of the modern total hip arthroplasty. Upon his return to Omaha, he became the first surgeon to perform the procedure in Nebraska. It is said that in 2003, the year of Dr. Hood's death, over 2000 hips were replaced in hospitals across the state. In January 1969, the first two residents to enroll in the program included Dr. Lowell T. Niebaum and Dr. O. Max Jardon, who went on to become the department's first full-time faculty member in 1971. There were no subspecialties according to Dr. Niebaum, who said, "As an orthopaedic surgery resident, you literally had to learn it all."

Today, the orthopaedic residency program employs and trains 25 medical doctors and graduates five orthopaedic surgeons each year. With Dr. Kevin L. Garvin at the helm as Chair, the program is directed by Dr. Matthew A. Mormino and includes training in all the orthopaedic subspecialties. At the time of this publication, the department is proud to have graduated 184 orthopaedic surgeons.

Departmental News



Mikenzie Nordeen Physician Assistant

Annie Spielman Communications Specialist





Lisa Stillahn Administrative Associate II

Elliot Blackman Director of Operations for Surgical Specialties



The department is pleased to announce the recent hiring of four new administrative staff members. Mikenzie Nordeen joined in November 2021 as a Physician Assistant. Annie Spielman joined the department as Communications Specialist in December of 2021. Spielman transitions from UNO and has five years of experience within the University of Nebraska system. Lisa Stillahn will serve as Administrative Associate II to Dr. Garvin and joined the department in January 2022. Stillahn is joining us from the Department of Dermatology and has been on campus since 1987. Elliot Blackman will serve as the Nebraska Medicine Director of Operations for Surgical Specialties that includes Orthopaedics. Blackman first joined the UNMC/NM team in 2019 after retiring from Active Duty from the United States Air Force. We also have welcomed many new clinic employees.



First year residents observe during a lecture from Dr. Matthew Mormino during the February skills course.

Intensive February Skills Course

Intensive skills course benefits from iEXCEL and focus from attendings

uring the month of February, you will find first year residents engrossed in an intensive monthlong course focusing on the basic skills of orthopaedic surgery. PGY-1 interns work with almost every doctor in the department to improve upon surgical skills from the basics to each subspecialty. The residents get an expert view with each faculty member through a day or more dedicated to each subspecialty, the course encompasses the entire curriculum. Residents receive the instruction mainly at the Dr. Edwin G. & Dorothy Balbach Davis Global Center in the iEXCEL surgical and interventional skills level.

"The facilities at the Davis Global Center are spectacular," says Dr. Justin Siebler. Dr. Siebler and the other doctors from the department are appreciative of the high fidelity simulations and surroundings that iEXCEL provides. Dr. Siebler said, "Most programs don't have access to an environment like iEXCEL." With support from vendors throughout the month, supplying instruments, artificial bones and implants, residents get hands-on training during each lecture and lab.

"The iEXCEL labs are incredible. The equipment is like an actual operating room and provides a learning environment that will help apply what we have learned to cases in the future," said Tyler Kallman, MD, PGY-1.

The one-of-a-kind iEXCEL facilities in the Davis Global Center provide firstyear residents access to educational tools and information that many other students across the nation just do not have. Kallman also mentions the advantages that the month-long course

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PGY-1 Tyler Kallman, MD working on sawbones during the skills course.



"The most impactful part of the course is getting the dedicated time to sit down with our attendings. Slowly and thoroughly discussing orthopaedic principles we don't normally have time to go over. It has been really valuable to talk through topics in depth and then practice them on cadavers or models," Tyler Kallman, MD, PGY-1

Students gather around Dr. Mormino during a hands-on lecture.

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The February skills course allows residents and their attendings to work together to develop the interns' skills and knowledge base. The reaction of the first-year residents is gratifying to Dr. Siebler who was instrumental in the course's development. Dr. Siebler and the other doctors hope to incorporate virtual reality simulations into training while refining and developing the course as it progresses.

In the future, the department hopes other residents can incorporate and utilize iEXCEL into their curriculum. Keegan Gertz, MD and the class of 2025 were the first to be taught in the month-long format. A year later, Gertz reflects on the course, "I think what made the month special was that we were exposed to surgical skills as well as the lab component each day. We got to practice the exposures and orthopaedic



Keagan Gertz, MD, PGY-2

techniques that we are now expected to perform daily in the operating room as second year residents."

State of the Department Address

The Department of Orthopaedic Surgery and Rehabilitation held a hybrid State of the Department Address in December covering 2020 and 2021. While our team grew with new hires and residents, our extended family grew with weddings and engagements, and births, and four-legged friends. Our team members' talents did not go unnoticed with many receiving awards including Drs. Mormnio, Morgan, Siebler, Teusink; and staff members including Jahn, Selmer, McKune, Scislowicz, Waters, Burke, Hill, Wells, Barber, and Danielson. Dr. Chris Cornett was named as the second L. Thomas Hood. MD Professorship and Dr. Sean McGarry was named to the James R. Neff, MD Chair. Without each member on our team, our department would not be able to continue to raise the bar to provide the highest guality patient care and firstrate educational experiences while conducting world-class research.



Introducing PatientIQ

Collaborative results-driven database to change how we collect and report on patient reported outcomes

Surveys tend to be last on a patient's mind on the day of an appointment. "Using a database like PatientIQ will allow patients to fill out the forms electronically on their own time," said Dr. Curtis Hartman.

PatientIQ is a platform for documenting digital health that the department will be transitioning to this Spring. PatientIQ says it empowers "healthcare providers with continuous feedback for how treatment decisions translate into patient outcomes." Patient reported outcomes (PROs) are a tool our physicians and surgeons use to help evaluate how well patients are doing after procedures, like a total hip arthroplasty or total knee arthroplasty. Patient reported outcomes are important because it helps doctors "understand how well we are doing as providers of these important surgical procedures," said Dr. Hartman.

"Traditionally, collecting PROs was a time consuming and laborious process that involved patients reading and answering dozens of questions on paper forms," said Dr. Hartman, "We will also now have access to several computer adaptive tests that can markedly reduce the number of questions we ask the patients." The new PROs will be electronic and can be answered by patients through email or text. All of the new surveys will have assigned intervals based on the specialty, surgery, and doctor.

"With a focus on patient reported outcomes, we will work with crossfunctional teams to automate the collection of outcomes and distribution of educational content within Orthopaedic Surgery. The automation of data collection will be set up through customized care pathways specific to orthopaedic specialty and procedure type. Each care pathway will send patient surveys at operative and postoperative timespoints to track outcomes throughout the patients' recovery, with the goal of utilizing the collected data to improve patient outcome," said Sloane Decker. Decker is one of the Customer Success Analyst working with UNMC.

Pete Danielson, Clinical

Study Coordinator said, "PatientIQ is going to make the collection of PROs much more efficient and more patient friendly than our current data collection. Not only that, the data will now be very accessible for the surgeons to use for both patient care and/or research projects."

The hope is that our research coordinators will spend less time gathering data, and more time analyzing data and doing more research.



Dr. Curtis Hartman



Pete Danielson, Clinical Study Coordinator

Dr. Hartman said, "The orthopaedic surgeons in our department strive to be the best at what we do. I think we are unique in that we are the only group in the region that collects this data and objectively analyzes the data to see how we can provide even better care for our patients. Other physicians will want to consider using a tool like this to analyze the outcomes of their patients."

PatientIQ empowers healthcare providers with industryleading technology to practice data-driven medicine."

⊁ patient 🛛



From Intramurals at The Ice on campus to the Olympic Trials at Baxter Arena

Curling, a sport gaining traction during the Winter Olympics, made a pivotal stop in Omaha in November 2021 for the Olympic Team Trials

O ne doesn't have to go far to witness forty-four-pound stones sliding through the ice aiming for the bullseye at the end of the rink. While one team member throws a special type of solid granite, found on the island of Ailsa Craig in Scotland, down the ice, the other team member is sweeping the ice to guide the stone to come to a stop within the house.

The Nebraska Medicine's Sports Medicine team, that includes orthopaedic sports medicine doctor, Matthew Tao, MD was on-call to assist the athletes and the U.S. Curling team's medical support team at Baxter Arena for the U.S. Olympic Team Trials for Curling. The Nebraska Medicine Sports Medicine team provided oncall and on-site services and served as liasons between the Omaha Sports Commission, U.S. Curling and Nebraska Medicine. The team helped develop emergency action plans for the venue, facilitated the processes with COVID protocol and provided some additional resources during the event.

Rusty McKune, ATC, said the most impactful part was "watching athletes complete at this level which is always an amazing experience regardless of the sport." As the point of contact for the event, McKune said, "If something is needed, we know who to call and how to get the athletes in as quickly as possible. We couldn't do it without the support of our entire Nebraska Medicine team." At the professional level, athletes can experience hip, groin, knee, back, shoulder, or elbow and wrist injuries, but recreation leagues can have the added risk of falls or head injuries. Regardless of the competitiveness, McKune says it's important to "realize the amount of work being done by the legs, core, and shoulders."

UNMC, Nebraska Medicine, UNO and Clarkson College faculty, staff, students, retirees, volunteers, and families can participate in UNMC's intramural curling league that meets Wednesday and Thursday evenings during December and January at The Ice at UNMC.

News & Noteworthy

2021 Medical Assistants of the Year

Congratulations to Amanda Hill and Kimberly Wells who were named the 2021 Ortho Medical Assistants of the year. Hill supports Dr. Daniel Firestone's hand, wrist and upper extremity practice. Wells supports Dr. Matthew Teusink's shoulder and elbow practice. Hill and Wells exemplify the six ITEACH core values: innovation, teamwork, execellence, accountability, courage, and healing. The two consistently go above and beyond to ensure patients receive the best possible care and are invaluable assets to the orthopaedic department. According to Dr. Firestone, "Amanda Hill is the perfect choice for MA of the year. She rises above all expectations for her position every day. I can count on her for anything. She manages a very busy practice with ease and never leaves anything unfinished. I trust her to represent our team in all she does. It would be my dream to work with Amanda for



the rest of my career." When asked to describe Kim, Dr. Teusink said, "I could not ask for a better MA. I have worked with Kim since I joined the department in 2013. On her worst days, she is upbeat and efficient. She always brings her A game."



February 2022: Silver U Award

Elise Balaban was awarded UNMC's Silver 'U' award for her performance that exceeded expectations. "We recognized her for her work and 'will do' attitude without complaints," said Balaban's nominator. Balaban went above and beyond to coordinate and continously follow up with information from the faculty and the physcian references for promotions that were not part of her normal duties. "I feel extremely grateful to have been chosen for the Silver 'U' Award. It is one thing to be hardworking and a team player, another is to be recognized for it," said Balaban. Balaban has been with the Department of Orthopaedic Surgery and Rehabilitation for 18 years and has been an asset to the team. This is her third time being awarded a Silver 'U' Award.

Dr. Wallace named a Rising Star

Dr. Maegen Wallace, Associate Professor, has been awarded as one of Castle Connoly's 2021 Rising Stars. The nationally recognized Rising Star awards are based on peer nominations and recognizes emerging leaders who have a dedication to medicine and the medical community. Dr. Wallace is a Pediatric Orthopaedic Surgeon and is the director of the osteogensis imperfecta and bone dysplasia clinics at Children's Hospital and Medical Center. Wallace was 1 of 748 doctors on the list.

In addition to this award, Castle Connoly also named Dr. Matthew Halanski as a Top Doctor. Dr. Halanski joins Drs. Garvin, Mormino, Esposito, Scherl, and Hasley on Castle Connoly's Top Doctors.



Maegen Wallace, MD



Justin Siebler, MD

Service Anniversaries in 2022

Annie Spielman – 5 Years Tina Young – 5 Years Denise Sydnor – 10 Years Sandra Wakehouse – 15 Years Lisa Stillahn – 35 Years

Dr. Siebler receives honorable mention

Dr. Justin Siebler, Associate Professor and chief of orthopaedic trauma surgery, was selected by the iEXCEL team for honorable mention for the iEXCEL Teaching Technologies Award. Dr. Siebler was nominated based on his innovative approach to teaching the Tibial Nail Procedure through a mixed modality with hands-on surgical simulation and 3D visualization. The iEXCEL Innovation Awards are provided through philanthropic donations recognizing faculty, students and staff who create and implement new ideas that foster innovation in teaching, research and scholarship using the wonderful assets of iEXCEL and the Davis Global Center.

Promotions

Elise Balaban – Office/Medical Records Associate Faith Buso – Administrative Business Associate Pete Danielson – Clinical Study Coordinator Holly White – Administrative Projects Associate Tina Young – Office/Medical Records Associate

Interdisciplinary Collaboration

Faculty from the clinical departments of Orthopaedics, Dermatology, and Medicine (Division of Rheumatology) in the UNMC College of Medicine & UNMC's College of Pharmacy are excited about a proposed collaboration to establish a musculoskeletal research center focused on interdisciplinary translational research and the research training of several disciplines of UNMC's resident physicians. Previous collaboration between Orthopaedics and Rheumatology helped establish the Nebraska Arthritis Outcomes Research Center (NAORC) from which fruitful arthritis treatment insight was gleaned, grants were written and funded, and manuscripts were published. Additional research discoveries and ideas were derived with the aid of the College of Pharmacy as NAORC grew. This group looks forward to establishing a center that expands upon NAORC's original aims as well as incorporating and studying skin manifestations of musculoskeletal disease as part of the continued efforts of inter-departmental collaboration.

Wellness Program 2022

The Department is pleased to announce that it will initiate UNMC campus's first intra-departmental faculty and resident wellness program in 2022 in response to well-documented and concerning statistics regarding the mental well-being of physicians and trainees. Present before the pandemic, two years of battling COVID has exploited and magnified known high rates of burnout, depression, and suicide. We aim to better understand the feelings of individual physicians in the department and to foster self-care strategies so that our physicians can optimally care for themselves, one another, and our patients. In the form of individual validation through listening, appropriate support/direction as needed, and hopeful collective action(s), we also aim to be a conduit to communicating needs to Nebraska Medicine and the medical community as a whole.



Dr. Ed Fehringer will work in collaboration with many in efforts to focus on wellness among our orthopaedic providers and to establish a multidisciplinary musculoskeletal center.

How your support helps us excel in the Department of Orthopaedic Surgery

Your contributions have allowed the department to develop a national reputation for educating outstanding surgeons, build a world-class research program where we are developing cutting-edge technology that is helping to shape the field of orthopaedic surgery, and have enabled us to offer the latest techniques and most advanced diagnosis and treatment to our patients.

Please join us in supporting the Department of Orthopaedic Surgery and Rehabilitation and help us continue to strengthen our ongoing mission to excel in these areas. On behalf of our residents, faculty, staff and patients who will benefit from your contribution, THANK YOU for your vital support!

Visit: NUfoundation.org/orthopaedic, or call 402-502-0300



Residents present research at annual forum

On November 19, 2021 at the UNMC Department of Orthopaedic Surgery and Rehabilitation's Resident Forum held at the Lauritzen Outpatient Center, orthopaedic surgery residents presented their research. The annual forum gives residents the opportunity to share their research and receive feedback from faculty members. This year's guest speaker was Hani Haider, Ph.D., director of the UNMC Orthopaedics Biomechanics Surgery Research Laboratory. Dr. Haider delivered a presentation titled, "Brief history of navigation and robotics and the trend towards smart tools for orthopaedic joint replacement."

Brandt Buckner, MD, HO II: "Does pre-operative patient engagement affect length of stay in TJA?"

Dylan Fischer, MD, HO II: "Sensitivity of saline load test versus CT in detection of traumatic elbow arthrotomies, a cadaveric model"

Keagan Gertz, MD, HO II: "Methadone analgesia in lumbar spinal fusion: effect on long term narcotic use"

Matthew Hays, MD, HO II: "20-year review of microorganisms and drug resistance in prosthetic joint infection"

Carla Strohhofer, MD, HO II: "Preoperative mental health and postoperative outcome measures in total joint arthroplasty – is there a relationship?"

Neil Antonson, MD, HO III: "Convolutional neural network to detect prosthetic joint infection"

Erik Moore, MD, HO III: "Radiographic changes with glenoid perforation in pegged components during total shoulder arthroplasty"

Joseph Nash, MD, HO III: "Using virtual reality to improve and validate transfer of skills in orthopaedic surgery residency"

John Rosenberg, MD, HO III: "Outcomes of total joint arthroplasty in patients with a left ventricular assist device"

John Werner, MD, HO III: "Comparison of postoperative gait analysis outcomes in syndesmosis injuries treated with suture button and syndesmosis screws"

Mark Amirtharaj, MD, HO IV: "Static anterior tibial translation after ACL reconstruction: A quantitative MRI study"

Brandon Bennett, MD, HO IV: "Sterility of retained bullets: Does firing a projectile sterilize it?"

Matt Freeman, MD, HO IV: "Effect of tourniquet on gait biomechanics following total knee arthroplasty, a randomized controlled trial"

Charles (CJ) Hansen, MD, HO IV: "Current practices in ulnar nerve handling during distal humerus fracture fixation"

Matt Tingle, MD, HO V: "Sleep improvement program and academic performance"

Publications, presentations, & honors

Department faculty and residents present many lectures, seminars and courses at local, regional, national and international meetings. They also serve in leadership positions and offices for local, state, national and international organizations. The following are our faculty and staff's presentations and publications, awards and achievements, offices held, and other professional activities from April 2020 – December 2021.

Publications (peer-reviewed):

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Erin Stockwell, MD, HO IV: "Association between mortality and early post-operative ambulation after distal femur fracture fixation in elderly patients"

Zachary Bailey, MD, HO V: "Opioid prescribing habits after single level posterior lumbar spine surgery"

David Brown, MD, HO V: "Effects of malnutrition on perioperative complications in patients undergoing rotator cuff repair"

Jace Heiden, MD, HO V: "Early ambulation after hip fracture surgery is associated with decreased 30-day mortality"

Gordon Roedel, MD, HO V: "Total hip arthroplasty using highly cross-linked polyethylene in patients 50 years and younger: Minimum 15-year follow-up" "We are doing innovative research focused on the areas of musculoskeletal diseases, molecular biology and genetics, the development of less invasive surgical techniques, knee impant simulation, and computer-aided and robotic surgery."





Department of Orthopaedic Surgery 981080 Nebraska Medical Center Omaha, NE 68198-1080 Academic: 402.559.4533

www.unmc.edu/orthosurgery

Clinic Locations Clinic: 402.559.8000

Lauritzen Outpatient Center 4014 Leavenworth Street, Level one

Omaha, NE 68105

Orthopaedics at Bellevue Medical Center 2500 Bellevue Medical Center Dr. Bellevue, NE 68123

Oakview Medical Building 2727 S. 144th Street, Suite 140

Omaha, NE 68144

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