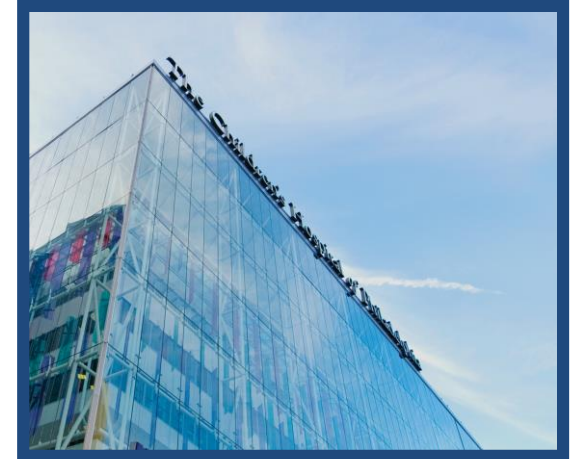


The Medical Career-Design Fellowship



Division of Orthopaedic Surgery at The Children's Hospital of Philadelphia

John M. Flynn, MD

Chief of Orthopaedic Surgery, CHOP
Professor of Orthopaedic Surgery,
University of Pennsylvania School of
Medicine

Apurva Shah, MD

Director of Sports Medicine Center, CHOP
Professor of Orthopaedic Surgery,
University of Pennsylvania School of
Medicine

The Medical Career-Design Fellowship

Award Details

The **Medical Career Design Fellowship** promotes clinical research by giving extraordinary pre-medical students the opportunity to investigate pertinent topics in clinical orthopaedic research at The Children's Hospital of Philadelphia. This fellowship will allow recent college graduates the opportunity to explore many aspects of a medical career—research, clinical practice, education, advocacy, and leadership. Each MCD Fellow spends 2 years as an essential member of our research and clinical teams, mentored by our thought-leading faculty from the Perelman School of Medicine at the University of Pennsylvania. The fellowship focuses on giving the pre-medical student clinical research opportunities, advanced orthopaedic skills through clinical exposure, and mentoring for medical school applications and beyond.

Division of Orthopaedic Surgery at The Children's Hospital of Philadelphia

The Children's Hospital of Philadelphia is internationally recognized for its pioneering work in pediatric orthopaedic patient care, education, and basic and clinical research. The Division of Orthopaedic Surgery at CHOP has consistently ranked among the top pediatric orthopaedic programs in the nation by *U.S. News & World Report*. CHOP orthopaedic surgeons are leaders in their fields – pioneering clinical innovations, writing textbooks, chairing courses and leading regional, national and international organizations in orthopaedics. We have 29 attending physicians, each with different subspecialties in pediatric orthopaedics.

Eligibility

MCD Fellow applicants applicant will be completing a BA/BS degree, **pre-medical and commit for two gap years**. The student must be in good academic standing and have an interest in pursuing a career in Orthopaedic Surgery. The successful applicant will be responsible, motivated, intellectually curious and independent. An MCAT score, biostatistics training, and research experience are strongly valued, but not mandatory.

Award Stipend and Benefits

The recipient of this award will receive a \$40,000 stipend to cover living expenses for the year, as well as \$5,000 travel expenses for presenting at scientific presentations.

How to Apply

In order to apply, please submit a cover letter, undergraduate transcript and curriculum vitae to Research Manager Divya Talwar, PhD (talward@email.chop.edu). Applications will be considered on a rolling basis through **April 30th**. We recommend submitting an application as soon as possible. Interviews will be required as part of the selection process.



The Medical Career-Design Fellowship

A central aspect of the MCD Fellow's work will be **coordinating and facilitating clinical research**, including (but not limited to) subject recruitment, IRB submissions and renewals, data analysis/manuscript preparation, and monitoring/maintaining data for study group databases and multicenter registries. This will include training in research ethics, research subject protections, clinical science study design, methodology, data analytics and statistical methodology. Successful MCD Fellows will have opportunities to co-author medical journal submissions and are encouraged to present results at regional or national meetings. Through this immersive experience, the MCD Fellow will learn how to initiate, design, complete, and communicate clinical research.

Our current research team is the pioneering team to work in the dual role with formal research and clinical duties. Considering the tremendous success of this model and great reviews from our team, we are delighted to launch the 1st cohort of MCD fellows

There is a very strong, long established clinical research office in the Division of Orthopaedics at The Children's Hospital of Philadelphia. A few of the benefits of doing clinical research in our Division include:

- Extremely active academic surgical faculty, with at least 6 internationally-known thought leaders among our 18 full-time surgeons and 6 non-operative surgeons. A faculty member and research manager with a PhD, who can assist the student with study design and statistical analysis.
- Nearly 190+ open clinical IRBs, including databases for several national multicenter research groups, ripe for utilization for high-powered collaborative projects.
- Daily clinical conferences, visiting speakers, quarterly Journal Club and many other educational events to inspire and educate student researchers.
- A high-volume clinical practice (more than >65,000 outpatient visits, and >4,000 surgical procedures per year) that allows the student to shadow and gain clinical exposure to inspire research ideas.
- A Research Manager whose advice and support will be invaluable as you navigate the logistical and compliance challenges of 21st clinical research.
- Four U.S.-trained clinical fellows, three year-out medical student fellows and an international research fellow, each of whom has their own individual projects, but with their other obligations, often welcome and mentor student collaborators.

Completed projects by MCD fellows are published in the best orthopaedic journals and are presented at leading scientific conferences such as American Academy of Pediatrics.



The Fellowship Experience

*When I found this position I was drawn to it because of the clinical research experience, the clinical exposure to an Orthopaedics clinic, the mentorship from a practicing surgeon, and the team-like setting it offered. Two years later I can reassure you that all of these aspects hold true and are what make this position so unique. Over the course of my time here I have added publications to my resume, shadowed surgeries in the OR, and learned to scribe in a fast pace clinic at the top children's Orthopaedic clinic in the nation. This position is unique because it provides you with several sets of building blocks that you can take with you into your medical career. I've gained experience in research, improved my communication and organizational skills by coordinating with medical professionals, and have become a valued member of a clinical team in an Orthopaedic clinic. Lastly, an added benefit is that the Orthopaedics department is a tight-knit community of hard working individuals. This fosters a distinctive team-like environment that makes this experience so enjoyable. **Heidi Nocka, Spine Research Coordinator/Fellow***



*The research position was perfect for me as a pre-medical student taking gap years to confirm my interest in the medical field, gain experience in the professional workplace and build my medical school application beyond what I had expected. Working with the nation's best pediatric orthopedic surgeons in the clinics and on ground-breaking research has given me substantial exposure and experience in academic and clinical medicine. CHOP is a renowned national and international hospital, allowing me to work with patients with some of the most complex and rare conditions. The opportunities to collaborate on publishable research projects are also unheard of in traditional research positions. During my time at CHOP, I have been able to contribute to and publish 15+ manuscripts and abstracts with many opportunities to attend national conferences. The physicians and research staff at CHOP genuinely care about building our professional careers. The mentorship I have been lucky enough to receive has been invaluable for my career thus far, and I have no doubt that the lessons learned and connections made will help me substantially in the future. **Faris Fazal, Hand Research Coordinator/Fellow***



*By working as both a scribe and a CRC, I was able to gain significant clinical exposure and work side by side with the surgeons, NPs, PAs, and research fellows, giving me the opportunity to become part of the clinical team. Having the unique perspective of both a coordinator and a scribe has allowed me to see firsthand the patient population that has served as the focus of our research. Being able to speak extensively on both research and patient care has strengthened my medical school application and has given me additional confidence during interviews. **Arielle Krakow, Spine Research Coordinator/Fellow***



The Fellowship Experience

Dear Dr. Flynn,

I just wanted to reach out and let you know that I was offered over thirty interviews this season for ENT, and I cannot thank you enough both for your strong letter and for the research fellowship year. At every interview, your letter is commented on, as well as all of the awesome orthopaedic research I got to take part in!

Interestingly, I was interviewed by one pediatric otolaryngologist at Northwestern/Lurie Children's, Dr. Douglas Johnston, who told me that he worked as a research coordinator in the ortho department at CHOP 20 years ago, and he worked on projects with you, Dr. Ganley and Dr. Horn - such a small world!

Anyway, thank you again for all of your help and support, and I hope you are doing well!

Sincerely,
Lacey





Shivani Gohel

2014-2018
Northeastern
University

Current position:
Clinical Research
Coordinator, Division
of Orthopedic Surgery

Clinical Research Coordinator

Selected Publications and Presentations

Swarup, I., Shah, R., **Gohel, S.**, Baldwin, K., & Sankar, W. N. (2020). Predicting Subsequent Contralateral Slipped Capital Femoral Epiphysis: An Evidence-Based Approach. *Journal of Children's Orthopaedics*. 14(2), 91–97.

Gohel, S., Baldwin, K. D., Hill, J. F. (2020). Closed Reduction of Pediatric Distal Radial Fractures and Epiphyseal Separations. *JBJS Essential Surgical Techniques*. 10(4), p e19.00059.

Bram J., **Gohel S.**, Castaneda P., Sankar W. Is there a benefit to weaning Pavlik Harness treatment? *Journal of Pediatric Orthopaedics*. Accepted for publication.

Arkader A., **Gohel S.**, Denning J. Reduction and Internal Screw Fixation of Transitional Ankle Fractures in Adolescents. *JBJS Essential Surgical Techniques*. Submitted for publication.

Gohel S., Talwar D., Mock D., Spiegel D. Implementing and Evaluating a Pediatric Modular Trauma Course for Orthopaedic Surgeons in Pakistan. Poster presentation at Interprofessional Education Symposium, Children's Hospital of Philadelphia, Philadelphia, PA, January 2020. Presented by S. Gohel.

Weltsch, D., Williams B., Ganley T., **Gohel S.**, Baldwin K. How does POSNA prefer to manage Salter Harris II fractures of the Distal Femur - A survey of the POSNA membership. Virtual presentation at Philadelphia Orthopaedic Trauma Symposium, Philadelphia, PA, June 2020.

Weltsch D., Blumberg T., Magnusson E., **Gohel S.**, Baldwin K. Surgeon Preference is Highly Influenced by Age when Deciding on Nail Implant Design in Pediatric Tibia Fractures. Virtual presentation at Philadelphia Orthopaedic Trauma Symposium, Philadelphia, PA, June 2020.

Makarewicz C., McNeely L., **Gohel S.**, Baldwin K. Open Fractures in Pediatric Orthopaedics - Can Pathways Improve Care? Virtual presentation at Philadelphia Orthopaedic Trauma Symposium, Philadelphia, PA, June 2020.



Clinical Research Coordinator

Selected Publications and Presentations



Arielle Krakow
2014-2018
Johns Hopkins
University

Current position:
Clinical Research
Coordinator, Division
of Orthopedic Surgery

Krakow, AR, Magee, LC, Cahill, PJ, Flynn, JM. Could have tethered: predicting the proportion of scoliosis patients most appropriate for thoracic anterior spinal tethering. *Spine Deform.* 2021 *Accepted for publication.*

Williams, BA, Makarewich, CA, Montoya-Williams, DC, **Krakow, A**, Lioy, J, Horn, BD. Epidemiology and management of appendicular fractures occurring in neonatal intensive care patients. *Acta Paediatr.* 2021; 110: 489– 494.

Lundy, AE, Serra Lopez, VM, **Krakow, AR**, Davidson, RS. Novel Technique for Knee Disarticulation in Pediatric Patients with Significant Knee Flexion Contractures: A Case Series. *Submitted for publication.*

Lee, H, **Krakow, AR**, Buczek, M, Talwar, D, Horn, BD, Davidson RS. Pediatric Proximal Fifth Metatarsal Fracture Review and Healing Outcomes. *Submitted for publication.*

Krakow, AR, Talwar, D, Gandhi JS, Mehta, N, Flynn, JM. Getting the Message: The Declining Trend in Opioid Prescribing for Minor Orthopaedic Injuries in Children and Adolescents Over the Past 14 Years. *In preparation.*

Krakow, AR, Lee, S, Pascual-Leone, N, Horn, BD, Davidson, RS. Seymour Fracture Review and Treatment Outcomes. *In preparation.*

Krakow, AR, Magee, LC, Cahill, PJ, Flynn, JM. Could have tethered: predicting the proportion of scoliosis patients most appropriate for thoracic anterior spinal tethering. *American Academy of Pediatrics (AAP), Virtual due to COVID-19.* October 2020. Presentation by A. Krakow.

Talwar, D, **Krakow, A**, Gandhi, J, Flynn, JM. Getting the Message: The Declining Trend in Opioid Prescribing for Minor Orthopaedic Injuries in Children and Adolescents Over the Past 14 Years. *American Public Health Association (APHA), Philadelphia, PA.* June 2019. Presentation by D. Talwar.

Gandhi, J, Talwar, D, **Krakow, A**, Flynn, JM. Getting the Message: The Declining Trend in Opioid Prescribing for Minor Orthopaedic Injuries in Children and Adolescents Over the Past 14 Years. *Pediatric Orthopaedic Society of North America (POSNA), Charlotte, NC.* May 2019. Presentation by J. Flynn.



Clinical Research Coordinators

Selected Publications and Presentations



Kathleen Harwood

2015-2019
University of
Pennsylvania

Current position:
Clinical Research
Coordinator, Division
of Orthopedic Surgery

Baghdadi, S., Weltsch, D., Arkader, A., **Harwood, K.L.**, Lawrence, J.T., 2019. Open Reduction of Medial Epicondyle Fractures in Children and Adolescents: Supine versus Prone Position. *Journal of Pediatric Orthopedics*, pp. tbd.

Baghdadi, S, **Harwood, KL**, Baldwin KD, Lawrence JTR. Effects of Therapeutic Ultrasound on Growth Plates: A Systematic Review. *Journal of Pediatric Orthopedics*, 2020; pp. tbd

Magee L, Piazza B, Harwood K, Lawrence J. C-Arm Contamination of the Surgical Field: Can Contamination be reduced with an Intervening Drape? In press at the *Journal of American Academy of Orthopaedic Surgeons*.

Williams BA, **Harwood, KL**, Markiewitz N, Malige A, Baldwin KD, Wells L. Seasonal Variability and Age-Related Risk in Youth Trampoline- Associated Injuries - A Review of the NEISS Database. *Pediatrics*, pp. tbd.

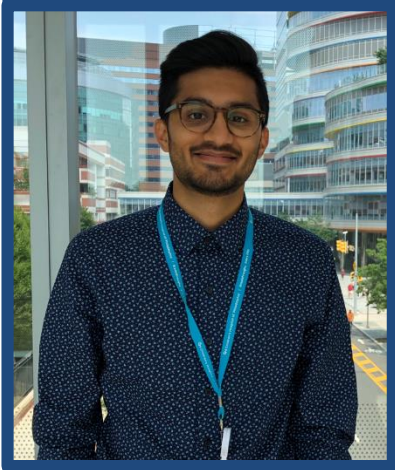
Baghdadi, S, **Harwood KL**, Baldwin KD, Lawrence JTR. Effects of Therapeutic Ultrasound on Growth Plates: A Systematic Review. *Journal of Orthopedic Surgery and Research*. 2020; pp. tbd.

Harwood KL, Gajewski, C., Vaz JA, Williams BA, Muhly WT, Lawrence, JT. A Novel Low-Cost Surgical Simulation Tool for Pinning Supracondylar Humerus Fractures. Presented at Interprofessional Educational Symposium on 1/22/20.



Clinical Research Coordinators

Selected Publications and Presentations



Faris Fazal
2016-2019
University of
Washington

Current position:
2019-2021
Clinical Research
Coordinator at CHOP

Adler AC, Shah AS, Blumberg TJ, **Fazal FZ**, Chandrakantan A, Ellingsen K, Nathanson BH, Lin EE. Symptomatology and racial disparities amongst children undergoing universal preoperative COVID-19 screening at three US children's hospitals: Early pandemic through resurgence. 2020 November 13th. *Pediatric Anesthesia*. 10.1111/pan.14074. Epub ahead of print. PMID: 33185923

Lin EE, Blumberg TJ, Adler AC, **Fazal FZ**, Talwar D, Ellingsen K, Shah AS. Incidence of COVID-19 in Pediatric Surgical Patients Among 3 US Children's Hospitals. 2020 June 4. *JAMA Surgery*. 2020;155(8):775-777. PMID: 32496527

Blumberg TJ, Adler AC, Lin EE, **Fazal FZ**, Talwar D, Ellingsen K; Chandrakantan A, Chen J, Shah AS. Universal Screening for COVID-19 in Children Undergoing Orthopaedic Surgery: A Multicenter Report. Volume Publish Online Ahead of Print, 2020 July 29. *Journal of Pediatric Orthopaedics*. 2020 Nov/Dec;40(10):e990-e993. PMID: 33045161

Bram JT, Johnson MA, Magee LC, Mehta N, **Fazal FZ**, Baldwin KD, Shah AS. Where Have All the Fractures Gone? The Epidemiology of Pediatric Fractures During the COVID-19 Pandemic. 2020 May 19. *Journal of Pediatric Orthopaedics*. 2020; 40(8):373-379. PMID: 32433260

Magee LC, Karkenny A, Nguyen JC, **Fazal FZ**, Talwar D, Zhu X, Shah AS. Does Surgical Experience Decrease Radiation Exposure in the Operating Room? Oral podium presentation at Pediatric Orthopaedic Society of North America (POSNA) Annual Meeting, Dallas, Texas. May 2021.

Bram JT, Falk DP, Chang B, Ty JM, Lin IC, **Fazal FZ**, Shah AS. Why the Knife? Reasons Children and their Families Choose Surgery for Ganglion Cysts. Oral podium presentation at Pediatric Orthopaedic Society of North America (POSNA) Annual Meeting, Dallas, Texas. May 2021.

Fazal FZ, Lin EE, Blumberg TJ, Adler AC, Talwar D, Ellingsen K, Shah AS. Universal Screening for SARS-CoV-2 in Children Undergoing Surgery: A Multicenter Report. Oral presentation at the American Academy of Pediatrics (AAP) Section on Surgery Program Virtual National Conference, Online (in lieu of San Diego, CA due to COVID-19 Pandemic). Oct 2020



Clinical Research Coordinators

Selected Publications and Presentations



Heidi Nocka

2014-2018

Harvard University

Current position:

Clinical Research
Coordinator
Division of
Orthopaedics

Joshua T. Bram, BS; **Heidi R. Nocka, BA**; Patrick J. Cahill, MD; John M. Flynn, MD; Jason B. Anari, MD. A Seat at the Table: An Invitation to the SRS Podium via the Study Group. *Spine Deformity Journal*. January 2021.

Nishank Mehta, BA; Lacey Magee, BA; **Heidi R. Nocka, BA**; Peter F. Sturm, MD; Joshua M. Pahys, MD; Sumeet Garg, MD; Robert F. Murphy, MD; Pediatric Spine Study Group; Patrick J. Cahill, MD. Paper #89: Mental Health Consequences of Serial Mehta Casting: Negative Correlation with Behavioral Development. *55th Scoliosis Research Society Annual Meeting*. September 2020.



Clinical Research Coordinators

Selected Publications and Presentations



Tomasina Leska

2015-2019
Cornell University

Current position:
Clinical Research
Coordinator, Division
of Orthopaedics

Shimberg JL, Aoyama JT, **Leska TM**, et al. Tibial Spine Fractures: How Much Are We Missing Without Pretreatment Advanced Imaging? A Multicenter Study. *American Journal of Sports Medicine*. 2020 Sep 24. PMID: 32970957.

Leska T, McNeely L, Wells L. How We Continued to Care for Our Patients: The Rapid Implementation of Telemedicine to Provide Pediatric Musculoskeletal Care in Response to COVID-19 at a Large Academic Children's Hospital. *Journal of the Pediatric Orthopedic Society of North America*. 2020 May 7.

Bram JT, Nguyen JC, Wright ML, **Leska TM**, Aoyama, JT, Ganley TJ. Pediatric Ramp Lesions: Incidence, Associated Risk Factors, and MRI Sensitivity. *University of Pennsylvania Orthopaedic Journal*.

Nguyen JC, Bram JT, Lawrence JT, Hong S, **Leska TM**, Ganley TJ, Ho-Fun V. MRI Criteria for Meniscal Ramp of the Knee in Children with Anterior Cruciate Ligament Tears. *American Journal of Roentgenology*.

Bram JT, Mehta N, Wright ML, Nguyen JC, **Leska TM**, Ganley TJ. Current Concepts Review: Pediatric Ramp Lesions. *Journal of the Pediatric Orthopedic Society of North America*.

Leska TM, Bram JT, Pascual-Leone N, Williams BA, Ganley TJ. Nerve Blocks for Pediatric ACL Reconstruction: Comparing Function, Patient-Reported Outcomes, and Efficiency. *Pediatric Research in Sports Medicine Society*; Virtual, January 2021. Accepted for Podium.

Shimberg JL, **Leska TM**, Aoyama JT, et al. A Multicenter Comparison of Open versus Arthroscopic Reduction and Internal Fixation for Tibial Spine Fractures. *Pediatric Orthopaedic Society of North America*, Dallas, TX, May 2021. Accepted for Podium.

Patel NM, **Leska TM**, Ganley TJ, et al. Uneven Playing Field: Insurance Status Adversely Affects Children with Tibial Spine Fractures. The annual meeting of the *Pediatric Research in Sports Medicine Society*; Virtual, January 2021. Accepted for Poster.



Research Team Activities



Kathleen Harwood putting her best foot forward working in the Sports Medicine clinic with Dr. Brendan Williams, MD and Kat Ashe, PA



Our research team attending Annual CHOP Ortho Holiday Party



Research team from left" Kathleen Harwood. Faris Fazal, Tomasina Leska, Arielle Krakow and Heidi Nocka

