

MEDICAL CAREER DESIGN FELLOWSHIP

John M. Flynn, MD

*Chief of Orthopaedic Surgery, Children's Hospital of Philadelphia
Professor of Orthopaedic Surgery,
Perelman School of Medicine at the University of Pennsylvania*

Apurva Shah, MD, MBA

*Co-Director of the MCD Fellowship
Director, Clinical Research
Attending Surgeon, Children's Hospital of Philadelphia
Associate Professor, Perelman School of Medicine at the University of Pennsylvania*

Brendan A. Williams, MD

*Co-Director of the MCD Fellowship
Attending Surgeon, Children's Hospital of Philadelphia
Assistant Professor, Perelman School of Medicine
at the University of Pennsylvania Hospital of Philadelphia*

Divya Talwar, PhD, MPH

*Research Program Manager II, Children's Hospital of Philadelphia
Research Assistant Professor of Orthopaedic Surgery, University of Pennsylvania*



continued

THE MEDICAL CAREER DESIGN FELLOWSHIP

Award Overview

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 Children's Hospital of Philadelphia (CHOP). 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 Medical Career Design (MCD) fellow will spend two 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 a diversity of clinical research opportunities, advanced orthopaedic skills through clinical exposure, and mentoring for medical school applications and beyond. Fellows will be mentored by our Division of Orthopaedics faculty. See www.chop.edu/ortho-team.

About the Division of Orthopaedics at CHOP

CHOP is internationally recognized for its pioneering work in pediatric orthopaedic patient care, education, and basic and clinical research. The Division of Orthopaedics at CHOP has consistently ranked among the top pediatric orthopaedic programs in the nation by *U.S. News & World Report*; and was ranked #1 for Pediatric Orthopaedics in the 2024-25 rankings.

CHOP orthopaedic surgeons and physicians 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.

Fellow Eligibility

MCD fellow applicants will be completing a BA/BS degree, pre-medical and commit for **two gap years** between college and med school. 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.

Stipend and Benefits

Each fellow will be provided an annual stipend of \$45,000 in year one and \$50,000 in year two, and will be provided with up to \$5,000 of travel support annually to attend and participate in scientific presentations at regional and national meetings. A minimum two-year commitment is required. Fellows will also receive 12 vacation days per year in addition to CHOP-designated national holidays.

Start and End Dates

Each fellow's official start date will be determined by the Division of Orthopaedic Surgery at the time of receiving an offer. The start date will be no later than June 16, 2025, with the exception of students enrolled in late spring or summer coursework. The official start date may be within two weeks of college graduation to facilitate the transition between incoming and outgoing MCD fellows. The fellowship will culminate no earlier than June 30, two years after inception.

How to Apply

To apply, please submit the following:

- Cover letter
- Undergraduate transcript
- Curriculum vitae
- MCAT score
- Your earliest available start date

Applications should be emailed to: Research Manager Divya Talwar, PhD, at talward@chop.edu. Applications will be considered on a rolling basis through **March 1, 2025**. Interviews will be required as part of the selection process.

PROGRAM AT A GLANCE

The 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
- 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 study results at regional and national meetings. Through this immersive experience, the MCD fellow will learn how to initiate, design, complete and communicate clinical research.

Each week, MCD fellows will work in our clinics as a scribe, helping our attending physicians with patient visits by populating medical records. The scribe role offers the MCD fellow a unique front-line physician shadowing role in performing a history and physical exam, interpreting image and lab data, and formulating clinical decisions.

This daily exposure — over time — allows the MCD fellow to develop a significant font of medical knowledge, grow confident in the patient-care setting, and gain insights into managing the challenges of a busy and complex clinical practice.

Clinical Research at CHOP Orthopaedics

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

- Extremely active academic surgical faculty, with internationally known thought leaders among our 18 full-time surgeons and six non-operative surgeons.
- A faculty member and research manager with a PhD, who can assist the student with study design and statistical analysis.
- Nearly 200 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 64,000 outpatient visits and 4,000+ surgical procedures each year) that allows the student to shadow and gain clinical exposure to inspire new research ideas.
- A research manager whose advice and support will be invaluable as you navigate the logistical and compliance challenges of 21st-century 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.

Alumni from our MCD were admitted to top medical colleges such as the University of Michigan, Ohio State University, Case Western Reserve University, Northwestern University, University of North Carolina and Jefferson University.

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

Applications will be considered on a rolling basis through March 1, 2025.

CURRENT MEDICAL CAREER DESIGN FELLOWS



“It has been a privilege to be a part of the MCD fellowship. This program has been the perfect combination of clinical exposure and research and has grown my interest in medicine even more than I could imagine. I have learned so much not only from the orthopaedics team, but also the incredible patients and families we see in clinic. The opportunity to grow as an individual and as a student alongside my fellow MCDs has been incredibly special and I know that the bonds we have created will last long beyond our time here at CHOP.”

Meg Bowen

Graduate of Haverford College, Philadelphia, PA, with double major in Biology and Music

Primary mentor: J. Todd Lawrence, MD, PhD

Secondary mentor: Patrick J. Cahill, MD



“I have had an incredibly rewarding experience with the Pediatric Spine Clinical Research Fellowship! The opportunity to work with such incredible mentors that dedicate their lives to providing the best care imaginable, through empathic clinical interactions and exemplary research, has impacted me significantly and has inspired my future medical career aspirations. Every day, I learn and appreciate the world of pediatric orthopedic spine more and more. I am incredibly grateful for this opportunity and to be a part of the CHOP family that consists of a very supportive and talented group of surgeons, healthcare professionals, researchers, and co-research fellows.”

Thomas Coleman

Graduate of Haverford College, Ardmore, PA, with major in Chemistry

Primary mentor: Patrick Cahill MD

Secondary mentors: Jason Anari MD



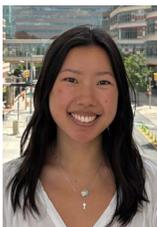
“My time as an MCD fellow thus far has completely exceeded my expectations. The position offers a really valuable opportunity to meld both clinical and research experience, allowing you to learn from incredible physicians who are both surgeons and researchers. In only a few months, I have learned so much about patient care and clinical research while also forming a vast support network here in Philadelphia!”

Carter Hall

Graduate of William & Mary, Williamsburg, VA, with major in Kinesiology & Health Sciences

Primary mentor: Wudbhav N. Sankar, MD

Secondary mentor: Richard S. Davidson, MD



“I cannot imagine a better way to spend my gap years between undergrad and medical school than being a part of the MCD fellowship. I feel extremely lucky to be able to work with and learn from the world-class physicians, researchers, and healthcare professionals that CHOP provides. I appreciate how this fellowship has allowed me to gain a diverse insight into being a physician at a leading research institute by giving me the unique opportunity to participate in both clinical care and research. On top of everything, the incredible group of MCD fellows that I work with everyday makes this program truly special, and I know that I have made lasting friendships with them.”

Caroline Kim

Graduate of Emory University, Atlanta Ga with majors in Neuroscience and Behavioral Biology and Dance and Movement Studies

Primary mentor: Dr. Brendan Williams

Secondary mentor: Dr. Alexandre Arkader

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WHITE COAT CEREMONY OF PREVIOUS MEDICAL CAREER DESIGN GRADUATES

Leta Ashebo
University of Michigan



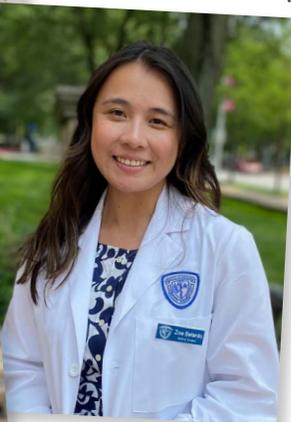
Alex Stevens
Ohio State University



Jenny Zheng
Northwestern University



Zoe Belardo
*Case Western
Reserve University*



Lucas Hauth
Jefferson University



Morgan Batley
*University of North
Carolina School of Medicine*



PREVIOUS MEDICAL CAREER DESIGN FELLOWS

Lucas Hauth

"The MCD Fellowship was the compass I needed to launch my medical career. My mentors at CHOP taught me how to formulate and investigate relevant clinical research questions, and as a result I began medical school with a very clear idea of what research endeavors I wanted to pursue. My time in clinic taught me how to be a competent, reliable part of the medical team, and I entered medical school with a clearer idea of what real world patient care looks like. The numerous other skills I acquired while at CHOP - writing abstracts, presenting at conferences, authoring papers - have already been put to good use as a medical student. I can confidently say that the MCD Fellowship was a vital part of my preparation for medical school during my gap years."

Leta Ashebo

"My time at CHOP prepared me for medical school by immersing me in the dynamics of clinical teams, where I learned early on to collaborate effectively and contribute meaningfully to patient care. It honed my critical thinking skills through active engagement with clinical research, deepening my ability to analyze and interpret data. Additionally, this role offered a glimpse into the world of academic medicine, illustrating the integration of research, teaching, and clinical practice, which I have appreciated so much! It is a special program that offers pre-medical students unique opportunities for learning and growth."

Zoe Belardo

"The MCD Fellowship boosted my confidence and proficiency in presenting patient information to Attending Physicians, working collaboratively with clinical teams, and bringing a research project from idea conception to publication. From undergrad, I learned how to be a student. From the MCD Fellowship, I learned how to be a working member of a clinical and research team, and this has paid off exponentially in my medical school clinical experiences."

Alex Stevens

"The MCD fellowship prepared me for medical school in so many ways. I learned the ins and outs of conducting clinical research, I got experience presenting some of my own projects at national conferences, I learned how to write a patient's visit note, and I learned about the world of pediatric orthopaedics. Even more significantly, I got to form meaningful connections with my other MCD colleagues, the research team, the doctors, PAs, NPs, and physical therapists at CHOP, and other doctors and researchers at institutions all over the U.S. Lastly, being an MCD fellow improved my confidence interacting with patients and helped me learn to function within a clinical team, a skill that I think will be very useful next year when I'm on clinical rotations for the first time!"

Morgan Batley

"Although the MCD Fellowship prepared me for medical school by allowing me to develop the "hard" skills necessary (learning to scribe, publishing & presenting research, etc.), the experience was more impactful in fostering a sense of confidence in, curiosity for, and excitement about my career as a physician. There is not a day that goes by where I do not utilize the skills I learned while an MCD Fellow and the interpersonal connections I made with mentors and friends during my time at CHOP are ones I hope to keep for years to come."

Jenny Zheng

"The MCD fellowship played a pivotal role in preparing me for success in medical school. It equipped me with the skills to design, complete, and publish my own research projects, giving me an early advantage in research publications. I gained confidence navigating the hospital and operating room. In our outpatient clinic, I felt at ease interviewing patients, collaborating with other providers, and charting through EPIC. Most importantly, my time in the MCD fellowship fostered personal growth and maturity, offering me a more grounded perspective on how to pursue a medical career aligned with my own goals and values."

CURRENT MEDICAL CAREER DESIGN FELLOWS (CONT.)



“It has been an absolute joy and privilege to be a Medical Career Design Fellow at the Children’s Hospital of Philadelphia. As an aspiring physician committed to advancing pediatric healthcare, the program has been invaluable in allowing me to participate in the seamless integration of scientific research with clinical patient care alongside esteemed academic physicians. The fellowship has significantly strengthened my understanding of clinical research and medicine, as well as my confidence in engaging with and providing support to patients and their families. Simultaneously, the research and clinical teams have been paramount in providing me with guidance and mentorship that demonstrates immense personal care and dedication in my success on the path to embarking on my own medical career journey. As a part of the MCD Fellowship, my passion for pediatric healthcare has continued to grow exponentially every day, and I know I have made the strongest of friends and mentors that will last me for a lifetime.”

Katerina Kourpas

Graduate of Princeton University, Princeton, NJ, with a major in Molecular Biology and certificates in Neuroscience and Engineering Biology

Primary mentor: John M. Flynn

Secondary mentor: Jason B. Anari



“The MCD fellowship has provided me with everything I wanted and needed during my gap years between college and medical school. Working at CHOP, I have been surrounded by mentors and peers who are not only brilliant world-leaders in their field, but also passionate about research and eager to teach and collaborate. The opportunities and resources at CHOP have allowed me to grow as a professional, develop as a future physician, and provided me with the opportunity to perform high level research and challenge myself daily. Because of this fellowship, I will enter medical school more adept at patient care, more experienced as a researcher and scientist, and more prepared to address any challenges that come my way. The mentors who have invested in me and peers who have supported me have made this experience continuously rewarding.”

Kevin Landrum

Graduate of University of Michigan, Ann Arbor, MI, with major in Biology, Health, and Society

Primary mentor: Theodore J. Ganley, MD

Secondary mentor: Joseph L. Yellin, MD



“My experience as an MCD fellow has far exceeded all my expectations. The unique combination of working as a clinical research coordinator and scribe on a team of fantastic surgeons, researchers, and other healthcare professionals has been the perfect opportunity to learn and grow. I have especially enjoyed the chances to build relationships with knowledgeable individuals who are eager to teach me everything they know. Through this fellowship, I have been able to build a strong, supportive network of lifelong friends, colleagues, scientists, and clinicians who are truly invested in my future.”

Scott Mahon

Graduate of Duke University, Durham, NC, with major in Neuroscience

Primary mentor: Apurva S. Shah, MD, MBA

Secondary mentors: Robert B. Carrigan, MD



“The MCD fellowship has been an exceptionally rewarding experience. The opportunity to engage in hands on clinical work and contribute to high level research has allowed me to gain a deeper insight into how medical research and clinical practice mutually advance the field of orthopedics. Each day, I am challenged to learn and grow, while benefiting from the personalized mentorship of renowned leaders in their field. I am incredibly grateful to work with and learn from a fantastic team of surgeons, healthcare professionals, researchers, and co-fellows here at CHOP.”

Sayaka Mori

Graduate of University of Virginia, Charlottesville, VA, with double major in Biology and Global Public Health

Primary mentor: Apurva Shah, MD, MBA
Secondary mentors: Ben Chang, MD



“I have had a wonderful experience so far with the MCD Fellowship. I couldn’t ask for a better way to spend my gap years before medical school – my mentors have provided me with such valuable experience and guidance, and exemplify the qualities I hope to incorporate into my career as a future physician. In just a few months, I have already learned so much about clinical research and the field of orthopedics and sports medicine. I’m so grateful for the opportunity to be a part of the CHOP family and develop strong relationships with supportive mentors, co-MCD fellows, and the patients and families we see in clinic each week!”

Sean Owens

Graduate of Georgetown University, Washington, DC, with major in Biology

Primary mentor: Naomi J. Brown, MD, FAAP, CAQSM
Secondary mentor: Matthew F. Grady, MD, FAAP, CAQSM



“The MCD fellowship has greatly exceeded my expectations so far. The opportunity to be involved in the clinical care we are researching is an invaluable learning experience. In my short time here thus far, I have gained confidence in my research skills, learning from renowned pediatric orthopaedic surgeons, and have been able to explore my own clinical research interests under their guidance. Above all, I value the relationships I have developed with patients and families along with the incredible mentors I have the privilege of working with each day. These connections have not only expanded my clinical knowledge but helped solidify my passion for academic medicine.”

Maia Regan

Graduate of Vanderbilt University, Nashville, TN, with double major in Chemistry and Medicine, Health, and Society

Primary mentor: Keith D. Baldwin, MD, MPH, MSPT
Secondary mentors: B. David Horn, MD; Christine M. Goodbody, MD, MBE; David A. Spiegel, MD



“My experience as an MCD fellow has given me invaluable insight into the world of orthopaedic surgery and sports medicine that will guide me in my medical career. I have gained more confidence in my understanding of medicine and clinical research and developed constructive relationships with peers and mentors. I feel so lucky to have the opportunity to work with and learn from world-class surgeons and amazing researchers every day.”

Morgan Swanson

Graduate of Boston University, Boston, MA, with major in Biochemistry and Molecular Biology

Primary mentor: Theodore J. Ganley, MD
Secondary mentor: Kathleen J. Maguire, MD

CURRENT MCD FELLOWS



MCD Eliza Buttrick and Meg Bowen won Young Investigator Award at the American Academy of Pediatrics, Orlando for their research.



MCD mentor Dr. Shah and team supporting their super talented Meg Bowen as she performs at the Penn Symphony Orchestra.



Team that does yoga together; stays together. Yoga sessions led by our MCD Morgan Swanson.



MCDs take over AAP! Senior MCD Class 24 presented their research at the American Academy of Pediatrics, Orlando.



Our wonderful MCD team (left to right top) Katerina Kourpas, Kevin Landrum, Scott Mahon, Thomas Coleman, Sean Owens, (left to right bottom) Sayaka Mori, Caroline Kim, Carter hall, Maia Regan, Meg Bowen, Morgan Swanson.



MCD team out for Axe Throwing with MCD mentors Dr. Shah and Dr. Williams.

Learn more about the *Medical Career Design*
Fellowship or apply by contacting Research Manager
Divya Talwar, PhD, at talward@chop.edu.

